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Bylaw 1/2023 Land Use Bylaw Amendment - Part 6, General Regulations; Schedule G, Designated Flood Line
Presented by: Adryan Slaght, Director, Planning & Development Department

RECOMMENDED MOTION(S)

1. That the Public Hearing on Bylaw 1/2023 be closed.

2. That Bylaw 1/2023, being amendment 216 to the Land Use Bylaw 9/2005, be read a first time.

3. That Bylaw 1/2023 be read a second time.

4. That Bylaw 1/2023 be amended by deleting subsection 6.11(4)(b) in Schedule “A” and adding a new subsection 6.11(4)(j) to Schedule “A” as follows: “constructed stormwater wetland, to the satisfaction of the City Engineer.”

5. That unanimous consent be given for consideration of third reading of Bylaw 1/2023.

6. That Bylaw 1/2023, as amended, be read a third and final time.

PURPOSE OF REPORT

The purpose of this report is to bring forward an item from the August 15, 2023 Regular Meeting of Council. The Public Hearing pertaining to Bylaw 1/2023 was opened on August 15, 2023 and adjourned until October 17, 2023.

ALIGNMENT TO COUNCIL DIRECTION OR MANDATORY STATUTORY PROVISION

On August 15, 2023, Council passed the following motion:

PH-23-05
That Public Hearing on Bylaw 1/2023 be Adjourned to the October 17, 2023 Regular Meeting of City Council and that Bylaw 1/2023 be circulated for additional public feedback prior to resumption of the Public Hearing on Bylaw 1/2023.

On June 20, 2023, Council passed the following motion:

PH-23-04
That Public Hearing on Bylaw 1/2023 be Adjourned to the August 15, 2023 Regular Meeting of City Council and that Bylaw 1/2023 be circulated for additional public feedback prior to resumption of the Public Hearing on Bylaw 1/2023.

BACKGROUND AND DISCUSSION

On June 20, 2023, Administration presented Council with two separate amendments to Part 6 (General Regulations) of the Land Use Bylaw, as well as a replacement of Schedule G, Designated Flood Line of Land Use Bylaw 9/2015.

The original proposed amendments to Part 6 (*see attachment, previously circulated report*) included amendments to Part 6.11 - Designated Flood Line and the addition of a new 6.11.1 - Development Permit Conditions:

- The new Part 6.11.1 (Development Permit Conditions) was proposed as a housekeeping item to ensure compliance of development permits with the policies of a City-approved Municipal Development Plan, an Area Structure Plan, an Area Redevelopment Plan, a Neighbourhood Plan, or a concept plan. The amendment was proposed to better ensure compliance with these plans by tying them more firmly together with the Land Use Bylaw.
- The updates to Part 6.11 (Designated Flood Line), and Schedule G, Designated Flood Line, were intended to revise the City's Flood Line, based on new flood studies, and to incorporate the City's annexed lands.

The Public Hearing on Bylaw 1/2023 was opened on June 20, 2023. The Public Hearing was adjourned to August 15, 2023, with direction for Administration to go back and hold additional engagement with the development industry. This direction was in response to concerns expressed by industry during the Public Hearing regarding proposed limitations on the construction of stormwater management facilities below the designated flood line elevation, as well as concerns expressed by industry regarding proposed limitations on overall development below the designated flood line.

Subsequently, the August 15 Public Hearing was adjourned to October 17, 2023, at the request of Administration, to allow additional time for Administration to develop revised language, based on input received. In total, Administration met with representatives from the development industry in July, August, and September in order to better understand concerns, and to solicit language that might enable developer flexibility while mitigating City risk.

The resulting language (Alternatives 1 and 2 - Draft LUB 6.11 Designated Flood Line for October 17, 2023) was developed upon review of municipal floodplain regulations within the Province, and based on sensitivities to the St. Albert context. In general, the revised language attempts to provide both more specificity, and more flexibility, as it relates to the purpose, allowed uses, considerations for engineering solutions to development and stormwater management facilities below the Designated Flood Line. Administration and the representatives from the development industry remain ideologically opposed as it relates to permissiveness of overall development below the

designated flood line, as well as the location of stormwater management facilities below the flood line. The new alternative language, as written, would allow the development industry to request consideration for development below the designated flood line, based on engineering and/or technical studies acceptable to the City.

No changes were proposed to the Schedule G flood line itself, or to the proposed Part 6.11.1.

STAKEHOLDER COMMUNICATIONS OR ENGAGEMENT
As noted within the body of the Agenda Report, Administration met numerous times with development industry representatives. Administration also received one comment from the public cautioning against allowing development below the designated flood line.

IMPLICATIONS OF RECOMMENDATION(S)
Financial:
None at this time

Legal / Risk:
Failure to approve the amendments could expose the City to risk, particularly with respect to potential property damage. Failure to have “appropriate” flood development regulations could also impact the City’s ability to access provincial funding, should a flood event occur.

Program or Service:
Failure to provide certainty regarding the Designated Flood Line has been identified as impacting the Planning & Development Department’s ability to proceed on review of an Area Structure Plan Amendment.

Organizational:
None at this time

ALTERNATIVES AND IMPLICATIONS CONSIDERED
If Council does not wish to support Recommendation #4, the following alternatives could be considered:

Alternative 1. That Council approve the proposed Part 6.11.1 - Development Permit Conditions, the proposed Schedule G - Designated Flood Line (map), and the revised Part 6.11 - Designated Flood Line wording dated October 17, 2023. The following motion could be used instead of Recommendation #4 above:

That Bylaw 1/2023 be amended by deleting the entirety of section 6.11 (Designated Flood Line) in Schedule “A” and replacing it with section 6.11 in the attachment entitled “Language for Alternatives 1 and 2 - For Consideration on October 17, 2023”.

Alternative 2. That Council approve the proposed Part 6.11.1 - Development Permit Conditions as well as Schedule “G” and direct further work on the proposed Part 6.11 language. The following motions could be used instead of Recommendation #4 above and in addition as a new Recommendation #7:

That Bylaw 1/2023 be amended by deleting section 6.11.1 (Development Permit Conditions) in

Schedule "A" and replacing it with section 6.11.1 in the attachment entitled "Language for Alternatives 1 and 2 - For Consideration on October 17, 2023".

That Administration develop new wording for section 6.11 of the Land Use Bylaw for Council's consideration.

Alternative 3. That Council 'do nothing'. If Council does nothing, the Designated Floop Line map will not be amended, the wording in section 6.11 (Designated Flood Line) of the Land Use Bylaw will not be updated, and new wording regarding Development Permit Conditions will not be added to the Land Use Bylaw.

Report Date: October 17, 2023
Author(s): Adryan Slaght
Department: Planning & Development
Managing Director: Diane Enger
Chief Administrative Officer: William Fletcher

CITY OF ST. ALBERT

BYLAW 01/2023

LAND USE BYLAW AMENDMENT
Being Amendment 216 to Land Use Bylaw 9/2005

A Bylaw to Amend Part 6 (General Regulations) and
Schedule G (Designated Flood Line) of the Land Use Bylaw

The municipal council of the City of St. Albert ENACTS AS FOLLOWS:

1. Bylaw 9/2005, the Land Use Bylaw, is amended by this bylaw.

2. Part “6” of Land Use Bylaw 9/2005 is amended in the manner outlined in Schedule “A”, attached hereto.

3. Schedule “G” to Land Use Bylaw 9/2005 is deleted in its entirety and replaced with Schedule “G” attached hereto.

4. The Chief Administrative Officer is authorized to issue a consolidated version of Bylaw 9/2005 that incorporates the amendments made by this bylaw and otherwise conforms with the requirements of section 69 of the *Municipal Government Act*.

READ a First time this _____ day of _____ 2023.

READ a Second time this _____ day of _____ 2023.

READ a Third time this _____ day of _____ 2023.

SIGNED AND PASSED this _____ day of _____ 2023.

_____
MAYOR

_____
CHIEF LEGISLATIVE OFFICER

Part 6 General Regulations General Regulations Amendments

6.1. Application

This part shall apply to all land use districts under this Bylaw.

6.2. Adult Entertainment

Any site containing an adult entertainment facility must be located:

(a) at least 150 m from the nearest residential district;

(b) at least 100 m from any site on which there is an arena, school, religious assembly, day care facility, community hall or park;

(c) at least 100 m from a P, PS or IF District; and

(d) at least 25 m from the nearest site upon which there is another adult entertainment facility.

6.3. Bare Land Condominium Use

(1) A bare land condominium unit must comply with all the general regulations of this Bylaw and with the regulations applicable to the district within which the bare land condominium unit is located as if the unit were a lot or site.

(2) With the exception of common property lines on semi-detached or attached units, no building on a bare land condominium unit may encroach on any property line, utility easement or right-of-way.

(3) A bare land condominium plan shall be treated in all respects as though it were a plan of subdivision and shall comply with all requirements for a subdivision, including, but not limited to:

(a) adequate pedestrian and vehicle access;

(b) provision of supply of water, electrical power, gas and sanitary sewer and storm drainage; and

(c) sequencing and timing of construction of all buildings and servicing.

6.4. Bed and Breakfast

Bed and breakfast establishments shall:

(a) have no cooking facilities in a guest room;

(b) have a minimum guest room size of 7 sq. m per single occupant and 4.6 sq. m per person for multiple occupants;

(c) have a window for each guest room in accordance with the Alberta Building Code in effect at the date of the application for development permit; and

(d) have sanitation facilities and potable water as required by relevant authorities.

6.5. Cannabis Retail Store (BL12/2018)

(1) A Cannabis Retail Store must be located at least 100 m from any other Cannabis Retail Store. For the purposes of this subsection only, the separation distance shall be measured from the closest point of the proposed Cannabis Retail Store to the closest point of any other approved Cannabis Retail Store;

(2) At the time of development permit application, the closest point of the proposed cannabis retail store must be located at least:

(a) 100 m from the closest point of a parcel upon which a provincial health care facility is located;

(b) 150 m from the closest point of a parcel upon which the following facilities are located: i. an elementary or secondary school;

(3) Notwithstanding the prescribed minimum separation distances in Section 6.5(2), where a major arterial roadway, as identified in Schedule B of this Bylaw, separates the proposed location of a Cannabis Retail Store from any of the facilities, uses or reserves mentioned in Section 6.5(2), such a proposed Cannabis Retail Store may be located across that arterial roadway from the facility, use or reserve, at a lesser separation distance.

(4) Notwithstanding Section 3.14(3), when considering a variance to the required separation distance for a Cannabis Retail Store to any of the facilities, uses or reserves mentioned in Section 6.5(2), the variance shall not exceed 10 m:

(a) Notwithstanding Section 6.5(4), in the case of Section 6.5(3), the Development Officer shall assess the merits of the application and may at its discretion, vary the separation distance.

6.6. Commercial School and Day Care Facility

(1) The maximum number of patrons for which a service may be provided in a Commercial School or Day Care Facility shall be determined by the Development Officer having regard for the gross floor area of the School or Day Care Facility, the nature of the School or Day Care Facility and the District in which it is located, potential increases in traffic and the location of the use in relation to other uses in the area of the development.

(2) A Commercial School or Day Care Facility that includes a playground, shall provide a separate access to the playground area from the principal building and the playground area shall be enclosed by a fence at least 2 m in height from finished grade, subject to Section 6.6.

(3) At the discretion of the Development Officer, a Commercial School or Day Care Facility shall provide a drop-off area for the loading and unloading of patrons from vehicles so that the development does not interfere with the regular flow of on-site or neighbouring traffic.

6.7. Corner Lots - Traffic Sight Lines

(a) On a corner lot, there shall be no development greater than 1 m in height, within the triangular area created by the property lines that form the corner and a straight line connecting the two points 7.5 m back along these property lines measured from their intersection;

(b) if a corner cut has been taken, the area in clause (a) shall be determined 7.5 m back from what would have been the intersection of property lines if the corner cut had not been taken; and

(c) in a MC, DT or BW District, the triangular area shall be determined using a line 4 m back from the intersection or projected intersection in clause (a) or (b), unless another distance is required by the Development Officer; and **(BL19/2012)**

(d) in a DCMU district, the traffic sight lines required in clause (a) may be reduced at the discretion of the Development Officer in consultation with Engineering Services considering the safe functioning of streets and the provision of adequate vehicular sight lines. **(BL6/2016)**

6.8. Design, Character and Appearance of Buildings

(1) The design, character and appearance of a building including but not limited to all accessory buildings and relocatable buildings, must be:

(a) compatible with any other buildings existing on the site and in the vicinity, unless the building, in the opinion of the Development Officer, sets a higher standard of design, character and appearance for a land use district or part of it; and

(b) consistent with the purpose and regulations of the land use district in which the building is located.

(2) The exterior finish of a building, including but not limited to a single-detached house, must be completed within 2 years of the date the development permit is issued unless otherwise stipulated by the development permit.

6.9. Easements

Notwithstanding that a development otherwise complies with this Bylaw:

(a) a development permit shall not be issued for a development that encroaches into or over a utility easement or right-of-way without the written consent of the owner of the easement or right-of-way and the person whose utility line is found in the easement or right-of-way; and

(b) a principal building or dwelling unit located on a property adjacent to a railway right-of-way must be located at least 15 m from the closest edge of the railway right-of-way property line to the closest edge of the building. **(BL2/2018)**

6.10. Emergency Access Lanes

In a shopping centre:

(a) emergency access routes and fire lanes shall be provided in accordance with the Alberta Building Code in effect at the date of the application for development permit; and

(b) emergency access routes and fire lanes shall be appropriately signed to prohibit obstruction.

6.11. Designated Flood Line (**BL25/2011**)

(1) The designated flood line is as indicated on the maps in Schedule G. The cross-sections provided on the maps in Schedule G are based on the ~~*Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Sturgeon River,* Final Report of May 15, 2007 and *Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Carrot Creek*, Final Report of March 15, 2007~~ Carrot Creek Regional Drainage Master Plan (2022), and the Provincial St. Albert Flood Hazard Study (2022); and have been taken perpendicular to the natural boundaries of the watercourses at their highest perpendicular points. (**BL7/2015**)

(2) Developments including, but not limited to, new construction and substantial improvements are prohibited below the designated flood line.

(3) The designated flood line is the boundary of any filling of land.

(4) Notwithstanding Section 6.12~~1~~.(2), development permitted below the designated flood line shall require the approval of the Development Officer in consultation with the City Engineer, and is restricted to: **(BL22/2020)**

(a) development for the purpose of flood control;

(b) public utility building;

(c) public utility;

(d) bridge or public roadway;

(e) temporary campgrounds;

(f) pedestrian walkways, parks, and trails;

(g) golf courses;

(h) uninhabited accessory buildings;

(i) outdoor recreation service use that would not obstruct the area below the designated flood line; and

~~(j) naturalized stormwater management facility that meets the approval of the City Engineer.~~

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(5) A structure or premises which lawfully existed below the designated flood line before ~~the enactment of these provisions~~August 15, 2011, but which is not in conformity with these provisions, may be continued subject to the conditions outlined in Section 3.15. Non-Conforming Development and ~~Section 643 of~~ the *Municipal Government Act*.

(6) For lots adjacent to the designated flood line, or of which a portion lies below the designated flood line, prior to the issuance of a development permit the Development Officer shall require that the applicant submit a set of stamped plans certified by a registered Professional Engineer or Architect which confirms that the requirements of Section 6.12~~0~~. have been incorporated in the design of the proposed development and identifies the freeboard elevation at 0.5 metres above the designated flood line. **(BL7/2015)**

(7) The Development Officer shall circulate a development permit application for a development located on a property adjacent to, or including, the designated flood line to the City's Engineering Department for review and comment with respect to the suitability of the proposed development.

(8) The requirements of this Section, 6.12~~1~~, apply to both the permitted and discretionary uses of the land use district applicable to the parcel. **(BL22/2020)**

(9) Notwithstanding Subsections (1) through (8), nothing in this Section 6.12~~1~~ or on the maps in Schedule G modifies, overrides or changes the land use districting as outlined in Schedule A. **(BL22/2020)**

(10) The designated flood line as outlined in the maps in Schedule G is presented for reference purposes only and has been generalized for presentation purposes and is not guaranteed for accuracy. The Development Officer will rely on the information required under Subsection (6) to determine the designated flood line on an individual property.

6.11.1 Development Permit Conditions

The Development Officer may, with respect to any use:

Require a development permit comply with the policies of the Municipal Development Plan, an Area Structure Plan, an Area Redevelopment Plan, a Neighbourhood Plan, or a Concept Plan;

6.12. Garbage Storage

Garbage storage must be located in:

(a) a storage bay within, or attached to, the principal building, or

(b) a freestanding enclosure designed to the satisfaction of the Development Officer.

6.13. Home Occupation

(1) A person conducting a home occupation shall not:

(a) advertise the home occupation on a sign outside the dwelling unit or garage in which the home occupation is located, unless the sign complies with Schedule C, Sign Regulations;

(b) store materials, commodities or finished products associated with the home occupation outside the dwelling unit or garage; and

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(c) use mechanical equipment in connection with the occupation, unless the equipment is commonly used in a home.

(2) If a person provides instruction as a home occupation, no more than 5 students or customers shall be in attendance at the site at any one time.

(3) No person, other than a resident of the dwelling unit, shall be employed in a home occupation.

(4) The home occupation shall be operated as a secondary use only and shall not change the principal character or external appearance of the dwelling unit or garage involved.

(5) A home occupation shall not be permitted if

(a) it produces offensive noise, vibration, smoke, dust, odour, heat, glare, electrical or radio disturbance; and

(b) the Development Officer determines that such use would be more appropriately located in a commercial or industrial district having regard for, among other matters, potential traffic generation and potential interference with the residential character of the area.

(6) Deleted **(BL22/2020)**

6.14. Landscaping

(1) A landscaped area shall not be permitted if, in the opinion of the Development Officer, it would obstruct traffic sight lines either on the site or on a public roadway.

(2) Except as otherwise provided in this Bylaw, trees required for a landscaped area must meet the following standards:

(a) deciduous trees must have a minimum caliper width of 60 mm at the time of planting;

(b) coniferous trees must be a minimum height of 2.4 m at the time of planting;

(c) if a tree does not survive a 2 year maintenance period, the applicant for the development permit must replace it with a tree in accordance with clauses (2)(a) or (2)(b);

(d) trees must be of a species suitable for the specific application or site;

(e) where a landscaped area is required adjacent to a City boulevard, the tree species and planting must complement the City boulevard trees as required by the Development Officer; and

(f) where at the time of development the area between the front property line and the curb and/or the curb and sidewalk is not landscaped, this area shall be landscaped to City standards.

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(3) Subsection (2) does not apply to a development involving single-detached or semi-detached dwelling units, unless the site is located within the Established Neighbourhood Overlay District. **(BL19/2006)**

(4) Caliper width of a tree shall be measured as follows:

(a) 150 mm above grade for trees with a caliper of less than 100 mm; and

(b) 300 mm above grade for trees with a caliper of more than 100 mm.

(5) Landscaped Buffer

In a district other than a residential district, where this Bylaw requires a landscaped buffer on a site adjacent to a residential use or district, the landscaped buffer:

(a) must include a mix of deciduous trees and coniferous trees which mix must be comprised of at least 60% coniferous trees unless otherwise determined by the Development Officer taking site features into account;

(b) must include trees, that in the opinion of the Development Officer, would be sufficient to screen the residential use or district from the commercial or industrial development;

(c) must have trees that are a minimum of 6 m in height at maturity;

(d) must have the minimum width as specified for each district as follows unless otherwise determined by the Development Officer taking site features into account:

District	Width of Landscaped Buffer
(i) C1, MT Area C	3.5m
(commercial and mixed use only)	
(ii) C2	4m
(iii) CC	6m
(iv) CIS, BP2, BPT and BP (BL38/2011)	6m
(v) All Other Districts	As determined by the Development Officer to provide a suitable buffer between the respective land uses; and

(e) may, at the discretion of the Development Officer, include shrubs in addition to trees in the landscaped buffer provided that the shrubs have a minimum height at maturity of 2 m.

(6) Parking Lots

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If a parking lot located in MT Area C (commercial and mixed use only), C1, C2, CC, CIS, BP, BP2, BPT, RC, PS, DCMU, DCNUV and IF District is required to be landscaped, those trees must be planted in accordance with the following standards:

(a) trees must be planted at a minimum ratio of 1 tree per 5 parking stalls for single row parking and a minimum ratio of 1 tree per 10 parking stalls for double row parking;

(b) the ratio of trees to parking stalls required under (a) may be reduced by the Development Officer where site conditions, including but not limited to location, size, sight lines, and climatic factors, warrant a lesser ratio; and

(c) a landscaped island must be:

(i) designed to protect trees and ground cover from damage;

(ii) raised a minimum of 150 mm above the finished grade; and

(iii) finished with tree grates, ground cover vegetation or hard landscaping. **(BL15/2019)**

(7) Perimeter Landscaping

Subject to Section 6.6, a development located on a site in MT Area C (commercial and mixed use only), C1, C2, CC, CIS, DCNUV, BP, BP2, BPT, or RC District that adjoins a public roadway, except a lane, or is adjacent to a P, PS or IF District, must be landscaped in accordance with the following:

(a) there must be a landscaped area at least 3.5 m wide around the perimeter of the private lot, adjacent to the public roadway;

(b) if deciduous trees are planted, they must be planted at regular intervals, and if coniferous trees are planted, they must be planted in clusters of 3;

(c) trees must be located a minimum of 2 m from the property line; and

(d) trees must be a minimum of 6 m in height at maturity. **(BL15/2019)**

(8) Blank Wall

A development located on a site in MT Area C (commercial and mixed use only), C1, C2, CC, CIS, DCMU, DCNUV, BP, BP2, BPT, RC or IF District that has a blank wall facing a P District or public roadway, except a lane, must be landscaped in accordance with the following:

(a) if deciduous trees are planted they must be planted along the blank wall at regular intervals and if coniferous trees are planted they must be planted in clusters of 3;

(b) the trees required under clause (a) must be a minimum of 6 m in height at maturity; and

(c) shrubs may be planted between the trees provided they reach a minimum height of 2 m at maturity. **(BL15/2019)**

(9) Unless otherwise required by a Development Agreement or by the Development Officer, landscaping of a site subject to a development permit, including but not limited to a single-detached house, shall be completed within 2 years of approval of the building permit.

(10) Driveways in a residential district must be paved unless otherwise determined by the Development Officer having regard to the characteristics of landscaped areas in the vicinity or neighbourhood.

