



CITY OF RICHMOND

# ***FLOOD PLAIN DESIGNATION AND PROTECTION***

## **BYLAW NO. 8204**

EFFECTIVE DATE - SEPTEMBER 8, 2008

**CONSOLIDATED FOR CONVENIENCE ONLY**

AMENDMENT BYLAW

EFFECTIVE DATE

Bylaw No. 8468

November 23, 2009

Bylaw No. 8567

February 8, 2010

***FLOOD PLAIN DESIGNATION AND PROTECTION***

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## FLOOD PLAIN DESIGNATION AND PROTECTION BYLAW NO. 8204

### WHEREAS:

It is desirable to minimize the risk of injury, loss of life, and property damage due to flooding;

Council has considered Provincial Guidelines respecting flood control; and

The *Local Government Act*, section 910, authorizes Council to enact a bylaw to designate flood plains within the City and to make regulations in relation to flood control, flood hazard management and development of land that is subject to flooding;

The Council of the City of Richmond enacts as follows:

### PART ONE: DESIGNATION OF FLOOD PLAIN

- 1.1 All lands within the boundaries of the **City** are designated as floodplain as shown in Schedule A.

### PART TWO: SETBACK REQUIREMENTS

- 2.1 No landfill or structural support required to support a floor system or **pad** shall be constructed, reconstructed, moved, extended or located:
- (a) where a **standard dike** exists, within 7.5 metres of a dike right of way;
  - (b) where a **standard dike** does not exist, within 30 metres of a dike right of way;  
or
  - (c) where a dike right of way does not exist and land is situated within the dike alignment, within 30 metres of the **natural boundary**.

## PART THREE: ELEVATION REQUIREMENTS

- 3.1** Except as otherwise expressly permitted in this bylaw, a person shall not construct, reconstruct, move, extend or locate the finished concrete floor, underside of any floor system damageable by flood waters, or the top of any **pad** supporting any space or room, including a **manufactured home** below the **flood plain construction level**, as shown in Schedule B, where the building, structure, or **manufactured home** is used or could be used for the purpose of dwelling, business, or the storage of goods susceptible to damage by flood water.
- 3.2** Subject to section 3.3, the **flood plain construction level** may be achieved by:
- (a) structural elevation of the underside of any floor system, or the top of any pad supporting any space or room, that is or could be used for a dwelling, business, or storage purpose;
  - (b) by adequately compacted landfill on which any building is to be constructed or manufactured home or unit located; or
  - (c) by a combination of both structural elevation and landfill.
- 3.3** Where landfill is used to achieve the **flood plain construction level**, no portion of the landfill slope shall be closer than the setbacks established in section 2.1 for
- (a) the **natural boundary**; or
  - (b) the inboard side of any dike right of way,
- and the face of the landfill slope shall be protected against erosion from flood flows, wave action, ice or other debris.
- 3.4** No area below the **flood plain construction level** shall be used for the installation of furnaces or other fixed equipment susceptible to damage by flood water.

## PART FOUR: GENERAL EXEMPTIONS

- 4.1** In respect of all parcels surrounded by a **standard dike**, or within Sea Island, or within Mitchell Island, the elevation requirements of Section 3.1 do not apply to:
- (a) the renovation of a building or structure that does not include an addition to the building or structure;
  - (b) an addition to a building or structure that would increase the size of the building or structure by less than twenty-five (25%) percent of the floor area of the building or structure as it existed on the date of adoption of this Bylaw, provided such addition does not exceed 600 m<sup>2</sup> and is constructed at an elevation not lower than the then existing building or structure;
  - (c) that portion of a building or structure to be used as a carport or garage;
  - (d) enclosed underground parking areas where an unobstructed non mechanized means of pedestrian access and egress is provided above the **flood plain construction level** and where a sign is permanently posted at all points of

entry that the parking area is not protected from inundation by flood waters;  
and

- (e) farm buildings other than dwelling units.

**4.2** In respect of all parcels within **Area A**, the elevation requirements of Section 3.1 do not apply to a building or structure where the underside of the floor system, or the top of the **pad** supporting any space or room, including a **manufactured home** is located at least 0.3 metres above the highest elevation of the crown of any **road** that is adjacent to the parcel.

**4.3** In respect of a parcel within **Area A** which is used for a commercial or industrial use, the elevation requirements of Section 3.1 do not apply to a building or structure where:

- (a) the main entrance to the building or structure is located three (3) metres or less from the boundary of a **road**; and
- (b) the underside of the floor system, or the top of a **pad** supporting any space or room within that building or structure is at or above the same elevation as the highest elevation of any **road** that is adjacent to that parcel.

**4.4** In respect of a parcel within the **Steveston Village Area**, the elevation requirements of Section 3.1 do not apply to a building or structure where the underside of the floor system or the top of the **pad** supporting any space or room of a building or structure, including a **manufactured home**, is at or above the elevation of the fronting **City** sidewalk existing at the time of application, (or if no sidewalk, the **road**) providing pedestrian access that is adjacent to the parcel.

