REVISED AGENDA
PUBLIC HEARING MEETING OF CITY COUNCIL

Monday, November 19, 2018, 6:00 p.m.
Council Chamber, City Hall

Pages

1. CALL TO ORDER

2. *CONFIRMATION OF AGENDA*

Recommendation

1. That the letter from Heidi Kalyniuk, Canadian Pacific, dated November 15, 2018 be added to Item 6.1.5;
2. That the request to speak from Shane Prpich, dated November 14, 2018 be added to Item 6.2.2;
3. That Proclamation Request from David Hedlin, dated November 16, 2018, be added as Item 7.8;
4. That the speaker be heard and Item 6.2.2 be considered immediately following Adoption of Minutes; and
5. That the agenda be approved as amended.

3. DECLARATION OF CONFLICT OF INTEREST

4. ADOPTION OF MINUTES

Recommendation
That the minutes of the Public Hearing meeting of City Council held on October 22, 2018 be approved.

5. PUBLIC ACKNOWLEDGEMENTS

6. PUBLIC HEARINGS

6.1 Land Use, etc.

6.1.1 Proposed Rezoning from M3 by Agreement to M2 – 802 Queen Street – City Park [File No. CK 4351-018-020 and PL4350-Z8/18] 7 - 16

The following documents are provided:

- Bylaw No. 9539;
- Report of the General Manager, Community Services Department dated October 30, 2018;
- Letter from Committee Assistant, Municipal Planning Commission dated November 9, 2018; and
- Notice that appeared in the local press on November 3 and 5, 2018.

Recommendation
The City Council consider Bylaw No. 9539.

6.1.2 Proposed Rezoning – From FUD to R1A – Portion of Glen H. Penner Park - Rosewood [File No. CK 4351-018-021 and PL 4350-Z9/18] 17 - 24

The following documents are provided:

- Bylaw No. 9540;
- Report of the General Manager, Community Services Department dated October 30, 2018;
- Letter from Committee Assistant, Municipal Planning Commission dated November 9, 2018; and
- Notice that appeared in the local press on November 3 and 5, 2018.

Recommendation
That City Council consider Bylaw No. 9540.

6.1.3 Proposed Concept Plan – Application of Holding Symbol – Larkhaven Park [File No. CK 4351-018-022 and PL 4350-Z21/16] 25 - 45

The following documents are provided:

- Report of the General Manager, Community Services Department dated October 30, 2018;
- Letter from Committee Assistant, Municipal Planning Commission dated November 9, 2018; and
- Notice that appeared in the local press on November 3 and 5, 2018.

Recommendation
That the proposed amendment to the Aero Green Business Park Concept Plan, as outlined in the October 30, 2018 report of the General Manager, Community Services Department, be approved.

6.1.4 Proposed Rezoning - Application of Holding Symbol - Larkhaven Park [File No. CK 4351-018-22 and PL 4350-Z21/16] 46 - 48

The following documents are provided:

- Bylaw No. 9541;
- Report of the General Manager, Community Services Department dated October 30, 2018 (See Item 6.1.3);
- Letter from Committee Assistant, Municipal Planning Commission dated November 9, 2018 (See Item 6.1.3); and
- Notice that appeared in the local press on November 3 and 5, 2018.

Recommendation
That City Council consider Bylaw No. 9541.

6.1.5 Proposed Zoning Bylaw No. 8770 Amendment – Review of Zoning Conditions in the RA1 District [File No. CK 4350-018-001 and PL 4350-Z18/18] 49 - 203

The following documents are provided:

- Bylaw No. 9538;
- Report of the General Manager, Community Services Department dated October 30, 2018;
- Letter from Committee Assistant, Municipal Planning Commission dated November 9, 2018; and
- Notice that appeared in the local press on November 3

and 5, 2018.

The following letters submitting comments are provided:

- Brent Penner, Executive Director, Downtown Saskatoon, dated November 13, 2018; and
- Heidi Kalyniuk, Specialist, Real Estate, Canadian Pacific, dated November 15, 2018.

Recommendation
That City Council consider Bylaw No. 9538.

6.2 Public Notice Matters

6.2.1 Utilization of Contingency Fund - Support for City Councillors [File No. CK 4560-1, 255-1, x1700-1]

The Governance and Priorities Committee, at its meeting held on November 13, 2018, considered this matter and referred it back to the Administration to provide further clarity on definition of leave, time limits, and process for approval.

Public Notice appeared in the local press on November 10, 2018 indicating that this matter will be considered; however, due to the matter being referred back to the Administration, it will not be considered at this time.

Recommendation
That the information be received.

6.2.2 Adjusting City Council Remuneration to Compensate for the Elimination of the Non-Accountable Allowance [File No. CK. 4670-5]

204 - 217

The following documents are provided:

- Report of the Governance and Priorities Committee, dated November 13, 2018; and
- Notice that appeared in the local press on November 10 and 13, 2018.

A request to speak from Shane Prpich, dated November 14, 2018 is provided.

Recommendation
1. That, effective January 1, 2019, the Mayor's salary be adjusted to be equal to that of a Saskatchewan cabinet

minister; and

2. That Administration make the appropriate amendments to *Council Policy C01-006, Remuneration – Members of City Council.*

7. PROCLAMATIONS AND FLAG RAISINGS

Recommendation

1. That City Council approve all proclamations and flag raising requests as set out in Section 7; and
2. That the City Clerk be authorized to sign the proclamations, in the standard form, on behalf of City Council.

7.1 Brent Wignes - Saskatoon Citizens Committee for Remembrance Day - November 6 - 12, 2018 - 'Veterans Week' - Flag Raising - 'Royal Canadian Legion Poppy Flag' [File No. CK 205-5, x205-1] 218

Proclamation and Flag Raising previously given. For information only.

7.2 Cindy Babock - John Howard Society of Saskatchewan - Provincial Office - November 18 to 25, 2018 - 'Restorative Justice Week' [File No. CK 205-5] 219 - 220

Proclamation previously given. For information only.

7.3 Kevin Kardynal - Ukrainian Canadian Congress - Saskatoon Branch - November 19 to 25, 2018 - 'Holodomor Awareness Week' [File No. CK 205-1] 221

Flag Raising Request.

7.4 June Zurowski, Saskatoon Women's Community Coalition - December 6, 2018 - 'National Day of Remembrance and Action on Violence Against Women' [File No. 205-5, x205-1] 222 - 223

Proclamation Request.