6.15. Livestock

Developments involving livestock are prohibited except as part of an agricultural use and then shall only be allowed in accordance with the relevant municipal bylaws.

6.16. Live/Work Units (BL14/2008)

(1) Live/work units shall comply with the density provisions or floor area ratio requirements of the underlying district.

(2) All live/work units should maintain a commercial component, which must comply with the following:

(a) the floor area devoted to the commercial component should not exceed 50% of the unit; and

(b) the commercial component shall be:

(i) located at grade; and

(ii) have a public entry oriented to and directly accessible from a public roadway, other than a lane or an undeveloped registered road plan.

(3) Commercial component uses shall be limited to those uses allowed as a permitted or discretionary use in the underlying land use district and shall be subject to a separate development permit application.

(4) There shall be direct access between the residential and commercial components of the unit.

(5) Materials, commodities or finished products associated with the commercial use shall not be stored:

(a) outside of the unit; or

(b) in a parking stall, including a garage, required to meet minimum parking requirements in Part 7 of this Bylaw.

(6) A maximum of two non-resident employees or business partners may work in the unit, and at least one employee or business partner must live in the unit.

(7) Notwithstanding subsection (4), the residential component shall be separated from the commercial component by a wall, ceiling, door or other separation as approved by the Development Officer.

(8) Notwithstanding Schedule C, each unit shall only be allowed 1 A-board, awning, canopy, fascia or projecting sign.

6.17. Outdoor Lighting

(1) Outdoor lighting must comply with this subsection unless otherwise allowed under this Bylaw.

(2) Outdoor lighting must be located and arranged so that:

(a) rays of light are not directed at an adjacent site and indirect rays of light do not adversely affect an adjacent site; and

(b) traffic safety is not adversely affected.

6.18. Outdoor Storage

Outdoor storage, located on a site adjacent to a P, PS, IF, or residential district shall only be permitted at the discretion of the Development Officer if

(a) it is screened by:

(i) an on-site building,

(ii) a solid fence or wall, or

(iii) on-site landscaping that provides a year-round screen; and

(b) it otherwise complies with this Bylaw.

6.19. Pre-fabricated Trailer

A development permit for a pre-fabricated trailer to be used temporarily for a residential sales centre, sales office, outdoor recreation or public assembly use may be granted at the discretion of the Development Officer for a period specified in the permit.

6.20. Prohibited Uses

(1) Notwithstanding any other provision in this Bylaw, the following uses, unless specifically listed as a permitted or discretionary use in the land use district where the site is located, are prohibited as accessory uses to any other use:

(a) adult entertainment facilities;

(b) animal service;

(c) automotive body and paint service;

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(d) bed and breakfast;

(e) bingo hall;

(f) boarding house;

(g) bulk oil and chemical storage;

(h) cannabis lounge **(BL12/2018)**

(h) car wash;

(i) casino;

(j) day care facility;

(k) drive-through business; **(BL19/2012)**

(l) fleet service;

(m) funeral home;

(n) group home;

(o) health service;

(p) hospital;

(q) hotel;

(r) general industrial **(BL12/2012)**

(s) intensive agriculture;

(t) light industrial;

medium industrial; (**BL12/2012)**

(u) long term care housing;

(v) permanent supportive housing; (**BL12/2019)**

(w) pool hall;

(x) research and development business;

(y) research laboratory;

(z) school, commercial;

(aa) school, elementary or secondary;

(bb) school, post secondary;

(cc) solar collector, ground; **(BL27/2019)**

(dd) supportive housing;

(ee) treatment centre; or

(ff) cannabis production and distribution facility, micro. **(BL2/2022)**

(2) Automotive wrecker is a prohibited use in all land use districts.

(3) Unless otherwise stated, no person shall use, or permit to be used an accessory building for human occupancy. **(BL2/2018)**

(4) Notwithstanding subsection (3), in a commercial or industrial land use district or for a property containing a campground or designated as park under Schedule A of this Bylaw the Development Officer may approve an accessory building for human occupancy for the sole purpose of providing security provided that such use complies with all applicable building code and health standards. **(BL30/2007)**

A Phase 1 Environmental Site Assessment (ESA) on industrial site for residential use is required at time of development permit application, and further ESA phases may be required depending on each outcome. **(BL12/2012)**

6.21. Public Utility Lots

Notwithstanding that a development otherwise complies with this Bylaw, a development permit shall not be issued for a development that encroaches into or over a Public Utility Lot without written consent of the owner.

6.22. Residential Sales Centre

A residential sales centre:

(1) must have an exterior finish similar to the existing or proposed residences in the vicinity, unless otherwise permitted by the Development Officer;

(2) must not be operated for a period of more than 12 months, but the Development Officer may upon application renew a development permit once for up to 12 additional months; and

(a) notwithstanding 6.21.(2) permits for residential sales centres in the DCMU district may be renewed annually in conjunction with active development and a valid development permit. **(BL6/2016)**

6.23. Show Home and Raffle Home

(1) Where a dwelling unit is used as a show home or raffle home, a separate development permit must be obtained for that use.

(2) Once the use of a show home or raffle home ceases, any area of the development used as sales office or display area shall revert to residential use.

(3) A temporary breezeway may connect 2 or more show homes or raffle homes if permitted by the Development Officer.

(4) The show home or raffle home must provide sufficient on-site and off-site parking, in the opinion of the Development Officer, to ensure that adjacent sites would not be adversely affected.

(5) A show home must not be operated for a period of more than 12 months, but the Development Officer may upon application renew a development permit once for up to 12 additional months.

(6) A raffle home must not be operated for a period of more than 9 months, but the Development Officer may upon application renew a development permit once for up to 9 additional months.

(7) A raffle home may only be used for the purposes of:

(a) public viewing; and

(b) sale of tickets in connection with a lottery or raffle in which the home is a prize.

(8) Where a show home is proposed in a new subdivision, the plan of subdivision for the lots shall be registered prior to issuance of a development permit for the show home.

6.24. Solar Collectors (BL5/2016)

(1) Solar Collector, Roof or Wall

(a) The solar collector shall be located on the roof or wall of a building.

(b) Within the R1, R2, RX, RXL, and RFB Residential Land Use Districts: **(BL 21/2020)**

i) a solar collector located on a roof with a pitch of less than 4:12 must not extend beyond the outermost edge of the roof, but may:

(A) project a maximum of 0.5 m from the surface of the roof when the solar collector is located 5.0 m or less from a side property line, measured directly from any point along the side property line; and

(B) where the solar collector is located more than 5.0 m from a side property line, it may project a maximum of 1.3 m from the surface of the roof.

ii) a solar collector located on a roof with a pitch of 4:12 or greater may project a maximum of 1.3 m from the surface of the roof, and must not extend beyond the outermost edge of the roof.

(c) Within all Land Use Districts except R1, R2, RX, RXL, and RFB Residential Land Use Districts: **(BL21/2020)**

i) a solar collector located on a roof with a pitch of less than 4:12 may project a maximum of 2.0 m from the surface of the roof, and must be located at least 1.0 m inward from the outermost edge of the roof.

ii) a solar collector located on a roof with a pitch of 4:12 or greater may project a maximum of 1.3 m from the surface of the roof, and must not extend beyond the outermost edge of the roof.

(d) A solar collector located on a pitched roof shall not project vertically beyond the height of any existing roofline or any roof peak.

(e) In all instances, the maximum distance by which a solar collector may project from the surface of the roof is determined by measuring the perpendicular distance between the surface of the roof and the exterior surface of the solar collector.

(f) A solar collector that is located on a wall may project a maximum of 0.6 m from the surface of that wall.

(2) Solar Collector, Ground

A solar collector, ground:

(a) Shall be an accessory use to the principal use on a parcel located in the Commercial and Industrial Services (CIS) Land Use District;

(b) Shall not project vertically beyond the height of any existing roofline or any roof peak of the principal building;

(c) Shall comply with the setback requirements for accessory buildings of the District;

(d) Shall be located in a side yard or rear yard only;

i) when located in a side yard, no portion of the installation shall project beyond the front face of the principal building;

(e) Must be located and arranged so that:

i) glare is not directed at an adjacent site and indirect glare does not adversely affect an adjacent site; and

ii) traffic safety is not adversely affected.

(f) Shall not be located adjacent to a residential land use district.

(BL27/2019)

6.25. Stripping and Grading

(1) With the exception of those lands governed by a valid development agreement, stripping and grading activities are considered a discretionary use in all districts and require a development permit.

(2) In making a decision for a development permit application for stripping and grading, the development officer may impose conditions to:

(a) address on-site areas which are subject to erosion, and off-site areas which are vulnerable to damage from erosion and/or sedimentation;

(b) limit exposure of loose soil for the shortest feasible time;

(c) minimize the size of the area to be exposed at any one time;

(d) control surface water runoff originating upgrade of exposed areas to reduce erosion and sediment loss during the period of exposure;

(e) reduce impacts on privacy or view of adjacent properties; and

(f) prevent off-site sedimentation damage.

6.26. Telecommunication Towers

(1) Notwithstanding any other provision of this Bylaw, but subject to Section 2.1(4), Industry Canada regulates the telecommunications industry in Canada and is the authority that approves the location of telecommunication towers.

(2) Preferred locations for the siting of telecommunication towers include lands districted as BP, BP2, BPT, CIS, RC, C1, C2, CC, DR, R4, MC, DCMU, DCNUV, PS (non school sites), T and UR. **(BL25/2012) (BL2/2022)**

(3) Notwithstanding 6.24(2), roof-top towers are preferred in lands districted C1, C2, DR, MC, R4, DCMU, DCNUV, DT and PS. **(BL19/2012)**

(4) Emergency Services related directly to fire, police and hospital services on lands districted as PS and IF are considered preferred locations solely for towers proposed to enhance emergency uses on those sites.

(5) Discouraged locations for the siting of telecommunication towers include:

(a) lands districted as P, R1, R2, RX, RXL, RFB, R3, R3A, ICC, IF; **(BL21/2020)**

(b) lands designated as a Municipal Historical Resource through Municipal Bylaw or lands designated as a Provincial Historical Resource by the Province of Alberta;

(c) lands located within 800 m of Big Lake;

(d) lands identified as being environmentally sensitive areas; and

(e) local wetlands, riparian areas, areas of large bird concentrations, bird flyways such as ridges and breaks in river vegetation, and areas where visible bird staging and nesting exist.

6.27. Vehicle Access

(1) A lot must have at least one legal means of motor vehicle access.

Part 6 General Regulations General Regulations

(2) Access shall not be allowed from a public roadway across a lot to another public roadway other than a laneway.

(3) A motor vehicle access from a lot to a public roadway listed in Schedule B must:

(a) have a turning space on the lot so that motor vehicles leaving the lot do not back into the major arterial roadway; and

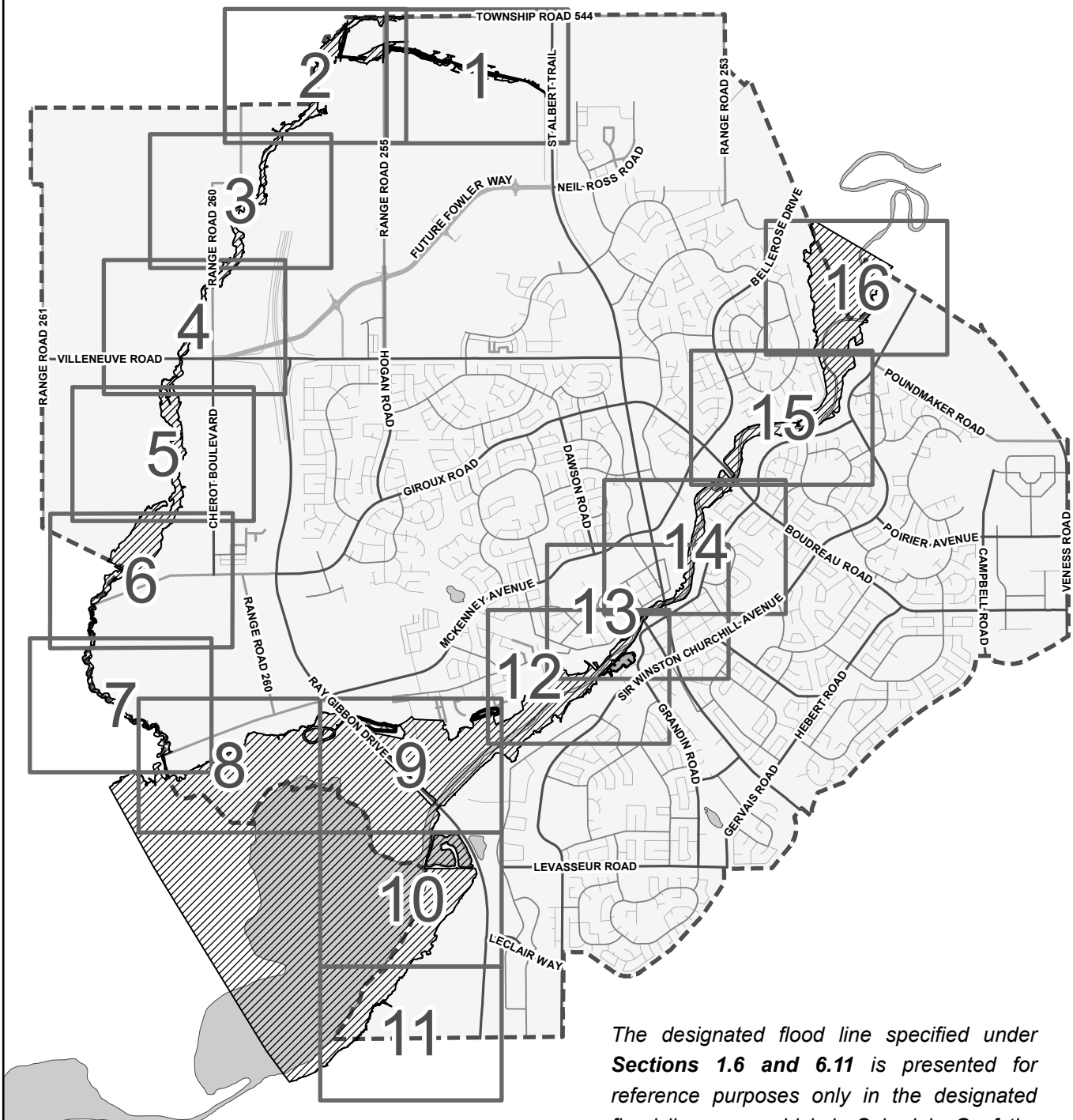
(b) comply with the City Traffic Bylaw.

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Designated Flood Line Map

NORTH

MAP INDEX



City of St. Albert Boundary

Permitted Fill Areas

Protected Flood Fringe

Designated Flood Line Overlay

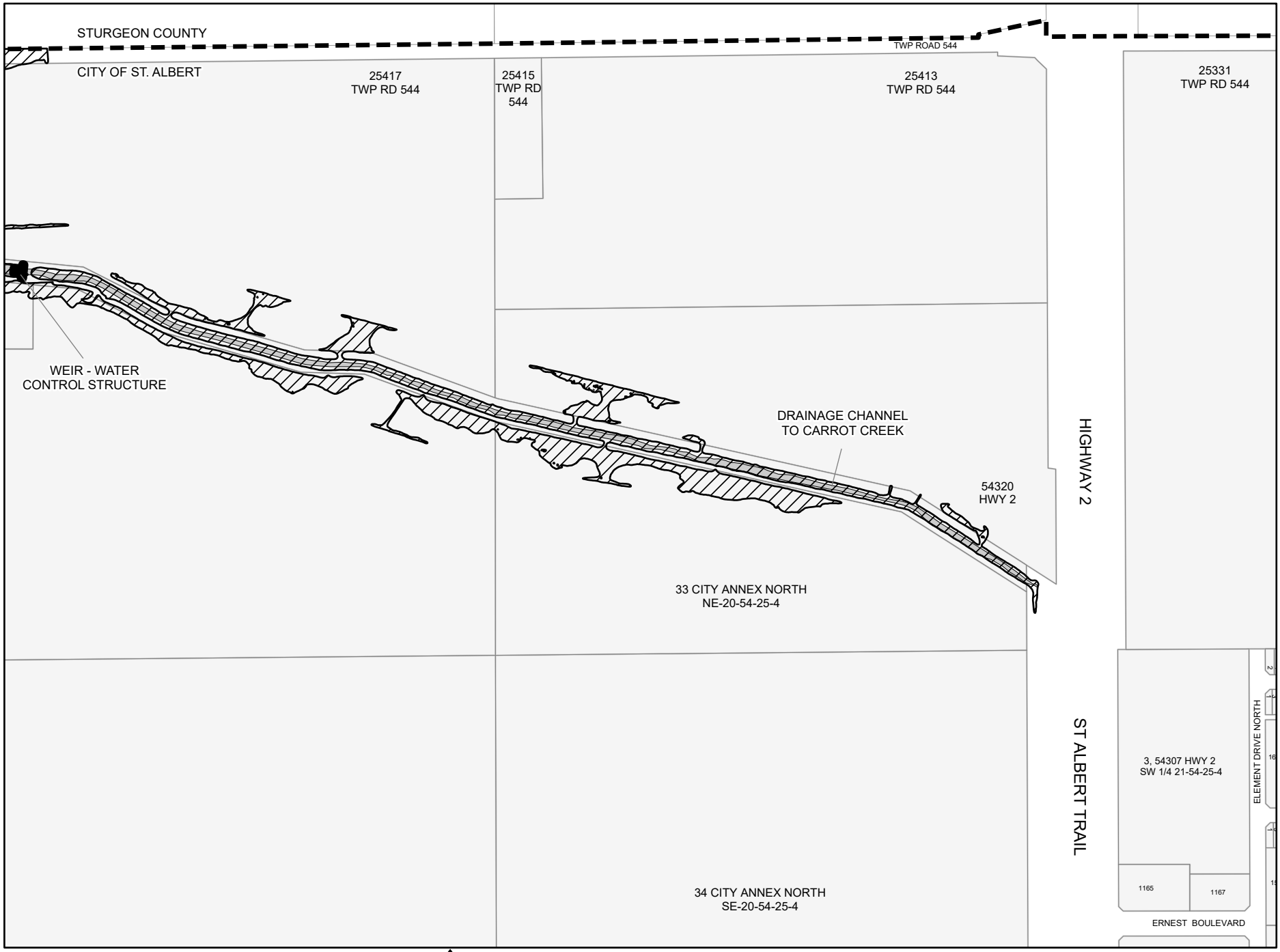
*The designated flood line specified under **Sections 1.6 and 6.11** is presented for reference purposes only in the designated flood line map, which is Schedule G of the Bylaw. The depicted flood line has been generalized for presentation purposes and is not guaranteed for accuracy.*

0 500 1,000 2,000 3,000 4,000 Metres

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BACK TO INDEX MAP



Schedule G

BYLAW 9/2005 (Page 404)

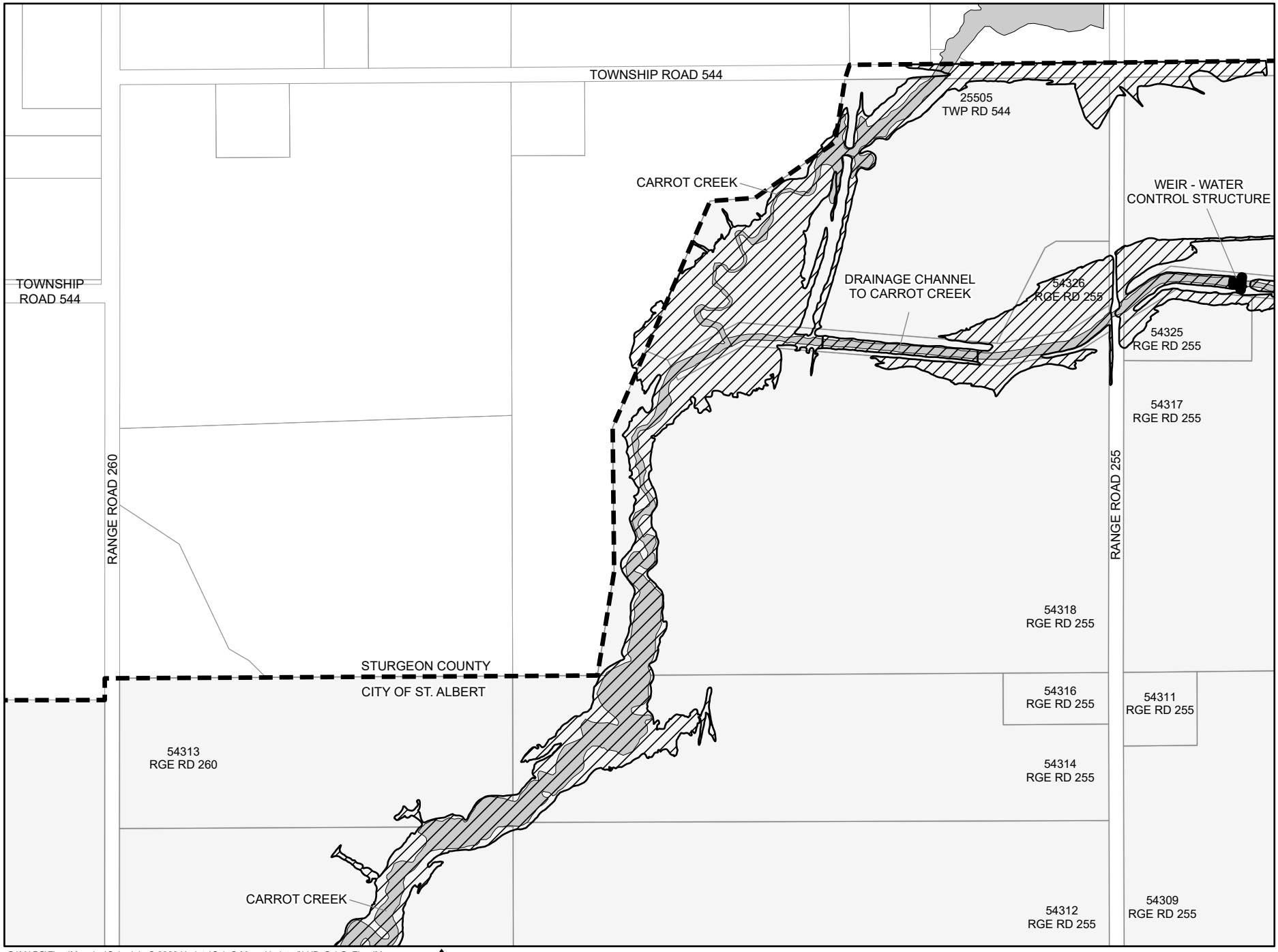
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metres
0 50 100 200 300 400

