

Calgary Subdivision and Development Appeal Board
P.O. Box 2100, Station M, # 8110,
Calgary, AB T2P 2M5
Email: sdab@calgary.ca



CALGARY SUBDIVISION AND DEVELOPMENT APPEAL BOARD

Citation: 2014 CGYSDAB 138

Case Name: SDAB2014-0138 (Re)

File No: DP2014-2738

Appeal by: The Erlton Community Association represented by Bill Fischer

Appeal against: Development Authority of The City of Calgary

Hearing date: November 06, 2014 and December 11, 2014

Decision date: January 06, 2015

Members present: Rick Grol, Chairman
Kerry Armstrong
John Attrell
Teresa Goldstein
Stefne Madison
Bob Merchant
Robert Sipka

DECISION

Basis of appeal:

This is an appeal from an approval by the Development Authority for a development permit made on the application of **Nyhoff Architecture** for a **new: single detached dwelling** at 2509 Erlton Street SW.

Description of Application:

The appeal before the Subdivision and Development Appeal Board (Board) deals with an approval by the Development Authority for a development permit application for a new single detached dwelling at 2509 Erlton Street SW. The property is located in the community of Erlton and has a land use designation of Residential – Contextual One/Two Dwelling (R-C2) District.

Adjournment:

On November 06, 2014 the hearing commenced with consideration of procedural issues. The Board adjourned the hearing to December 11, 2014 with consent of all parties.

Hearing:

The Board heard verbal submissions from:

Carol McClary, representing the Development Authority;
Frank Frigo, Senior Planning Engineer with the Water Resources Department of The City of Calgary;
Bill Fischer, representing the Erlton Community Association, the appellant, in favour of the appeal;
Patrick Bruton, an affected neighbour, in opposition to the appeal;
Kevin Nyhoff of Nyhoff Architecture, the applicant, in opposition of the appeal;
Manas Shome of Matrix Solutions Inc., speaking on behalf of the applicant and owners of the subject property, in opposition of the appeal; and
Peter Stapleton, co-owner of the subject property, in opposition to the appeal

Summary of Evidence:

The Board report contains the Development Authority's decision respecting the development permit application and the materials submitted by the Development Authority that pertain to the application, and forms part of the evidence presented to the Board. The Board report contains the notice of appeal and any documents, materials or

written submissions submitted by the appellant, applicant and any other parties to the appeal.

Appendix A attached to this decision contains the summary of evidence from the parties submitted at the hearing and forms part of the Board's decision.

Decision:

In determining this appeal, the Board:

- Complied with the provincial legislation and land use policies, applicable statutory plans and, subject to variation by the Board, The City of Calgary Land Use Bylaw 1P2007, as amended, and all other relevant City of Calgary Bylaws;
- Had regard to the subdivision and development regulations;
- Considered all the relevant planning evidence presented at the hearing and the arguments made; and
- Considered the circumstances and merits of the application.

- 1. The appeal is denied and the decision of the Development Authority is upheld.**
- 2. The development permit shall be issued as approved by the Development Authority.**

Reasons:

1 The Board considered the written, verbal, and photographic evidence submitted, and notes that the appeal pertains to the Development Authority's approval of a development permit for a new single detached dwelling at 2509 Erlton Street SW. The property is located in the community of Erlton and has a land use designation of Residential – Contextual One/Two Dwelling (R-C2) District pursuant to Land Use Bylaw 1P2007.

2 The appellant's representative submitted that in his opinion section 59(2) of the Land Use Bylaw cannot be relaxed, as pursuant to section 8(f) of the Bylaw "must" is to be construed as a compulsory obligation. In his opinion, the Development Authority failed to properly consider the serious negative effect of the flood fringe relaxation in relation to nearby homes and properties, and the surrounding blocks of homes. In addition, the front set back relaxation is in the appellant's opinion inappropriate. The foundation intruding into the contextual setback, and the upper floors jutting even further over the required setback will appear incongruous and will block the natural line-up and rhythm of the front of the homes on the west side of Erlton Street.

3 The appellant further submitted that the height relaxation will result in an unfriendly street appearance and is insensitive, unresponsive to the context of the surrounding

homes and streetscape and therefore is incompatible. According to the appellant approving this building on the flood fringe is not a sound planning principle, especially since it will act as a choke point during the next flood event, and once again contribute to upstream damage to other properties. The appellant asserted that in his opinion a more modest home, conforming to the rules of the Land Use Bylaw, would better suit the lot. At the hearing the appellant's representative stated that, based on his observation from the 2013 flood event, the actual floodway of the Elbow River is larger than the floodway indicated on the maps the City of Calgary uses and that in his estimation the flood levels in the area of the subject parcel were actually higher.

4 The Board has regard to the following sections of Land Use Bylaw 1P2007, among others:

Section 3 states:

Content

- 3** This Bylaw includes the:
- (a) Schedules appended hereto;
 - (b) Land Use District Maps deposited with the City Clerk;
 - (c) Floodway/Flood Fringe Maps deposited with the City Clerk;
 - (d) Floodway/Floodplain Maps deposited with the City Clerk;
 - (e) Developed Area and Developing Area Maps deposited with the City Clerk;
 - (f) Parking Areas Map deposited with the City Clerk; and
 - (g) Bonus Area Boundaries Map deposited with the City Clerk.

Section 13(61) states:

- (61)** “*flood fringe*” means those lands abutting the *floodway*, the boundaries of which are indicated on the Floodway/Flood Fringe Maps that would be inundated by floodwaters of a magnitude likely to occur once in one hundred years.

Section 13(62) states:

- (62)** “*floodway*” means the river channel and adjoining lands indicated on the Floodway/Flood Fringe Maps that would provide the pathway for flood waters in the event of a flood of a magnitude likely to occur once

in one hundred years.

Section 28(5) states:

- 28 (5)** Where a **development** is located in the **floodway, flood fringe** or **overland flow** area, the **Development Authority** may, as a condition of issuing the **development permit**, require **building** or site design measures to mitigate the potential impact or obstruction of floodwaters.

Section 35 states:

Discretionary Use Development Permit Application

- 35** When making a decision on a **development permit** for a **discretionary use** the **Development Authority** must take into account:
- (a) any plans and policies affecting the **parcel**;
 - (b) the purpose statements in the applicable land use district;
 - (c) the appropriateness of the location and **parcel** for the proposed **development**;
 - (d) the compatibility and impact of the proposed **development** with respect to **adjacent development** and the neighbourhood;
 - (e) the merits of the proposed **development**;
 - (f) the servicing requirements;
 - (g) access and transportation requirements;
 - (h) vehicle and pedestrian circulation within the **parcel**;
 - (i) the impact on the public transit system; and
 - (j) sound planning principles.

Section 36 states:

Discretionary Use That Does Not Comply

- 36** The **Development Authority** may approve a **development permit** application for a **discretionary use** where the proposed **development** does not comply with all of the applicable requirements and rules of this Bylaw if in the opinion of the **Development Authority**.

- (a) the proposed **development** would not unduly interfere with the amenities of the neighbourhood or materially interfere with or affect the use, enjoyment or value of neighbouring properties; and
- (b) the proposed **development** conforms with a **use** prescribed by this Bylaw for that land or **building**.

Section 55 states:

Floodway, Flood Fringe and Overland Flow

- 55** For **parcels** located in the **floodway, flood fringe** or **overland flow area** the requirements of this Division apply and prevail when there is any conflict between the requirements of this Division and any other requirements of this Bylaw.

Section 57 states:

New Buildings and Alterations

- 57** (1) No new **buildings** or other new structures are allowed in the **floodway**, except for the replacement of existing **Accessory Residential Buildings, Backyard Suites, Duplex Dwellings, Secondary Suites, Semi-detached Dwellings** and **Single Detached Dwellings** on the same **building** footprint.
- (2) An addition to a **building** in the **floodway** may only occur if it does not increase the **building** footprint or increase the obstruction to floodwaters.
- (3) In the **floodway**, nothing must be stored outside of a **building**.

Section 336(1) states:

Projections Into Front Setback Area

- 336** (1) **Bay windows** and eaves may project a maximum of 0.6 metres into the **front setback area**.

Section 435(1) states:

Building Setback from Front Property Line

- 435** (1) For a **Contextual Semi-detached Dwelling, Contextual Single Detached Dwelling, Duplex Dwelling, Semi-detached Dwelling**

and a **Single Detached Dwelling**, the minimum **building setback** from a **front property line** is the greater of:

- (a) the **contextual front setback** less 1.5 metres; or
- (b) 3.0 metres.

Section 438 states:

Building Height

- 438 (1)** For a **Contextual Single Detached Dwelling** and **Contextual Single Detached Dwelling, Duplex Dwelling, Semi-detached dwelling** and a **Single Detached Dwelling** the maximum **building height** is the greater of:
- (a) 8.6 metres; or
 - (b) the **contextual height** plus 1.5 metres, to a maximum of 10.0 metres.
- (2)** *deleted*
- (3)** For all other **uses**, the maximum **building height** is 10.0 metres.