Regarding the request to fly flags at half-mast on December 6, 2018, City Council, at its meeting held on January 20, 2014, resolved that the Administration be instructed to automatically lower all flags at civic-operated buildings on the same national days of remembrance as recognized by the Government of Canada and the Government of Saskatchewan. These national dates include, but are not limited to, December 6, 2018 - National Day of Remembrance and Action on Violence Against Women.

224

7.5 Sarah Fang - AIDS Saskatoon - November 26, 2018 - 'AIDS Awareness Week' [File No. CK 205-1]

Flag Raising Request.

7.6 Megan Jane - Saskatchewan Construction Association - April 8 - 12, 2019 - 'Saskatchewan Construction Week' [File No. CK 205-5] 225

Proclamation Request.

7.7 David Hedlin - Amnesty International Group 33 - December 10, 2018 - 'Human Rights Day' [File No. CK 205-5] *226*

Proclamation Request.

8. URGENT BUSINESS

9. ADJOURNMENT

BYLAW NO. 9539

The Zoning Amendment Repeal Bylaw, 2018

The Council of The City of Saskatoon enacts:

Short Title

1. This Bylaw may be cited as *The Zoning Amendment Repeal Bylaw, 2018.*

Purpose

2. The purpose of this Bylaw is to repeal *The Zoning Amendment Bylaw, 2014 (No. 2).*

Bylaw No. 9171 Repealed

3. Bylaw No. 9171, *The Zoning Amendment Bylaw, 2014 (No. 2)* is repealed.

Coming Into Force

5. This Bylaw shall come into force on the day of its final passing.

Read a first time this	day of	, 2018.
Read a second time this	day of	, 2018.
Read a third time and passed this	day of	, 2018.

Mayor	City Clerk

Proposed Rezoning from M3 by Agreement to M2 – 802 Queen Street – City Park

Recommendation

That a copy of this report be submitted to City Council recommending that at the time of the public hearing, City Council consider the Administration's recommendation that the proposed amendment to Bylaw No. 8770, Zoning Bylaw, to rezone land at 802 Queen Street, as outlined in this report, be approved.

Topic and Purpose

An application has been submitted by Oxbow Architecture, on behalf of Toon's Holdings Inc., to rezone land in the City Park neighbourhood from M3 – General Institutional Service District by Agreement, to M2 – Community Institutional Service District. This rezoning will repeal the Zoning by Agreement currently in place that permits only a mixed-use development of office space on the main floor, and upper floor residential, to a maximum height of 14 meters, and permit development and use of the site in accordance with the M2 – Community Institutional Service District.

This rezoning will facilitate development of institutional uses, such as office buildings and medical clinics.

Report Highlights

1. The proposed rezoning will accommodate development of medical clinics and office uses.
2. The types of development permitted by the proposed rezoning are compatible with the existing uses in the neighbourhood.

Strategic Goal

Under the City of Saskatoon's Strategic Goal of Sustainable Growth, this report supports the creation of complete communities that feature a mix of housing types, land uses, community amenities, employment opportunities, and internal and external connectivity.

Background

The subject site, 802 Queen Street, is currently zoned M3 – General Institutional Service District (M3 District) by Agreement. The Zoning by Agreement was approved by City Council in May 2014. The zoning designation of this site prior to the Zoning by Agreement was M2 – Community Institutional Service District (M2 District). The lot is currently vacant (see Attachment 1).

Report

Official Community Plan

The City Park Local Area Plan, approved in 2010, identifies the 800 block of Queen Street as an Office/Institutional Policy District, stating: "[this district] is intended for small office complexes, institutional, and residential uses. The area supports Saskatoon City Hospital by allowing medical offices to be located close to the hospital. Also, concentrating them in this area reduces the overall impact on the neighbourhood." The proposed zoning amendment in this application supports this statement.

Proposed Rezoning

Toon's Holdings Inc. is proposing to rezone the vacant site at 802 Queen Street that is currently zoned M3 District by Agreement to M2 District (see Attachment 2). The current M3 District by Agreement limits development of this site to a mixed-use office and residential building. The proposed rezoning will return the designation to the M2 District that was in place prior to the Zoning by Agreement.

Subject to the rezoning being approved, Toon's Holding Inc. is proposing to develop a two-storey medical office building with one level of underground parking. The proposed use is consistent with the uses permitted in the M2 District, which provides for a moderate range of institutional and community activities, as well as medium-density residential uses that are generally compatible with residential land uses and capable of being located in a neighbourhood setting, subject to appropriate site selection.

Comments from Other Divisions

No comments were received during the administrative referral process that preclude this rezoning application from being approved.

Options to the Recommendation

City Council could choose to deny this application. This decision would maintain the current M3 District by Agreement, and would limit development of the site.

Public and/or Stakeholder Involvement

To solicit feedback on the proposal, notices were mailed out to property owners within a 75 metre radius of the site. Six phone calls were received from property owners; four residents expressed opposition stating that this development would exacerbate parking problems in the area, and two residents expressed support for this proposed rezoning.

A public information meeting was held on Tuesday, September 25, 2018. Six members of the public attended the meeting, as well as a representative from Oxbow Architecture and the property owner. General support for the rezoning and proposed development were expressed, along with concerns about parking and potential noise from rooftop mechanical units. See Attachment 3 for a summary of the community engagement.

Other Considerations/Implications

There are no policy, financial, environmental, privacy, or CPTED implications or considerations; a communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

No follow-up is required.

Public Notice

Public notice is required for consideration of this matter, pursuant to Section 11(a) of Policy No. C01-021, Public Notice Policy.

Once this application has been considered by the Municipal Planning Commission, it will be advertised in accordance with Policy No. C01-021, Public Notice Policy, and a date for a public hearing will be set. A notice will be placed in The StarPhoenix two weeks prior to the public hearing.