NORTH

Designated Flood Line Map

MAP 01



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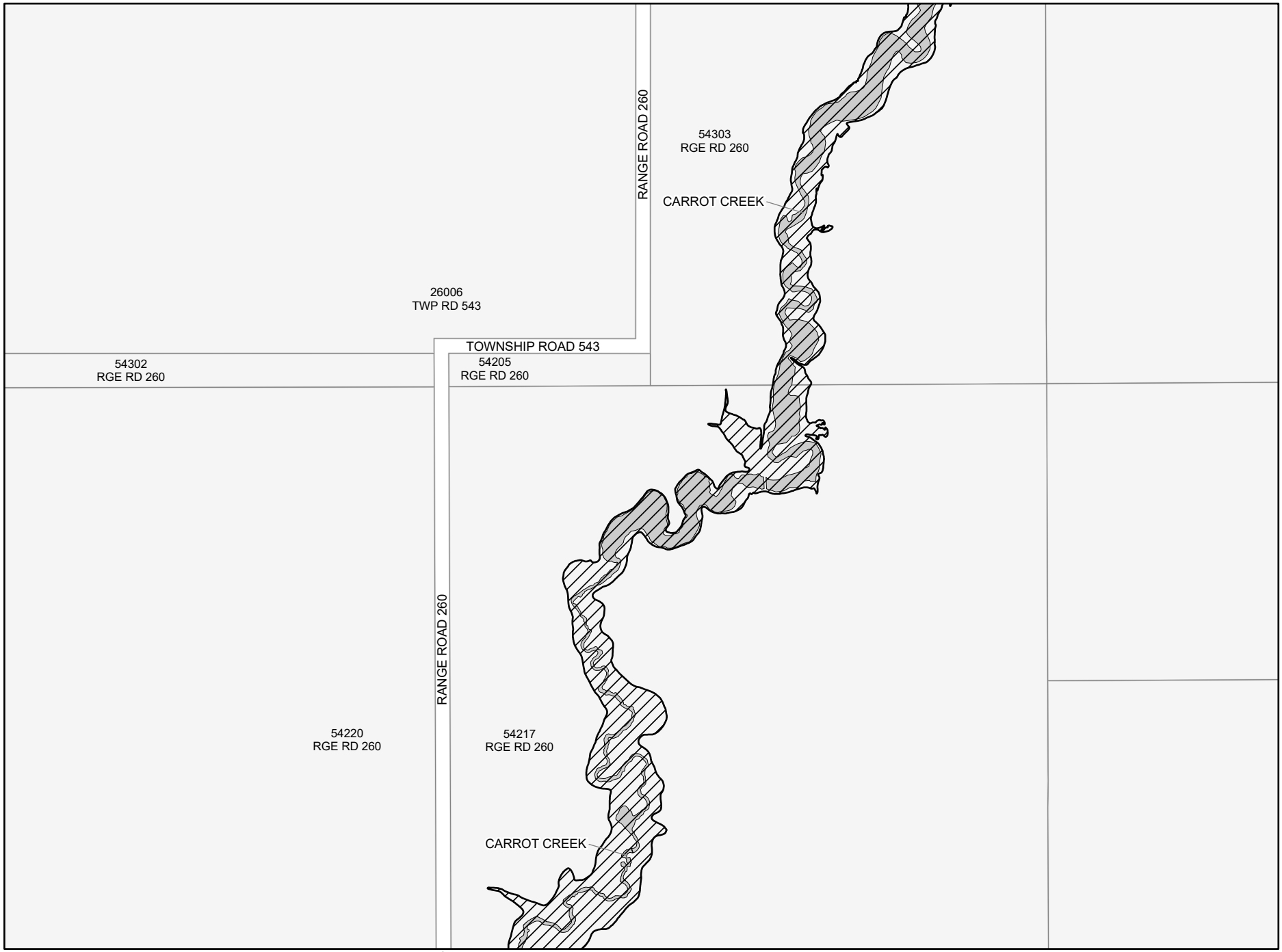
NORTH

Designated Flood Line Map

MAP 02

Schedule G

BYLAW 9/2005 (Page 405)



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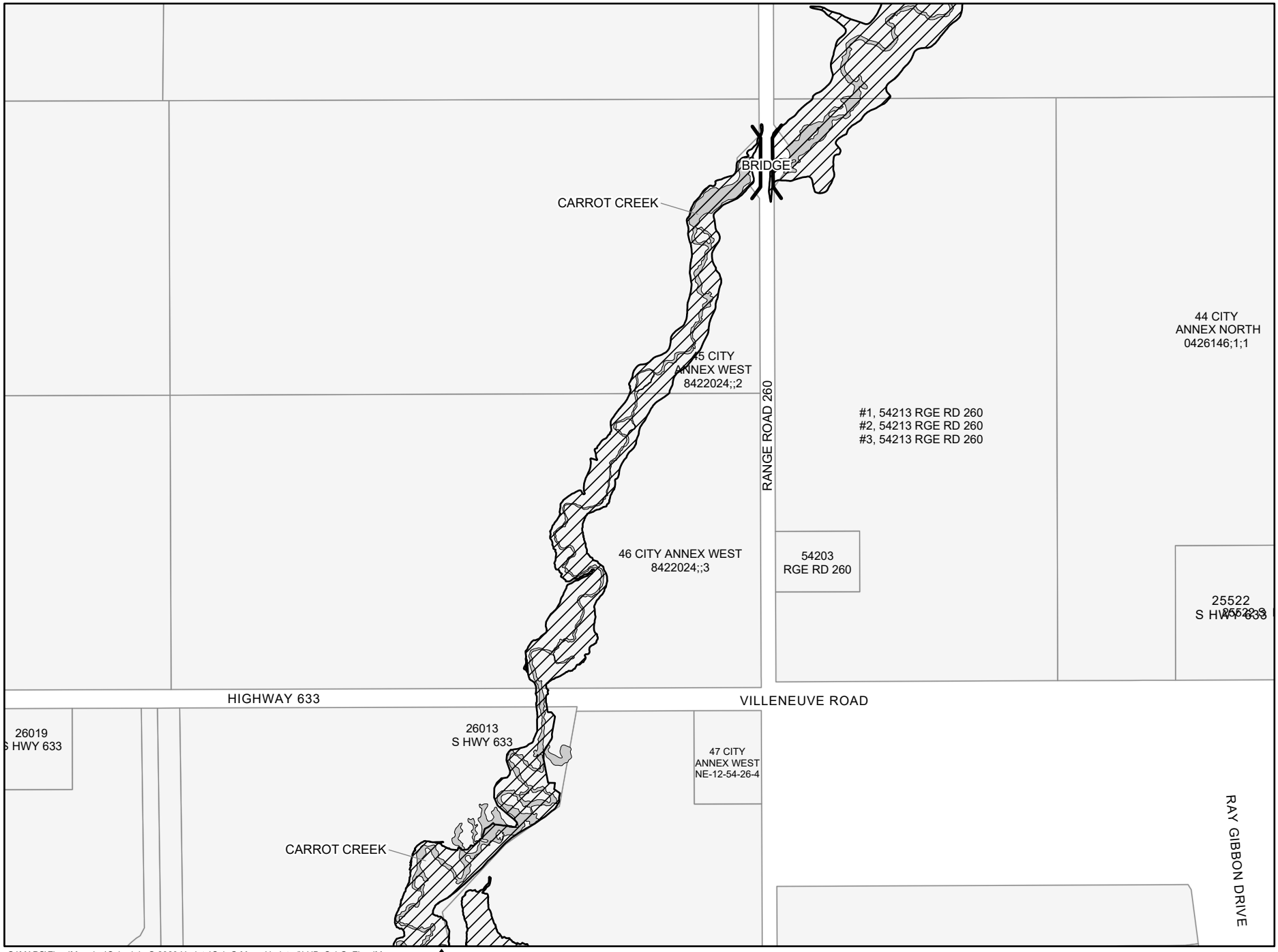
NORTH

Designated Flood Line Map

MAP 03

Schedule G

BYLAW 9/2005 (Page 406)

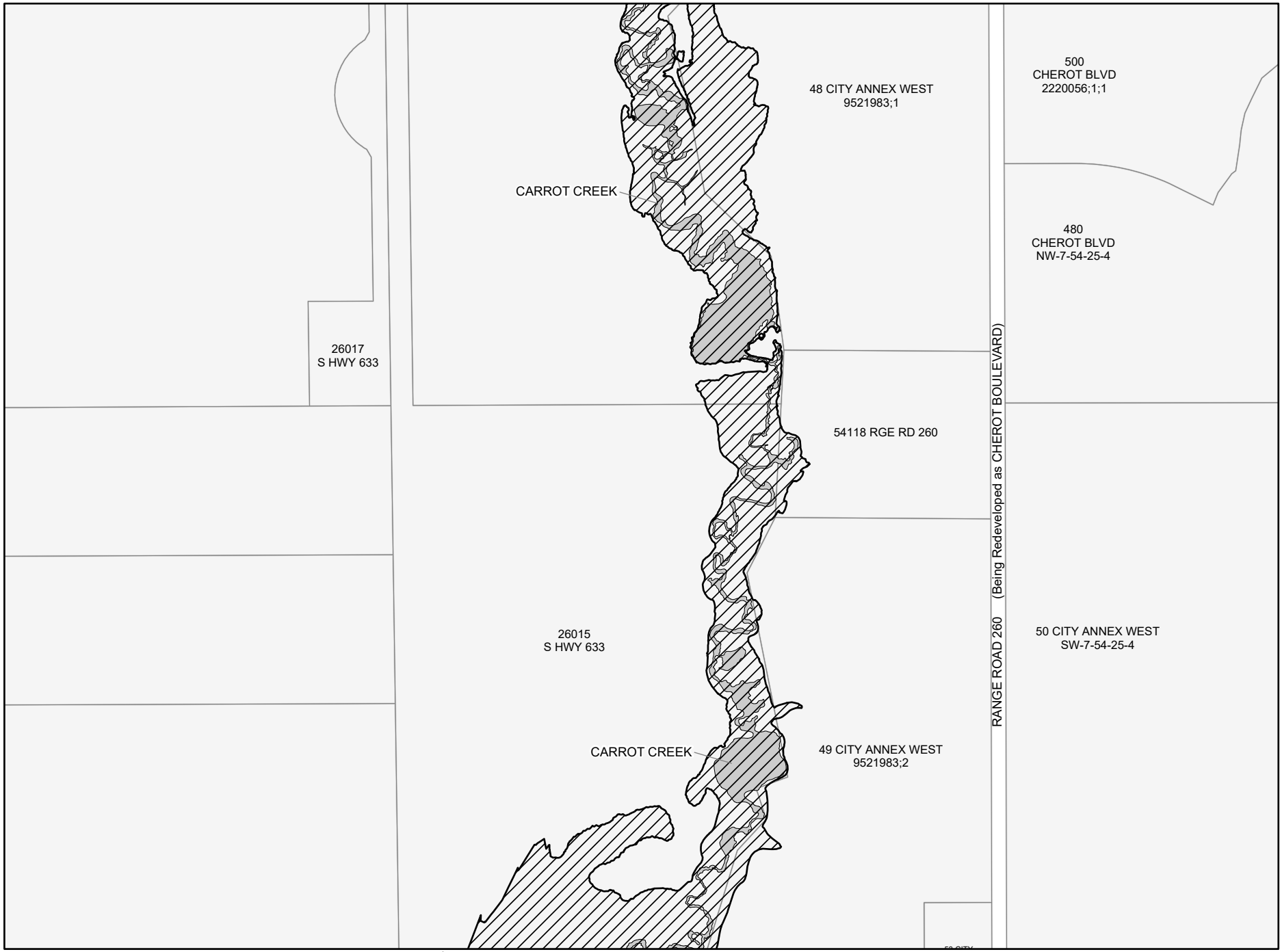


Schedule G

BYLAW 9/2005 (Page 407)

Designated Flood Line Map

MAP 04



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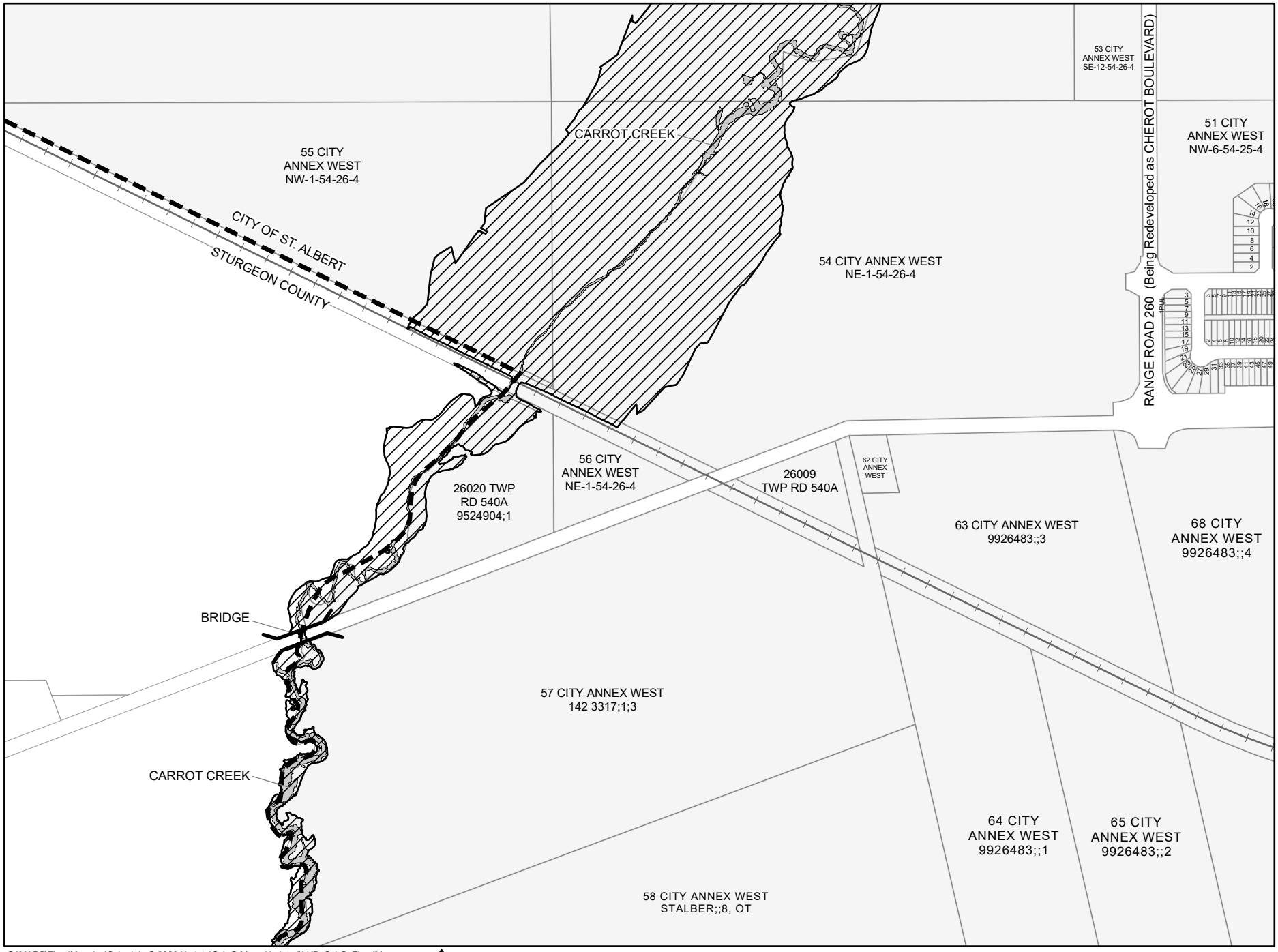
NORTH

Designated Flood Line Map

MAP 05

Schedule G

BYLAW 9/2005 (Page 408)



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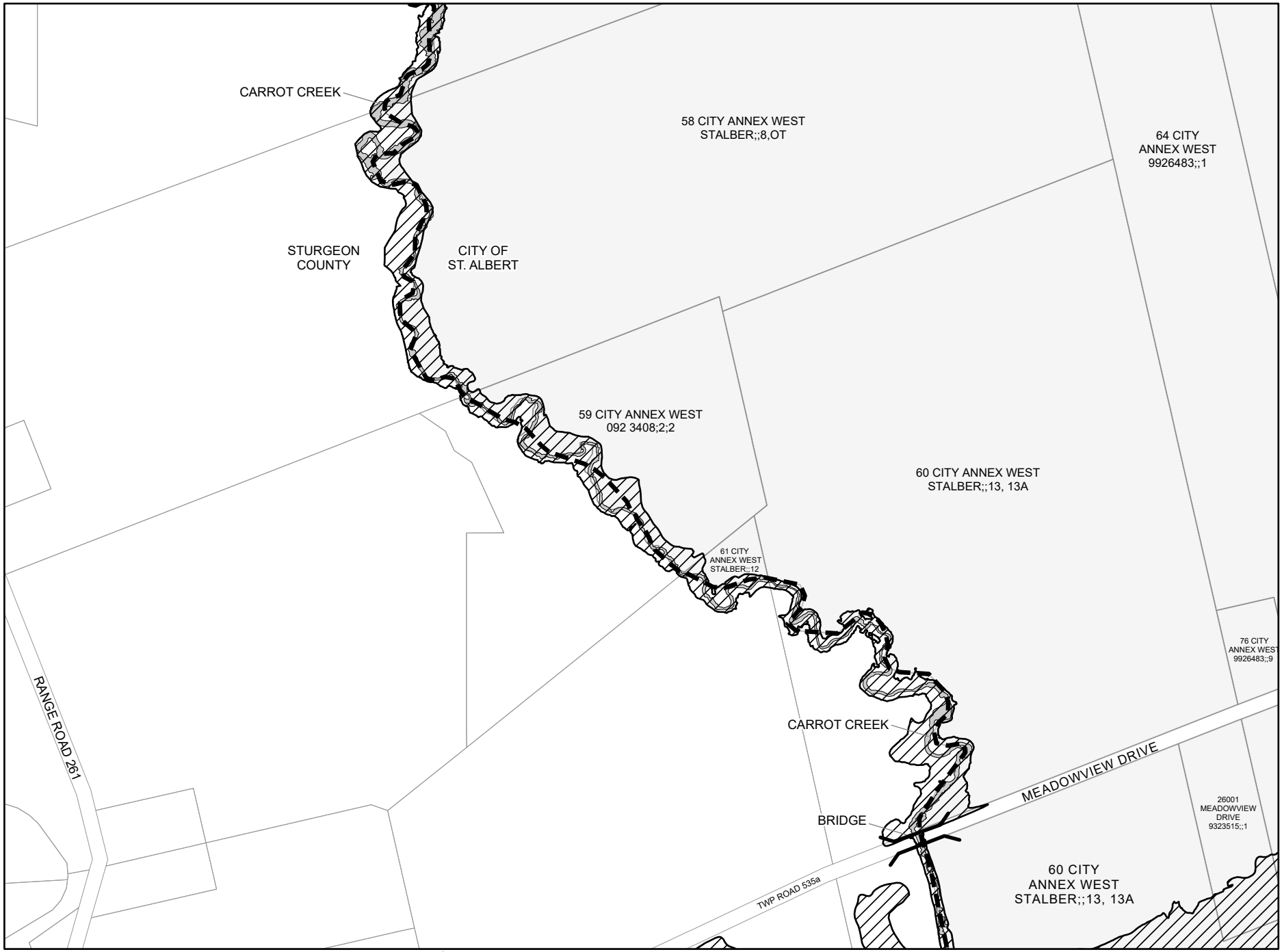
NORTH

Designated Flood Line Map

MAP 06

Schedule G

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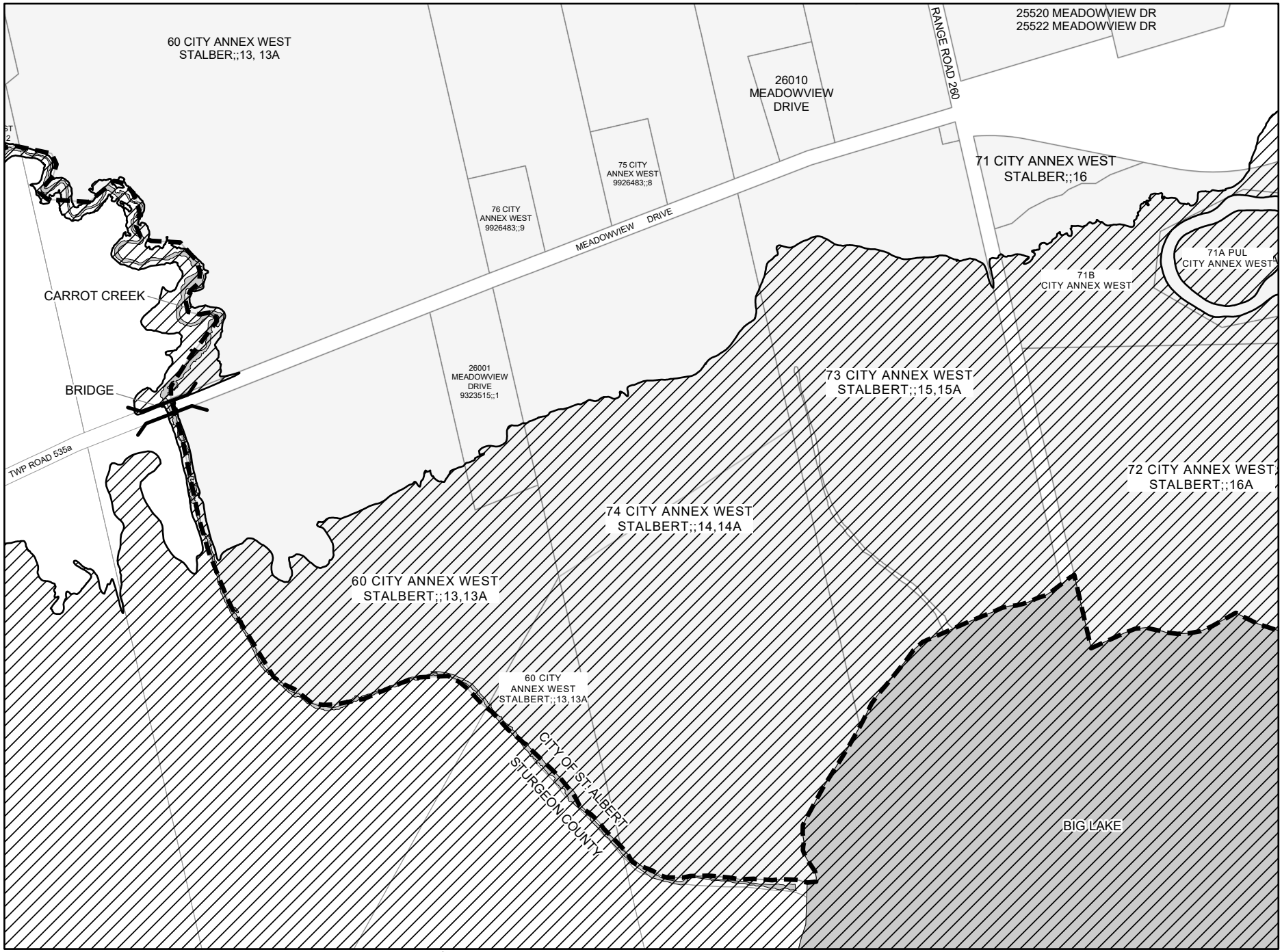
Designated Flood Line Map