Section 59 states:

Fringe and Overland Flow Area Regulations

- 59 (1)** Only those goods that are easily moveable may be stored on a **parcel** in the **flood fringe** or the **overland flow area**.
- (2)** Unless stated in subsection (3), all **buildings** must be set back 6.0 metres from the edge of the **floodway**.
- (3)** Where a **parcel** was vacant on July 22, 1985, all **buildings** must be set back the greater of the following distances:
- (a) 60.0 metres from the edge of the Bow River;
 - (b) 30.0 metres from the edge of the Elbow River, Nose Creek, West Nose Creek; or
 - (c) 6.0 metres from the edge of the **floodway**.

Section 426(1)(o) lists "Single Detached Dwelling as a discretionary use in the R-C2 District.

5 The Board has regard to the Municipal Development Plan (MDP).

6 The Board has regard to the Erlton Area Redevelopment Plan (ARP).

7 The Board also has regard to the Low Density Residential Housing Guidelines for Established Communities (Infill Guidelines).

8 The Board acknowledges all submissions (written and oral) of the appellant, applicant, affected parties and the Development Authority, and in rendering this decision has regard to all the submissions, including but not limited to the written submissions and correspondence received and contained in the Board report.

9 According to the Development Authority the application requires relaxations of the following sections of Land Use Bylaw 1P2007:

- (a) Section 59 – The plans indicate that the proposed dwelling is set back 0.00 metres from the edge of the floodway. This requires a relaxation of 6 metres or 100 per cent of this section;
- (b) Section 336(1) – The East eaves project 3.13 metres into the setback area. This requires a relaxation of 2.53 metres;
- (c) Section 435 – The east setback of the proposed dwelling is 1.53 metres. This requires a relaxation 2.47 metres of this section; and
- (d) Section 438(1) – Building Height. The building projects into the maximum height plane by 1.73 metres.

10 The Development Authority granted these relaxations because the majority of the parcel is enveloped by the floodway area. There is no portion of the development that is located in the floodway area. It granted a relaxation for the front building setback in order to ensure the development has sufficient living space and be properly utilized by landowners. The relaxation to the building height is to accommodate the proposed main floor to be located above the recommended 100 year flood water level.

11 The proposed dwelling building is located in the flood fringe and is located within 6 metres of the edge of the flood way. The adjacent two parcels of land to the north is green space or natural area (despite their residential land use designation). The existing single detached home on the subject parcel is within the floodway.

12 The Board reviewed the context of the proposed development and having regard to, among other things, the applicable legislation, plans and policies, sound planning considerations, the merits of the application, the circumstances of the case and the evidence presented.

13 The Board notes that the development is a discretionary use. Therefore, the development permit application can either be granted or refused on the basis of sound planning considerations.

14 Pursuant to section 35 of Land Use Bylaw 1P2007, when making a decision on a development permit application for a discretionary use the Development Authority must take into account the things listed in subsections (a) through (j). Subsection (a) of this section lists the plans and policies affecting the parcel. Thus, the MDP, ARP and Infill Guidelines and other applicable policies must be taken into account by the Development Authority. In addition, the compatibility and impact of the proposed development with respect to adjacent development and the neighbourhood as well as the merits of the proposed development and sound planning principles, among other things, must be taken into account.

15 The MDP gives guidelines regarding development and redeveloped within the flood hazard areas (section 4.4). It gives direction to the Development Authority and states in section 4.4, under Policy (a)(ii), that “[a]ll new development in the floodways should be refused by the Development Authority with the exception of the following: “[...] and the redevelopment of low density residential buildings on the existing building footprint where sufficient risk reduction measures have been taken to the satisfaction of the Development Authority.”

16 The MDP further states in Policy (a)(iii) of section 4.4: “For the redevelopment of existing buildings where the footprint straddles both the floodway and flood fringe, the redeveloped building should be located exclusively in the flood fringe”. Policy (a)(iv) states: “All redevelopment of existing low density residential buildings in the floodway must be done through a discretionary permit process.” In addition, Policy (a)(v) states: “All buildings located in the floodway, flood fringe, or overland flow area must be designed to prevent damage by floodwaters, damage by elevated groundwater, and incremental increases of upstream river water levels.” Policy (a)(vi) states: “The Development Authority, when reviewing applications that propose flood risk reduction measures, ensure that public safety and minimizing property damage take precedence in considering development relaxations that may alter the existing built form context and development patten in a neighbourhood. Approved relaxations should be commensurate with the degree of proposed flood risk reduction measures”.

17 Pursuant to section 687(3)(a.1) of the *Municipal Government Act* the Board in determining an appeal must comply with statutory plans. The MDP is a statutory plan.

18 The Board notes that the Infill Guidelines document gives very clear direction. It specifically provides in section 4.2 that new developments should be designed in a manner which is responsive to the adjacent properties and the streetscape. Furthermore, it provides in section 4.4 that new development should respect the existing scale and massing of its immediate surroundings. However, the Board notes that the Infill Guidelines is a policy document and has not the same status as a statutory plan like an ARP or the Land Use Bylaw. The Development Authority has discretion in

applying the guidelines and directions of the Infill Guidelines, having regard to the merits of the application, sound planning considerations and circumstances of the case.

19 The appellant stated that the Land Use Bylaw uses compulsory language and in its opinion the Development Authority should not have relaxed the Bylaw provision.

20 With respect to the appellant's argument that the mapping and designation of the floodway/flood fringe of the Elbow River valley area is incorrect and based on outdated data, the Board notes the following. Pursuant to section 3(c) and (d) of Land Use Bylaw 1P2007, the Floodway/Flood Fringe Maps and Floodway/Floodplain Maps that are deposited with the City Clerk are part of Land Use Bylaw 1P2007. These maps are established by the Alberta Environment Department of the Province of Alberta and are adopted by the City of Calgary into Land Use Bylaw 1P2007. While the maps and designations of the flood way and flood fringe currently are under review by the Province and may well change as a result of that review, the indication of the flood way and flood fringe area on the aforementioned Maps relative to the subject parcel is binding for applying the provisions of the Land Use Bylaw and the review of the subject development permit application.

21 Insofar as the appellant would challenge the validity and/or correctness of the aforementioned maps, this would amount to a challenge of the provisions of Land Use Bylaw 1P2007, in particular section 3. The Board finds that this issue is outside of the Board's jurisdiction. The Board has to presume the legislative validity of Land Use Bylaw 1P2007 unless otherwise determined by a higher authority. The Alberta Court of Appeal has confirmed this in *Mather v. Gull Lake (Summer Village of)*, 2007 ABCA 123, at para 21 and *Coffman v. Ponoka (County) No.3*, (1998) 219 A.R. 217, at para10.

22 Based on the Floodway/Flood Fringe Maps and Floodway/Floodplain Maps that are part of Land Use Bylaw 1P2007 and based on the evidence, the Board finds that the proposed home is not located in the floodway.

23 Pursuant to section 36 of Land Use Bylaw 1P2007, the Development Authority may approve a development permit application for a discretionary use where the proposed development does not comply with all of the applicable requirements and rules of this Bylaw if in the opinion of the Development Authority: (a) the proposed development would not unduly interfere with the amenities of the neighbourhood or materially interfere with or affect the use, enjoyment or value of neighbouring properties; and (b) the proposed development conforms with a use prescribed by this Bylaw for that land or building. The Board has the same power pursuant to section 687(3)(d) of the *Municipal Government Act*.

24 Despite that some provisions of the Land Use Bylaw use compulsory language, section 36 of the Bylaw allows the Development Authority, when approving a development permit application for a proposed discretionary use development, to relax or vary the requirement and rules of the Bylaw if the criteria (a) and (b) listed in section in its opinion are met. Based on the legal principles of statutory interpretation to legislation (including a land use bylaw), only if and when the Land Use Bylaw

specifically states that a certain Bylaw provision cannot be relaxed, the Development Authority would not be able to relax or vary a provision of the Land Use Bylaw. An example of such special provision is section 130(3) or section 53(1) of Land Use Bylaw 1P2007. Division 3 of Land Use Bylaw 1P2007 does not contain any provision that prevents the Development Authority from relaxing or varying the Bylaw provisions regarding floodway, flood fringe and overland flow area. Therefore the appellant's argument is not persuasive.

25 The Board notes that the subject property is a challenging property to develop. As a result of the flood way indicated on the Floodway/Flood Fringe Maps and Floodway/Floodplain Maps that are part of the Land Use Bylaw effectively only a portion of the parcel can be developed. Most of the parcel is in the floodway, which results in a small area for redevelopment (the easterly portion of the lot adjacent to the street, which amounts to approximately 33 percent of the parcel).

26 The home, which is approximately 2900 square feet, is only 37 feet wide and accommodates three bedrooms. The main floor is notched to correspond with the floodway line and follows the footprint of the previous home on the side. The proposed home, which consists of three levels (storeys), has no basement. The main floor is elevated above lower level which contains the garage, entry foyer, powder room, and staircase. At the front façade the second floor level is cantilevered out over the garage door. The mechanical and electrical room and systems are located on the second level and are above the 100 year flood elevation. There will be gates that can be opened to let water flow through the lower level, the ground floor area, in case of a flood event. The proposed home is basically a slab on grade construction with pilings.