Attachments

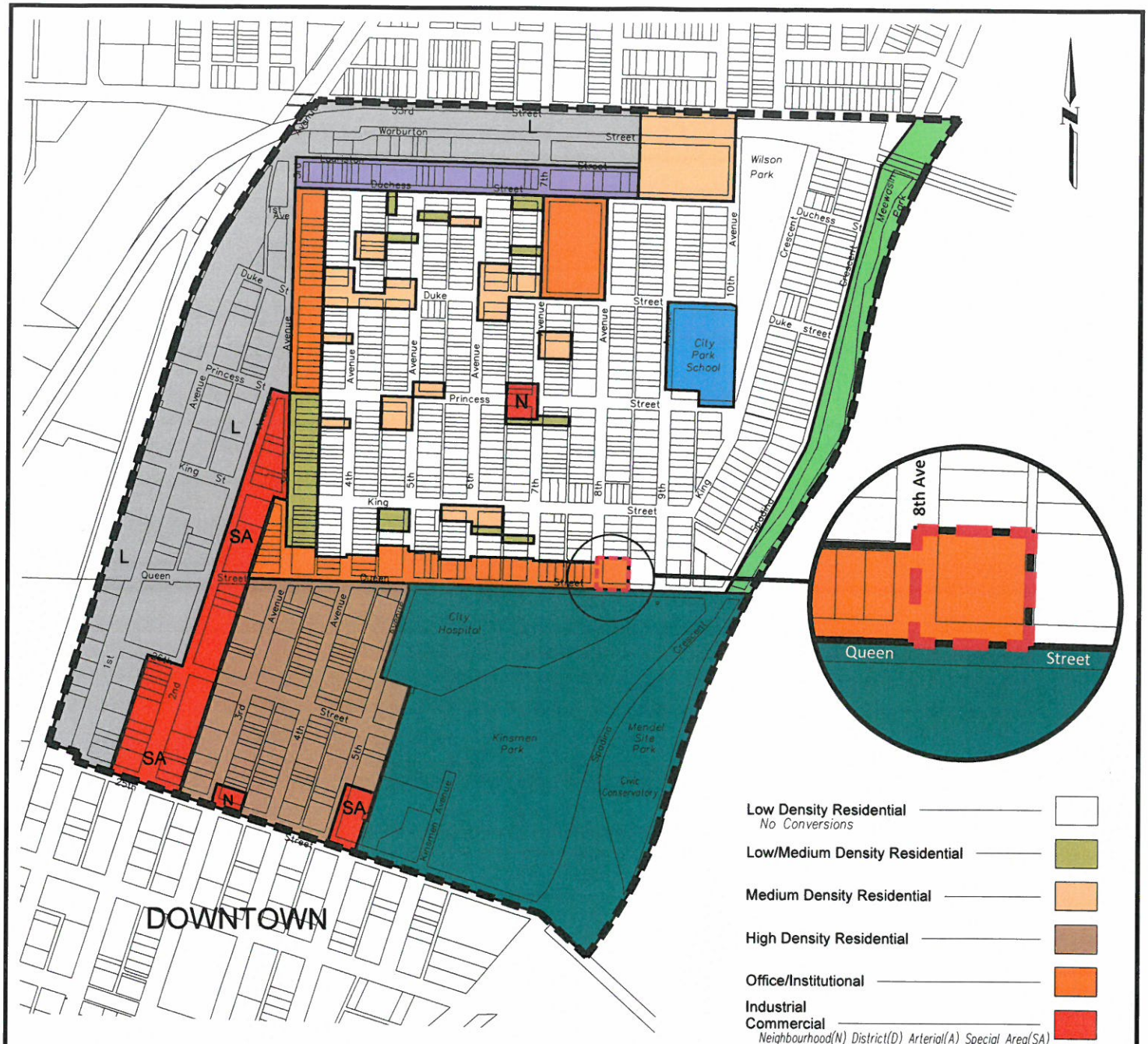
1. City Park Local Area Plan Land Use Map
2. Proposed Rezoning Location Map – 802 Queen Street
3. Public Information Meeting Summary

Report Approval

Written by: Jonathan Derworiz, Planner, Planning and Development
Reviewed by: Lesley Anderson, Director of Planning and Development
Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2018/PD/MPC – Proposed Rezoning from M3 by Agreement to M2 – 802 Queen Street/ks

City Park Local Area Plan Land Use Map



CITY PARK

LAND USE POLICY MAP

with Proposed Zoning Amendment Area

--- NEIGHBOURHOOD BOUNDARY

City of Saskatoon
Planning & Development

NOTE: The information contained on this map is for reference only and should not be used for legal purposes. All proposed line work is subject to change. This map may not be reproduced without the expressed written consent of the Regional Planning, Mapping & Research Section.

DRAWING NOT TO BE SCALED
October 2018

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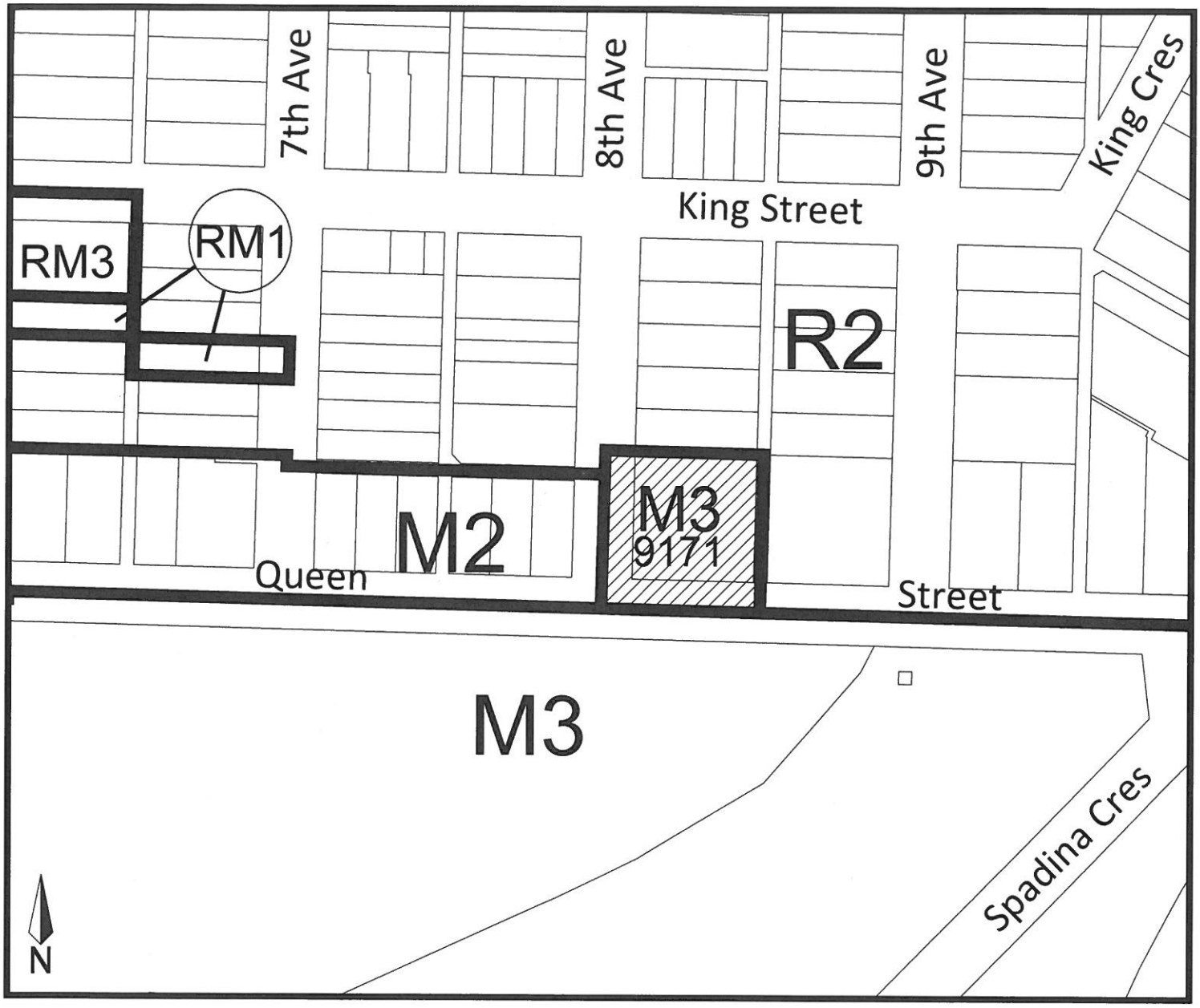
Proposed Rezoning Location Map
802 Queen Street