**4.5** In respect of a parcel within the **Terra Nova/West Cambie Area**, the elevation requirements of Section 3.1 do not apply to a building or structure where the underside of the floor system or the top of the **pad** supporting any space or room of a building or structure, including a **manufactured home**, is at or above 2.6 metres **GSC** elevation.

**4.6** In respect of a residential parcel within the **Burkeville Area**, the elevation requirements of Section 3.1 do not apply to a building or structure where the underside of the floor system or the top of the **pad** supporting any space or room of a building or structure, including a **manufactured home**, is located at least 0.3 metres above the highest level of the crown of any road that is adjacent to the parcel.

## **PART FIVE: SITE SPECIFIC EXEMPTIONS**

**5.1** Subject to any applicable Provincial regulations and section 910(5) of the *Local Government Act*, an exemption from any requirement or requirements of Part 2 or Part 3 may be granted by the **Director**, subject to any terms and conditions the **Director** considers necessary or advisable, if:

- (a) the **Director** is of the opinion that the exemption is consistent with the **Provincial Guidelines**; or
- (b) the **Director** receives a report, certified by a **professional engineer** or **professional geoscientist** and experienced in geotechnical engineering, that:
  - (i) the land may be used safely for the use intended, and
  - (ii) protection from a flood of the magnitude used for modelling purposes in the Lower Fraser River Hydraulic Model, 2006 can be achieved through an engineered design without reliance on a **standard dike**.

## **PART SIX: OFFENCE AND PENALTY**

- 6.1** A person who contravenes a regulation or requirement of this bylaw commits an offence and on conviction is liable to a fine of \$10,000, and in the case of a continuing offence, each day that the offence continues is a separate offence.

## **PART SEVEN: NO REPRESENTATION**

- 7.1** By the enactment, administration or enforcement of this bylaw, the **City** does not represent to any person that any building, structure or manufactured home located, constructed or used in accordance with the provisions of this bylaw, or in accordance with conditions, terms, information, advice, direction or guidance provided by the City in the course of administering this bylaw, will not be damaged by flooding or flood water.

## **PART EIGHT: INTERPRETATION AND CITATION**

- 8.1** In this Bylaw:

<b>AREA A</b>	means that part of the City lying within the boundaries of "Area A" as shown on Schedule "B" to this Bylaw;
<b>BURKEVILLE AREA</b>	means that part of the <b>City</b> shown on Schedule B of this Bylaw as being "Burkeville";
<b>CITY</b>	means the City of Richmond;
<b>DIRECTOR</b>	means the Director of Building Approvals or a person designated by the Director to act in his or her absence;
<b>FLOOD PLAIN</b>	means a lowland area, whether or not diked or floodproofed, which, by reasons of land elevation, is susceptible to flooding from an adjoining <b>watercourse</b> , river, ocean, lake or other body of water, and that is designated as flood plain in Part 1 of this bylaw;