27 The Development Authority required the applicant to submit a hydraulic report for the development permit application for proposed development. The applicant retained Matrix Solutions Inc. to provide a professional opinion on the potential effect of the proposed development on the flood hydraulics of the Elbow River and the flood levels in the surrounding land areas. At the hearing the applicant submitted the Matrix report. Mr. Manas Shome of Matrix Solutions provided testimonial evidence at the hearing in support of the application.

28 The report concludes (page 2) that: (a) The overall extent of flooding and associated water levels in the Elbow River and its floodplain upstream of the 25th Avenue SW bridge, depends on factors such as the intensity and duration of the precipitation events and hydraulic conditions including water levels at the Bow and Elbow River confluence. Locally flooding will depend on the severity of backwater effect during floods with return period greater than or equal to 1:50 years created by the 25 Avenue SW bridge due to its low chord elevation; (b) The effect of the proposed building on the flood levels will be very similar to what the existing building has contributed; and (c) Due to a very small footprint of the property, there will not be any measurable effect on the flood levels in the surrounding land areas. Therefore, it will not act as a choking point to the overall flooding situation in the project area. Mr. Shome explained the findings and conclusions of the report.

29 He submitted that the hydraulic impact of the existing structures at the appellant's property to be insignificant and would not be detectable during a one in 100 year flood event. The report

30 At the hearing Mr. Frigo of The City's Water Resources asserted that Water Resources concurs with the analysis and conclusions of the report of that was submitted for the subject application. He stated that, based on their review of the models, maps, and observations of the 2013 event, it would be unlikely that the proposed building would create incremental obstruction over what had been previously on the property and would not create incremental obstruction relative to the designation of the floodway line. Mr. Frigo further stated that 2012 models do suggest levels that are higher than those that are imbedded in the Land Use Bylaw. He advised that recommended height of main floor level of the proposed home has been increased to respond to the higher levels of water observed during the 2013 flood even which closely represent the 1:100 year flood event.

31 The Board considered the appellant's arguments regarding flooding, but finds the appellant did not sufficiently demonstrate that the proposed development in terms of effect on flooding would be detrimental to the adjacent properties and areas. The Board commends the appellant's representative for his efforts but found his evidence and arguments somewhat anecdotal and speculative in nature, without challenging the credibility of his testimony. On the other hand the evidence of both Mr. Shome and Mr. Frigo is based on their professional expertise regarding water hydraulics. Mr. Frigo's evidence in all aspects corroborates the evidence of the Matrix report and Mr. Shome. Irrespective of location of the floodway, the choking point is the 25 Avenue SW bridge and the proposed building will have a negligible impact of the flood levels on the surrounding properties.

32 Having regard to all the evidence, the Board thus accepts the evidence of the Matrix report and Mr. Shome respecting the hydraulic impact of the proposed development.

33 Therefore, the Board finds that the relaxation of section 59 for the 0 metre setback from the edge of the floodway is appropriate in this case. There is no established negative impact from this relaxation. In the opinion of the Board this required relaxation for the development meets the criteria of section 687(3)(d) of the *Municipal Government Act*.

34 Regarding the height and front setback relaxation the Development Authority advised at the hearing that the adjacent home to the south has been demolished and that a development permit application for redevelopment of that property is currently under review. As a result of the removal of that dwelling, the Development Authority's representative advised that pursuant to the Land Use Bylaw the required building height and front setback of the proposed development subsequently have changed and need to be recalculated. Under the Land Use Bylaw, the new height relaxation is 0.86 metre and the new front setback relaxation is 3.87 metres. The Board accepts this evidence and finds these are now the correct Bylaw relaxations. The Board notes that the required height relaxation of 0.86 metre is substantially less than originally required.

35 The applicant pointed out that the area of Lower Erlton and large parts of Mission are in the flood fringe area of the Elbow River like the subject parcel, which in the applicant's opinion is part of the context of the area.

36 The Board takes into consideration that: (a) The area is clearly in transition with older homes being replaced by new larger homes; and (b) The area is subject to significant risk of flooding.

37 The Board finds it significant that in accordance with the Land Use Bylaw the main floor must be above the designated flood level. This basically dictates the design, layout and height of the proposed development. Furthermore, the floodway constraints of the site push the massing of the home forward into the front setback. In the Board's opinion, from a planning perspective, in order to develop the property and built a reasonably sized residential home on the property, relaxations of the Land Use Bylaw need to be considered in this case.

38 The context of the site is that to the adjacent parcels to the immediate north is green space/ parkland and that the property to the immediate south is currently an empty lot. The owners of this property are in support of the proposed development and they expressed in a letter that they have no objections to the required Bylaw relaxations. These are factors to be considered.

39 In the Board's opinion, the height of the proposed development is in context with the immediate surrounding area. The developments across Erlton Street to immediate east have buildings that are close to the street and are similar in height. Furthermore, to the north of 25 Avenue are tall multi-family residential buildings. The height and front setback relaxations have no detrimental effect on the adjacent properties. There is no overshadowing of adjacent properties. The massing of the development is broken up by the use of different materials, different setbacks and projections on the façades, in particular the front façade, of the building.

40 The front driveway is limited in width and does not dominate the streetscape. Having regard to the photographic and mapping evidence, the Board agrees with the Development Authority that the front setback of the proposed development respects the established street pattern. In the Board's view the proposed development is not out of character with developments on the street and in the area.

41 The Board also notes that the Infill Guidelines provide, in section 4.1 on page 14 that: "[c]reative solutions which meet the intent of the guidelines are encouraged." In the Board's view, the proposed development is, in terms of engineering and architecture, a unique design and pursues an inventive solution by creating a flood proof home in an established inner-city neighbourhood while also providing the property owners an appropriate and safe living environment.

42 The Board, based on the evidence, finds that the appellant has not demonstrated that proposed development would have a negative and/or adverse impact on the

adjacent properties from a planning perspective. In the opinion of the Board the required relaxations for the development meet the criteria of section 687(3)(d) of the *Municipal Government Act*. The Board finds that the sought Bylaw variances are appropriate in this case.

43 On the balance of all the evidence, the Board thus accepts the evidence of the Development Authority and applicant over the evidence of the appellant. The Board considered the appellant's evidence, but finds that it has provided insufficient compelling evidence of a planning rationale in support of the appeal.

44 The Board, based on the evidence and aforementioned factors, further finds that the proposed development meets the policies of the Infill Guidelines and ARP. In the Board's opinion, the development is sensitive to and respectful of the adjacent properties and the streetscape. In accordance with the MDP, in terms of flood mitigation measures, the Board finds that in this case sufficient risk reduction measures have been taken for the proposed development. Therefore, the Board finds that the proposed development meets the applicable policies of the MDP.

45 Accordingly, pursuant to section 687(3)(d) of the *Municipal Government Act*, the Board finds that the proposed development and required relaxations would not unduly interfere with the amenities of the neighborhood, or materially interfere with or affect the use or enjoyment of the neighbouring parcels of land.

46 Having regard to the merits of the application and sound planning considerations, the Board, based on the evidence and aforementioned factors, finds that the proposed development is compatible with the adjacent developments and the immediate neighbourhood. The Board, based on sound planning rationale, finds that the proposed development is appropriate for the parcel

47 Therefore, in reviewing and weighing all of the evidence, the Board finds that from a planning perspective the proposed development warrants approval.

48 For the aforementioned reasons the Board denies the appeal and upholds the decision of the Development Authority.

49 The development permit shall be issued as approved by the Development Authority.

Rick Grol, Chairman
Subdivision and Development Appeal Board

Issued on this 6th day of January, 2015

APPENDIX A**Summary of evidence:**

Evidence presented at the hearing and considered by the Subdivision and Development Appeal Board.

The Development Authority:

Ms. Carol McClary, representing the Development Authority, presented exhibits including the report, maps, viewgraphs and photographs and submitted the following:

This is an appeal filed against development permit application DP2014-2738 for a single detached dwelling located at 2509 Erlton Street SW in the city of Calgary.

I have with me Mr. Frank Frigo from Water resources and he is available to answer any questions the Board may have.

To the north of the subject property is 25 Avenue SW which connects to MacLeod Trail, to the east further along 25 Avenue SW is 4 Street SW and the community of Mission as well as the Elbow River.

The parcel is designated R-C2, Residential – Contextual One/ Two Dwelling district. This area is quite flat but the grade steeply increases the further one travels south on Erlton Street.

Although the parcels to the north have an address are not really developed and are basically a green or natural area. Further to the north are town houses and an apartment building. The Large Direct Control parcel is currently vacant but is under construction and there are two third party advertising signs on the small C-N1 parcel.

I will now show you photographs of the site that were received with the larger scale drawings.

The first pictures are found on pages 111 and 112 and show the community during the 2013 flood event.

The picture on page 114 shows the current state of the green space. The green mesh fence has been installed to help with erosion from the Elbow River.

Located on the parcel is the single detached dwelling that is seen on pages 56 and 57 of the Board report. The Board should also note that the Development Authority is currently reviewing a development permit application for the adjacent site but no decision has yet to be made but that house has been removed. This is the grey home the Board will notice in the presented photograph.