ZONING AMENDMENT

From M3 by Agreement to M2

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City of Saskatoon

City of Saskatoon ENGAGE

saskatoon.ca/**engage**

Community Engagement Summary

Public information meeting for the proposed rezoning of 802 Queen Street – City Park.

Applicant:

Jim Siemens, Oxbow Architecture, on behalf of Simon Toon, Toon's Holdings Inc.

File:

PL 4350 – Z8/18

Project Description:

A public information meeting was held regarding the proposed rezoning of 802 Queen Street. The meeting was held on September 25, 2018, from 7:00 p.m. to 8:30 p.m. at the First Baptist Church located at the corner of 25th Street East and 4th Avenue North (401 4th Avenue North).

Community Engagement Strategy:

Purpose:

To inform and consult. Attendees were provided with an overview of the rezoning application process, the application to rezone 802 Queen Street, and, the proposed development.

Attendees were asked to provide comments on the above proposals.

Form of Community Engagement Used:

Public information meeting. Attendees were provided the opportunity to speak directly with City of Saskatoon (City) staff and the applicants about the proposals and the rezoning process, and view the plans of the proposed development at 802 Queen Street. Next steps and timeline were also discussed with attendees.

Level of Input or Decision Making Required from the Public:

Comments, concerns, and opinions on the proposed rezoning were sought from the public.

Who was Involved:

- Internal stakeholders. The standard referral process was followed, and relevant internal divisions of the City were contacted for comments. Councillor Hill was also contacted.
- External stakeholders. In advance of the meeting, a flyer with details of the meeting was distributed to property owners within an approximate 75 metre radius of the subject site (a total of 42 notices).
- Six members of the public attended the meeting.
- A representative from Oxbow Architecture and the property owner were also in attendance.

Summary of Community Engagement Feedback:
Attendees relayed the following comments:

- This proposal is better than what was previously proposed under the current zoning agreement.
- Trees on the property will be saved and this is appreciated.
- Parking is a concern to residents as this proposal may exacerbate parking issues in the area.
- Potential for rooftop mechanical to be noisy.

Next Steps:

Action	Anticipated Timing
The Planning and Development Division prepares and presents to the Municipal Planning Commission (MPC). The MPC reviews proposal and recommends approval or denial to City Council.	October 30, 2018
Public Notice - Advertisements prepared and placed in The Star Phoenix, City Page (as per the City's Public Notice Policy).	November 3 to 17, 2018
Public Hearing – Public hearing conducted by City Council, with opportunity provided to interested persons or groups to present. Proposal considered together with the reports of the Planning and Development Division, the MPC, and any written or verbal submissions received by City Council.	November 19, 2018
City Council Decision - may approve or deny proposal.	November 19, 2018

City of Saskatoon

Office of the City Clerk
222 3rd Avenue North
Saskatoon SK S7K 0J5

www.saskatoon.ca
tel (306) 975.3240
fax (306) 975.2784

November 9, 2018

City Clerk

Dear City Clerk:

Re: Proposed Rezoning from M3 by Agreement to M2 – 802 Queen Street – City Park [File No. CK 4351-018-020 and PL4350-Z8/18]

The Municipal Planning Commission, at its meeting held on October 30, 2018, considered a report of the General Manager, Community Services Department dated October 30, 2018, on the above application. After consideration, the Committee supports the following recommendation of the Community Services Department:

> That the proposed amendment to Bylaw No. 8770, Zoning Bylaw, to rezone land at 802 Queen Street, as outlined in the October 30, 2018 report of the General Manager, Community Services Department, be approved.

The Commission respectfully requests that the above recommendation be considered by City Council at the time of the public hearing.

Yours truly,

B Walter

Penny Walter, Committee Assistant
Municipal Planning Commission

PW:

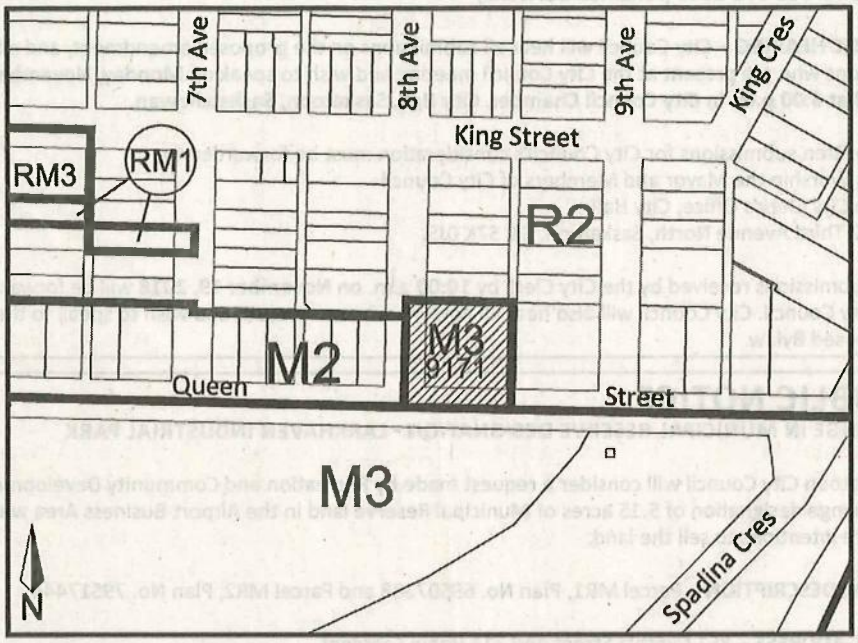
THE STARPHOENIX, SATURDAY, NOVEMBER 3, 2018
THE STARPHOENIX, MONDAY, NOVEMBER 5, 2018