MAP 07

Schedule G

BYLAW 9/2005 (Page 410)

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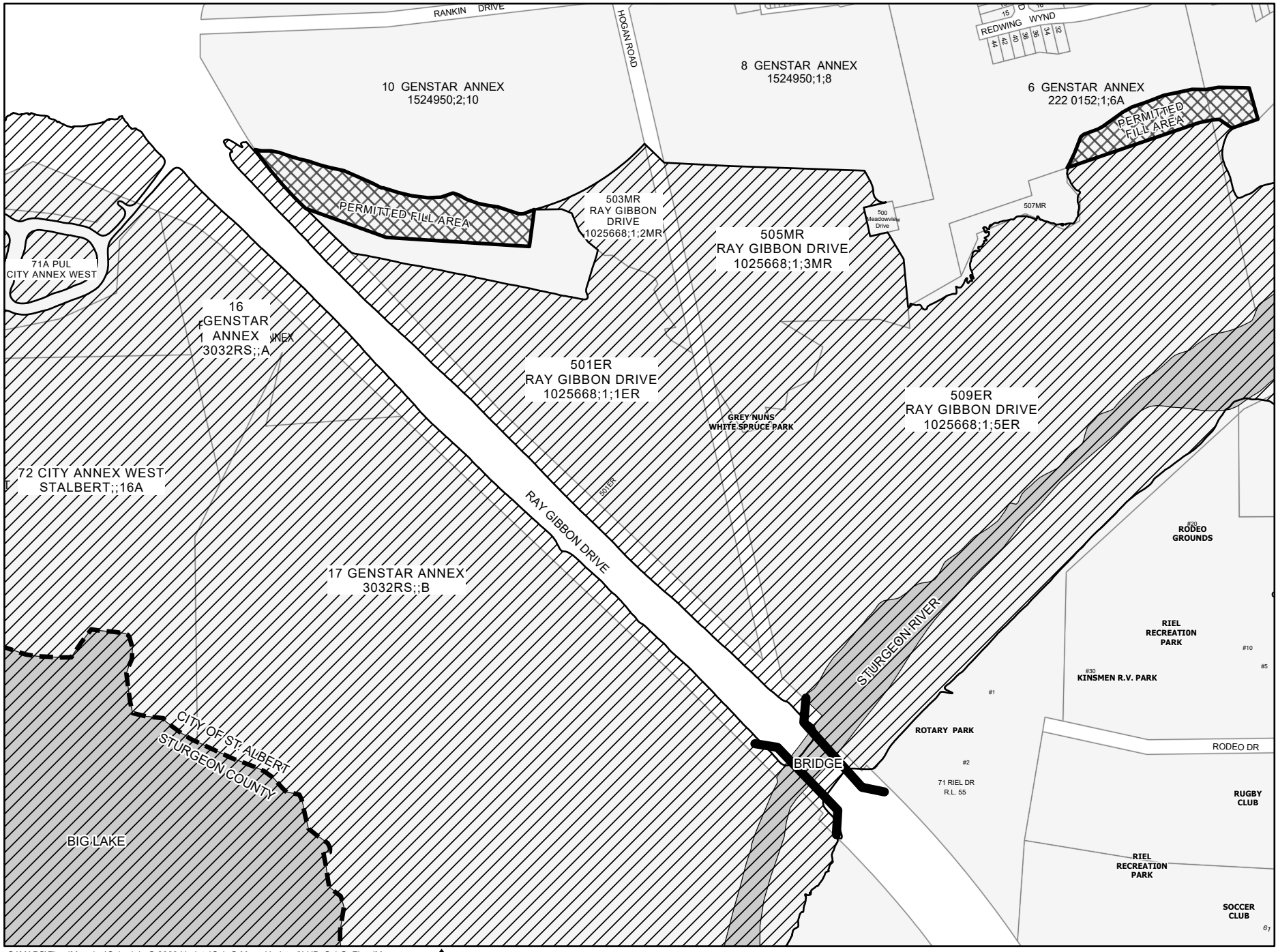
Designated Flood Line Map

MAP 08

Schedule G

BYLAW 9/2005 (Page 411)

BACK TO INDEX MAP



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0 50 100 200 300 400

NORTH

Designated Flood Line Map

MAP 09

Schedule G

BYLAW 9/2005 (Page 412)



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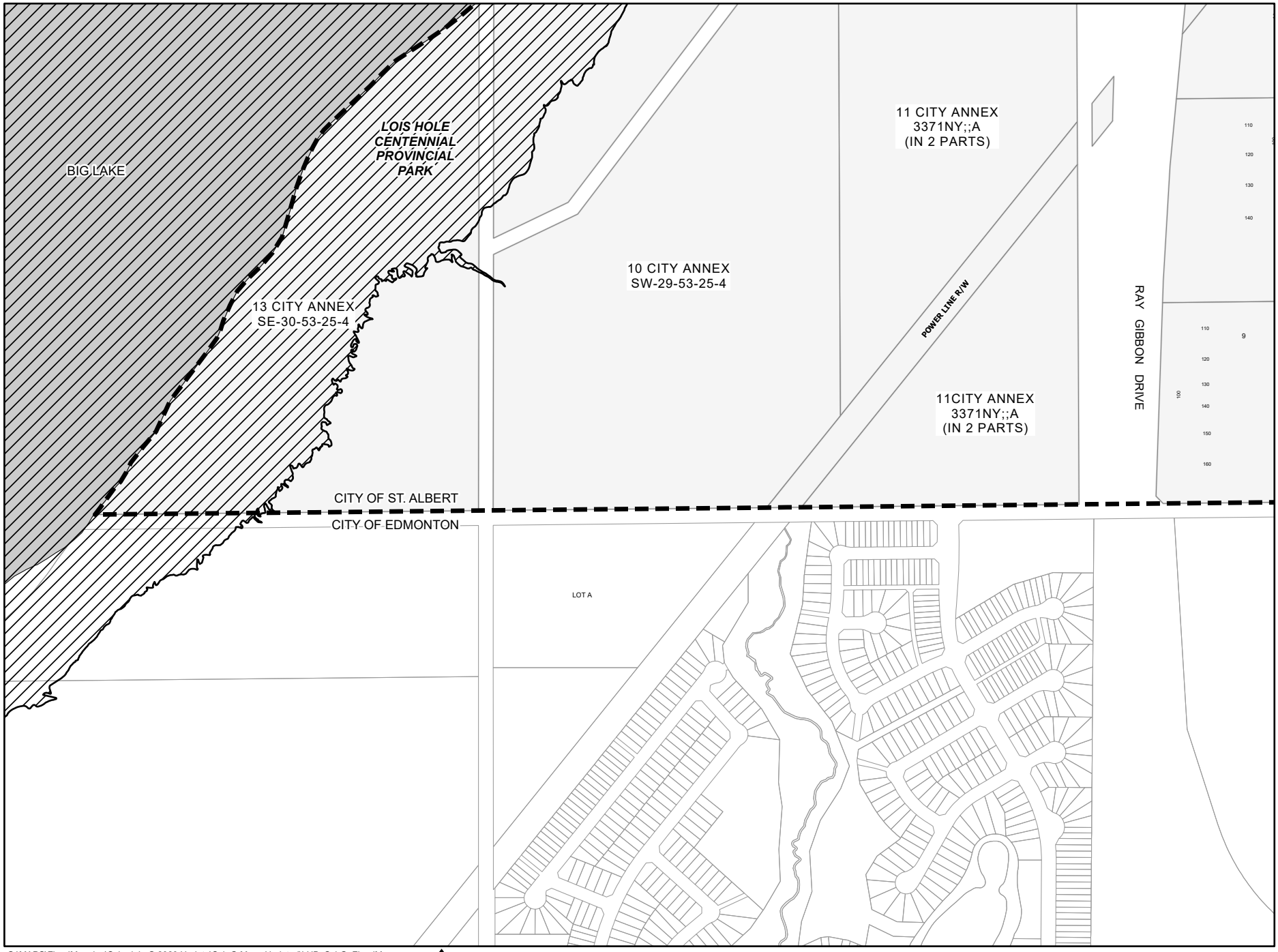
NORTH

Designated Flood Line Map

MAP 10

Schedule G

BYLAW 9/2005 (Page 413)



Schedule G

BYLAW 9/2005 (Page 414)

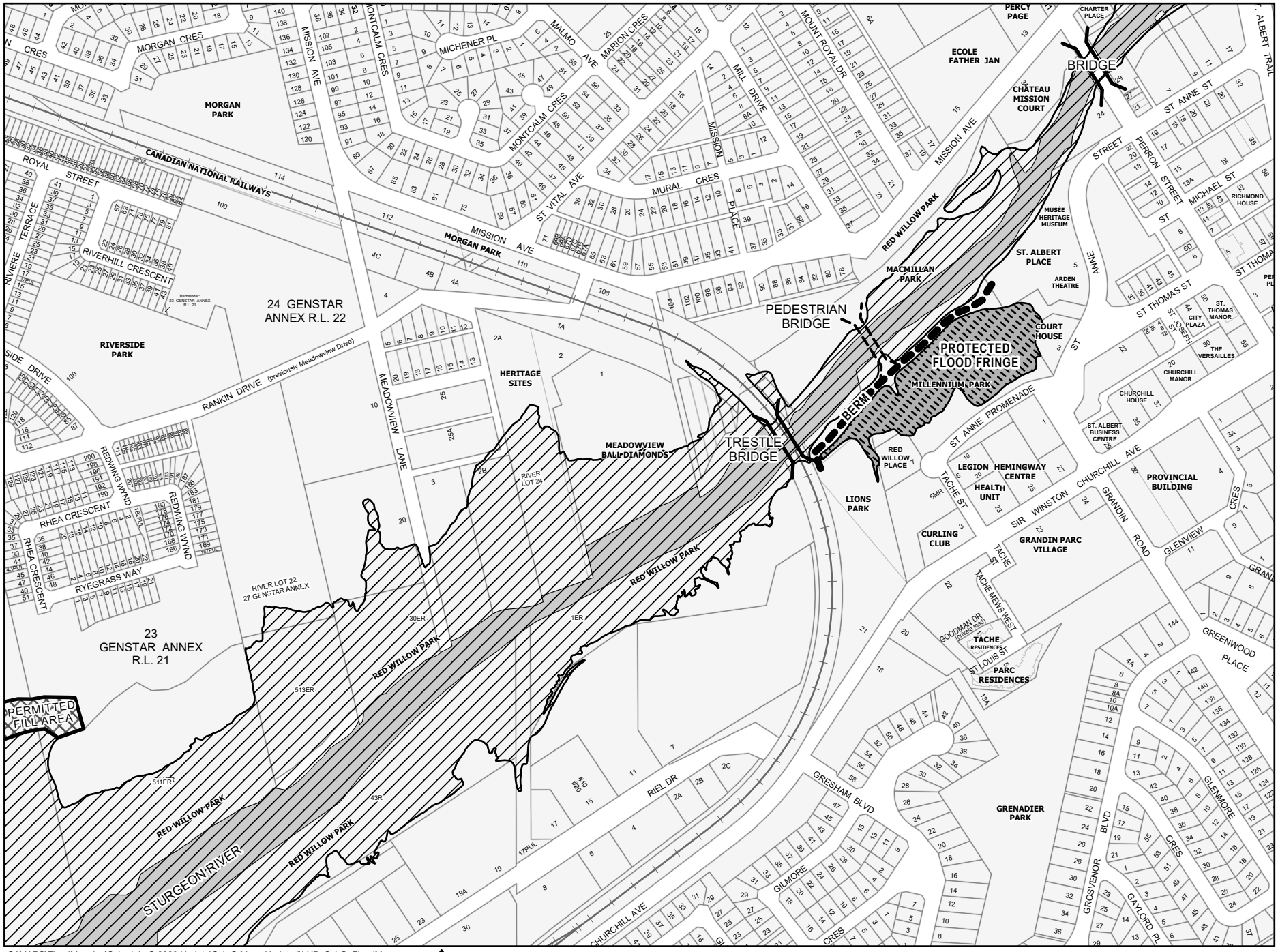
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NORTH

Designated Flood Line Map

MAP 11

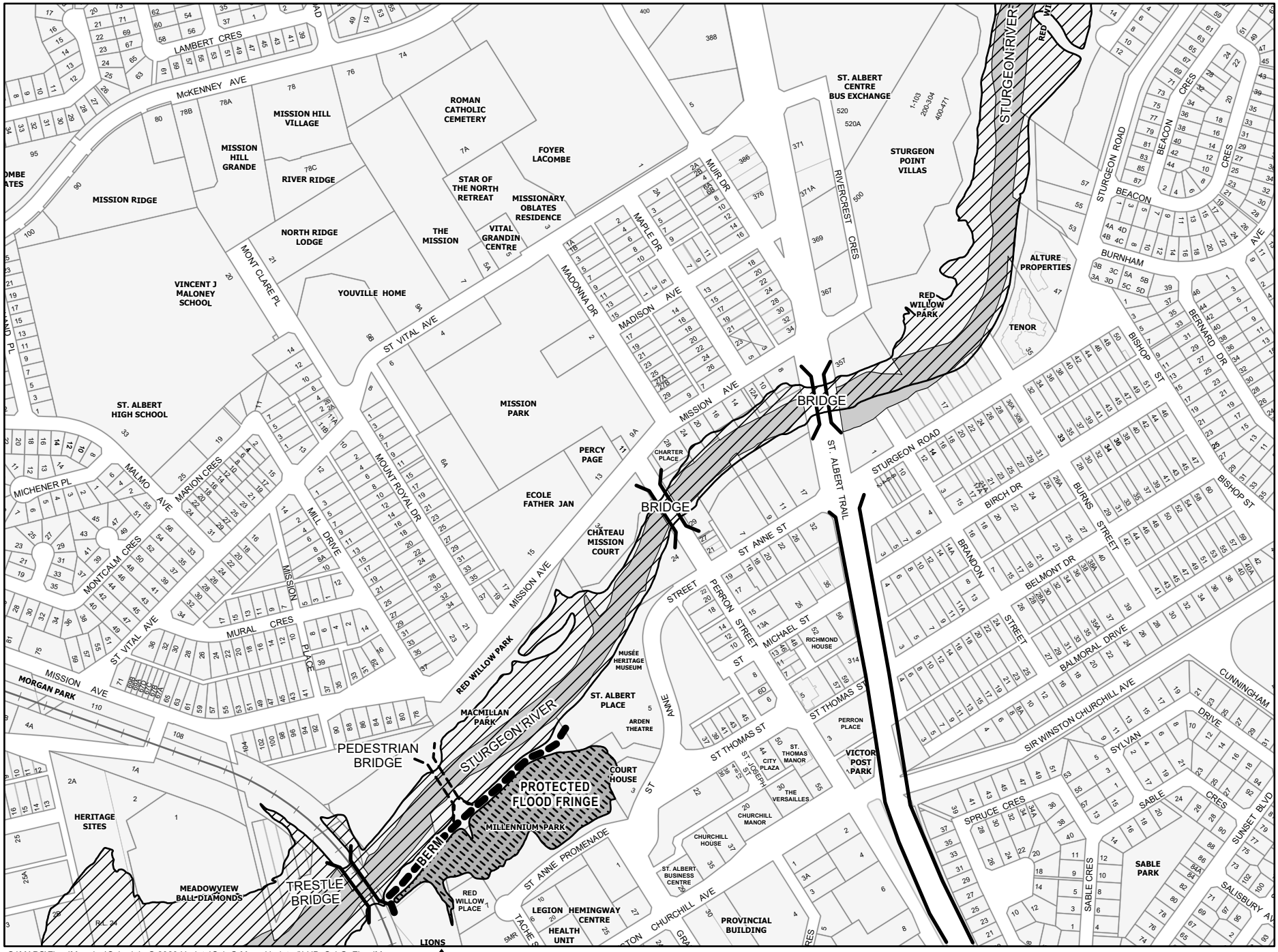


Designated Flood Line Map

MAP 12

Schedule G

BYLAW 9/2005 (Page 415)



BYLAW 9/2005 (Page 415)

Schedule G

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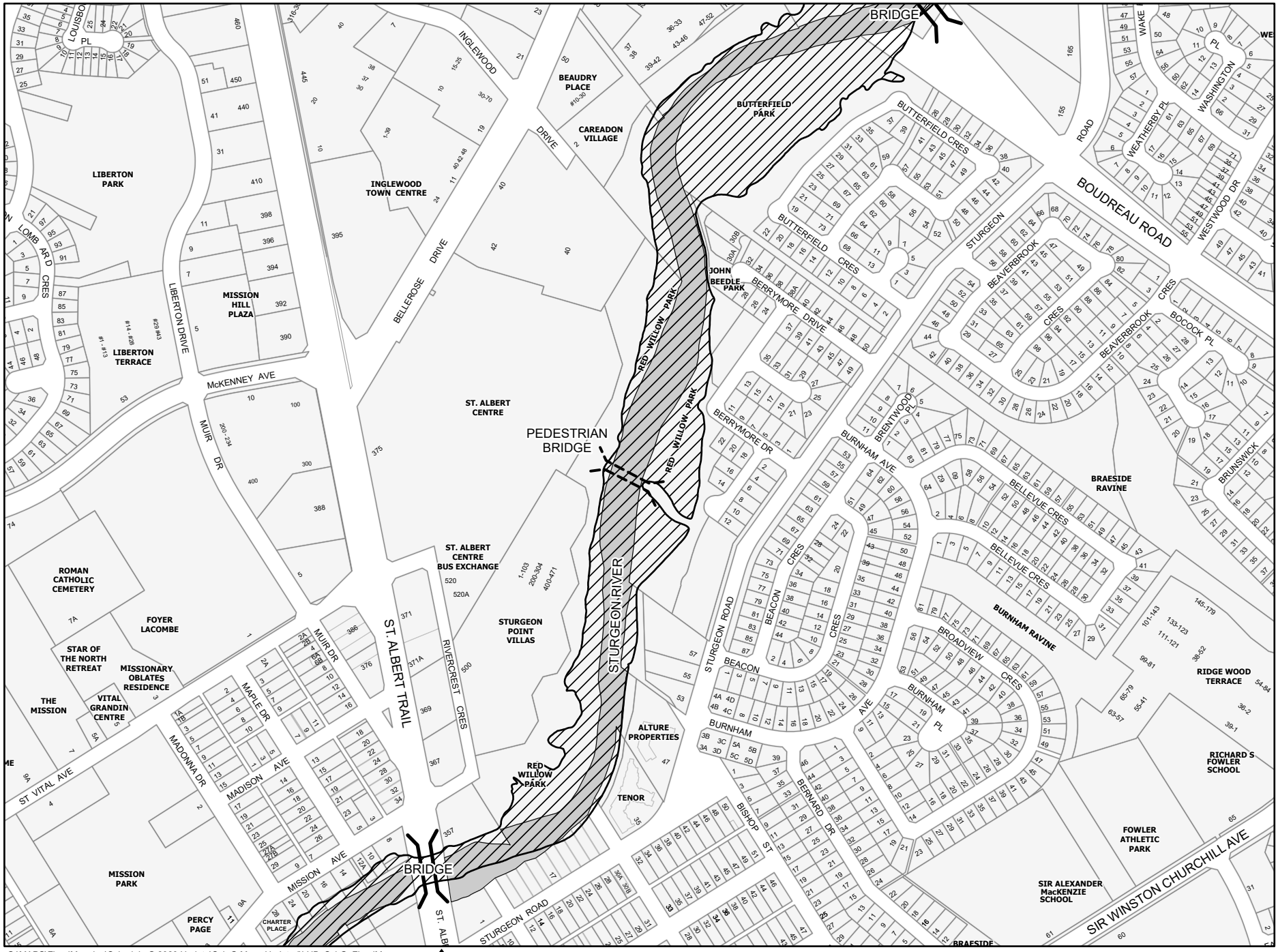
metres