In reviewing the development permit application the Board will note that the subject site is quite close to the Elbow River. A portion of the existing home is within the floodway. This application was therefore not an easy development to review.

Most of the parcel will be left in its natural state and therefore only the front one third will be developed. Since the 2013 flood, City Council has amended the Municipal Development Plan (MDP). This information is included in the Board report. First of all they made an amendment called the Flood Hazard Areas to the Plan. This has essentially given policy direction on a city wide scale to all of the people who are involved with development and redeveloped within the flood hazard areas.

It gives direction to the Development Authority and states that “all new development in the floodways should be refused by the Development Authority with the exception of the following [...]”. Clearly, the Development Authority is not to be approving anything within the floodway. This section goes on to state that the Development Authority can approve open space, redevelopment of low density residential buildings on existing building footprint. This is giving the Development Direction on when a parcel is located in the floodway.

The policy goes on to state that for the redevelopment of existing buildings where the footprint straddles both the floodway and flood fringe, the redeveloped building should be located exclusively in the flood fringe. This is basically the situation before the Board. Based on the approved drawings, the home has been notched off and is not located in the floodway.

It further states that all redevelopment of existing low density residential buildings in the floodway must be done through a discretionary permit process. This permit was done through such a process.

All buildings located in the floodway, flood fringe, or overland flow area must be designed to prevent damage by floodwaters, damage by elevated groundwater, and incremental increases of upstream river water levels.

The Development Authority, when reviewing applications that propose flood risk reduction measures, ensure that public safety and minimizing

property damage take precedence in considering development relaxations that may alter the existing built form context and development pattern in a neighbourhood. Approved relaxations should be commensurate with the degree of proposed flood risk reduction measures.

Basically from the overarching policy we then had more specific rules contained in Land Use Bylaw 1P2007 which was amended by bylaw 11P2014.

This is a building that is located within the fringe, and is located within six metres of the edge of the flood way; this is a noted relaxation.

All buildings must be designed in manner as set out in these four overarching principles. The Board will note that (b) indicates that the first floor must be at, or above, the designated flood level. In this particular case, there is a main floor but will not include what would normally be considered as development. All electrical mechanical equipment must be located at, or above, the designated flood level. In this particular case, the mechanical is located on what would be considered the second floor which is also the main living area. Developments further require a sewer backup valve installed.

This is the criteria the Development Authority needed to ensure was followed.

The Development Authority will now explain the proposed development using the approved plans as noted on page 85 to 103 of the Board report.

The main floor is notched to correspond with the floodway line and follows the footprint of the previous home on the side. The second floor does project into the front setback and a relaxation was granted by the Development Authority. This is essentially a very small home and the Development Authority felt this was reasonable as there is a health setback from it to the front sidewalk.

The main floor does not have anything that one would normally see on a main floor of a home. The main floor has been designed in such a way as to mitigate a flood should there be another. It will provide parking, a small washroom, and a main foyer. It is intended that there will be gates that can be opened to let water flow through this area should another flood occur. There will be an elevator, as well as a staircase, that will provide access to the second floor.

The second floor plan does have a stamp stating superseded. The only change is the notation of the mechanical room. There is a dining room,

kitchen, and living room area. There will be stairs leading to the third floor where the bedrooms are to be located.

In terms of the Land Use Bylaw and floodway mitigation, there is no basement development proposed. It is basically a slab on grade construction with pilings. Also, the home has been notched along the floodway line and has nothing that would normally be considered as a home-like element on the main floor.

The driveway will be relocated. The side elevations are very modest. There will be doors on the rear elevation where water can flow should there be another event.

As previously stated, the Land Use Bylaw changed in June and therefore when it says that all buildings must be setback six metres from the floodway, the Development Authority is too look to the policy documents to find directions on how to deal with things that are in the floodway as well as within that six metres. The Bylaw wants to see developments out of the floodway and to have flood mitigation elements.

Bylaw Discrepancies		
Regulation	Standard	Provided
59 Flood Fringe and Overland Flow Area Regulations	(2) Unless stated in subsection (3), all buildings must be setback 6.0 metres from the edge of the floodway.	Plans indicate the proposed building is setback 0.00 metres (-6.00 metres) from the edge of the floodway. A majority of the parcel is enveloped by the floodway area. There is no portion of the development that is located within the floodway area.
435 Building Setback from Front Property Line	(1) For a Contextual Single Detached Dwelling, Duplex Dwelling, Semi-detached, or Single Detached, the minimum building setback is the greater of: (a) The contextual front setback less 1.5 metres Required Setback = 4.00 metres	Plans indicate the East Setback is 1.53 metres (-2.47 metres) In addition to the above item, the Development Authority has granted a relaxation for the front building setback in order to ensure the development has sufficient living space and be properly utilized by landowners.
336 Projections Into Front	(1) Bay windows and eaves may project a	Plans indicate the East eaves project 3.13 metres (+2.53 metres) into the

Setback Area	maximum of 0.6 metres into the front setback area.	setback area. The east eave projection depth relaxation was subsequently granted in association with the above mentioned front building setback distance.
438 Building Height	(1) For Contextual Single Detached Dwelling, Duplex Dwelling, Semi-detached Dwelling and Single Detached Dwelling, the maximum building height is the greater of: (a) 8.6 metres	Plans indicate the building projects into the maximum height plane. The relaxation to the building height is to accommodate the proposed main floor to be located above the recommended 100 year flood water level.

The Development Authority would also like to note that when the calculations for front setback were done, the adjacent grey home did exist. The presented calculations are based on this. Because it is now a vacant parcel, the Development Authority would skip over two lots and even taking this into consideration there would be a small relaxation required. The relaxation noted in the chart is for the second floor only. There is a health boulevard before one gets to the property line and the Development Authority would not be willing to extend the building envelope pass the floodway line.

In terms of the height relaxation, the Development Authority granted this based on the design element of the home, it will not be negligible for the street, and it is not uncharacteristic of this part of the community to have homes that are nine and ten metres in height. Further, it is only for a portion of the roof and not the entire structure.

In conclusion the Development Authority approved the application and prepared reasons for that approval which can be found on page 23 of the Board report. We did negotiate with the application and looked at the relaxations quite extensively and determined that they were warranted. The property can be developed and the setback was considered reasonable. The second floor does project but the garage is setback. The development does exceed the height by 0.3 metres but has not been built to the absolute maximum which is 10 metres.

After completing her presentation, Ms. McClary and Mr. Frank Frigo, Senior Planning Engineer with Water Resources, responded to questions posed by the Boards:

- The Development Authority clarified that the north wall follows the existing footprint of the present house and stops right at the flood line. It is not their understanding that they would be removing anything below the surface, so if there is a wall or anything it would be capped off. This is made clear in one of the cross sections.
- Ms. McClary also clarified the six metre setback on the approved plans. If the home was not within the six metres, and kept within the flood fringe area, it would not be possible to construct a home on the property.
- The Development Authority has to use the words “must not be in the flood fringe” in conjunction with the policy and the MDP. Before June when the Bylaw was amendable, single detached dwellings and semi-detached dwellings were exempt from all of these rules. They had to create a balance and that balance was that each application must be evaluated on its own particular merits. They could not simply say no to each application as The City is not in a position to purchase these properties. The Bylaw was also amended to indicate that these applications must be discretionary. This is why there is such an extensive review of an application.
- Mr. Frigo continued stated that he and his team were involved in the development of the text found in the MDP. It was for exactly this type of situation that this text was developed as they recognized that there would be cases where there would be buildings straddling floodway and fringe. There was no direction at that time from Council or senior Administration to look to a policy of sterilizing, or buying out properties, or preventing the use however it was recognized that wherever possible they should utilize the opportunity of a Land Use Bylaw rewrite to make sure that only the flood fringe, the lower of the two hazard classes, could be redeveloped with low density residential.
- Mr. Frigo continued by stating that the designation of the floodway in Erlton is quite a unique area. All the streets and avenues within north Erlton are intended to carry flow. If they do not convey flow, a portion of the river’s conveyance is blocked off and areas upstream, such as Roxboro/ Rideau would experience much higher levels. Therefore it is really quite critical that the floodway in this area be maintained. It is quite evident from photographs taken during the 2013 flood, which quite closely resembles the design case of the one in one hundred year event that is used as a regulatory standard, that there are high velocities on the floodway side of this line and not so high velocities on the flood fringe signs. As such it would appear that it has been quite appropriately designated. Mr. Frigo stated that conveyance through the actual structure was not an element that Water Resources felt needed to be included in the design. Their greater concern was that the issue of the structure being able to withstand damages from flood waters. To that regard a hydro-technical report was requested as part of the analysis of this application. The obstruction issues were addressed. Water Resources opinion was, based on their review of the models, maps, and observations of the 2013 event, that it would be unlikely that this building would create incremental obstruction over what had been previously on the property and would not create incremental obstruction relative to the designation of the floodway line. Again, their greater concern was that with the potential for highly erosive flow and high velocity flow in adjacent lands there could be erosion around the site. This is one component that remains of interest to his Department.