ZONING NOTICE

CITY PARK NEIGHBOURHOOD
PROPOSED ZONING AMENDMENT REPEAL BYLAW – BYLAW NO. 9539

Saskatoon City Council will consider an amendment to the City's Zoning Bylaw (No. 8770) regarding land in the City Park neighbourhood. By way of Bylaw No. 9539, The Zoning Amendment Repeal Bylaw, 2018, the existing Rezoning Agreement for the 802 Queen Street is proposed to be removed. Removal of the Rezoning Agreement will revert the zoning of the properties to M2 – Community Institutional Service District.

LEGAL DESCRIPTION – Lot 23, Block 10, Plan No. 99SA06423.



PROPOSED ZONING AMENDMENT

From M3 by Agreement to M2

File No. RZ08-2018

REASON FOR THE AMENDMENT – Toon's Holdings Inc. is proposing to rezone 802 Queen Street to remove the Zoning Agreement currently in place that restricts use of the site to a mixed use development with office and residential components. The site is proposed to be rezoned to M2 – Community Institutional Service District which is applied to other institutional sites along Queen Street. M2 District permits medical clinics, offices and other uses compatible with a residential neighbourhood.

INFORMATION – Questions regarding the proposed amendment or requests to view the proposed amending Bylaw, the City of Saskatoon Zoning Bylaw and Zoning Map may be directed to the following without charge:
Community Services Department, Planning and Development
Phone: 306-986-0902 (Jonathan Derworiz)

PUBLIC HEARING – City Council will hear all submissions on the proposed amendment, and all persons who are present at the City Council meeting and wish to speak on **Monday, November 19, 2018 at 6:00 p.m. in City Council Chamber, City Hall, Saskatoon, Saskatchewan.**

All written submissions for City Council's consideration must be forwarded to:
His Worship the Mayor and Members of City Council
c/o City Clerk's Office, City Hall
222 Third Avenue North, Saskatoon, SK S7K 0J5.

All submissions received by the City Clerk by **10:00 a.m. on November 19, 2018** will be forwarded to City Council. City Council will also hear all persons who are present and wish to speak to the proposed Bylaw.

BYLAW NO. 9540

The Zoning Amendment Bylaw, 2018 (No. 26)

The Council of The City of Saskatoon enacts:

Short Title

1. This Bylaw may be cited as *The Zoning Amendment Bylaw, 2018 (No. 26).*

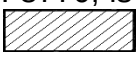
Purpose

2. The purpose of this Bylaw is to amend the Zoning Bylaw to rezone the lands described in the Bylaw from an FUD District to an R1A District.

Zoning Bylaw Amended

3. The Zoning Bylaw is amended in the manner set forth in this Bylaw.

FUD District to R1A District

4. The Zoning Map, which forms part of the Zoning Bylaw No. 8770, is amended by rezoning the lands described in this Section and shown as  on Appendix "A" to this bylaw from an FUD District to an R1A District:

   (1) Portion of Surface Parcel No.: 203469947
   Legal Land Description: Blk/Par EE Plan 102028586 Ext 3

Coming Into Force

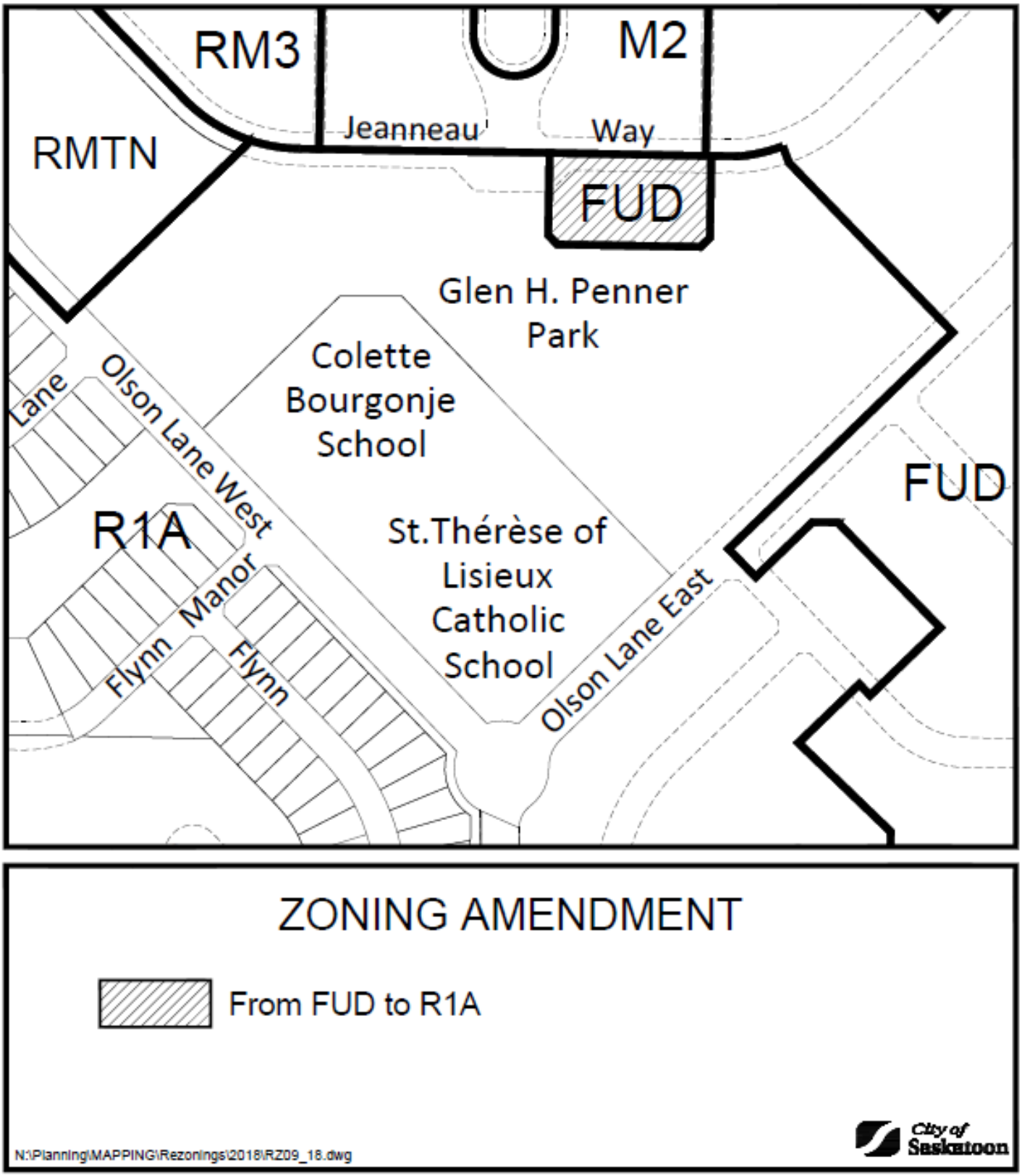
5. This Bylaw shall come into force upon the day of its final passing.