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NORTH

Designated Flood Line Map

MAP 13



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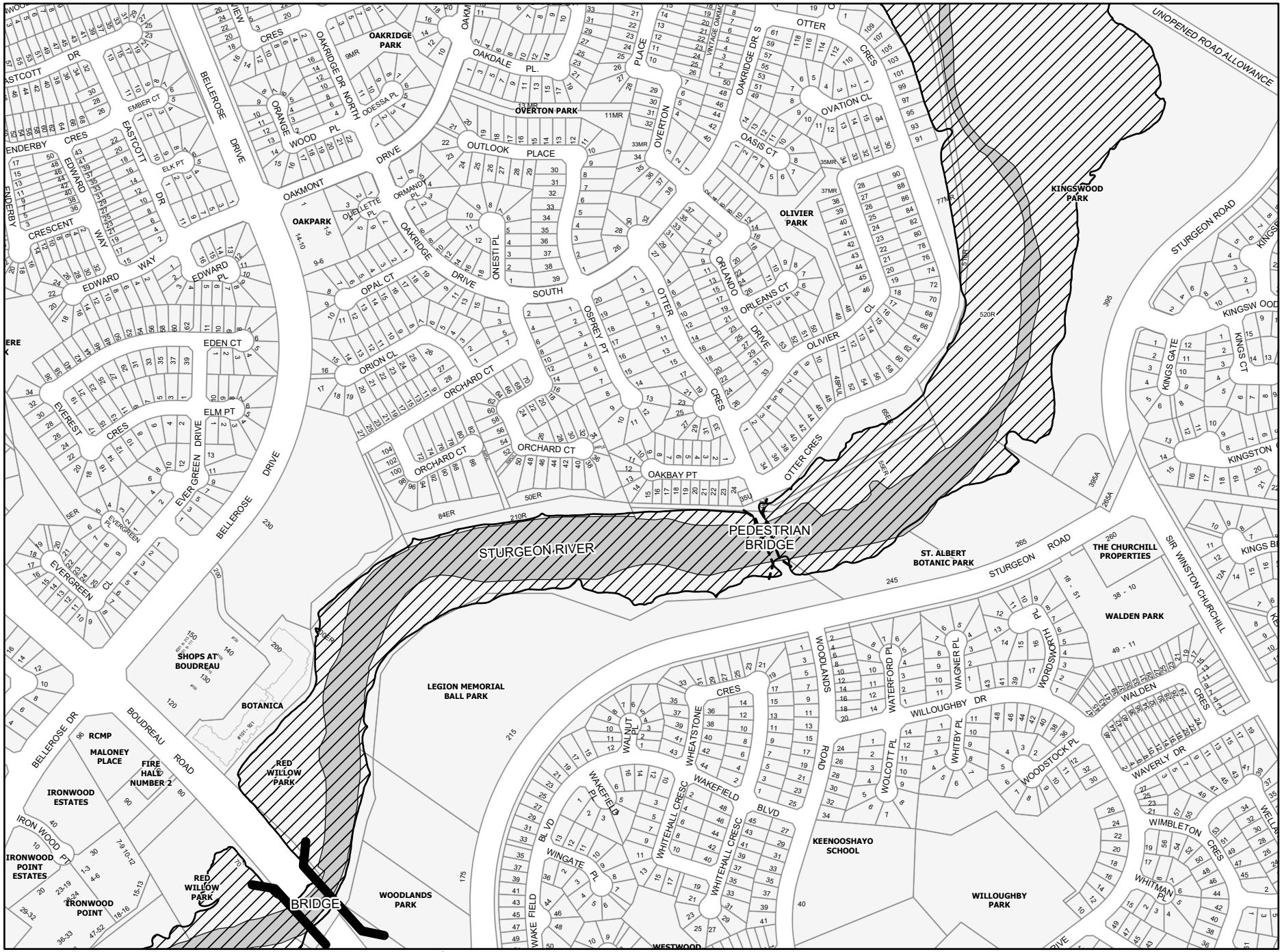
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Designated Flood Line Map

MAP 14

Schedule G

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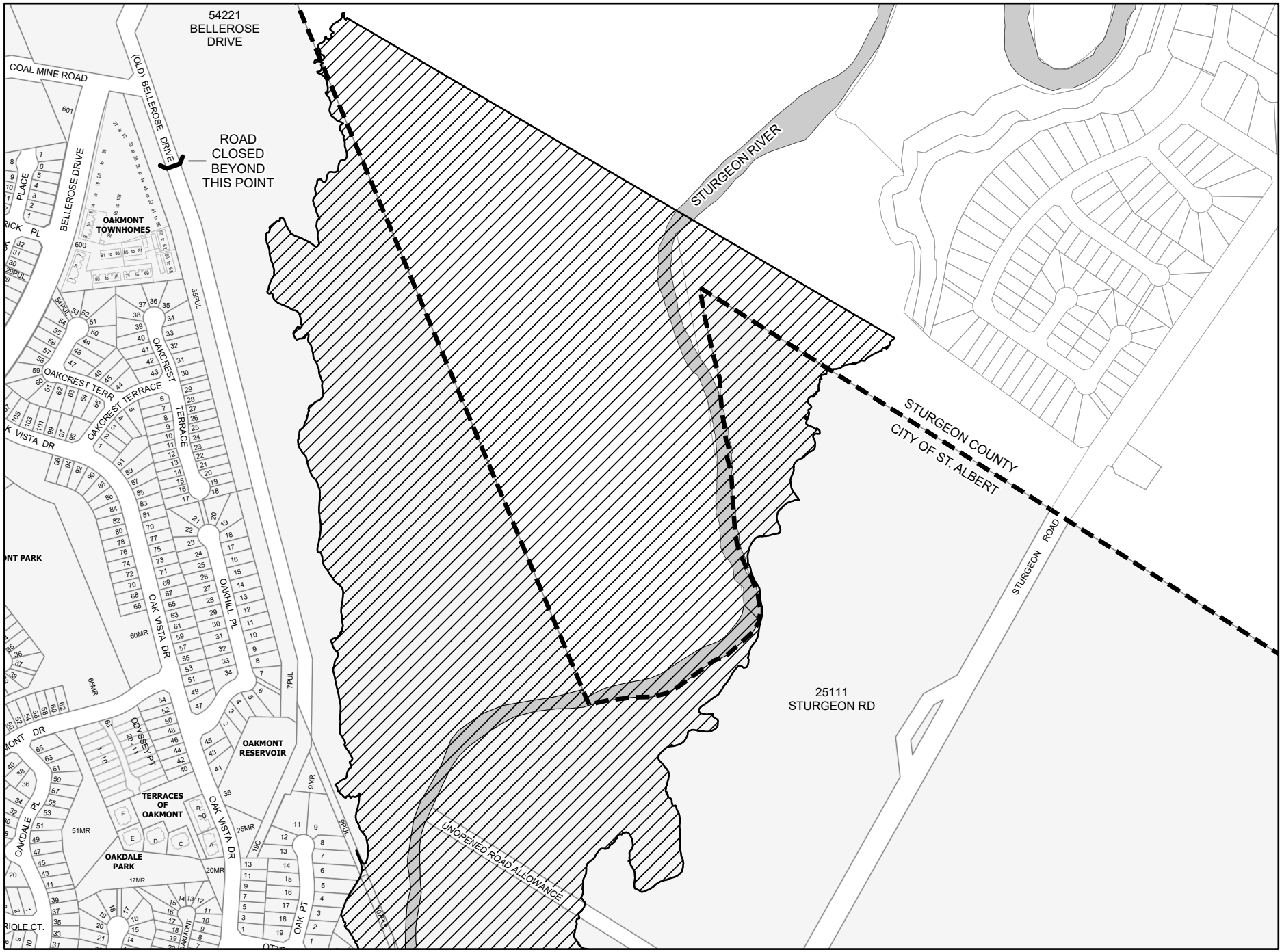
NORTH

Designated Flood Line Map

MAP 15

Schedule G

BYLAW 9/2005 (Page 417)

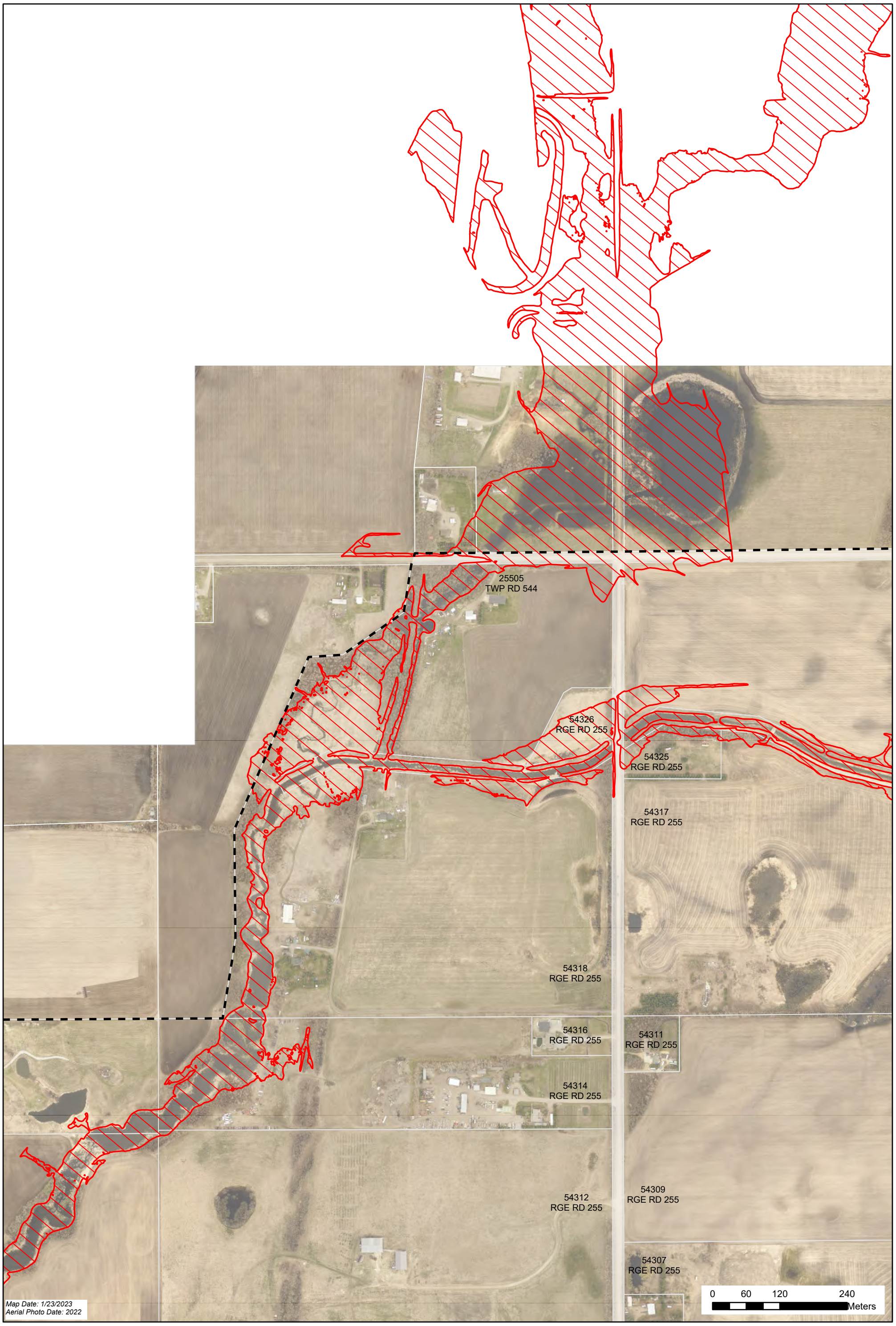


Designated Flood Line Map

MAP 16

Attachment 4 to PH-23-04

Link for draft modelling for elevation of floodplain in the Big Lake/Sturgeon River Basin:
https://floods.alberta.ca/?app_code=FI&mapType=Draft

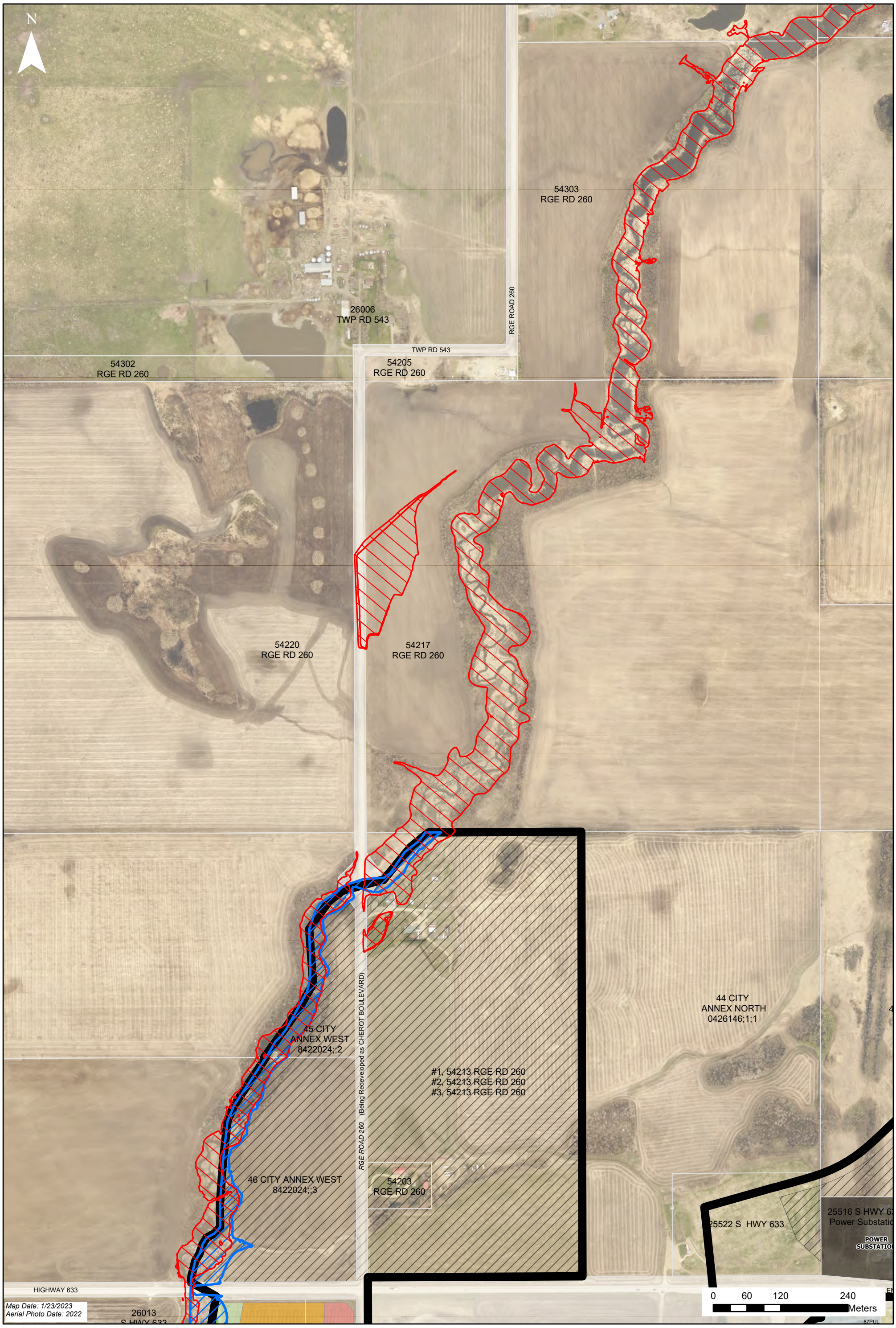


City Boundary

Area Structure Plan Boundary

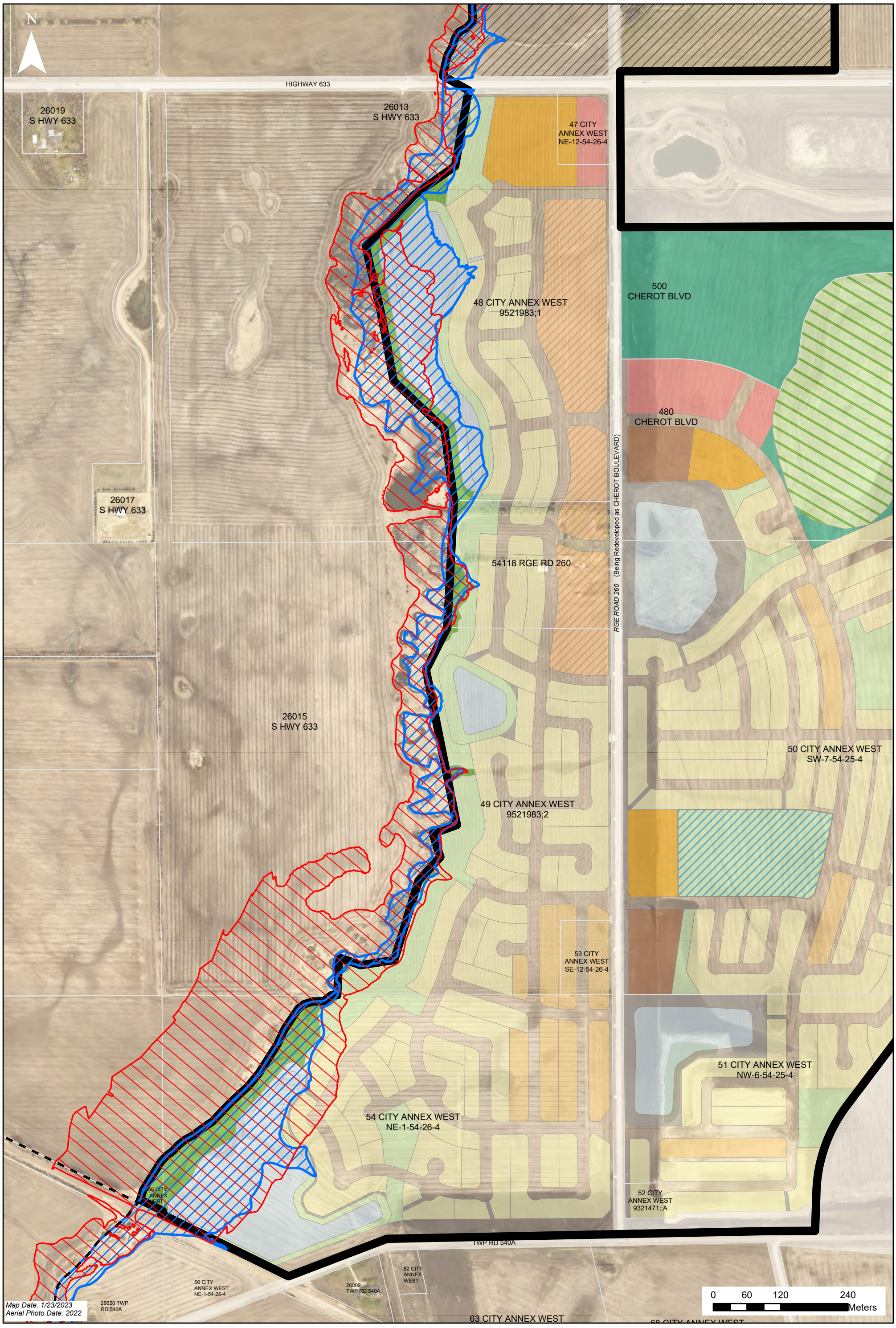
Carrot Creek Master Drainage Plan - 100 Year Inundation Extent

Existing CoSA Schedule G Designated Flood Line & Overlay



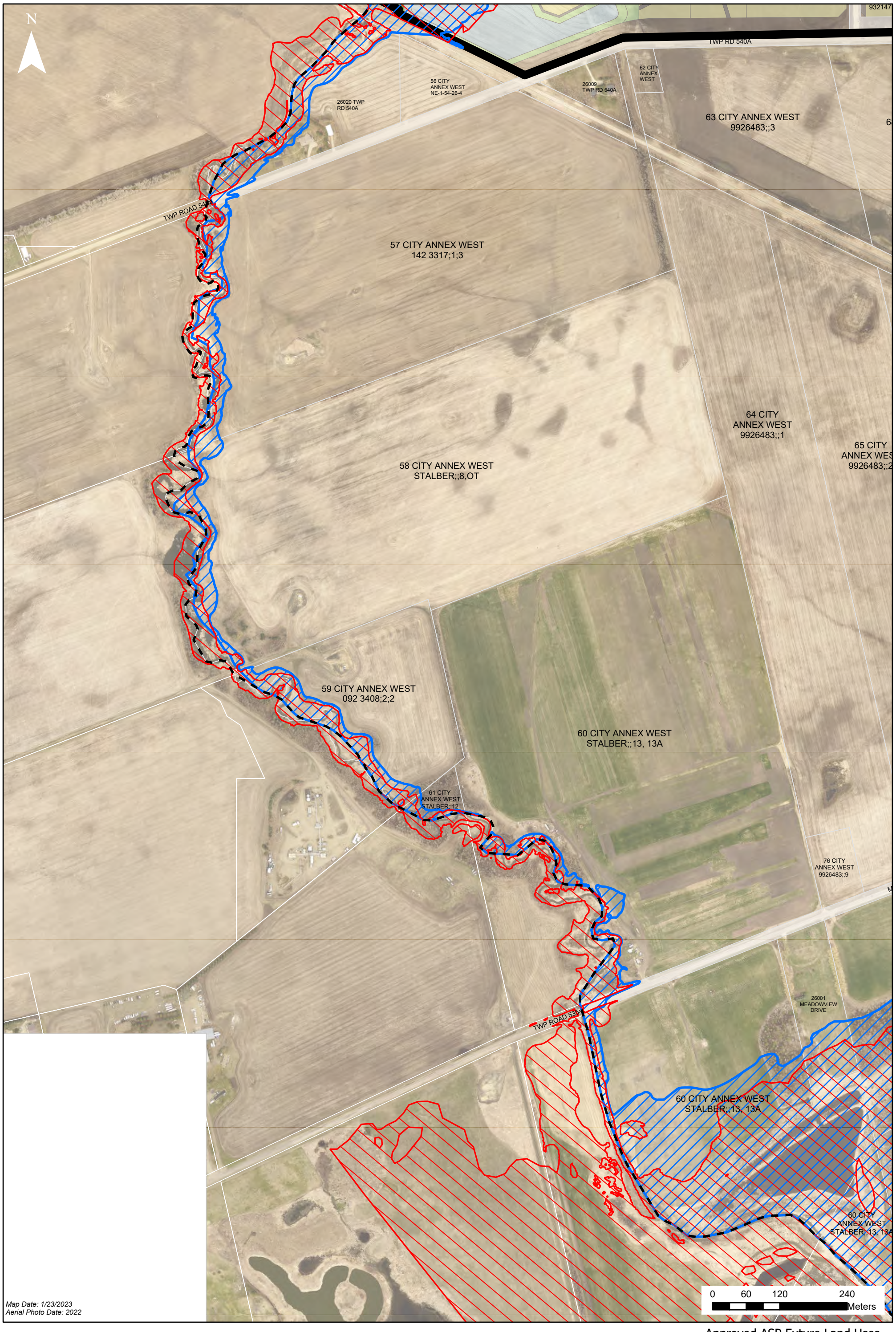
- City Boundary
- Area Structure Plan Boundary
- Carrot Creek Master Drainage Plan - 100 Year Inundation Extent
- Existing CoSA Schedule G Designated Flood Line & Overlay

- Low Density Residential
- Medium Density Residential II
- Commercial
- Potential Future Development Area
- Electrical Substation
- Public Utility Lot
- Park
- Environmental Reserve
- Stormwater Management



City Boundary
Area Structure Plan Boundary
Carrot Creek Master Drainage Plan - 100 Year Inundation Extent
Existing CoSA Schedule G Designated Flood Line & Overlay

Low Density Residential
Medium Density Residential
Medium Density Residential II
Medium/ High Density Residential
Mixed Use (Res. & Commercial)
Community Amenities Site
Passive Recreation
Commercial
Potential Future Development Area
Public Utility Lot
Park
School / Park
Environmental Reserve
Stormwater Management



City Boundary

Area Structure Plan Boundary

Carrot Creek Master Drainage Plan - 100 Year Inundation Extent

Existing CoSA Schedule G Designated Flood Line & Overlay

Approved ASP Future Land Uses

- Low Density Residential
- Public Utility Lot
- Park
- Environmental Reserve
- Stormwater Management

PREVIOUSLY DISTRIBUTED INFORMATION

The PREVIOUSLY DISTRIBUTED Agenda Report from the June 20, 2023 City Council meeting Agenda Package titled “Land Use Bylaw Amendment 1/2023 - Part 6, General Regulations; Schedule G, Designated Flood Line” (PH-23-04) can be found at the link below:

Link to June 20, 2023 Agenda

PREVIOUSLY DISTRIBUTED INFORMATION

The PREVIOUSLY DISTRIBUTED Agenda Report from the August 15, 2023 City Council meeting Agenda Package titled “Land Use Bylaw Amendment 1/2023 - Part 6, General Regulations; Schedule G, Designated Flood Line” (PH-23-05) can be found at the link below:

Link to August 15, 2023 Agenda

File #: AR-23-369, **Version:** 1

TAMRMS#: B06

5.5

Stormwater Management Facilities within Floodplains
Presented by: Adryan Slaght - Director of Planning and Development, Regan Lefebvre - Senior Manager of Utilities, and Melissa Logan - Environmental Coordinator

RECOMMENDATION(S)

That the Agenda Report dated July 11, 2023 entitled “Stormwater Management Facilities within Floodplains” be received as information.

