



## REPORT

Report Date: January 6, 2023  
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VanRIMS No.: 08-2000-20  
Meeting Date: February 1, 2023  
[Submit comments to Council](#)

TO: Standing Committee on City Finance and Services

FROM: General Manager of Planning, Urban Design and Sustainability

SUBJECT: Rupert and Renfrew Station Area Plan – Updating Still Creek Floodplain and Interim Rezoning Policy

### **RECOMMENDATIONS**

- A. THAT Council approve, in principle, amendments to the Building By-law to update the Still Creek floodplain boundary and associated flood construction level requirements generally in accordance with Appendix A;

FURTHER THAT the Director of Legal Services be instructed to bring forward for enactment the amendments to the Building By-law generally in accordance with Appendix A.

- B. THAT, at the time of enactment of the proposed amendments to the Building By-law, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the updated Flood Plain Standards and Requirements generally in accordance with Appendix B.
- C. THAT, at the time of enactment of the proposed amendments to the Building By-law, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the updated Grandview Boundary Mixed Employment Area Plan generally in accordance with Appendix C.
- D. THAT, at the time of enactment of the proposed amendments to the Building By-law, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the updated Grandview Boundary Mixed Employment Area Rezoning and Development Policies and Guidelines generally in accordance with Appendix D.

- E. THAT, at the time of enactment of the proposed amendments to the Building By-law, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the updated Rupert and Renfrew Interim Rezoning Policy generally in accordance with Appendix E.
- F. THAT, at the time of enactment of the proposed amendments to the Building By-law, the General Manager of Planning, Urban Design and Sustainability be instructed to bring forward for approval by Council the updated Secured Rental Policy in accordance with Appendix F.
- G. THAT Recommendations A through F be adopted on the following conditions:
- (i) THAT passage of the above resolutions creates no legal rights for any person, or obligation on the part of the City and any expenditure of funds or incurring of costs is at the risk of the person making the expenditure or incurring the cost;
  - (ii) THAT any approval that may be granted following the public hearing shall not obligate the City to enact any rezoning by-laws; and  
THAT the City and all its officials, including the Approving Officer, shall not in any way be limited or directed in the exercise of their authority or discretion, regardless of when they are called upon to exercise such authority or discretion.

### **REPORT SUMMARY**

This report responds to a previous Council motion on March 29, 2022 to report back on recommendations for addressing flood risk within the Still Creek floodplain as part of creating the Rupert and Renfrew Station Area Plan.

Based on recent studies by Metro Vancouver and the City of Vancouver, this report recommends updates to the Still Creek floodplain boundary and associated requirements applicable to development within the floodplain. As a result of updating the floodplain boundary, the report identifies the need to extend existing requirements for hydrogeological studies to protect groundwater in the floodplain and recommends consequential amendments to several related policy documents that reference the Still Creek floodplain.

The report also recommends a minor clarification to the language in the Rupert and Renfrew Interim Rezoning Policy, which sets out the conditions under which a rezoning enquiry or application can be considered while the Rupert and Renfrew Station Area Plan is underway.

### **COUNCIL AUTHORITY/PREVIOUS DECISIONS**

- Flood Plain Standards and Requirements (2014)
- Climate Change Adaptation Strategy (2018)
- Building Bylaw (2019)
- Resilient Vancouver Strategy (2019)
- Grandview-Boundary Mixed Employment Area Plan (2022)
- Grandview-Boundary Mixed Employment Area Rezoning and Development Policies and Guidelines (2022)
- Rupert and Renfrew Interim Rezoning Policy (2022)
- Vancouver Plan (2022)

- Applications to Senior Government Funding Programs (2022)

### **CITY MANAGER'S/GENERAL MANAGER'S COMMENTS**

The City Manager recommends approval of the foregoing.

### **REPORT**

#### **Background/Context**

The City of Vancouver's current designated Still Creek floodplain and flood-related building requirements are based on a 1998 floodplain mapping study conducted by the Greater Vancouver Regional District (Metro Vancouver). In December 2021, Metro Vancouver completed a new floodplain mapping study for the Still Creek - Brunette River basin. The new study identified a larger floodplain area in comparison to the 1998 floodplain mapping due to climate change and other factors.

On March 29, 2022, Council approved several recommendations for the Rupert and Renfrew Station Area Plan. The recommendations included: a) Terms of Reference; b) updates to planning documents applicable to the Grandview-Boundary Mixed Employment Area; and c) an Interim Rezoning Policy to establish the conditions under which new rezoning enquiries and applications will be considered while the planning process is underway.

As part of the March report, Council also directed staff to explore flood risk management policies and report back with recommendations, including potential updates to the City's Flood Plain Standards and Requirements, to address the increasing flood hazard resulting from climate change and increased development in the Still Creek watershed. As directed, this report provides recommendations to update the Still Creek designated floodplain and associated requirements across relevant policy documents.

Updating the designated floodplain and associated requirements is one of the flood risk management measures being incorporated into the Rupert and Renfrew Station Area Plan. Other measures include exploring flood resilient land uses and design measures, and the development of a nature-based approach to flood mitigation with the goal of enabling growth while also providing ecological and social co-benefits. This work is being coordinated with the concurrent development of an updated Still Creek Enhancement Study that was directed by Council on November 16, 2021. The work is also consistent with a decision by Council on November 15, 2022 to approve an application to the Government of British Columbia's Adaptation, Resilience and Disaster Mitigation (ARDM) Program for \$10,000,000 to begin the first phase of Still Creek nature-based flood mitigation work.