Read a first time this	day of	, 2018.
Read a second time this	day of	, 2018.
Read a third time and passed this	day of	, 2018.

Mayor

City Clerk

Appendix "A"


RM3
M2
RMTN
Jeanneau
Way
FUD
Glen H. Penner
Park
Colette
Bourgonje
School
Lane
Olson Lane West
FUD
R1A
St.Thérèse of
Lisieux
Catholic
School
Manor
Flynn
Flynn
Olson Lane East
ZONING AMENDMENT
From FUD to R1A
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City of Saskatoon

Proposed Rezoning – From FUD to R1A – Portion of Glen H. Penner Park - Rosewood

Recommendation

That a copy of this report be submitted to City Council recommending that at the time of the public hearing, City Council consider the Administration's recommendation that the proposed amendment to Bylaw No. 8770, Zoning Bylaw, to rezone land in the Rosewood neighbourhood, as outlined in this report, be approved.

Topic and Purpose

An application has been submitted by Arbutus Properties proposing to amend the zoning designation of land in the Rosewood neighbourhood from FUD – Future Urban Development District to R1A – One-Unit Residential District.

This application will apply the underlying zoning necessary to implement the Rosewood Neighbourhood Concept Plan for the development of Glen H. Penner Park, as outlined in this report.

Report Highlights

1. The Rosewood Neighbourhood Concept Plan (Concept Plan) identifies the subject areas as Municipal Reserve land use.
2. The rezoning to the R1A – One-Unit Residential (R1A) District will facilitate development consistent with the Concept Plan and apply consistent zoning for all land within Glen H. Penner Park, the core park in the Rosewood neighbourhood.

Strategic Goal

Under the City of Saskatoon's Strategic Goal of Sustainable Growth, this report supports the creation of complete communities that feature a mix of housing types, land uses, community amenities, employment opportunities, and internal and external connectivity.

Background

The Concept Plan was originally approved by City Council in May 2008 and amended in June 2016 (see Attachment 1). Subsequent to the Concept Plan being approved, lands within the Rosewood neighbourhood were zoned FUD – Future Urban Development (FUD) District to provide for interim land uses, pending future urban development.

Report

Concept Plan

The Concept Plan identifies the subject area as part of the core park within the Rosewood neighbourhood.

Amendment to Bylaw No. 8770, Zoning Bylaw

The zoning designation of the subject site is proposed to be amended from FUD District to R1A District. The R1A District will facilitate development consistent with the Concept Plan and will complete the application of the necessary zoning for all land within Glen H. Penner Park, the core park in the Rosewood neighbourhood. See Attachment 2 for a map showing the proposed amendment.

Referral Process

No concerns were identified through the administrative referral process that would preclude the application from proceeding to a public hearing at City Council.

Options to the Recommendation

City Council could choose to deny this application. This option is not recommended as this application is consistent with the Concept Plan.

Public and/or Stakeholder Involvement

To solicit feedback on the proposal, notices were mailed out to property owners within a 75 metre radius of the site. Two inquiries requesting confirmation that the park shown in the Concept Plan will still be developed, following approval of this rezoning, were received. Confirmation was provided and no further concerns were received.

Other Considerations/Implications

There are no policy, financial, environmental, privacy, or CPTED implications or considerations; a communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

No follow-up is required.

Public Notice

Public notice is required for consideration of this matter, pursuant to Section 11(a) of Policy No. C01-021, Public Notice Policy. Once this application has been considered by the Municipal Planning Commission, it will be advertised in accordance with Policy No. C01-021, Public Notice Policy, and a date for a public hearing will be set. A notice will be placed in The StarPhoenix two weeks prior to the public hearing.