- The floodway/ flood fringe maps that are imbedded in the Land Use Bylaw are based on modeling done in 1983 and updated in 1996 by Alberta Environment. After the 2005 flood, it was recognized that many locations, particularly along the Elbow River, under predicted the actual values observed. Subsequently Water Resources partnered with Alberta Environment and produced a new set of models and maps .these new models and maps were never imbedded in a regulatory scheme, that is they did not become the standard in application within the Land Use Bylaw, however Water Resources has adopted the practice of providing that information as a recommended elevation to ensure that all applicants who are considering development in these areas of risk understand what the most recent and most technically up to date information would say about the risk of that development. They have found that most applicants are adhering to this new information. That being the case, these new models and maps were never subject to a floodway/ flood fringe analysis; that is they did not try to designate these land use zones on the basis of this new modeling. The 2012 models do suggest levels that are higher than those that are imbedded in the Land Use Bylaw. In this case, the applicant adhered to the recommended elevations; they met the higher elevations which turns out, in this instance, to be even higher than the observed levels during the 2013 flood event which closely represents the one in one hundred year event.
- Mr. Frigo confirmed that recommended height of main floors has increased to respond to the higher levels of water the actual floodway widths have not changed. Interestingly, immediately before this hearing he was in a meeting discussing this very topic. The Province is reconsidering the redesignation of risk areas in all communities in Alberta. A number of changes may occur. Mr. Frigo also reminded the Board that when the original mapping for Calgary was done in 1983, Provincial standards had not yet been set so two of the current criteria by which floodways are defined in other communities were not in place. The Province is considering going to a higher standards as well as new designations that may require new development policy. In the meantime, the 1983 maps are in force and the policy with the recent amendments to Land Use Bylaw 1P2007 remain in force.
- In this instance, it was more complex then the existing building just being in the same place. It was that the existing building was representing a decrease in obstruction in that the corner of the building that was in the floodway was being proposed to be removed. Further, based on the models, maps, and observations they have a very good idea of what was going on in terms of velocity level and hydraulics in the area. On that basis, it is very clear that there was not direct obstruction at this corner. There is a publicly available aerial photograph that shows the conditions of the 2013 event and makes it quite clear that there are interference lines on the adjacent green space parcel that show very high velocities where immediately adjacent to the building there was not.
- Mr. Frigo stated that his interpretation, which is based on his reading of the 1983 River Valleys Plan, of the six metre setback recognizes that the floodway is defined such that it is conveying flow so that the velocities within in that area, and as he previously mentioned the current provincial criteria include a velocity criteria that when defining floodway the primary issue with the six metre setback is to ensure that there would not be damage from the building mostly due to erosion. Within the

floodway one would expect that there could be high velocity flow which could remove soil, which could destabilize a building, which could result in a catastrophic failure of a structure if it were not designed with a deep enough foundation or a robust enough protection around that foundation.

- He further stated that the six metre setback from the floodway really provides a buffer area where if there were erosion the expectation would be that it would be quite unlikely for the erosion to proceed beyond that six metres boundary. Mr. Frigo then stated that there is a host of other reasons why this six metres setback is appropriate but one of the primary reasons was to ensure that any building constructed would be outside of the zone of likely risk for erosion based on the geometry angle of repose of typical bed materials for alluvial gravel flood plain.
- Mr. Frigo also confirmed that as long as the construction of a foundation was robust enough, then construction could be allowed within this area. He further commented that as the Board may recall the previous Land Use Bylaw allowed this six metre offset to be reduced in cases where it could be proven that no serious damage to the building would occur.
- Ms. McClary then confirmed that the drawing A.2.2.0 should indicate that it is a rendering of the second floor and should also indicate that the mechanical room is located on this level. The Development Authority also stated that the plans were amended to show in greater detail where the mechanical room would be located. Drawing A.1.2. was amended to add the sewer backup valve and also the driveway slope. Ms. McClary stated that there are the only two changes associated with this particular drawing.
- The interference lines shown in the photographs on pages 119 and 120 of the Board report do indicate a high velocity flow through this area because of the constraint between the two buildings. Mr. Frigo stated that in general the primary flow that the floodway is trying to direct is onto 25 Avenue. Approximately 12 per cent of the one in one hundred year flow is intended to flow along 25 Avenue. It is primarily to the north edge of the subject property and this is why the floodway lines dive through this area. The Development Authority recognizes that the water will try to get out and they actually designed 25 Avenue and constrained the elevations within Erlton to assure that water will get out of the channel.
- Mr. Frigo further explained the amendments to the Municipal Development Plan pertaining to the six metre setback. Mr. Frigo further stated that they were trying to ensure that the damageability of a building would be reduced while recognizing that adjacent buildings will still have influence on the flow.
- Ms. McClary further elaborated on this and stated that a municipal plan contains overarching principles. When the Development Authority looks at policy in the way it is written in the MDP which uses words that suggest or influence; it is giving direction but will not provide a definite number. The Development Authority must look to other documents and read them in conjunction with the MDP to obtain a definite number. The Development Authority also stated that most likely the thinking was that there are so many different scenarios it would be unfortunate to be caught with six and should, 10 years from now, the setback be four metres or eight metres, then one would only have to amend the document that provides more specificity

which in this case is the Land Use Bylaw. Mr. Frigo added that this was exactly the context of the discussion that occurred.

- Mr. Frigo stated that typically if an application such as this was circulated, Water Resources would undertake its own analysis to try and understand the situation from a hydro technical perspective. They would look at evidence from past flood events, such as the ones that occurred in 2013 and 2005, they would look at hydraulic models and try to assess the building, and they would engage the applicant and seek out a hydro technical analysis if they needed additional information. In this particular instance there is a hydro technical analysis that was provided for this hearing. It does not detail the erosion aspect as much as he would like but, in Water Resources opinion after their analysis, the depth of foundation and the type of piling appear to be adequate. However, they always expect that an applicant will provide justification around how the building was designed to mitigate damage from water and this was why the analysis was provided. Mr. Frigo reiterated that this report addressed the obstruction issue in great detail but it did not address the velocity and erosion issues in great detail. He commented that from the Development Authority would prefer greater documentation from the applicant concerning the development and how it is armoured and reinforced to withstand erosion.
- Page 123 of the Board report is an excerpt from a report that The City and the Province partnered on that provides hydraulic modeling information for the local area.
- Ms. McClary confirmed that the applicant did submit a hydraulic report to The City.
- The Development Authority reiterated that the adjacent home to the south has been demolished and as such they would have to take measurements from the home located two properties further down; she would be hesitant to say there would still be a relaxation. This home is a three storey development with a front drive garage.

In Favour of the Appeal:

Mr. Bill Fischer on behalf the Erlton Community Association, the appellant, submitted photographs of the subject site and surrounding area, relevant sections of the Land Use Bylaw 1P2007, and the approved plans. Mr. Fischer then stated the following in favour of the appeal:

Before I start, I may be able to help clarify a two items for the Board. The Board was asking about the excerpt from the Golder report. I submitted this as it was one of my exhibits but I do have the complete report should the Board wish to review it. Secondly the Board discussed reexamining the setback due to the non vacant adjacent lot. I have an exhibit and it shows the front setback for the home to the south as 6.55 metres.

The Erlton Community Association encourages and supports good development. This development, however, with its significant relaxations in both scope and size doesn't meet the definition of good development. It is out of context with the area, would adversely impact neighbouring

properties upstream on the block, and other nearby blocks, and typifies insensitive development.

This portion of our community is zoned R-C2. Section 426(1)(o) of the Land Use Bylaw 1P2007 lists a single detached dwelling as a discretionary use. Thus section 35, subsections (a) through (j) apply.

Page 120 of the Board report shows an aerial view of the vicinity. It will help put this presentation in context.

This is a photograph of the 25 Avenue bridge; Erlton Park, the subject property and existing home at 2509 Erlton Street; the home at 2515 which will be referenced in terms of setback; the home at 2519 which will be reference in terms of side-yard flood water flow and street damage; the home at 2605 which will be referenced in terms of setback, Forrest Park which will be referenced in terms of flood water flow; and the home at 60 27 Avenue SW which will be referenced in terms of flood damage.

Although this photo was taken after the peak water flow, you can still see evidence of the water flow and wave action - flowing over the bridge deck; around the bridge; through Erlton Park; through the side-yard of 2509, onto Erlton Street and down the lane; and flowing through the side-yard of 2519 onto Erlton Street.

During the 2013 flood, the water and debris flow on the Elbow River exceeded the capacity of the riverbed and the clearance height of the 25 Avenue Bridge. The excess flowed outside the river channel, knocking down the fence, as shown in the photo on page 114 of the report, where the existing house at 2509 Erlton Street did not shield it, and around the bridge. The bridge and the existing house at 2509, located primarily in what is presently marked as the flood fringe, and partially in the floodway, combined to act as a choke point. The result was high volume and high velocity floodwater that washed out the bridge approach as shown in the photo page 12 of the report. Repairs, as noted on page 118 of the report, were budgeted at \$1,250,000.

This choke point also restricted the water flow so that it backed up and traveled through Forrest Park, and the side yard of 2519 Erlton Street. The photo on page 7 of the report shows the flow exiting the park, flowing between the homes along the Elbow River north of Forrest Park, here, here, and here, and entering Erlton Street. You can see the wave action, and make an educated guess as to the water depth based on the submerged vehicles - although this photo was also taken after the peak flows.