PURPOSE OF REPORT

To provide additional information as Council considers changes to the Land Use Bylaw.

ALIGNMENT TO PRIORITIES IN COUNCIL’S STRATEGIC PLAN

Strategic Priority #1 Economic Prosperity: Support plans and agreement that foster development in St. Albert, including mature neighbourhoods, and build affordability in all new development. This strategy includes an update to the Land Use Bylaw and completion of the Infill Strategy.

Strategic Priority #4 Adapting to a Changing Natural Environment: Build resiliency that allows the City to prepare for and respond to climate change and ensure the vitality of our land, river, natural resources, and resilient infrastructure for future generations.

ALIGNMENT TO LEVELS OF SERVICE DELIVERY

N/A

ALIGNMENT TO COUNCIL DIRECTION OR MANDATORY STATUTORY PROVISION

N/A

BACKGROUND AND DISCUSSION

The attached presentation, entitled “Stormwater Management Facilities within Floodplains” is intended to be a primer for *Land Use Bylaw Amendment 1/2023 - Part 6, General Regulations; Schedule G, Designated Flood Line* Public Hearing that was adjourned on June 20, 2023, and will resume on August 15, 2023. The intent of the presentation is to provide Council with common definitions / types, and the benefits / constraints of allowing constructed and natural wetlands within the floodplain rather than other stormwater management facilities.

PREVIOUSLY DISTRIBUTED

STAKEHOLDER COMMUNICATIONS OR ENGAGEMENT

N/A

IMPLICATIONS OF RECOMMENDATION(S)

Legal/Risk

As the subject matter of this Agenda Report is relevant to the Public Hearing on Bylaw 1/2023, Standing Committee of the Whole may receive this item for information only. Standing Committee of the Whole ought not to direct Administration to take steps to amend the Land Use Bylaw at this point in time.

The Public Hearing on Bylaw 1/2023 will resume on August 15, 2023. Council will be able to direct Administration to make any desired amendments to the Land Use Bylaw at that time.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

N/A

Attachments

1. Stormwater Management Facilities within Floodplains July 11, 2023

Report Date: July 11, 2023
Author: Adryan Slaght, Regan Lefebvre and Melissa Logan
Department: Planning and Development, Public Operations and Government/Indigenous Relations and Environment
Managing Director: Diane Enger
Deputy Chief Administrative Officer: Kerry Hilts
Chief Administrative Officer: William Fletcher

PREVIOUSLY DISTRIBUTED

CITY OF ST. ALBERT

Stormwater Management Facilities within Floodplains



Date: July 11, 2023

Presented by:
Adryan Slaght, Director of Planning and Development
Regan Lefebvre, Senior Manager of Utilities (Public Operations)
Melissa Logan, Environmental Coordinator (Government/Indegenous Relations and Environment)

Subdivision & Development Regulation

Section 6. Part 2(6)(4) - Subdivision Applications

- **(4)** The applicant must submit, as required by the subdivision authority,
- (h) if the land that is the subject of an application is located in a potential flood plain and flood plain mapping is available, a map showing the 1:100 flood, and

Section 9. Matters related to Subdivision & Development Regulation.

- **Relevant considerations**
- **(9)** In making a decision as to whether to approve an application for subdivision, the subdivision authority must consider, with respect to the land that is the subject of the application,
- (a) its topography,
- (b) its soil characteristics,
- (c) storm water collection and disposal,
- (d) any potential for the flooding, subsidence or erosion of the land,

Municipal Government Act

Environmental reserve

- **664(1)** Subject to section 663 and subsection (2), a subdivision authority may require the owner of a parcel of land that is the subject of a proposed subdivision to provide part of that parcel of land as environmental reserve if it consists of
- (a) a swamp, gully, ravine, coulee or natural drainage course,
- (b) land that is subject to flooding or is, in the opinion of the subdivision authority, unstable, or
- (c) a strip of land, not less than 6 metres in width, abutting the bed and shore of any body of water.

MGA - Approval of application (Subdivision)

- **654(1)** A subdivision authority must not approve an application for subdivision approval unless
- (a) the land that is proposed to be subdivided is, in the opinion of the subdivision authority, suitable for the purpose for which the subdivision is intended,
- (b) the proposed subdivision conforms to the provisions of any growth plan under Part 17.1, any statutory plan and, subject to subsection (2), any land use bylaw that affects the land proposed to be subdivided,

MDP Policies

5.1 Natural Features - Protect, conserve, and enhance natural features within St. Albert.

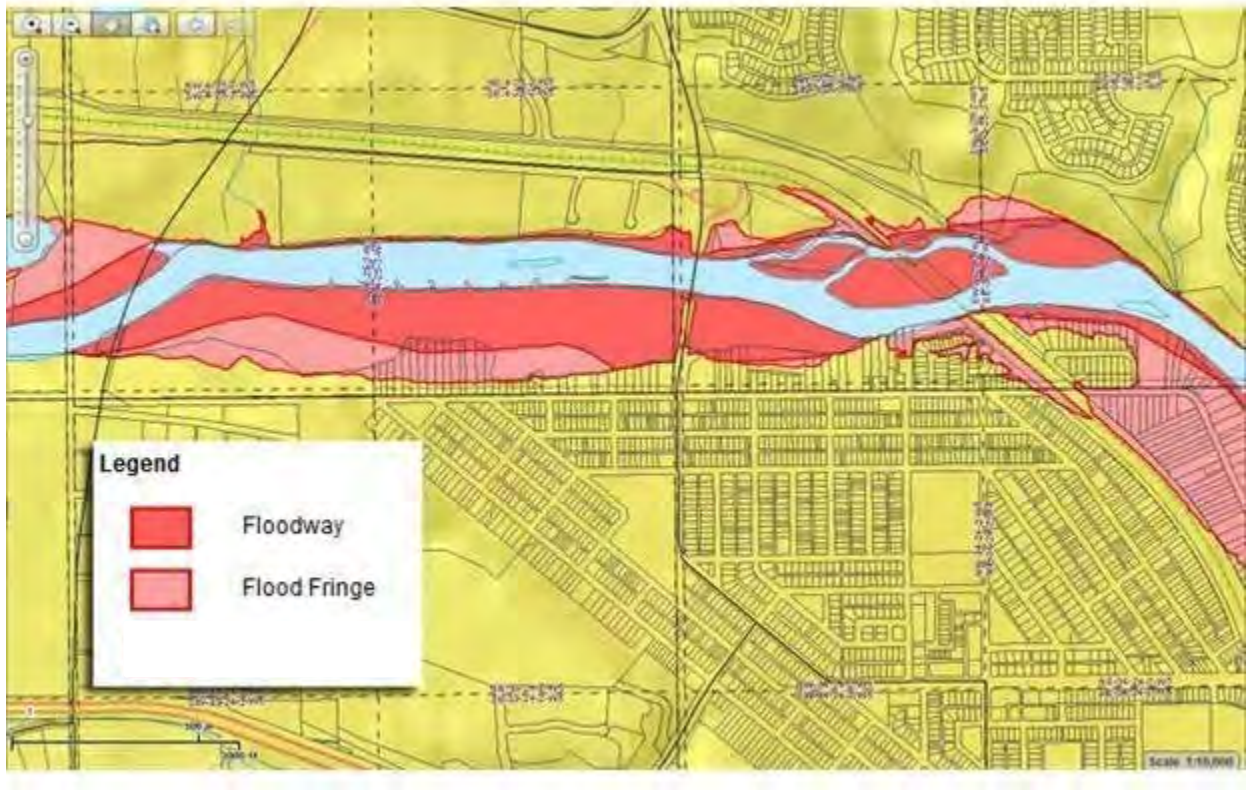
- 5.1.1. Require all *development* to adhere to provincial and federal acts and regulations relating to the environment, including, but not limited to those related to air quality, water quality, wetlands, wildlife, land use, and *flood hazard lands.*
- What are “lands unsuitable for development”?
  - Certain lands might be considered unsuitable for development for a variety of reasons—for example to preserve *natural features*, ensure public safety, prevent pollution, or allow access to a body of water. Alberta’s *Municipal Government Act* allows municipalities to require the dedication of these types of land. Examples of land unsuitable for development include ravines and gullies, land subject to flooding, land with unstable slopes, and the land on either side of the bed and shore of water bodies.

MDP Policies (continued)

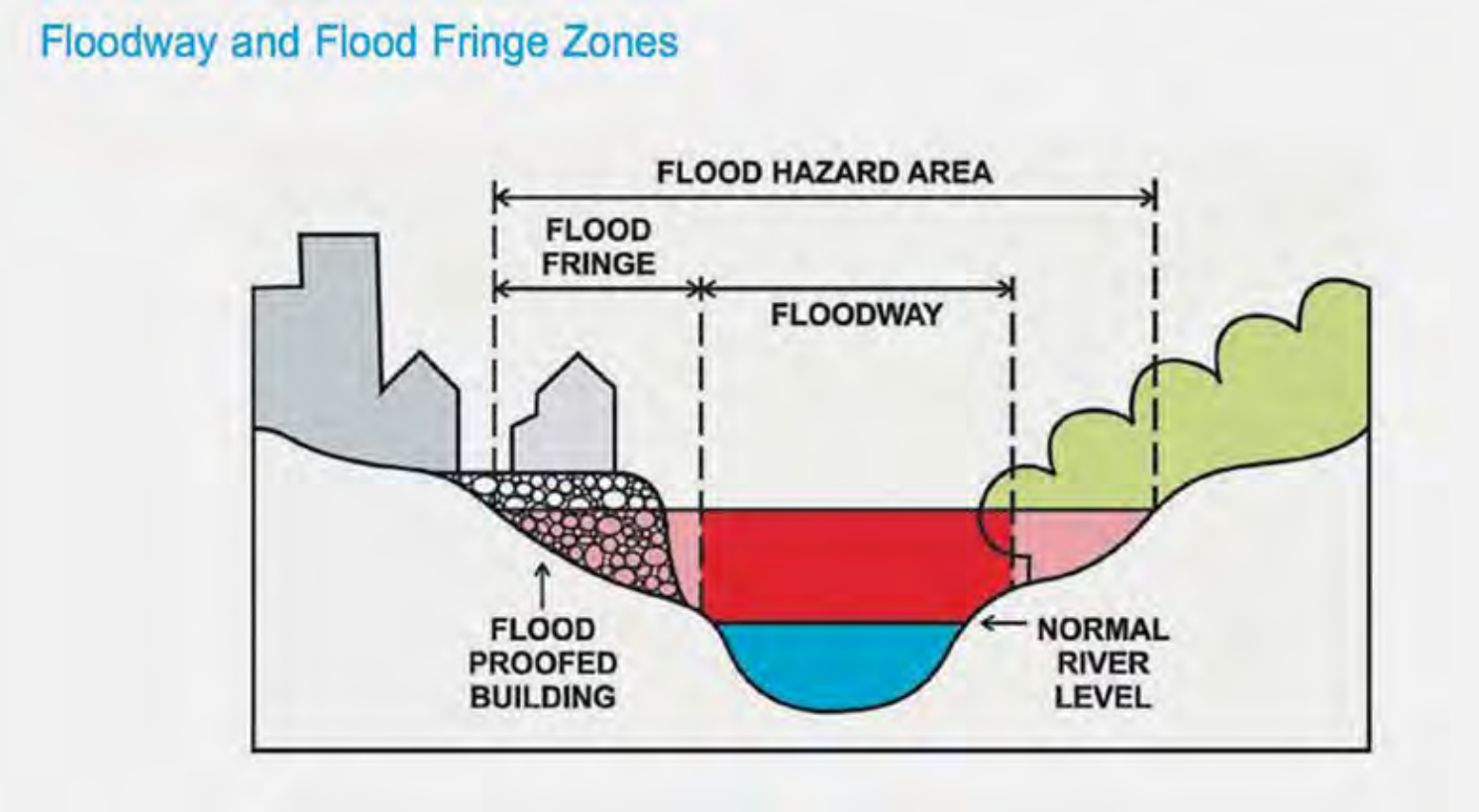
- 5.1.13. Require appropriate setbacks from identified *natural features* and lands considered unsuitable for *development*, to be established as follows:
  - a) Based on the greater of:
    - i. A minimum 50-metre setback from the top-of-bank of the Sturgeon River or Carrot Creek to lot boundaries;
    - ii. A minimum 30-metre setback from conserved waterbodies to lot boundaries;
    - iii. The application of an ecologically appropriate tool, such as a Riparian Setback Matrix Model or Slope Stability Analysis.
- 5.1.14. Require all lands that are considered unsuitable for *development*, including required setbacks from these areas, to be dedicated as *environmental reserve*, in accordance with the provisions of the *Municipal Government Act*.

What is a floodplain?

- Also known as a flood hazard area
- Land that would be flooded in a 1:100-year (1% chance) flood
- Present in both still and flowing systems
- Divided into two zones: floodway (shown in red) and flood fringe (shown in pink)



Floodway and Flood Fringe



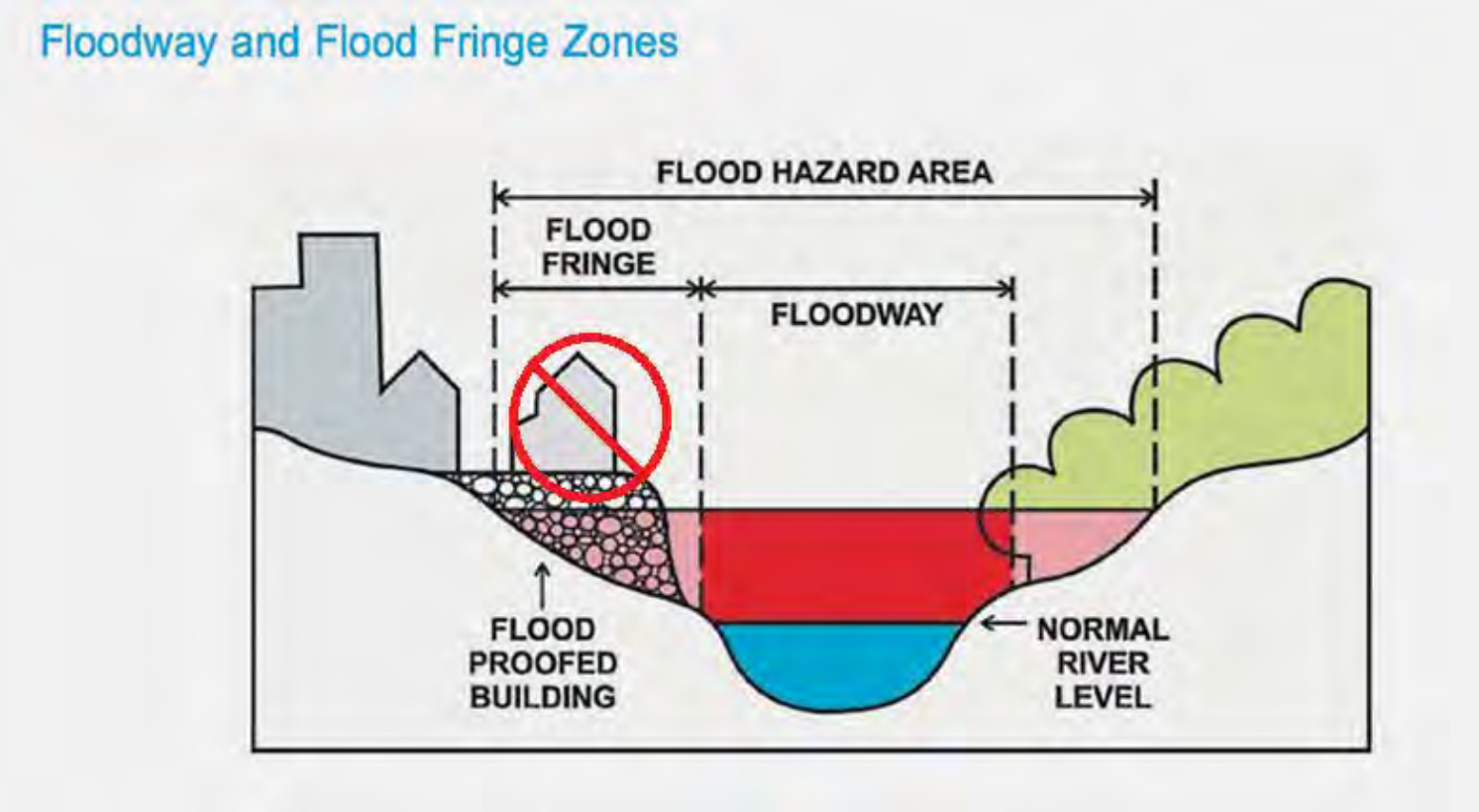
Floodway

The area where flows are the deepest, fastest and most destructive.

Flood Fringe

Outside of the floodway; flood water shallower and flows more slowly

Floodway and Flood Fringe



Floodway

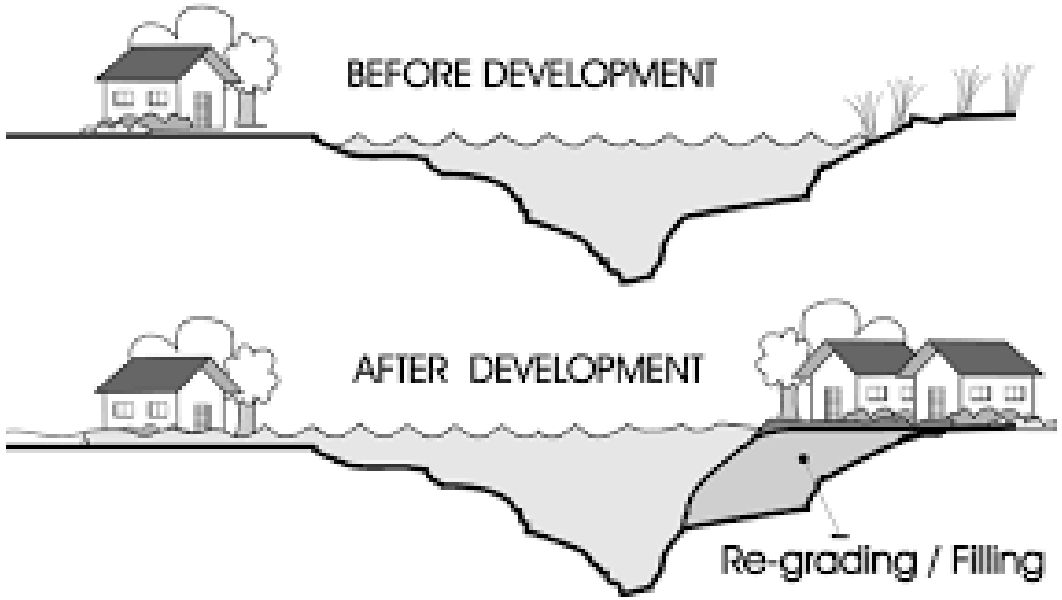
The area where flows are the deepest, fastest and most destructive.

Flood Fringe

Outside of the floodway; flood water shallower and flows more slowly

Flood proofed construction in a floodplain (encroachment) is no longer an acceptable practice.