In addition to the technical analysis supporting the recommendations related to the Still Creek floodplain, staff have also had the opportunity to monitor the implementation of the Rupert and Renfrew Interim Rezoning Policy. In general, the policy is working as intended by limiting the number of rezoning enquiries and applications during the planning process. However, staff have noted that the current phrasing of one of the provisions in the Rupert and Renfrew Interim Rezoning Policy can be misinterpreted. Therefore, in addition to the consequential amendments to the Rupert and Renfrew Interim Rezoning Policy resulting from changes to the floodplain, this report also recommends a clarification to the language in that policy.

## ***Strategic Analysis***

### ***Still Creek Floodplain: Updating the Building By-law***

A floodplain is a lowland area that is susceptible to flooding from a watercourse, ocean, lake or other body of water. The City designates floodplains to define the area where flood-related building requirements and other policies apply. The City currently has two designated floodplains: the Still Creek floodplain and the coastal floodplain (including the Fraser River, English Bay, and Burrard Inlet shoreline areas). A designated floodplain is established based on the maximum estimated extent of flooding in a potential flood event specified by regulatory standards. For Still Creek, the regulatory standard is the 200-year return period flood event that accounts for future (year 2100) climate conditions. A 200-year return period flood has a 0.5% chance of occurring each year. The regulatory standard is derived from provincial and industry guidelines, and is consistent with the regional watershed approach recommended by Metro Vancouver.

In 2021, Metro Vancouver completed an updated floodplain mapping study on behalf of several municipalities that included portions of Still Creek. Staff reviewed the updated study and, with support from consultants, have prepared the recommended updates to the designated Still Creek floodplain boundary and flood construction levels (FCL). The proposed updated designated floodplain boundary is approximately twice the size of the current floodplain boundary. The comparison is presented on Map 1 showing that the boundary is expanding north of Lougheed Highway and east of Skeena Street.

FCLs define the minimum floor elevation for habitation, business or storage of goods. Setting the first floor elevation of a building above the flood level is one of the most common approaches for reducing flood risk. Certain uses are allowed below the FCL and exemptions may be permitted under certain conditions. The proposed Still Creek FCLs are presented in Appendix A. In general, the proposed FCLs are between 0.5 m to 2 m above the adjacent road elevation.

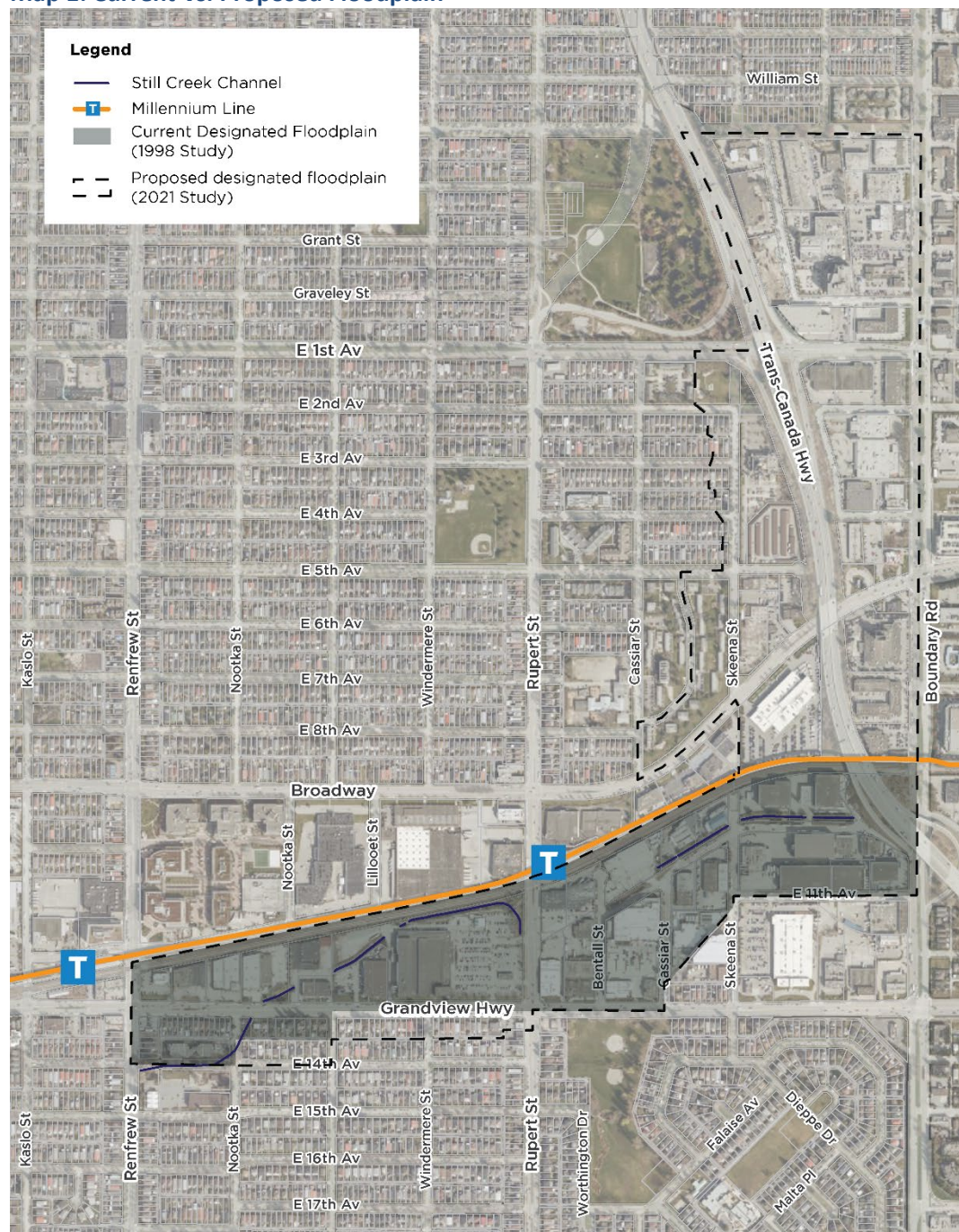
The practice of applying FCLs is well-established in the City given the current designated Still Creek floodplain and the much larger designated coastal floodplain, which was updated in 2014 to incorporate sea level rise projections. While the Still Creek FCL regulations are different than the coastal floodplain FCL regulations, the practice of applying FCLs is similar. Applying an FCL is critical for reducing exposure to the hazard faced by residents and businesses occupying any newly constructed buildings in the floodplain. FCLs do not apply to the City's road network and/or at-grade infrastructure.