The photo on page 119 of the report depicts the result of the flow through the side yard of 2519 Erlton Street. It destroyed the detached rear garage.

The photo on page 8 of the report depicts the result of the force of the flow. It was so great that it lifted the sidewalk, washed out the road, and shot across Erlton Street to the home on the other side of the street. The photo on page 9 of the report shows that home at 60 27 Avenue. The photo on page 10 of the report shows the damage resulting from the high volume and high velocity floodwater. It scoured the foundation, separated it into its component parts of cement, sand, and gravel, and washed it away.

As defined by section 13(61) "flood fringe" means those lands abutting the floodway, the boundaries of which are indicated on the Floodway/Flood Fringe Maps that would be inundated by floodwaters of a magnitude likely to occur once in one hundred years.

As defined by section 13(62) "floodway" means the river channel and adjoining lands indicated on the Floodway/Flood Fringe Maps that would provide the pathway for flood waters in the event of a flood of a magnitude likely to occur once in one hundred years.

Land Use Bylaw section 59(2) states:

Unless stated in subsection (3), all buildings must be set back 6.0 metres from the edge of the floodway.

In our opinion, section 59(2) cannot be relaxed since Land Use Bylaw Section 8(f) states: "must" is to be construed as a compulsory obligation.

Please refer to plan A.1.0, and note that the north wall of the existing house intrudes into the floodway.

Land Use Bylaw section 57(1) states:

No new buildings or other new structures are allowed in the floodway, except for the replacement of existing [...] Single Detached Dwellings on the same building footprint.

As shown on plan A.1.1, and page 109 of the report, the proposed building is over-laid on the existing foundation. They do not match. This development doesn't propose to construct on the same building footprint, but does claim the right to the portion of the existing north wall extending to the currently marked floodway; to build in what is presently described as the flood fringe; and to build well forward of the existing foundation.

Despite these clear, precise, and unambiguous rules, the Development Authority relaxed the floodway setback by six metres.

The image on page 121 of the report shows this area is labelled on the flood hazard maps as flood fringe, with flood fringe defined as water generally less than one metre deep and flowing more slowly.

Flood fringe doesn't accurately define what happened here, nor the damage caused.

As shown on page 13 of the report, The City stated in their comments on a September 2012 development permit for a retaining wall at 2605 Erlton Street (three doors south of the property under discussion, and also backing onto the Elbow River):

Recent technical studies, and observations made during the June 2005 flood have indicated that the local designated flood water level may underestimate actual values in a 1:100 year flood condition. This may be relevant to consideration of scour potential, noted above. Present estimates suggest a 1:100 year water level locally of 1050.80 metres, whereas the designated level is 1049.90 metres.

Page 45 of the Board report shows an image with the 1:100 level noted at an elevation of 1050.7 metres upstream of the property.

Page 50 of the report mentions the "Bow and Elbow Hydraulic Model Update". This is the April 2012 Hydraulic Modelling report, by Golder Associates, produced for The City of Calgary and Alberta Environment and Water. The chart on page 123 of the report is from page 49 of the Golder report. It shows the 25 Avenue Bridge with a 1:100 year flood water level at the bridge deck of 1050.8 metres.

Since the upstream flood elevation is 1050.7 metres and the flood level at the bridge is 1050.8 metres, those flood elevations bracket the subject property. The edge of the floodway on plan A.1.0 is shown at an elevation of 1049.12 metres. The 1.68 metres difference is significant.

The logical conclusion is that the floodway boundary must be drawn on the map at an incorrect location and elevation, since the floodway boundary is based on the 1:100 flood elevation. Furthermore, since these values also define the flood fringe, we believe this proposal actually builds in the observed floodway.

In our opinion, and as shown in the various photos depicting damage, the entire portion of Erlton surrounding this development lies in the floodway. We fully expect that when maps are updated, based on the 2013 flood data, that new maps will reflect this.

Nevertheless, we believe the question that needs answering is: If the underestimated 1:100 flood level of 1049.8 metres results in a floodway /

flood fringe boundary elevation of 1049.12 metres, what is the floodway/flood fringe boundary location and elevation when the now-correct 1050.8 metres flood level elevation is applied?

Building again in what is currently described as the flood fringe - which we believe to be the floodway - will ensure that the type of damage shown can reoccur, back up flood water, and re-route it onto the properties immediately south, increasing flood water flow onto and through them.

On page 82 of the report, the Development Authority lists additional factors, considerations and rationale for their approval decision. However, in our view they appear to have misconstrued them as reasons to support the relaxations, rather than deny them.

In order, they are:

The hypothetical level is recommended by Water Resources because it is based upon more recent river surveys and is therefore considered to be more accurate data for use in effective flood mitigation planning.

Notice that they recognise the accuracy of this recent data suggesting an elevation of 1050.8 metres.

All buildings located in the floodway, flood fringe or overland flow area must be designed to prevent: damage by floodwaters; damage by elevated groundwater; and incremental increase of upstream river water levels.

Notice the requirement to prevent the incremental increase of upstream river water levels. During the 2013 flood, as the photos show, the existing house acted as a choke point to constrict floodwater flow around the bridge, backing up the water and increasing both the elevation and velocity.

[...] ensure that public safety and minimizing property damage take precedence in considering development relaxations [...].

In our view, the 6.0 metres flood fringe relaxation will cause an incremental increase of upstream water levels and an increase in property damage. Both these negative scenarios far outweigh any justification to allow this relaxation.

Section 35 of the Bylaw states in part that:

When making a decision on a development permit for a discretionary use the Development Authority must take into account:

[...]

(c) the appropriateness of the location and parcel for the proposed development;

(d) the compatibility and impact of the proposed development with respect to adjacent development and the neighbourhood;

[...]

(j) sound planning principles.

In our opinion, the Development Authority failed to properly consider the serious negative effect of the flood fringe relaxation in relation to nearby homes and properties, and the surrounding blocks of homes. Furthermore, and again in our opinion, approving this building on the flood fringe is not a sound planning principle, especially since it will act as a choke point during the next flood event, and once again contribute to upstream damage to other properties.

The contextual front setback is 4.0 metres. The Development Authority has relaxed the front setback by 2.47 metres.

As noted on page 24 of the report, they justified this by stating:

It was noted that all adjacent buildings on the blackface (sic) have been constructed close to the front property line due to the Elbow River.

This is untrue.

An infill home at 2605 Erlton Street (three doors south of the property under discussion, and also backing onto the river) was constructed under DP2008-2978 in 2008. As shown on the plan on page 14 of the report, it respects section 435 of the Land Use Bylaw and has a front setback of 6.55 metres based on the contextual setback of the neighbouring homes on either side.

Recently our community reviewed DP2014-3934 - a new home at 2515 Erlton Street - immediately south of this project. As shown on the plan sheet from page 122 of the report, the home also respects its contextual setback of 5.23 metres, and harmonizes with the many homes in South Erlton that have a large front yard green-space.

As shown on plan A.1.0 the front setbacks for the two properties to the south of the proposed development are 3.64 metres and 7.33 metres. The section 435 contextual calculation results in a required setback of approximately 4.0 metres.

If you refer to plan A.3.3, in the lower left-hand corner, you will note that the proposed building is 1.0 metre beyond the 4.0 metre contextual setback, and the projection or over-hang of the second and third floors is a further 1.41 metre beyond that. In total, they comprise what the Authority cites as a 2.47 metres relaxation.

This lot is located at a prominent location at the entrance to South Erlton. The foundation intruding into the contextual setback, and the upper floors jutting even further over the required setback will appear incongruous and will block the natural line-up and rhythm of the front of the homes on the west side of Erlton Street.

As shown on plan A.0.0, the top rendering clearly shows the section 435 relaxation presenting this three-story building closer to Erlton Street as a visually imposing mass that dominates the streetscape. It allows a larger top heavy mass jutting out over the already advanced ground floor setback to amplify its towering aspect. As the first building near the corner of Erlton Street and 25 Avenue, it will dominate both roadways. It should make a positive contribution to the street character of both, yet this design does just the opposite - it intrudes and over-powers.

Section 438 - Building Height

Land Use Bylaw section 438 (1) specifies the maximum building height as being the greater of:

- (a) 8.6 metres; or
- (b) The contextual height plus 1.5 metres, to a maximum of 10 metres.

The Development Authority did not specify the height relaxation it granted. After the enquiry shown on page 15 of the report, they advise the height to be 1.73 metres or five feet eight inches too tall. This building exceeds both the contextual height and the maximum building height for the district.

The over-height ceilings amplify the height disparity. As shown on plan A.3.0, on the right side, the 10 foot seven inch ceiling height on floor two and the nine foot 10.5 inch ceiling height on floor three demonstrate that no effort was made to comply with the maximum contextual allowable building height for this parcel. The height could have been closer to

compliance if the ceiling heights were more modest, and skylights were used on the top floor.

Section 35 states:

When making a decision on a development permit for a discretionary use the Development Authority must take into account:

[...]