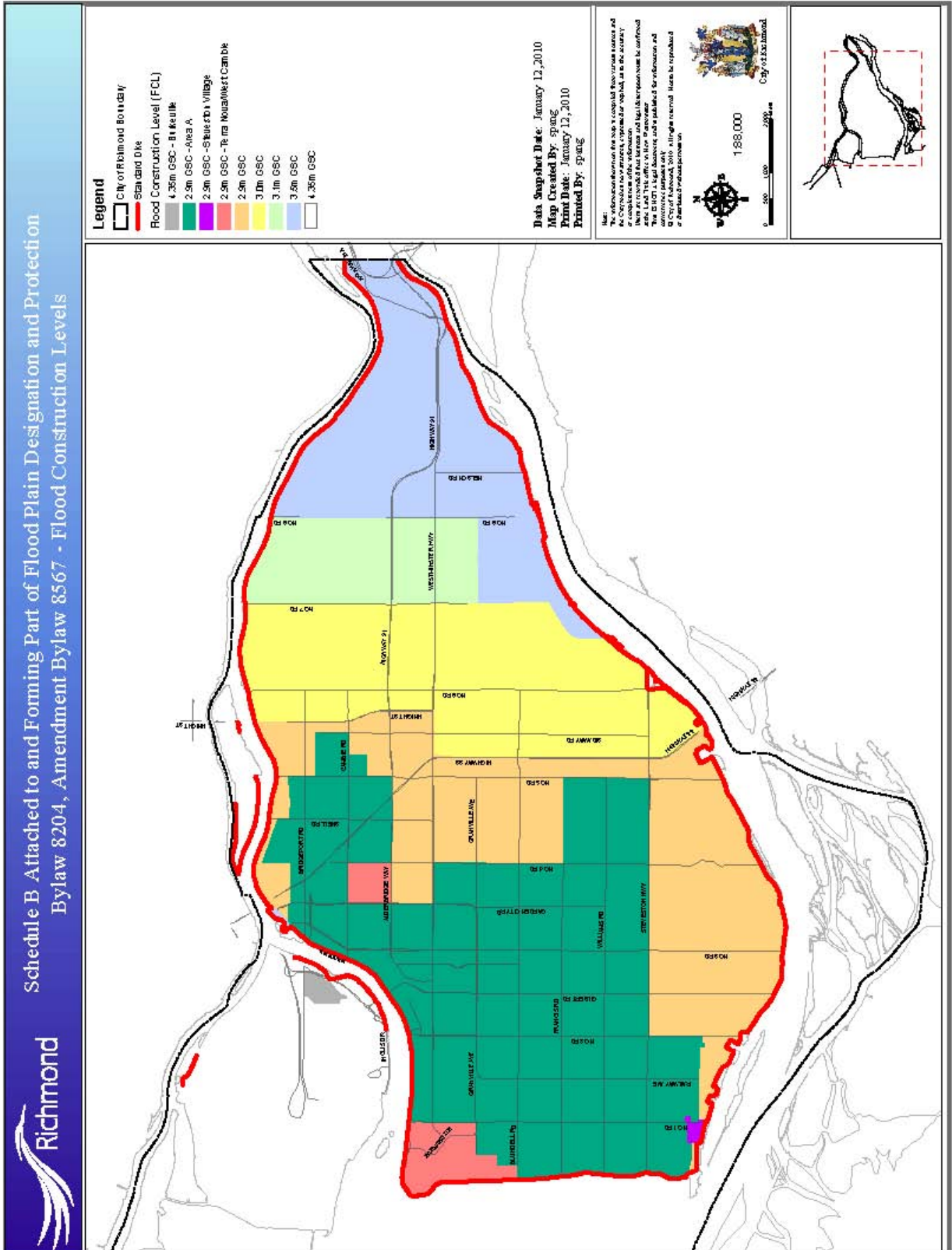
<b>FLOOD PLAIN CONSTRUCTION LEVEL</b>	means the elevation level, measured in metres <b>GSC</b> , established in Schedule B of this bylaw;
<b>FLOODWAY</b>	means the channel of a <b>watercourse</b> and those portions of the <b>flood plain</b> that are reasonably required to discharge a flood flow;
<b>GSC</b>	means Geodetic Survey of Canada datum;
<b>MANUFACTURED HOME</b>	means a structure manufactured as a unit, intended to be occupied at a place other than its place of manufacture, and designed as a dwelling unit, and includes mobile homes, but specifically excludes recreation vehicles;
<b>NATURAL BOUNDARY</b>	means the visible high water mark of any lake, river, stream or other body of water where the presence and action of the water are so common and usual and so long continued in all ordinary years as to mark upon the soil of the bed of the lake, river, stream or other body of water a character distinct from that of the banks thereof, in respect to vegetation as well as in respect to the nature of the soil itself. For coastal areas, the natural boundary shall include the natural limit of permanent terrestrial vegetation. In addition, the natural boundary includes the best estimate of the edge of dormant or old side channel and marsh areas;
<b>PAD</b>	means a paved surface on which blocks, posts, runners or strip footings are placed for the purpose of supporting a manufactured home or unit;
<b>PROFESSIONAL ENGINEER</b>	means an engineer who is registered or licensed in British Columbia under the provisions of the Engineers and Geoscientists Act and amendments thereto;
<b>PROFESSIONAL GEOSCIENTIST</b>	means a geoscientist who is registered or licensed in British Columbia under the provisions of the Engineers and Geoscientists Act and amendments thereto;
<b>PROVINCIAL GUIDELINES</b>	means the policies, strategies, objectives, standards, guidelines and environmental management plans, in relation to flood control, flood hazard management and development of land that is subject to flooding, as contained within the Flood Hazard Area Land Use Management Guidelines dated May, 2004, published by the Province of British Columbia, and any amendments or revisions thereto;
<b>ROAD</b>	includes a highway, street, lane, sidewalk, right of way or any other way open to public use, or a private right of way intended for vehicular traffic, but does not include a trail;

<b>SETBACK</b>	means a withdrawal of a building or landfill from the natural boundary or other reference line to maintain a floodway and to allow for potential land erosion;
<b>STANDARD DIKE</b>	means a dike designated by the <b>City</b> as a standard dike, as generally identified in Schedule B, including a dike that meets the standards of design and construction approved by the Ministry of Environment;
<b>STEVESTON VILLAGE AREA</b>	means that part of the <b>City</b> shown on Schedule B of this Bylaw as being “Steveston Village”; and
<b>TERRA NOVA/WEST CAMBIE AREA</b>	means that part of the <b>City</b> shown on Schedule B of this Bylaw as being “Terra Nova/West Cambie”;
<b>WATERCOURSE</b>	means any natural or man-made depression with well-defined banks and bed at least 0.6 metres or more below the surrounding land serving to give direction to a current of water at least 6 months of the year, or that has a drainage area of 2 square kilometres or more upstream of the point of consideration.

**8.2** This bylaw is cited as “**Flood Plain Designation and Protection Bylaw No. 8204**”.



# SCHEDULE B TO BYLAW 8204



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