If Council approves the update to the Still Creek floodplain extent and requirements in the Building By-law, staff will engage with affected landowners, designers and members of the development community to identify how to support future developments to address flood risk while providing opportunities for additional light industrial space and job growth over the long term.

For example, staff anticipate exploring additional discretion for height relaxations for new buildings and design guidelines for buildings located in the floodplain. Further study will be completed to understand and incorporate flood risk and resilience considerations into land use, infrastructure, and the expansion of the Still Creek corridor, and may result in additional requirements as part of the final Rupert and Renfrew Station Area Plan. Improving the resiliency

of public infrastructure, including but not limited to roads, lighting, water, sewer and drainage, will be considered, evaluated and prioritized as part of the capital planning process.

**Map 1: Current Vs. Proposed Floodplain**





*Proposed Consequential Amendments Related to Still Creek Floodplain*

As a consequence of updating the Building By-law, City staff need to ensure maps in several other documents are consistent with the updated Still Creek Floodplain boundary and FCL requirements. Staff therefore recommend that Council approve amendments to the Flood Plain Standards and Requirements as attached in Appendix B, the Grandview Boundary Mixed Employment Area Plan as attached in Appendix C, and the Grandview Boundary Mixed Employment Area Rezoning and Development Policies and Guidelines as attached in Appendix D. In addition to updating the maps in those documents, additional minor amendments to the Flood Plain Standards and Requirements (Appendix B) are recommended to correct outdated references to the Building By-law and to consolidate language from previous guidance documents related to development within the floodplain.

In addition to the amendments to policies affecting the employment lands, staff also recommend a consequential amendment to the Interim Rezoning Policy for sites where housing may be permitted. Currently, the Rupert and Renfrew Interim Rezoning Policy allows rezoning applications for housing projects in a small number of cases, such as 100% social housing or rental housing applications under the Secured Rental Policy, provided that the sites are on parcels where residential use is permitted (land designated as General Urban in the RGS) and that the sites are not located within the Still Creek floodplain. The recently completed analysis regarding the floodplain showed that the flood hazard level is modest within the residential parcels located at the southwest corner of the floodplain and staff feel the risk of such development on suitable sites can be managed through the new FCL requirements. Staff therefore recommend updating the Rupert and Renfrew Interim Rezoning Policy and the Secured Rental Policy to enable rezoning enquiries and applications on some sites located at the edge of the Still Creek floodplain. The changes would include striking reference to the Still Creek floodplain in application to housing projects from the relevant section of the Interim Rezoning Policy as attached in Appendix E and replacing the map in the Secured Rental Policy as attached in Appendix F.

Updating the Still Creek Floodplain boundary will trigger a subsequent update to the requirements related to groundwater management. The submission of a hydrogeological study is currently required for sites located within floodplains. Should Council approve the recommendations contained in this report, hydrogeological studies would then automatically be required for some of the parcels added to the designated Still Creek floodplain.

*Additional Considerations for Emergency Management and Preparedness*

The updated Still Creek floodplain boundary necessitates a review of emergency response and recovery implications for the Vancouver Emergency Management Agency (VEMA), and further consideration of risk reduction measures. Additional protective measures beyond enhanced FCLs, including area-specific emergency response plans, may be required to safely and effectively manage potential flood events and ensure the safety, protection, and resilience of residents and employees. The new analysis regarding the Still Creek floodplain and the potential for an increase in the number of residents and employees within the floodplain would necessitate additional resourcing for emergency management.

*Clarification to the Rupert and Renfrew Interim Rezoning Policy*

In addition to the consequential amendments described above, a further amendment is recommended for the Rupert and Renfrew Interim Rezoning Policy. Policy 4 of the Interim Rezoning Policy states that rezoning enquiries and applications can be considered on parcels “where residential uses are currently permitted”. Staff are recommending an update to this language to clarify the intent, which was that applications can be considered on parcels

designated as General Urban under the City of Vancouver's Regional Context Statement Official Development Plan (2013). The General Urban designation can allow a variety of uses, including housing. Staff recommend this clarification to ensure that no projects that meet the intent of the Rupert and Renfrew Interim Rezoning Policy are unintentionally impeded. The change will mean that a few more sites are eligible for rezoning and could enable additional social and rental housing projects proceed while the Rupert and Renfrew Station Area Plan is still being developed.

The recommended amendment to the Rupert and Renfrew Interim Rezoning Policy is attached as Appendix E.

### ***Financial***

The cost of development within the floodplain area could increase as a result of increased FCL requirements as informed by hydrogeological studies. Examples include increased architectural and engineering design costs and related construction costs, such as costs associated with tanking (waterproofing) underground parking, and increased cost for raising the building and re-grading sites.

### ***Legal***

Section 306(1)(cc) of the Vancouver Charter authorizes Council to designate flood plains and limit construction in those flood plains in accordance with the statute.