Floodplain Encroachment





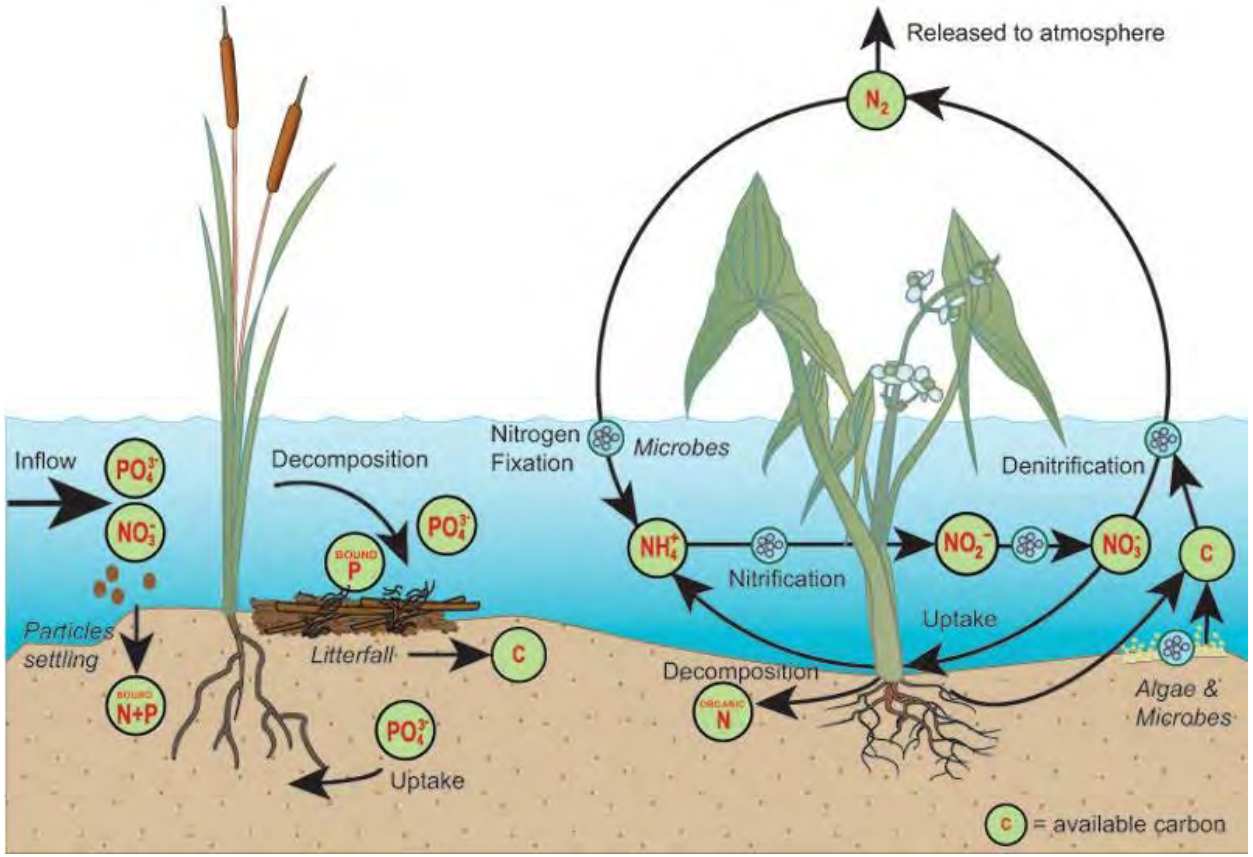
SWMF Benefits – Flow Attenuation

- Temporarily store water during major rainfall events and floods
- Reduce downstream erosion
- Reduce downstream flood risk
- Reduce risk of downstream property damage



Potential SWMF Benefits – Water Quality

- Settling of solids
- Biological consumption of nutrients
- Anaerobic biologic processes (hydrocarbons, contaminants)
- Some aerobic biologic processes (hydrocarbons, contaminants)
- Solar UV radiation reduces pathogen (bacterial) growth



SWMF Benefits – Natural Habitat

- Bird nesting
- Bird habitat
- Small animal habitat*
- Reptiles and frogs
- Aquatic insects and invertebrates (mostly wet SWMF and constructed wetland)**

**beavers and muskrats not considered favorable. Blocking of infrastructure is problematic*

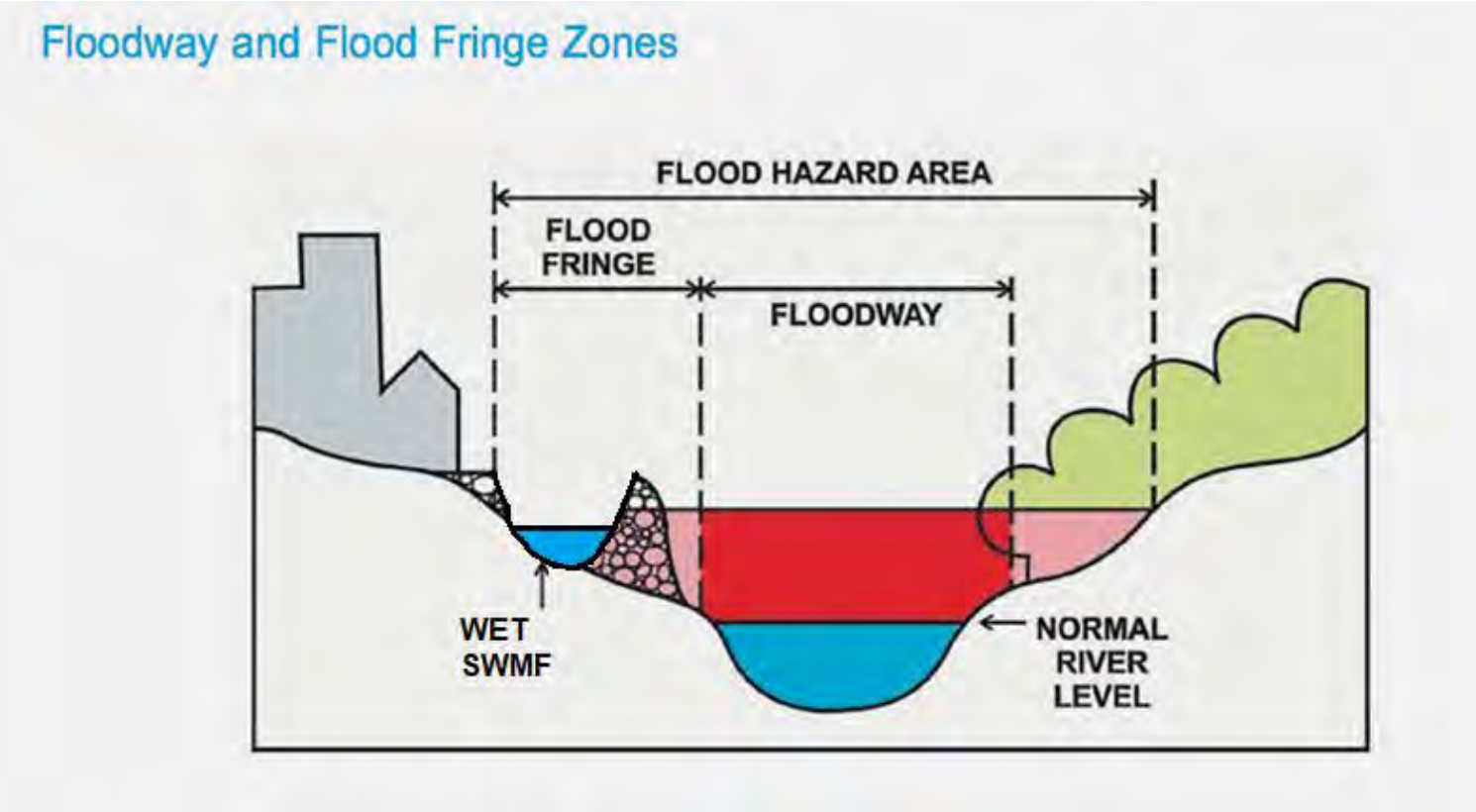
***mosquitoes <u>really</u> not considered favorable*



Risks of SWMFs in Floodplain

- Can result in contaminant loading to the river
  - *EPEA* and *Fisheries Act* violation
- Potential for introduction of invasive species
- Results in a loss of storage in the floodplain
  - Potential downstream impacts
- Peak flows will align with that of the river
- Flooding would cause damage and ongoing capital costs to stormwater infrastructure and landscaping
- Results in loss of naturally occurring riparian vegetation
  - Best suited for natural ecological functioning and soil retention

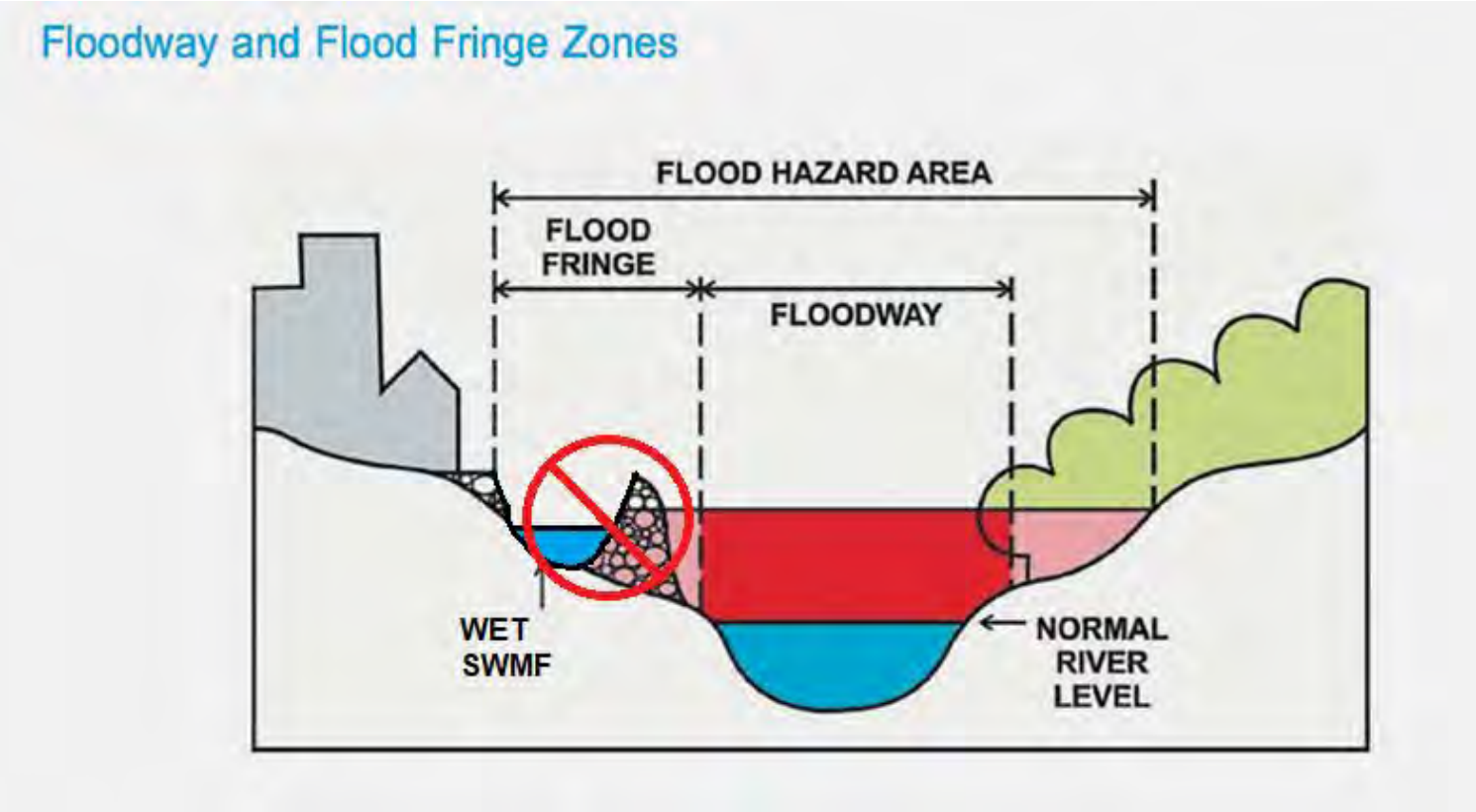
Wet SWMF Within Floodplain



Wet SWMF Within Flood Plain

Wet SWMF within floodplain without excavating to offset the encroachment has the same negative impact as flood-proofed buildings within the floodplain.

Wet SWMF Within Floodplain

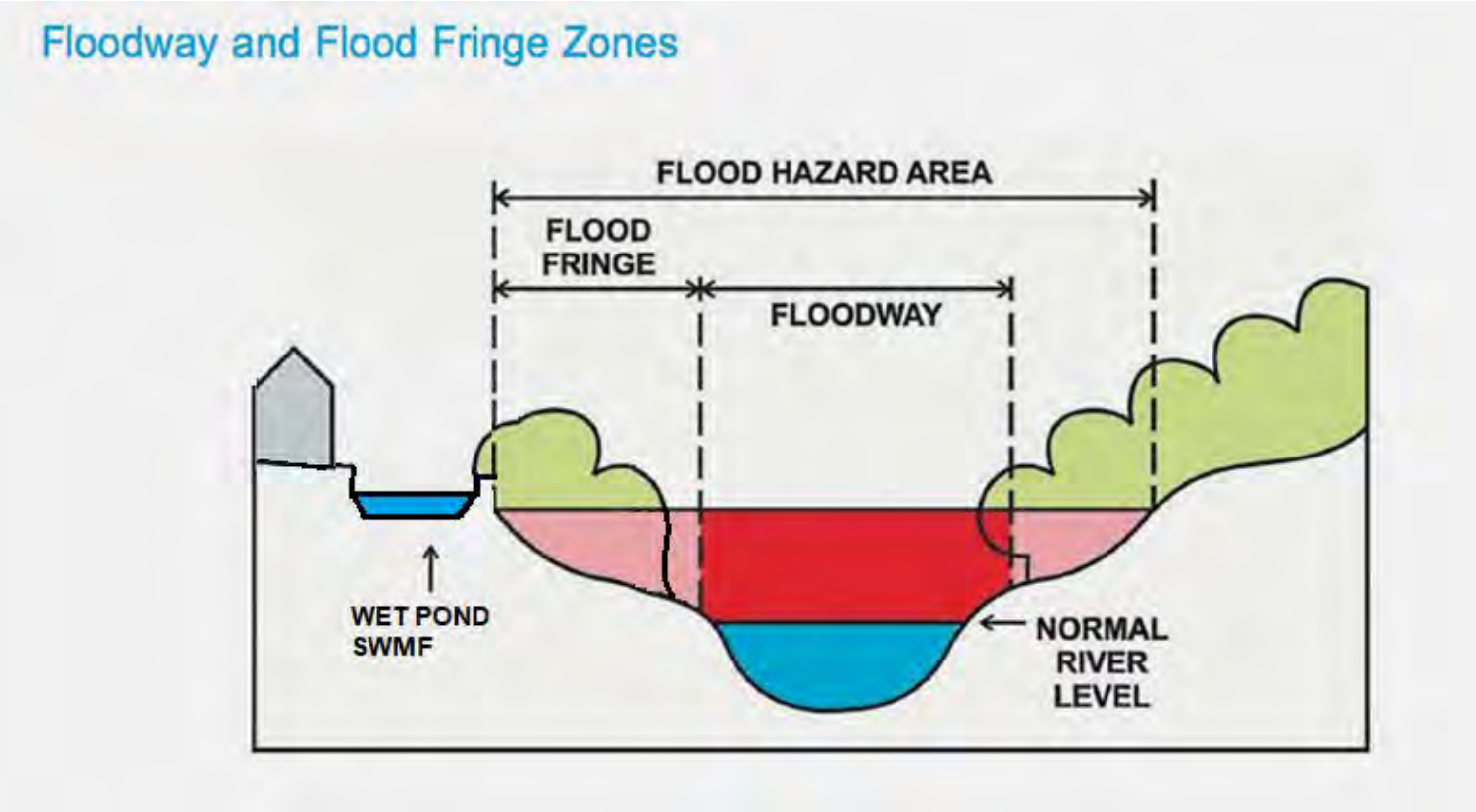


Wet SWMF Within Flood Plain

Wet SWMF within floodplain without excavating to offset the encroachment has the same negative impact as flood-proofed buildings within the floodplain.

SWMF within floodplain need to offset their own encroachment impact

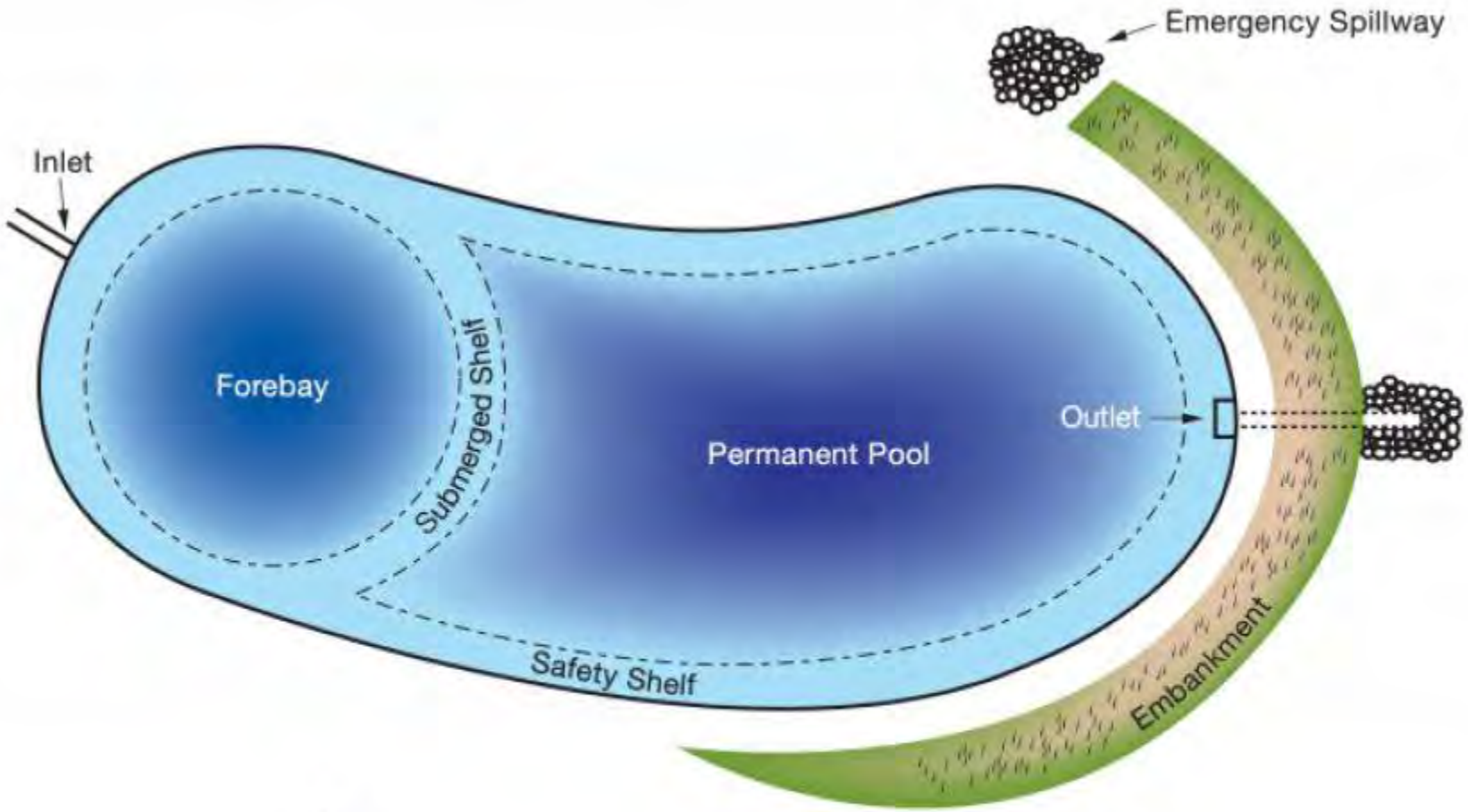
Wet SWMF Outside of Floodplain



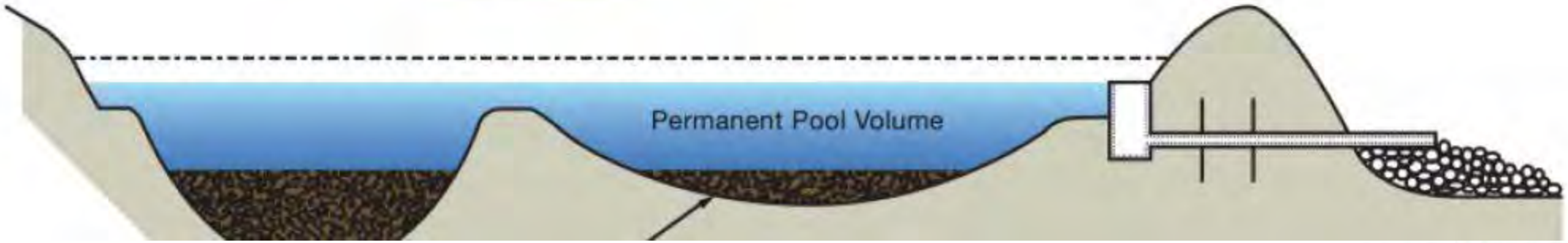
Wet SWMF Outside of Flood Plain

SWMF does not encroach into the floodplain.

Wet Facilities



An inlet delivers runoff from streets and other areas, and the outlet structure allows the pond to fill and gradually drain. Accumulated sediment and associated pollutants are stored in the bottom of the pond for periodic removal and disposal.