- (d) the compatibility and impact of the proposed development with respect to adjacent development and the neighbourhood;

Since this site is located on Erlton's major through street, the height relaxation will draw more attention to the jutting mass of the building resulting from the section 435 relaxation, and will result in an unfriendly street appearance. It is insensitive, unresponsive to the context of the surrounding homes and streetscape - and therefore incompatible.

In summary, while our community has great sympathy for the developer working with a challenging lot, we believe that a more modest home, conforming to the rules of the Land Use Bylaw, would better suit this lot.

We submit that the Development Authority's approval of this development permit violates sections 35(c) and 35(d) of the Land Use Bylaw, in that it would imperil many nearby properties. Furthermore, in our view, there is no sound planning principle as envisioned under Land Use Bylaw section 35(j) to allow any of this.

We ask that this development permit be denied.

Mr. Fischer clarified the following points upon questioning of the Board:

- Mr. Fischer further explained why the existing home, in his opinion, acted as a choke hold on this area. In their opinion, because this home extended into the flow of water, it is in the flood fringe and partially in the floodway, it caused water to hit the house and flow down it instead of allowing water to flow onto 25 Avenue as the Development Authority indicated it should. Further, he does not believe the proposed design will mitigate this in anyway. If this home was built on pilings and there was nothing there he would be willing to concur that it would allow for flow but there will be solid walls at ground level that will block the water flow.
- The appellant stated that other than the photographs taken by The City and his own personal experiences during the 2013 flood, he has no other evidence in terms of this property acting as a choke hold on the area. He further stated that based on his

experiences it was clear that this was what was occurring. Mr. Fischer referenced a photograph showing a portion of fence that was knocked down due to the water flow. This picture also shows a portion of fence that was not knocked down because it was blocked by the house. He reiterated that he saw the eater hit this building and start to back up.

- The appellant recognizes that legally the 1983 maps are still the current applicable maps but his argument is that the required relaxation is what will cause the problem. The applicant wants to build in the flood fringe and the building will be located where it should not be. If the applicant were to follow the maps, there would be no issue. For this particular lot he is of the opinion that no relaxations should be allowed.
- The appellant stated that he believed the purpose of the Golder report was so that experts could review the proposed application. He did use an excerpt from this report to establish the height of the flood waters so that he could reference the height above and below the property that bracketed it and so that it would be known where the flood fringe was and what impacts it experienced. The appellant reiterated that if it is of any value to the Board he could submit this report.
- Mr. Fischer then confirmed that Erlton Street does rise quite significantly. The grade starts to increase four properties south of the subject lot.

Opposed to the Appeal:

Mr. Patrick Bruton, the registered owner of 2703 Erlton Street SW, an affected neighbour, raised the following in opposition of the appeal:

- His property is to the south of the subject lot and he been a member of the Erlton community for approximately a year. Mr. Bruton stated that he has lived in this general area his entire life and he confirmed that he is in support of the proposed development.
- There has been very little investment in this area since the 2013 flood. In his opinion, the proposed development is essentially the first true investment from a real estate perspective and it will set a standard for this neighbourhood. There are some relaxations that are necessary but, considering the location and the concerns for future flooding, he is of the opinion that required relaxations are prudent and warranted to make the home attractive and viable from an investment stand point.
- The property is essentially the entrance point to the South Erlton community. From a streetscape perspective it will reflect very well on the neighbourhood. The proposed design is modern and contemporary and, at the same time, responds well to the flood potential. Mr. Bruton stated that this design will be revolutionary for Calgary and the designers should be commended.
- He reiterated that the proposed development will be a lead indicator for this community and will set a desirable precedent. Even though there are multiple houses and dwellings in this area there has been very little development in the community since the flood. The proposed development, in his opinion, demonstrates that people do seek to live and invest in this community.

- Mr. Bruton also stated that in his opinion the appellant does not speak on behalf of the entire community.
- Mr. Bruton was at this location during the 2013 flood event. He commented that upstream from this area there is a development currently under construction, called the river, which actually is incorporating on site, on river mitigation which should increase flow. When water flows through this area it will encounter a bank and an escarpment to the south of the subject property. Once water essentially reaches and breaches this bank everything downriver will experience flooding. Therefore, in his opinion, whether the subject home is constructed on the property or not, water will flow through this area.
- Mr. Bruton offered his support for the project as a vested member of the community and he knows he is not the only individual who is in support.

Mr. Kevin Nyhoff of Nyhoff Architecture, the architect, submitted a Flood Hydraulic Review for the subject property as well as various diagrams and renderings. Mr. Nyhoff then raised the following points in opposition of the appeal:

- In early 2013 they were approached by the owners of the subject property, Peter Stapleton and Ethel Nakano, to develop a new home for this lot. They currently reside directly across the street from the proposed property. At the time of the flood they were renting out the previous home on the subject property; selling this property was not an option for them because this was not their primary point residence.
- The applicant spent four or five months during the first half of 2013 working with the owners to develop a design that responded to both the context of Erlton and to the river adjacency as well as to the urban qualities of this site. The 2013 flood occurred and the project was put on hold.
- The owners lost both homes in the flood; the water, through both properties, was upwards of four feet deep and reached their main floors. The owners took some time but ultimately decided to move forward and construct a home that suited the subject property and would be designed specifically for this purpose.
- The applicant and the owners continued to work on the development. On December 10, 2013, in conjunction with the neighbouring property at 2515, they met with The City and conducted a pre-application meeting. As they recognized that both sites would be very sensitive they had a joint full team evaluation for the two lots. Their intent was to build quality architectural designs for both of these sites. The applicant then confirmed that, as mentioned by The Development Authority, the 2515 lot is still in negotiations between The City and a design firm based in Seattle. The applicant then stated that they were quite honoured to have the opportunity to be able to design a precedent setting structure for Calgary and for the post flood condition. Mr. Nyhoff reiterated that this was their intent throughout the design exercise.
- The applicant has spent a great deal of time and energy understanding the flood realities and the data that has been presented. In his opinion, it is important to note that although the setbacks and fringes have been discussed in detail, the reality is that there was water everywhere. The presence of this home as it stands today, or

as it will stand in the future if the proposed development is allowed to proceed, will have no impact on the general area.

- As noted on the City of Calgary Flood maps, the flood fringe is defined by the orange areas. In effect, this flood fringe area does not just impact this home, but hundreds of homes. Therefore, when there is talk about not allowing a home to be built in the flood fringe one must keep in mind all of the towers and developments that exist and are currently being approved in and around all edges of this flood fringe area. This includes the Stampede Grounds and many communities. In his opinion this is a very important factor and it would be easy to focus in on specifics in terms of this site but if one is very careful and thoughtful they will recognize that this could create a precedent that would be harmful.
- Another aspect of this property that is important to understand is in terms of the context. The subject property is very inner city, urban site. To the east of the property is an undeveloped lot with natural landscape used as a park. The fence located on this property is owned by The City of Calgary and was designed to break away in the course of a flood event and it is their understanding that there is a new plan for this fence to be rebuilt as a much lower open metal structure.
- The applicant then stated that they are not proposing to extend any built form beyond the flood line. This includes any ground cover, any patios, or any fences. He reiterated that they have one hundred percent held back out of respect for this line.
- It is also important to understand the height of the homes that surround this property. As previously mentioned the adjacent lot to the north is park land and the lot to the south is currently under review for a new development permit. There are also quite a vast array of multi-family developments that range in height from 16 metres to 50 metres. These projects are large in scale and dominate the end of Erlton Street as shown in the submitted photographs. The applicant continued by stating that they are not looking at this project as being detrimental to this view at all. Their development, when compared to the approved and approvable heights, is well within reason for creating a natural rhythm on this street. Mr. Nyhoff then confirmed that four sites down from the subject lot the grade does begin to rise but based on the subject developments location on the lower end of the street they are able to maintain a fairly consistent height along Erlton Street. Mr. Nyhoff used photographs and renderings to demonstrate this for the Board and stated that this area as an R-C2 zone has a maximum height plane of 10 metres while the adjacent properties designated as multi-family can be built anywhere from 16 metres to 50 metres.
- Mr. Nyhoff also confirmed that it is true that they will be using the existing footprint for placement of the new development. The existing home is a one storey, 1912, wood constructed home and has a fairly small foot print. The application has proposed to use as much of the foundation as possible to use as a retaining wall before adding the proposed concrete structure.
- The proposed development is three storeys high.
- The main floor is 1258 square feet and will contain nothing but the garage, entryway, powder room, and staircase. The main floor will be highly engineered and will be entirely constructed of concrete with the walls measuring 12 inches thick. The garage doors are steel and have been designed to fold up so that in the event of a flood, the homeowners, with some forewarning, can open the doors so that water

can flow through. The applicant further stated that they have attempted to depress the garage floor as much as possible within The City guidelines and as such have achieved a depression of 2.6 feet. There will also be a series of storage racks which will allow the owners to store objects out of reach. The geodetic height of the main floor is 1052.45 metres and the one in one hundred year flood event is measured at 1050.7 metres. Therefore the proposed home is a good five feet above this flood elevation. The first landing for the staircase is basically at the flood line and the proposed living space is another five feet above that. Mr. Nyhoff confirmed that this area will be completely devoid of organic materials that could rot, decay, or cause any health issues. The owners will be able to air this area out to dry and there are trench drains in the garage as well.