### ***CONCLUSION***

This report provides recommendations for addressing flood risk within the Still Creek floodplain as part of creating the Rupert and Renfrew Station Area Plan. Updates to the designated Still Creek floodplain boundary and associated FCL requirements applicable to development within the floodplain will help to protect new buildings and their occupants in the event of a flood. Several consequential policy amendments would help to ensure relevant policy documents are consistent with the updated floodplain boundary and requirements. The expanded floodplain boundary will also require some additional sites in the area to provide hydrogeological studies as part of development proposals in order to protect groundwater and creek health.

This report also recommends amendments to clarify the language in the Interim Rezoning Policy to include all sites designated for General Urban use in the RGS rather than those currently zoned for residential use. The change will mean that a few more sites are eligible for rezoning and will enable a small number of social and rental housing projects proceed.

\* \* \* \* \*

Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

### **DRAFT Amendments to Division A of the Building By-law (2019)**

1. Within the Building By-law, Book I and II, Division A: Compliance, Objectives and Functional Statements, Notes to Part 1 Compliance (consolidated changes to January 1, 2020) delete Figure A-1.4.1.2.(1)-E Diagram B: Still Creek Flood Plain and Flood Construction Levels, and replace with the map shown below. The new map updates the extent of the Still Creek floodplain and required flood construction levels for new buildings.





2. Within the Building By-law, Books I and II, Division C: Administrative Provisions (consolidated changes to January 1, 2022), delete the text associated with Articles 2.2.9.5. and 2.2.9.6. and replace it with the text below. The new text clarifies consultation process by the Chief Building Official in relation to the City Engineer.

**2.2.9.5. Increase of Flood Construction Level and Setback Requirements on Designated Flood Plains**

- 1) The *Chief Building Official*, in consultation with the *City Engineer*, may increase the *flood construction level requirements* or the setback requirements in this By-law if, in the opinion of the *Chief Building Official*, a higher *flood construction level* or a greater setback is necessary as the result of a site-specific geological or hydrological feature.

**2.2.9.6. Relaxation of Flood Construction Level and Setback Requirements on Designated Flood Plains**

- 1) The *Chief Building Official*, in consultation with the *City Engineer*, may relax the *flood construction level requirements* in this By-law in accordance with Article 1.5.2.11., if
  - a) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the *flood construction level requirements*,
  - b) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, the proposed *construction* methods are designed to mitigate flood damage, and
  - c) the *owner* provides a report, to the satisfaction of the *Chief Building Official*, stamped by a professional engineer, certifying that the habitable space in the *building* will be safe during a flood if a lower *flood construction level* is applied.
- 2) The *Chief Building Official*, in consultation with the *City Engineer*, may relax the setback requirements in this By-law in accordance with Article 1.5.2.11., if
  - a) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the setback requirements,
  - b) if considered necessary by the *Chief Building Official*, the *owner* agrees to construct erosion protection works to mitigate flood damage and erosion, and
  - c) the *owner* provides a report, to the satisfaction of the *Chief Building Official*, stamped by a professional engineer, certifying that the habitable space in the *building* will be safe during a flood if a reduced setback requirement is applied.

Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

### **DRAFT Amendments to Flood Plain Standards and Requirements (2014)**

1. Within the Flood Plain Standards and Requirements (2014) replace Diagram B: Still Creek Flood Plain and Flood Construction Levels and replace with the map shown below. The new map updates the extent of the Still Creek floodplain and required flood construction levels for new buildings.



2. Within the Flood Plain Standards and Requirements (2014), update Section 3.0: Flood Resilience, to include additional guidance on flood resilience for specific land use types. This content is being added here to consolidate guidance from other previously rescinded flood plain development guidelines.

### 3.0 Flood Resilience

Enhancing flood resilience is achieved by:

- Meeting FCLs through the placement of fill and/or structural means;
- Restricting development near the water and requiring buildings to be setback;
- Providing adequate drainage systems; and
- Implementing flood resilient construction **and/or protective measures** to reduce the damage caused from flooding and reduce the recovery time from flood events.

For buildings located on a designated flood plain, the Chief Building Official may require that a restrictive covenant be registered against the title of the property under section 219 of the Land Title Act. The property owner should expect to enter into a covenant early in the building permit application process with finalization required prior to occupancy. For subdivision requirements, please see Section 5.0 below.

#### Application – Land Use Specific

The following minimum requirements should be considered to guide development away from high hazard areas and to allow development to proceed in a safe manner. These minimum requirements should be placed in the form of a covenant against land title at the time of subdivision and/or building permit issuance.

### 3.1 Agriculture

#### 3.1.1 Livestock Housing

##### **FCL -**

Open-sided livestock structures do not require flood proofing by elevation.

Closed-sided livestock housing not behind Standard Dikes shall be located with the underside of a floor system or the top of a concrete slab no lower than the FCL minus freeboard. Main electrical switchgear shall be no lower than the FCL.

#### 3.1.2 Other Farm Buildings

##### **FCL –**

Flood proofing by elevation may not be required where it does not create an unsafe or hazardous condition.

### 3.2 Public Recreation, Institutional Buildings, Parks and Open Space

##### **FCL –**

Institutional and closed-sided recreational buildings and/or equipment damageable by floodwaters require full flood proofing.

Recreation shelters, stands and other outdoor facilities susceptible to only marginal damage by floodwaters do not require flood proofing by elevation.

### **3.3 Industrial Areas**

Industrial buildings may be granted special relief from this requirement. Setback requirements for certain industrial activities, such as on-loading and off-loading facilities, where the use of the waterfront is a necessary subsidiary part of the operation and would not adversely affect a floodway or significantly increase flood elevations, may be reduced.