Wet SWMF Photo



Dry SWMF Photo

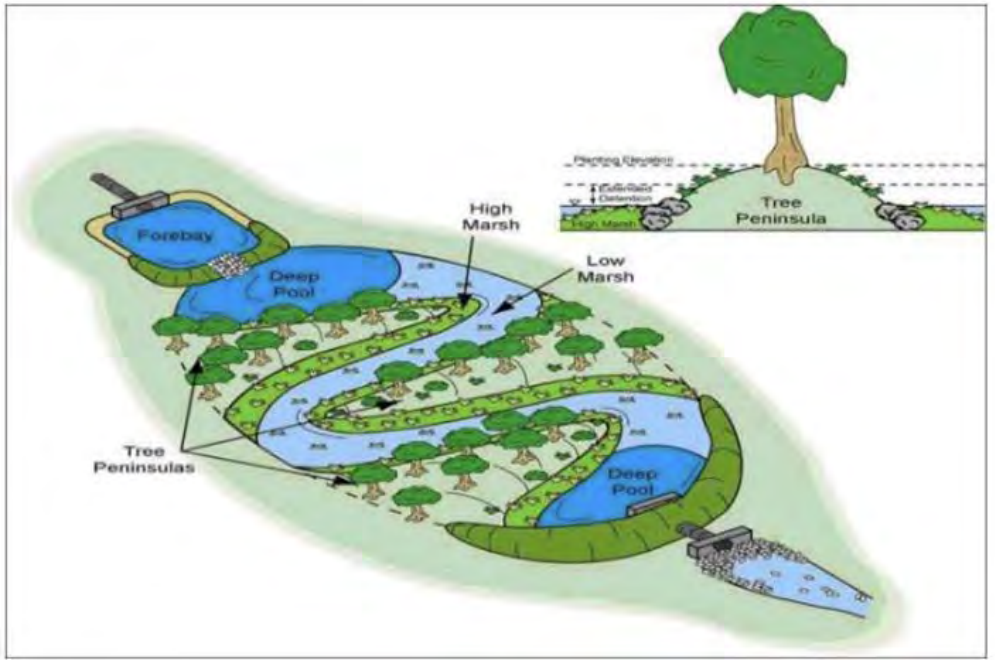


Naturalized Wet/Dry SWMFs

- Stormwater facilities planted with native vegetation
- Designed more for storage and less to mimic wetland function
- Majority of St. Albert SWMFs are like this, with varying degrees of success
- Require active monitoring and maintenance to ensure vegetation establishment and prevent weed growth

Constructed Wetland SWMF

- Specially designed marshes used to filter contaminants that may be present in surface runoff
- Recreate the structure and function of a wetland
- Self-sustaining system once established
- Can be designed to enhance removal of specific contaminants
- Forces water to “meander” to allow for longer contact with vegetation



Constructed Wetland SWMF - Pros

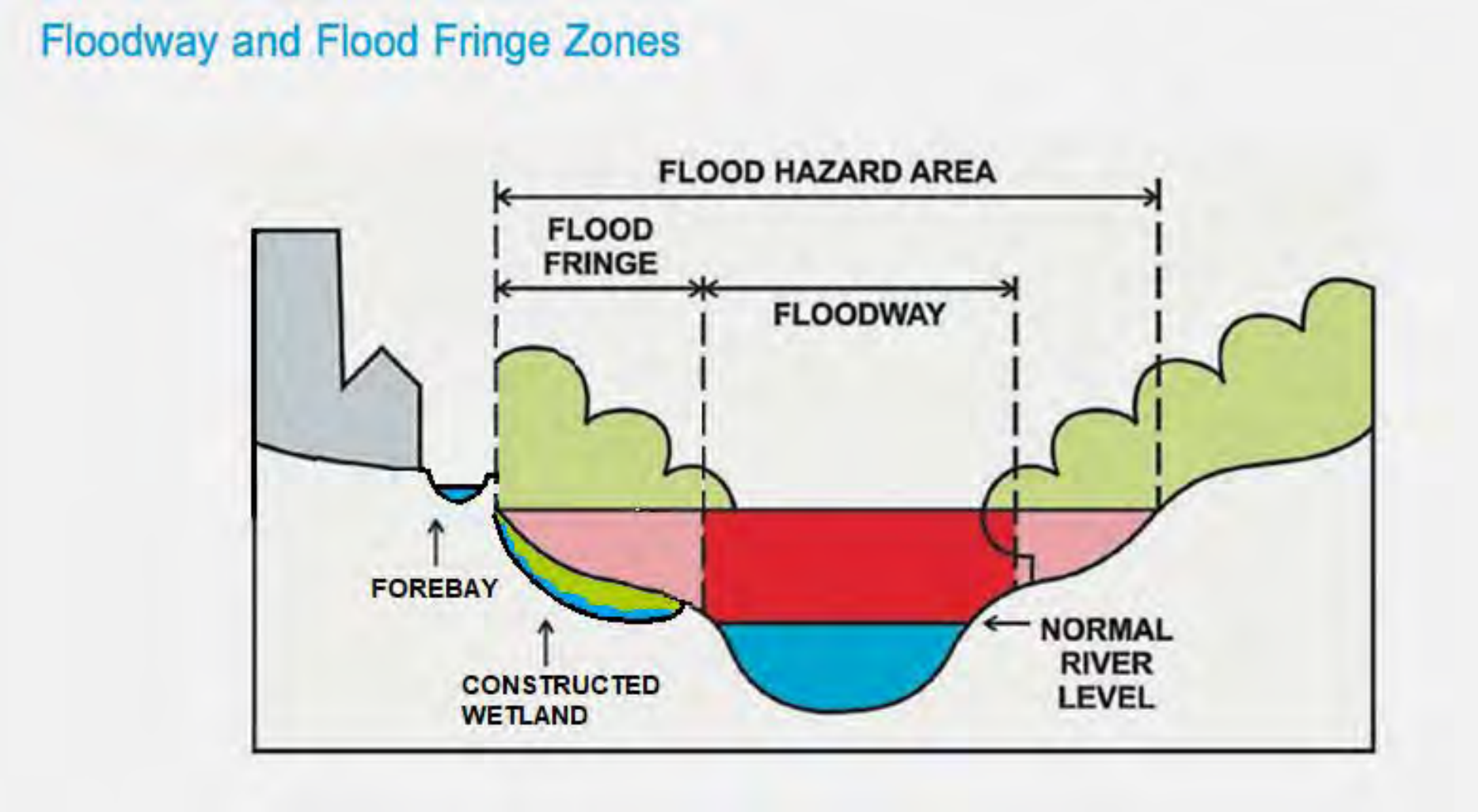
Not required to be in Public Utility Lot according to CoSA Engineering Standards	Preferable option for SWMF adjacent to receiving streams (CoSA Engineering Standards)
Little to no grass cutting required	Compatible with high water table
Better quality stormwater effluent	Reduced potential for invasive weeds
Provides habitat for wetland flora and fauna	Can be designed to integrate naturally occurring wetlands
Mimic function of natural wetland and may recharge groundwater	Can be built with salvaged wetland soils to provide seed bank of native vegetation
More carbon sequestration	Energy dissipation fully considered as part of design to prevent erosion

Constructed Wetlands - Cons

- Potential for higher costs for soil preparation and revegetation – can be mitigated through local harvesting and plant sourcing
- Additional costs for hydrological studies
- Can have higher methane production
- May occupy larger areas
- Require approval from City Engineer



Constructed Wetland Within Floodplain







Top: CoSA Constructed Wetland

- Mason and Grove (has maintenance manual)
- Legacy

Bottom: CoSA Integrated Natural Wetland

- Grandin Pond
  (deepened only, no pretreatment)








STORM WATER
MANAGEMENT FACILITY

Constructed Wetlands - Summary

- There are valid land use reasons why constructed wetlands have more compatibility than naturalized wet/dry facilities as part of Environmental Reserve lands.
- There are also valid engineering reasons why constructed wetlands are compatible within Environmental Reserve and naturalized wet and dry facilities are not.
- The inclusion of constructed wetlands and the exclusion of wet/dry facilities aligns with the CoSA Engineering Standards.



Questions?

ADDITIONAL PUBLIC INPUT

Renee McDonald

From: Legislative
To: Legislative
Subject: FW: Flood maps input

From: "d c thompson" <[redacted]>
To: "Mayor Cathy Heron" <mayorheron@stalbert.ca>
Sent: Thursday, 29 June, 2023 10:14:03

I have reviewed the new Sturgeon Valley Flood Risk Maps.

If Alberta has learned one thing from the Calgary flood, NO DEVELOPMENT MUST BE ALLOWED WITHIN THE 100 YEAR FLOOD RISK ZONE.

Approvals for all previously approved developments within the 100 year risk zone that have not already been started must be immediately cancelled.

It is time we respected the fact that rivers flood.

Language for Alternatives 1 and 2 – For Consideration on October 17, 2023

Schedule "A"

Bylaw 9/2005 (Page 57)

Part 6 General Regulations Amendments

6.11. Designated Flood Line (BL25/2011)

The designated flood line is as indicated on the maps in Schedule G. The cross-sections provided on the maps in Schedule G are based on the ~~*Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Sturgeon River*~~, Final Report of May 15, 2007 and ~~*Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Carrot Creek*~~, Final Report of March 15, 2007 Carrot Creek Regional Drainage Master Plan (2022), and the Provincial St. Albert Flood Hazard Study (2022); and have been taken perpendicular to the natural boundaries of the watercourses at their highest perpendicular points.

(1) The purpose of the designated flood line is to:

(a) identify lands in the City that may be subject to flooding during a 1:100 year high water event;

(b) ~~and to~~ regulate d~~D~~evelopment below t~~T~~he designated flood line;

(c) ~~to ensure~~ confirm ~~it is~~ development is compatible and undertaken in accordance with City Engineering Standards;

(d) ~~so as to~~ not cause detrimental effects on the hydrological system of Carrot Creek, Big Lake, and the Sturgeon River, water quality or increase flood risk to downstream lands; and

(e) ensure development of discretionary uses identified in section 6.11(4) can be undertaken in a safe manner. ~~The designated flood line~~ is ~~as~~ ~~indicated on the maps in Schedule G. The cross-sections provided on the maps in Schedule G are based on the *Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Sturgeon River*, Final Report of May 15, 2007 and *Big Lake Basin Task Force: Floodplain Delineation for the City of St. Albert – Carrot Creek*, Final Report of March 15, 2007 Carrot Creek Regional Drainage Master Plan (2022), and the Provincial St. Albert Flood Hazard Study (2022); and have been taken perpendicular to the natural boundaries of the watercourses at their highest perpendicular points.~~ ~~**(BL7/2015)**~~

(2) ~~Due to the potential for detrimental effects on the hydrological system, water quality, or existing~~ Development~~,~~s ~~no p~~Permanent~~~~New Buildings~~, or~~ Structures, or substantial improvements ~~including, but not limited to, new construction and substantial improvements are prohibited~~ are prohibited ~~shall not be allowed~~ below the designated flood line.

(3) ~~Notwithstanding Section 6.11.(2), the following Development shall be the only Permitted Uses below the designated flood line and shall be designed to meet or exceed the City's Engineering Standards and~~

(3) The designated flood line is the boundary of any filling of land.

(4) Notwithstanding Section 6.11.(2), the following d~~D~~evelopment shall be the only Discretionary Uses below the designated flood line and shall be designed to meet or exceed the City's Engineering Standards and

~~(4) Notwithstanding Section 6.12~~1.(2), ~~development permitted below the designated flood line shall~~ require the approval of the Development Officer in consultation with the City Engineer~~, and is restricted to~~: ~~**(BL22/2020)**~~

(a) flood or erosion control measures including, but not limited to, berms, dykes, and retaining walls; ~~development for the purpose of flood control;~~

(b) stormwater management facility that ~~meets the approval of the City Engineer; as a, constructed wetland that meets the approval of the City Engineer~~;

~~(cb) public utility building;~~

(d~~c~~) public utility;

(e~~d~~) bridge or public roadway;

(f~~e~~) ~~temporary~~ campgrounds, excluding serviced campgrounds with~~; without any~~ permanent buildings or, structures;

(g~~f~~) pedestrian walkways, parks, and trails;

(~~g~~h) golf courses, excluding fairways and green;

~~s;~~

(~~g~~i~~h~~) ~~uninhabited~~ accessory buildings which are not approved for residential use or as accommodation;~~ and~~

(j~~i~~) outdoor recreation service uses limited to picnic areas and boating facility ~~pedestrian and bicycle trail and golf course~~ that meet the approval of the City Engineer~~would not obstruct the area below the designated flood line~~; ~~and~~

(k) fencing; and

(l) non-intensive agriculture.

~~(j) naturalized stormwater management facility that meets the approval of the City Engineer.~~

(~~54~~) ~~Notwithstanding~~ Regarding the discretionary uses in Section 6.11.(~~42~~), the Development Officer may upon request from an applicant consider and require that a ~~Development Permit~~development permit for the development of land wholly or partially contained below the designated flood line be subject to such conditions as are necessary to ensure that the development is consistent with the purpose of Section 6.11.(1) prior to the issuance of ~~Development Permit~~development permit. When a ~~Development Permit~~development permit a~~A~~pplication is submitted to the Development Officer for the development of a parcel of land partially or wholly below the designated flood line, the Development Officer shall require the development to meet the following additional performance conditions:

(a) ~~the applicant for any~~ new development that has the potential to disrupt the normal hydrological process within Carrot Creek, Big Lake, and/or ~~of~~ the Sturgeon River must submit appropriate technical report(s) and stamped plans certified by a registered professional Engineer indicating mitigations have been considered and incorporated into the design of the proposed development to minimize the risk of on-site and off-site flood damage to the satisfaction of the City Engineer and Alberta Environment and Protected Areas;

(b) new development including any excavation, stripping, or grading below the designated flood line along these watercourses shall be designed in consultation with and to the satisfaction of the City Engineer and Alberta Environment and Protected Areas; and

(c) if required by the Development Officer in consultation with the City Engineer, shall provide an emergency access plan, prior to the issuance of a ~~Development Permit~~development permit.

~~(5) Infilling of a parcel of land below the designated flood line with suitable soils to raise the overall grade to the elevation of the designated 1:100 year event plus 0.5 meters of freeboard may be allowed at the discretion of the Development Officer in consultation with the City Engineer, and subject to additional conditions referenced in subsection (6).~~

~~(6) Pursuant to Section 6.11.(5~~(d) the Development Officer may require that a ~~Development Permit~~development permit for the infilling of land below the designated flood line of Carrot Creek, Big Lake and the Sturgeon River ~~be subject to the following additional performance conditions: (i) the applicant~~ submit appropriate technical report(s) and stamped plans certified by a registered professional Engineer indicating mitigations have been considered and incorporated into the design of the proposed development to minimize the potential risk of on-site and off-site flood damage to the satisfaction of the City Engineer and Alberta Environment and Protected Areas, prior to the issuance of a ~~Development Permit~~development permit.

(765) A Building or Sstructureor premises which lawfully existed below the designated flood line before the enactment of these provisions August 15, 2011, but which is not in conformity with these provisions, may be continued subject to the conditions outlined in Section 3.15.; Non-Conforming Development and Section 643 of the *Municipal Government Act*.

(86) For a parcel of land lots adjacent to the designated flood line, or of which a portion lies below the designated flood line, prior to the issuance of a development permitdevelopment permit, the Development Officer shall require that the applicant submit:

(a) a set of stamped plans certified by a registered Professional Engineer or Architect which confirms that the requirements of Section 6.1120. have been incorporated in the design of the proposed development and identifies the freeboard elevation at 0.5 metersresres above the designated flood line. **(BL7/2015)**

(b) information regardingStamped plans shall be provided the following requirements:

(i) the geodetic elevation of the proposed building, structure or other development location, and the geodetic elevation of the lowest point of all openings to any proposed building; and

(ii) that a certificate from a qualified, registered pProfessional Engineer or Architect indicating that the following factors have been considered in the design of the building:

(A) the flood proofing of habitable rooms, electrical panel and heating units, and operable windows;;
(B) (basement drainage; and
(C) site drainage, and in the design for other development, the effect on the existing hydrological system, flood risk and mitigation measures to minimize the risk of flood damage on-site and downstream to existing dDevelopment.

(97) The Development Officer shall circulate a development permitdevelopment permit application for a development located on a property adjacent to, or wholly or partially belowincluding, the designated flood line and adjustments to the designated flood line, along with any accompanying technical reports and stamped plans certified by a registered pProfessional Engineer to the City's Engineering Department for review and comment with respect to the suitability of the proposed development.

(108) The requirements of this Section, 6.1121, apply to both the permitted and discretionary uses of the land use district applicable to the parcel. **(BL22/2020)**

(119) Notwithstanding Subsections (1) through (108), nothing in this Section 6.1121 or on the maps in Schedule G modifies, overrides or changes the land use districting as outlined in Schedule A. **(BL22/2020)**

(i) the designated flood line regulations are in addition to the regulations of the underlying land use district. If there is a conflict between Schedule G and Section 6.11 with a land use district, Schedule G and Section 6.11 takes precedence.

(120) The designated flood line as outlined in the maps in Schedule G is presented for reference purposes only and has been generalized for presentation purposes and is not guaranteed for accuracy. The Development Officer will rely on the information required under Subsection (6) to determine the designated flood line on an individual property (inclusive of the 1:100 year flood line plus a 0.5 m factor of safety) except where, at the discretion of the Development Officer, the applicant for a Development Permitdevelopment permit provides appropriate technical information certified and stamped by a registered pProfessional Engineer that establishes the basis for an adjustment to the designated flood line. The Development Officer shall circulate the Development Permit application to the City Engineering Department for review and comment with respect to the proposed adjustment to the designated flood line prior to approving and issuing a Development Permit.

6.11.1 Development Permit Development Permit Conditions

The Development Officer may, in general, with respect to any use:

Require a Development Permit development permit comply with the policies of the Municipal Development Plan, an Area Structure Plan, an Area Redevelopment Plan, a Neighbourhood Structure Plan, or a Conceptual Scheme. Notwithstanding Section 6.11.1 this would be limited by any mandatory provisions in the Land Use Bylaw such as permitted uses listed in the land use district that the parcel is designated.

Language for Alternatives 1 and 2 – For Consideration on October 17, 2023

Schedule “A”

Bylaw 9/2005 (Page 57)

Part 6 General Regulations Amendments

6.11. Designated Flood Line (BL25/2011)

The designated flood line is as indicated on the maps in Schedule G. The cross-sections provided on the maps in Schedule G are based on the Carrot Creek Regional Drainage Master Plan (2022), and the Provincial St. Albert Flood Hazard Study (2022); and have been taken perpendicular to the natural boundaries of the watercourses at their highest perpendicular points.

(1) The purpose of the designated flood line is to:

(a) identify lands in the City that may be subject to flooding during a 1:100 year high water event;

(b) regulate development below the designated flood line;

(c) confirm development is compatible and undertaken in accordance with City Engineering Standards;

(d) not cause detrimental effects on the hydrological system of Carrot Creek, Big Lake, and the Sturgeon River, water quality or increase flood risk to downstream lands; and

(e) ensure development of discretionary uses identified in section 6.11(4) can be undertaken in a safe manner.

(2) New Buildings, Structures, or substantial improvements are prohibited below the designated flood line.

(3) The designated flood line is the boundary of any filling of land.

(4) Notwithstanding Section 6.11.(2), the following development shall be the only Discretionary Uses below the designated flood line and shall be designed to meet or exceed the City’s Engineering Standards and require the approval of the Development Officer in consultation with the City Engineer:

(a) flood or erosion control measures including, but not limited to, berms, dykes, and retaining walls;

(b) stormwater management facility that meets the approval of the City Engineer;

(d) public utility;

(e) bridge or public roadway;

(f) campgrounds, excluding serviced campgrounds with permanent buildings or, structures;

(g) pedestrian walkways, parks, and trails;

(h) golf courses, excluding fairways and green;

(i) accessory buildings which are not approved for residential use or as accommodation;

(j) outdoor recreation service uses limited to picnic areas and boating facility that meet the approval of the City Engineer;

(k) fencing; and

(l) non-intensive agriculture.

(5) Regarding the discretionary uses in Section 6.11.(4), the Development Officer may upon request from an applicant consider and require that a development permit for the development of land wholly or partially contained below the designated flood line be subject to such conditions as are necessary to ensure that the development is consistent with the purpose of Section 6.11.(1) prior to the issuance of development permit. When a development permit application is submitted to the Development Officer for the development of a parcel of land partially or wholly below the designated flood line, the Development Officer shall require the development to meet the following additional performance conditions:

(a) new development that has the potential to disrupt the normal hydrological process within Carrot Creek, Big Lake, and/or the Sturgeon River must submit appropriate technical report(s) and stamped plans certified by a registered professional Engineer indicating mitigations have been considered and incorporated into the design of the proposed development to minimize the risk of on-site and off-site flood damage to the satisfaction of the City Engineer and Alberta Environment and Protected Areas;

(b) new development including any excavation, stripping, or grading below the designated flood line along these watercourses shall be designed in consultation with and to the satisfaction of the City Engineer and Alberta Environment and Protected Areas; and

(c) if required by the Development Officer in consultation with the City Engineer, shall provide an emergency access plan, prior to the issuance of a development permit.

(d) the Development Officer may require that a development permit for the infilling of land below the designated flood line of Carrot Creek, Big Lake and the Sturgeon River submit appropriate technical report(s) and stamped plans certified by a registered professional Engineer indicating mitigations have been considered and incorporated

into the design of the proposed development to minimize the potential risk of on-site and off-site flood damage to the satisfaction of the City Engineer and Alberta Environment and Protected Areas, prior to the issuance of a development permit.

(6) A Building or Structure which lawfully existed below the designated flood line before August 15, 2011, but which is not in conformity with these provisions, may be continued subject to the conditions outlined in Section 3.15, Non-Conforming Development and the *Municipal Government Act*.

(8) For a parcel of land adjacent to the designated flood line, or of which a portion lies below the designated flood line, prior to the issuance of a development permit, the Development Officer shall require that the applicant submit:

(a) a set of stamped plans certified by a registered Professional Engineer or Architect which confirms the requirements of Section 6.11 have been incorporated in the design of the proposed development and identifies the freeboard elevation at 0.5 metres above the designated flood line.

(b) Stamped plans shall be provided the following requirements:

(i) the geodetic elevation of the proposed building, structure or other development location, and the geodetic elevation of the lowest point of all openings to any proposed building; and

(ii) that a certificate from a registered Professional Engineer or Architect indicating that the following factors have been considered in the design of the building:

(A) the flood proofing of habitable rooms, electrical panel and heating units, and operable windows;
(B) basement drainage; and
(C) site drainage, and in the design for other development, the effect on the existing hydrological system, flood risk and mitigation measures to minimize the risk of flood damage on-site and downstream to existing development.

(9) The Development Officer shall circulate a development permit application for a development located on a property adjacent to, or wholly or partially below the designated flood line and adjustments to the designated flood line, along with any accompanying technical reports and stamped plans certified by a registered Professional Engineer to the City's Engineering Department for review and comment with respect to the suitability of the proposed development.

(10) The requirements of this Section, 6.11~~1~~, apply to both the permitted and discretionary uses of the land use district applicable to the parcel.

(11) Notwithstanding Subsections (1) through (10), nothing in this Section 6.11~~1~~ or on the maps in Schedule G modifies, overrides or changes the land use districting as outlined in Schedule A.

(i) the designated flood line regulations are in addition to the regulations of the underlying land use district. If there is a conflict between Schedule G and Section 6.11 with a land use district, Schedule G and Section 6.11 takes precedence.

(12) The designated flood line as outlined in the maps in Schedule G is presented for reference purposes only and has been generalized for presentation purposes and is not guaranteed for accuracy. The Development Officer will rely on the information required under Subsection (6) to determine the designated flood line on an individual property (inclusive of the 1:100 year flood line plus a 0.5 m factor of safety) except where, at the discretion of the Development Officer, the applicant for a development permit provides appropriate technical information certified and stamped by a registered Professional Engineer that establishes the basis for an adjustment to the designated flood line.

6.11.1 Development Permit Conditions

The Development Officer may, with respect to any use:
Require a development permit comply with the policies of the Municipal Development Plan, an Area Structure Plan, an Area Redevelopment Plan, a Neighbourhood Plan, or a Conceptual Scheme.

https://stalbert-my.sharepoint.com/personal/aslaght_stalbert_ca/Documents/Desktop holding file/Flood/dra LUB_6.11 Designated Flood Line_v5101723 no markup.docx