- In addition to that, there is a glass door on the front as well as glass doors on the back. When one discusses good neighbourhood designs, in his opinion, a lot of this comes to the concept of eyes on the street. This was an important concept in their design. There will be security shutters that fit over these doors so that if an event does happen these grills can be lowered to deflect anything from being caught up.
- The appellant referenced the example of a home on stilts and in Mr. Nyhoff's opinion, this is the worst thing they could have done as it would have created a forest of columns that could collect debris and ultimately create a situation that would see additional stress on the structure thereby making it unsafe. Secondly it would take all living space off of the street level and raise it up into the air and in his estimation this is not good urban design. The proposed development creates a situation where it can deflect anything that occurs.
- The proposed development is essentially a 2900 square foot home. This is not excessive in any sense. The subject lot is a wonderful property and the owners have strived to take advantage of it. The lot is only 37 feet wide while the neighbouring parcel to the south is a double wide lot. While the neighbouring lot will allow a proposed development to sprawl out somewhat this can also be seen as increasing the mass of resistance against water flow. The subject development will have a fairly small foot print that will allow water to surround and bypass the home.
- This will be a three bedroom home and is intended to be a fairly modest investment.
- As noted by the Development Authority, all of the mechanical equipment will be located on the second floor behind the kitchen. The applicant noted that this will be an engineering challenge to fit this all but they are committed to achieving this. It will take away from some of the living space and this will put strain on the floor plate and explains why the home is pushed forward slightly. It is also important to note, in his opinion, that two or three feet of this increase to the front setback is actually soffit and not habitable space. Although the measurement must be taken to the front of the fascia, the renderings show that there is a two feet deep architectural surround that is more or less a continuous soffit from the roof line.
- Mr. Nyhoff commented that they are trying to create a piece of architecture. This is not something that they have entered into lightly; they are professionals and have studied and analyzed it. This is an important urban intervention. It has been well considered and will be extremely well engineered.
- They have gone through all the proper processes and used all of the relevant criteria available to them at the time. Further, the development was circulated to the

community association and no comments were forwarded to the applicant and his team. Mr. Nyhoff also stated that all parties were well aware of the liabilities concerning redeveloping a property such as this site.

- The applicant did meet with the appellant and did try to understand the community association's concerns in terms of this application. Mr. Nyhoff stated that in his estimation they have done an excellent job in terms of due diligence and professionally this is an exciting opportunity to show Calgary what can, and should, be done. They are trying to develop something that is unique and purpose built that will be highly engineered and sensitive to the community.
- Mr. Nyhoff then explained that the second level has been designed with a dining room at the front with a lot of glass, two offices spaces, and a guest bedroom. Many suburban homes tend to retract from the street but the applicant views this as an opportunity to show Calgary how to minimize the impact of a driveway and garage space by tucking it under and bringing the living space forward. Mr. Nyhoff explained that this living space will have operable walls so that the owner can open the home up to essentially sit on the street. In his opinion, these are good measures based sound planning principles.
- He also stated that in his estimation the proposed flood heights are not excessive. They have used what are typical building heights for residential homes but the challenge they faced was that they had to lift the development out of the ground higher than what one would normally do. Therefore, the development has the perception of being taller when, in fact, if one were to remove the garage and place the home on the ground, it would be very contextual. That being the case, the height and the space on the upper two floors is very open to the community and very porous. In the applicant's estimation it incorporates has sound design planning principles.

Mr. Manas Shome of Matrix Solutions Inc., the addressed the Flood Hydraulic Report prepared for the subject property:

- As indicated in the report, he reviewed the hydraulics of the 2013 flood event to address the concerns raised by the appellant. He particularly focused on the effects constructing this building would have on the surrounding lands and whether this property is operating as a choking point.
- In doing so Mr. Shome reviewed available documents which included the Golder report, Provincial documents, and City of Calgary documents.
- As previously mentioned by the applicant and the Development Authority, the foot print of the proposed development is so small that whether it is there or not it will not make any difference.
- If one were to review the measured water levels upstream and downstream from this property during the flood event, they would see a difference of approximately one metre. The levels upstream measured approximately 1050.3 metres while downstream measured approximately 1049.23 metres. Mr. Shome also reiterated that as noted by Mr. Frigo, the 2013 flood event was very close to the one in one hundred year flood event. The one in one hundred year flood modeling results

indicated that upstream levels would be 1050.8 metres and downstream levels would be 1049.9 metres.

- It is expected that when a real one hundred year flood occurs the levels should be slightly lower than what an engineer would recommend for design purposes as an engineer should add some height for safety reasons.
- Mr. Shome stated that due to the low chord elevation of the 25 Avenue bridge, water began to back up and traveled sideways. The proposed building would create a small obstruction but when considering the entire scenario its impact would be almost non-existent. He stated that in his opinion the effect would be in the range of millimetres if any at all.
- In conclusion, this building is not working as a choking point. The proposed development will have a very similar, or smaller, impact as the existing building in that it will have no impact on flood waters in the surrounding area.

Mr. Nyhoff continued with the presentation by raising the following points:

- Their clients were advised that it would be beneficial to work with their neighbours to the south and present a unified development permit application submission to remediate the river's edge and as such this was removed from the subject development permit application. Therefore the whole scouring and reconstruction of the riverbank is currently underway and is being coordinated by the owners of 2515 but does not include the owners of the subject property. This is a very different issue than the approval of the development permit for the home which is before the Board.
- Mr. Nyhoff then addressed street context and stated that this is a unique site and it definitely does create a gateway to Erlton. In his opinion, it is also important to note that when one is discussing setbacks both sides of the street should be taken into consideration. The existing homes on the opposite side of the street face in a different direction and therefore, the home on the corner of Erlton Street has a very shallow setback of 1.2 metres. Mr. Nyhoff used a photograph to show the existing street context. He also noted that the park space also extends out and the proposed home will not project past the park edge.

Mr. Peter Stapleton, the co-owner of the subject property, also made a verbal presentation to the Board in opposition of the appeal:

- He and his wife currently live directly across the street from the subject property and have been there since 1997. They love this community and, as such, have no intention of doing anything that would damage it in any way. They truly believe that the proposed development will enhance, not detract from, the neighbourhood.
- Their current view from their home across the street is over the existing home and onto a 20 storey tall, brick apartment building. In reality, the proposed development will restrict the view onto the bottom portion of this large building.

Upon completion of the presentations, the Board posed questions:

- The applicant confirmed that when the owners look across from their current home, directly across the street from the subject property, they see a 50 metre high multi-family development. There is another large multi-family development further down the street. When designing the proposed home they considered the environment in which it would be located.
- Mr. Nyhoff also clarified the drawing numbers. This was originally an error on their behalf at the time of the submission of the development permit application. The City requested an amended plan to supercede this original drawing that would clarify that a sewer backup would be provided as well as to clarify the location of the mechanical room.
- The applicant confirmed that the roof height from the main floor to the second floor is 12 feet. The 12 feet takes into account for a two foot floor structure. As this is a slightly unconventional home they needed to look to a more commercial solution to keep the ceiling as clean as possible. The end result will be a 10 foot ceiling but the applicant anticipated that it might actually be more in the range 9.6 feet. This is the main living space of the home and as such they felt it would be an appropriate environment to accommodate this. This was also done for aesthetic reasons but also for mechanical ones as well. There will be a glass bay window on the rear river side that will require mechanical ventilation under the floor and above in the ceiling. In essence, they could bulkhead but this would require bulkhead around the entire development. A simple straight line would be more cost effective given that there will also be electrical conduits and other services required in this area. Mr. Nyhoff stated that they did not consider lowering the ceiling height but should the Board deem it necessary they would be willing to reevaluate this issue.
- Mr. Nyhoff stated that as normal process would go, at point of development permit, one typically does not have all of their engineering in place as they are waiting for approval to begin. At this time, under normal circumstances, they would have been in full engineering with their structural engineer preparing for construction. It would be at that time that The City would review the engineering of the foundation. The applicant stated that they would have a structural engineer on board to talk on liability for the development and to design the foundations appropriately. They suspect this development will likely be a pile situation but this has yet to be completely determined. Mr. Nyhoff assured the Board that this is part of the natural process and it will be a requirement of The City for them to have a structural engineer and to supply engineered drawings for their building permit.

The Development Authority:

After hearing from all parties involved the Board again questioned the Development Authority:

- Ms. Carol McClary submitted the revised calculations requested by the Board. The front setback would require a relaxation of 3.87 metres.
- The current geodetic peak at the main floor is 1060.53 metres and they were allowed 1058.8 metres. Therefore the previous relaxation would have been 1.73 metres. Of course, using the other house which is a two and a half storey

development, the relaxation would now be 0.86 metres. The Development Authority stated that there is a state of flux in the area and this is the information as of today's hearing. She further clarified that the relaxation was 1.73 metres and not 0.3 metres as she previously stated.

Mr. Frank Frigo commented on record that he agreed with the conclusions of the applicant's engineer as presented to the Board.

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