#### ***FCL –***

Industrial uses, other than main electrical switchgear, shall be located with the underside of a floor system or the top of the concrete slab no lower than the FCL minus freeboard. Main electrical switchgear shall be no lower than the FCL.

Elevations noted should be used for the installation of fixed equipment susceptible to damage by floodwaters. An exception may be approved, by the Subdivision Approving Officer reviewing a proposed subdivision plan or the Chief Building Official reviewing a building permit application, if a suitably qualified professional determines that appropriate measures can be and are taken to provide protection against damage by flooding and erosion.

On-loading and off-loading facilities associated with water-oriented industry do not require flood-proofing. Heavy industrial development located behind a standard dike does not require flood-proofing.

### **3.4 Ancillary Buildings, Carports, Garages, Entryways and Renovations to Existing Buildings**

#### ***FCL –***

Requirements for flood-proofing through the use of elevation may be waived, at the discretion of the Chief Building Official, for:

- A renovation of an existing building or structure that does not involve an addition, nor increasing the number of dwelling units,
- That portion of a building or structure that is to be used as a carport, garage or entryway,
- Other minor buildings such as storage buildings, porches and domestic greenhouses.

### **3.5 Additions to Existing Buildings**

Where a building or structure is legally non-conforming with the floodproofing requirements set out in this policy and/or established in a covenant applicable to the property, the Chief Building Official may allow an addition, at the original non-conforming floor elevation, that would increase the size of the building or structure by less than 25 percent of the floor area existing at the time of enactment of such flood-proofing requirements, provided that the degree of non-conformity regarding setback is not increased. Refer to Division C, Article 2.2.9.1 of the Building By-law.

3. Within the Flood Plain Standards and Requirements (2014), update Appendix A – Building By-law Excerpts, to ensure the reference numbers are consistent with the current version of the Building By-law and to clarify the role of the City Engineering in reviewing relaxations.

## Appendix A - Building By-law Excerpts

### Flood Construction Levels and Regulations related to Designated Flood Plains Building By-law ~~No. 10908~~

*The following sections of the Building By-law ~~No. 10908~~ related to flood construction levels and regulations for buildings on designated floodplains are provided for your convenience. Please refer to the Building By-law for complete information.*

#### Definitions (Building By-law)

1. **Designated floodplain:** means those lands in the City which are hereby designated, for the purposes of section 306(1)(cc) of the Vancouver Charter, as flood plains susceptible to flooding and subject to *flood construction level requirements*, and those lands so designated include:

- (a) lands located in proximity to the natural boundary of Burrard Inlet, English Bay, False Creek and the Fraser River, which are located within the areas shown shaded on the maps attached to this By-law as Diagrams A1 and A2. (See Appendix A for Diagram A1- Burrard Inlet, English Bay, False Creek and Fraser River flood plains and for Diagram A2 - Burrard Inlet, English Bay, False Creek and Fraser River flood plain wave effect zone.); and
- (b) lands located in the areas shown crosshatched on the map attached to this By-law as Diagram B. (See Appendix A for Diagram B – Still Creek flood plain and *flood construction levels*.)”

#### 2. Flood construction level requirements means:

- (a) on the Burrard Inlet, English Bay, False Creek and Fraser River flood plains:
  - (i) for *buildings* located within the areas shown shaded on the map attached to this By-law, the underside of a floor system or the top of a concrete slab of a *building* used for habitation, business or storage of goods, shall not be lower than 4.6 m Greater Vancouver Regional District datum. (See Appendix A for Diagram A1- Burrard Inlet, English Bay, False Creek and Fraser River flood plains); and
  - (ii) for *buildings* located in the areas shown shaded on the map attached to this By-law, an additional elevation allowance above 4.6 m may be required for wave run-up, at a level as determined by a Professional Engineer and to the satisfaction of the Chief *Building* Official. (See Appendix A for Diagram A2 - Burrard Inlet, English Bay, False Creek and Fraser River flood plain wave effect zone)
- (b) on the Still Creek flood plain:
  - (i) the underside of a floor system or the top of a concrete slab of any *building* used for habitation, business or storage of goods shall not be lower than the applicable elevation shown on the map attached to this by-law. (See



Appendix A for Diagram B – Still Creek floodplain and flood construction level.)

**Permits in Designated Flood Plain (Books I and II, Division C, Part 1 – Article 1.5.2.11)**

1. If a building is located on a designated flood plain the Chief Building Official may:
  - (a) require plans and supporting documents to demonstrate that the elevation or design of the *building* incorporates *flood construction level requirements* intended to reduce the risk of flood damage,
  - (b) require that a covenant acknowledging the risk of flood damage be registered against the land, and
  - (c) withhold issuance of a *permit* until the requirements of the *Chief Building Official* have been satisfied.
2. The *Chief Building Official* may increase the *flood construction level requirements* or the setback requirements as provided in Article ~~2.2.8.5~~ 2.2.9.5.
3. The *Chief Building Official* may relax the *flood construction level requirements* or the setback requirements in this By-law as provided in Article ~~2.2.8.6~~ 2.2.9.6."