Attachments

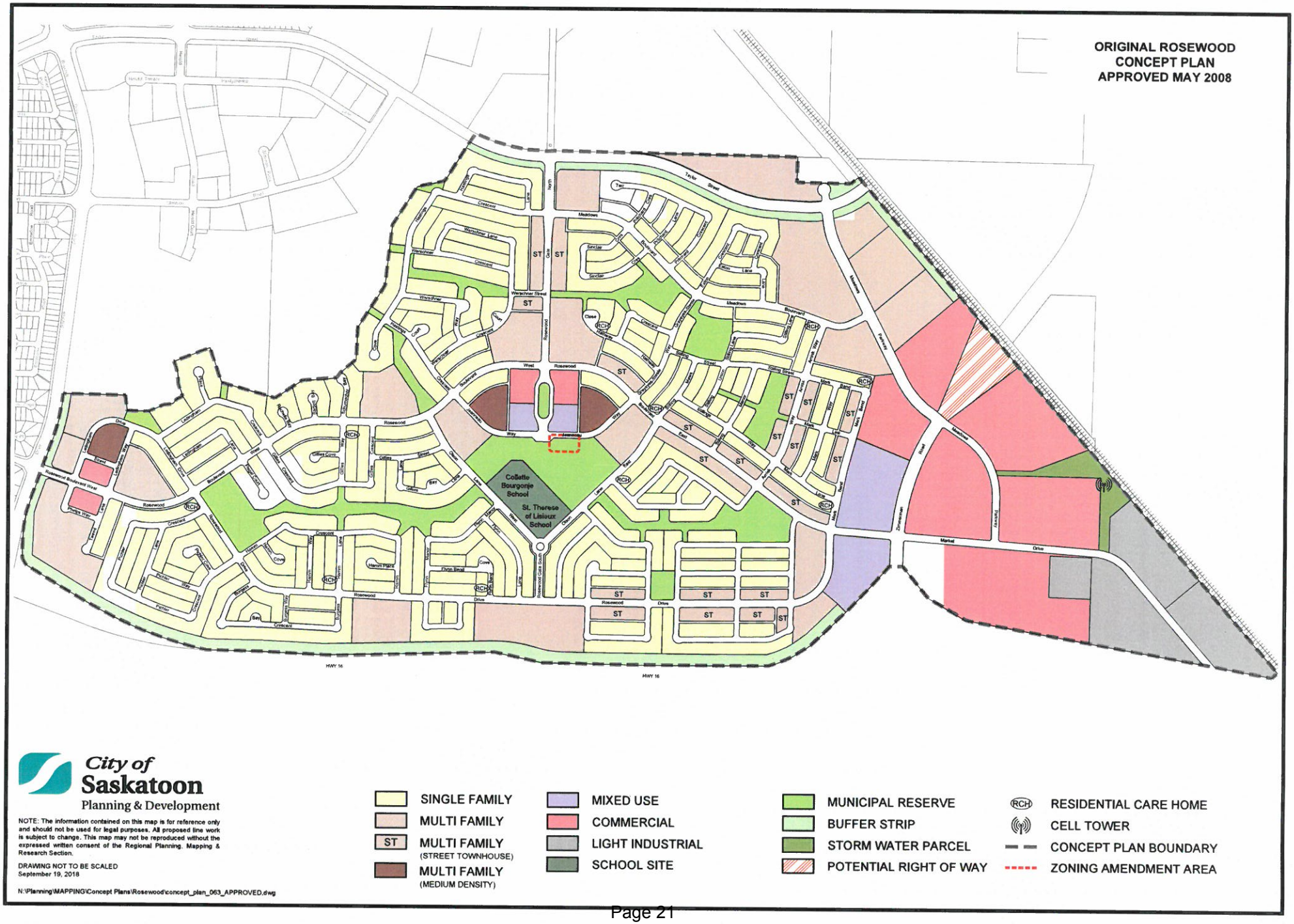
1. Rosewood Neighbourhood Concept Plan
2. Proposed Rezoning Location Map – Glen H. Penner Park

Report Approval

Written by:	Jonathan Derworiz, Planner, Planning and Development
Reviewed by:	Lesley Anderson, Director of Planning and Development
Approved by:	Randy Grauer, General Manager, Community Services Department

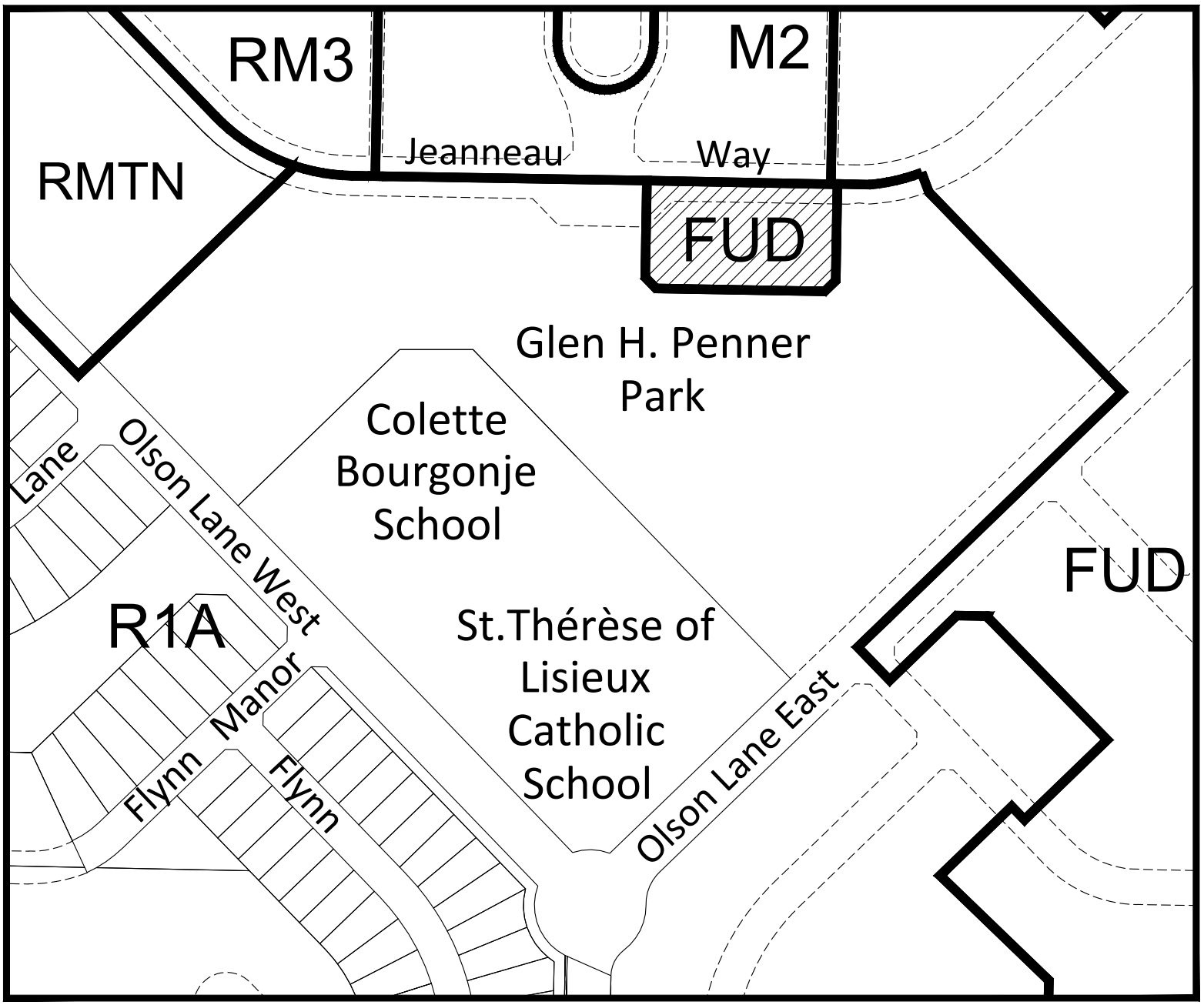
S/Reports/2018/PD/MPC – Proposed Rezoning – From FUD to R1A – Portion of Glen H. Penner Park/ks

Rosewood Neighbourhood Concept Plan



Proposed Rezoning Location Map

Glen H. Penner Park



ZONING AMENDMENT

From FUD to R1A

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City of Saskatoon

City of Saskatoon

Office of the City Clerk
222 3rd Avenue North
Saskatoon SK S7K 0J5

www.saskatoon.ca
tel (306) 975.3240
fax (306) 975.2784

November 9, 2018

City Clerk

Dear City Clerk:

Re: Proposed Rezoning – From FUD to R1A – Portion of Glen H. Penner Park - Rosewood [File No. CK 4351-018-021 and PL 4350-Z9/18]

The Municipal Planning Commission, at its meeting held on October 30, 2018, considered a report of the General Manager, Community Services Department dated October 30, 2018, on the above application. After consideration, the Committee supports the following recommendation of the Community Services Department:

> That the proposed amendment to Bylaw No. 8770, Zoning Bylaw, to rezone land in the Rosewood neighbourhood, as outlined in the October 30, 2018 report of the General Manager, Community Services Department, be approved.