**Buildings on Designated Flood Plains (Books I and II, Division C, Part 2 – ~~Article 2.2.8.1–~~ Subsection ~~2.2.8~~ 2.2.9.)**

**~~2.2.8.1~~ 2.2.9.1. Exemptions from Flood Construction Level Requirements**

1. *Flood construction level requirements* do not apply to:
  - (a) *alteration* of an *existing building* , not including *reconstruction* as defined in this By-law. (See Appendix A),
  - (b) *alteration* of an *existing building* to increase the *building area* by less than 25 per cent of the total *building area* existing as of **July 29, 1999**, if
    - i) the number of *dwelling units* is not increased,
    - ii) there is no further encroachment into setbacks required by this By-law, and
    - iii) there is no further reduction in the *flood construction level*,
  - (c) enclosed parking areas, including bicycle and residential storage areas, in a *multiple dwelling*, if there is
    - i) an unobstructed non-mechanized means of pedestrian ingress and egress to the areas, above the *flood construction level*, and
    - ii) a sign posted at all entry points warning of the risk of flood damage,
  - (d) *buildings* and portions of *buildings* used as a carport or garage,
  - (e) non-residential accessory *buildings*, and
  - (f) loading facilities used for water oriented industry.

**~~2.2.8.2~~ 2.2.9.2. Design Considerations on Designated Flood Plains**

1. For buildings constructed on *designated flood plains*, the *building* designer shall comply with by-law requirements regarding *construction* materials and service

equipment installations below *flood construction level requirements*, to the satisfaction of the *Chief Building Official*. (See Article 1.5.2.11. of Division C.)

**~~2.2.8.3~~ 2.2.9.3. Construction Considerations on Designated Flood Plains**

1. For buildings constructed on *designated flood plains*, *construction* of the *buildings* to *flood construction level requirements* shall be achieved, to the satisfaction of the *Chief Building Official*, by
  - (a) the structural elevation of the floor system of the building
  - (b) the use of adequately compacted fill, or
  - (c) a combination of structural elevation and compacted fill.
2. No person shall install furnaces, electrical switchgear, electrical panels, fire protection systems or other fixed *building* services susceptible to flood damage, below the *flood construction level*, unless such services are protected from flood damage and accessible for servicing during a flood, to the satisfaction of the *Chief Building Official*.
3. No person shall store hazardous or toxic substances below the flood construction level.
4. All piping, wiring and conduit penetrations shall be water stopped and sealed to prevent water seepage into the building.

**~~2.2.8.4~~ 2.2.9.4. Setback Requirements on Designated Flood Plains**

1. Subject to the provisions of this By-law, no *building*, structural support or fill shall be constructed or located within
  - (a) 30 m of the *natural boundary* of the Fraser River,
  - (b) 15 m of the *natural boundary* of Burrard Inlet, English Bay or False Creek,
  - (c) 5 m of the *natural boundary* of Still Creek,
  - (d) 7.5 m of any structure erected for flood protection or seepage control, or
  - (e) in the case of a building, structural support, or fill located on a bluff in a designated flood plain, where the toe of the bluff is subject to erosion or is closer than 15 m from the natural boundary, a setback measuring 3.0 times the height of the bluff as measured from the toe to the crest of the bluff.

**~~2.2.8.5~~ 2.2.9.5. Increase of Flood Construction Level and Setback Requirements on Designated Flood Plains**

1. The *Chief Building Official* may increase the *flood construction level requirements* or the setback requirements in this By-law if, in the opinion of the *Chief Building Official*, a higher *flood construction level* or a greater setback is necessary as the result of a site-specific geological or hydrological feature.

**~~2.2.8.6~~ 2.2.9.6. Relaxation of Flood Construction Level and Setback Requirements on Designated Flood Plains**

1. The *Chief Building Official*, *in consultation with the City Engineer*, may relax the *flood construction level requirements* in this By-law in accordance with Article 1.5.2.11., if

- (a) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the *flood construction level requirements*,
  - (b) the *owner* demonstrates to the satisfaction of the *Chief Building Official*, the proposed construction methods are designed to mitigate flood damage, and
  - (c) the *owner* provides a report, to the satisfaction of the *Chief Building Official*, stamped by a professional engineer, certifying that the habitable space in the *building* will be safe during a flood if a lower *flood construction level* is applied.”
2. The Chief Building Official, *in consultation with the City Engineer*, may relax the setback requirements in this By-law in accordance with Article 1.5.2.11., if
  - (a) the *owner* demonstrates to the satisfaction of the Chief Building Official, that, due to existing site characteristics and the location of existing infrastructure, it is impractical to meet the setback requirements,
  - (b) if considered necessary by the Chief Building Official, the owner agrees to construct erosion protection works to mitigate flood damage and erosion, and
  - (c) the owner provides a report, to the satisfaction of the Chief Building Official, stamped by a professional engineer, certifying that the habitable space in the building will be safe during a flood if a reduced setback requirement is applied.”
4. Within the Flood Plain Standards and Requirements (2014), update Appendix C – Reference Documents, to ensure the reference numbers are consistent with the current version of the Building Bylaw and to add reference to a relevant advisory document from Engineers and Geoscientists British Columbia.

#### Appendix C - Reference Documents

##### City of Vancouver

- **Building By-law ~~No. 10908~~ [12511; not required]**  
~~Section 2.3.7, 1A.6.1.9,~~ Books I and II, Division A, Part 1, ~~Article sentence~~ 1.4.1.2.  
Books I and II, Division A, ~~Appendix A~~ ~~Note A-1.4.1.2.(1)~~ diagrams A1, A2, and B  
Books I and II, Division C, Part 1, ~~Article~~ 1.5.2.11.  
Books I and II, Division C, Part 2, ~~Subsection 2.2.8~~ 2.2.9.
- **Southlands RA-1 Guidelines**
- **Height Relaxation – RA-1 District (By-law Administration Bulletins)**

##### Engineers and Geoscientists British Columbia (EGBC)

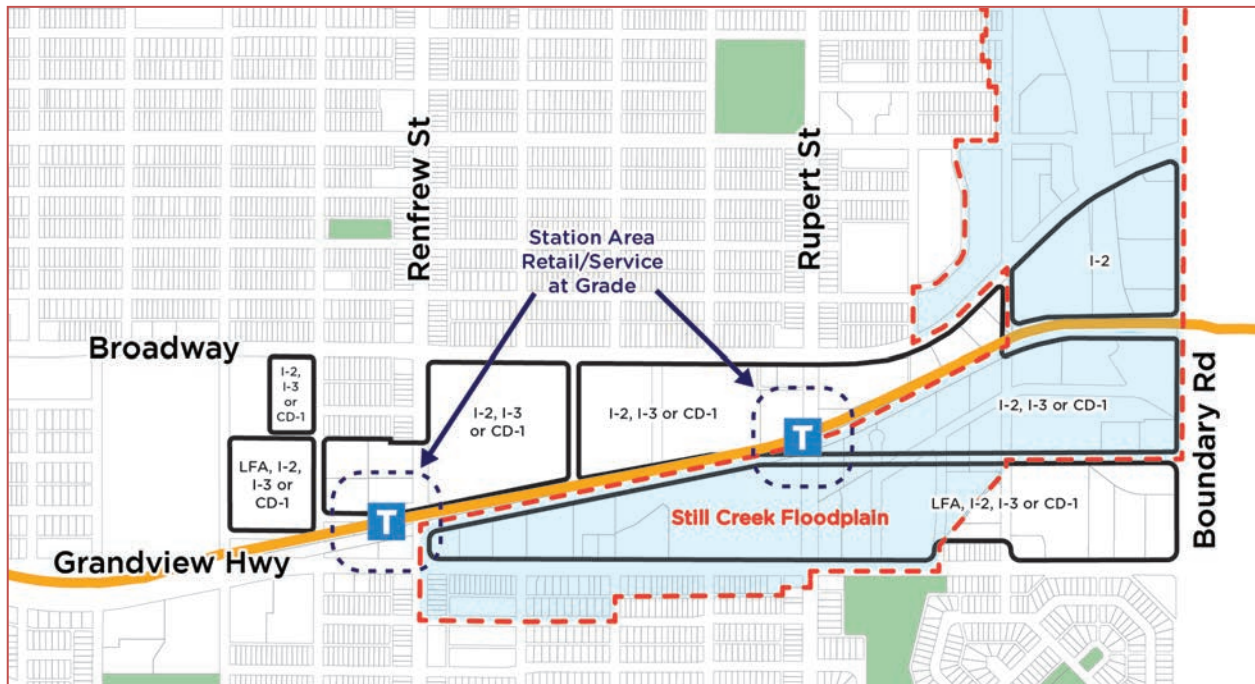
- **Practice Advisory – Electrical Engineering Considerations in Flood-Resilient Design of Buildings (December 18, 2020)**

Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

### DRAFT Amendments to the Grandview-Boundary Mixed Employment Area Plan

1. Within the Grandview Boundary Mixed Employment Area Plan (last amended March 29, 2022) delete Figure 2: Future Land Use and Large Format Area Boundary and replace with the map shown below. The new map updates the extent of the Still Creek floodplain.

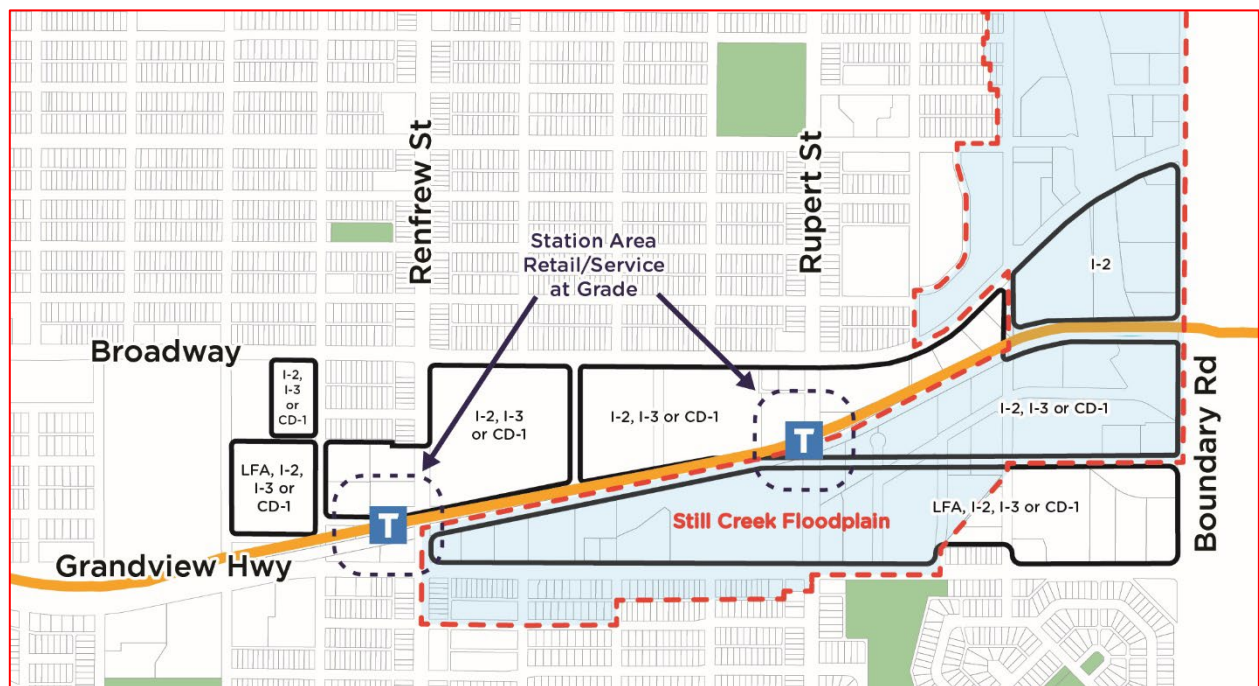


Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

**DRAFT Amendments to the Grandview-Boundary Mixed Employment Area Rezoning and Development Policies and Guidelines**

1. Within the Grandview Boundary Mixed Employment Area Rezoning and Development Policies and Guidelines (last updated March 2022), delete Figure 7: Long Range Preferred Land Use Plan and replace with the map shown below. The new map updates the extent of the Still Creek floodplain.





Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

**DRAFT Amendments to the Rupert and Renfrew Interim Rezoning Policy**

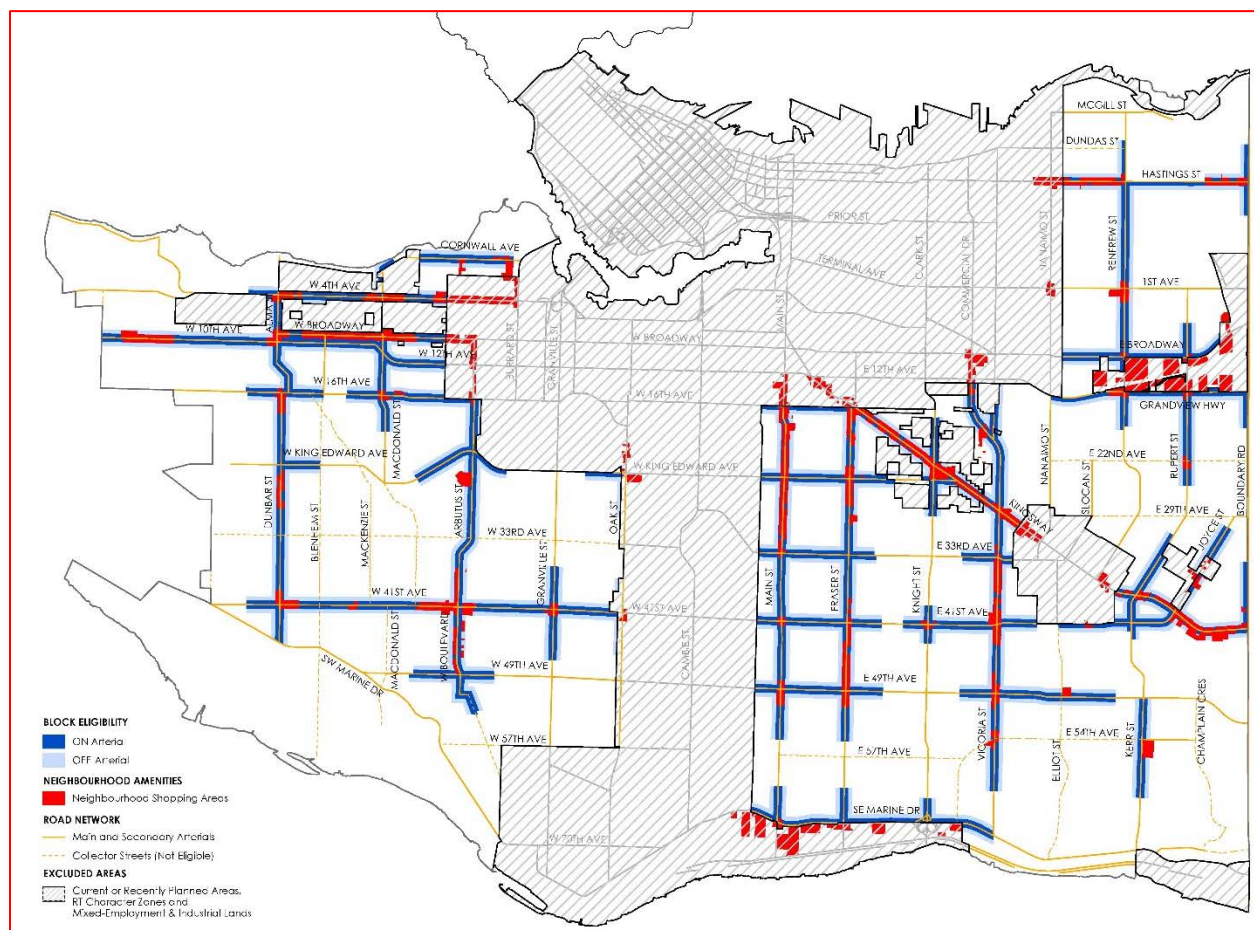
1. Within the Rupert and Renfrew Interim Rezoning Policy (2022) amend the text under Policy 4 as follows:
  4. On parcels where residential uses ~~are currently permitted~~ can be permitted under the City of Vancouver's Regional Context Statement Official Development Plan:
    - (a) Applications for projects involving 100% social and supportive housing, or community care facilities or group residences may be considered, ~~except for those within the Still Creek floodplain~~; or
    - (b) Applications for rental or social housing and mixed-use projects under the Secured Rental Policy may be considered, ~~except for those within the Still Creek floodplain~~.

Note: Amendments to Council-adopted policies will be prepared generally in accordance with the provisions listed below, subject to change and refinement prior to posting.

\*Proposed amendments are shown in red.

### **DRAFT Amendment to the Secured Rental Policy**

Within the Secured Rental Policy (last updated March 29, 2022) delete Map A: Eligibility Map for Low Density Transition Areas and replace it with the map shown below.



The change is intended to reinstate the eligibility on blocks located within the Still Creek floodplain. A magnified version of the map below shows the reinstated blocks in green.