The Commission respectfully requests that the above recommendation be considered by City Council at the time of the public hearing.

Yours truly,

B Walter

Penny Walter, Committee Assistant
Municipal Planning Commission

PW:

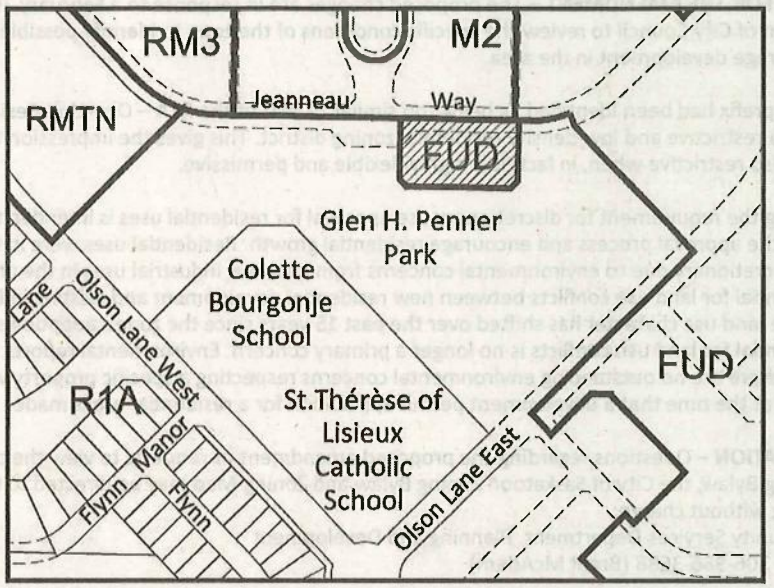
THE STARPHOENIX, SATURDAY, NOVEMBER 3, 2018
THE STARPHOENIX, MONDAY, NOVEMBER 5, 2018

ZONING NOTICE

ROSEWOOD NEIGHBOURHOOD
PROPOSED ZONING BYLAW AMENDMENT – BYLAW NO. 9540

Saskatoon City Council will consider an amendment to the City's Zoning Bylaw (No. 8770) regarding land in the Rosewood neighbourhood. By way of Bylaw No. 9540, The Zoning Amendment Bylaw, 2018 (No. 26), a portion of Glen H. Penner Park will be rezoned from FUD – Future Urban Development District to R1A – One-Unit Residential District in order to permit public parks as prescribed by the Rosewood Neighbourhood Concept Plan.

LEGAL DESCRIPTION – Portion of Block EE, Plan No. 102028586 Ext. 3.



REASON FOR THE AMENDMENT – Arbutus Properties is proposing to amend the zoning for a portion of Glen H. Penner Park to permit development of the park space as prescribed by the Rosewood Neighbourhood Concept Plan. The current zoning for this portion, FUD – Future Urban Development District, does not permit public parks. Rezoning to R1A – One-Unit Residential District is required to allow for park development. The R1A District has been applied to the remainder of Glen H. Penner Park.

INFORMATION – Questions regarding the proposed amendment or requests to view the proposed amending Bylaw, the City of Saskatoon Zoning Bylaw and Zoning Map may be directed to the following without charge:
Community Services Department, Planning and Development
Phone: 306-986-0902 (Jonathan Derworiz)

PUBLIC HEARING – City Council will hear all submissions on the proposed amendment, and all persons who are present at the City Council meeting and wish to speak on **Monday, November 19, 2018 at 6:00 p.m. in City Council Chamber, City Hall, Saskatoon, Saskatchewan.**

All written submissions for City Council's consideration must be forwarded to:
His Worship the Mayor and Members of City Council
c/o City Clerk's Office, City Hall
222 Third Avenue North, Saskatoon, SK S7K 0J5.

All submissions received by the City Clerk by **10:00 a.m. on November 19, 2018** will be forwarded to City Council. City Council will also hear all persons who are present and wish to speak to the proposed Bylaw.

Proposed Concept Plan and Rezoning – Application of Holding Symbol – Larkhaven Park

Recommendation

That a copy of this report be submitted to City Council recommending:

1. That the proposed amendment to the Aero Green Business Park Concept Plan, as outlined in this report, be approved; and
2. That at the time of the public hearing, City Council consider Administration's recommendations that the proposed amendment to Bylaw No. 8770, the Zoning Bylaw, to rezone the Larkhaven Park lands, be approved.

Topic and Purpose

An application has been submitted by the Saskatoon Land Division, on behalf of the Recreation and Community Development Division, to amend the Aero Green Business Park Concept Plan, and apply the Holding Symbol (H) to Larkhaven Park.

The proposed Concept Plan amendments will identify the Larkhaven Park sites as development sites for light industrial land uses and remove the Robin Crescent Extension.

The rezoning application will provide for the application of the Holding Symbol (H) to the Larkhaven Park area to prevent development from occurring prior to approval of a servicing strategy and necessary infrastructure installed.

Report Highlights

1. The proposed amendment to the Aero Green Business Park Concept Plan (Concept Plan) will identify the Larkhaven Park sites as development sites for light industrial land uses and remove the Robin Crescent Extension through Larkhaven Park.
2. The proposed rezoning to apply the Holding Symbol (H) to Larkhaven Park will prevent development from occurring prior to approval of a servicing strategy.

Strategic Goal

Under the City of Saskatoon's Strategic Goal of Sustainable Growth, this report supports the creation of complete communities that feature a mix of housing types, land uses, community amenities, employment opportunities, and internal and external connectivity.

Background

The Concept Plan was approved by City Council in November 2009. The Concept Plan outlines a low-density business park with light industrial parcels consistent with the built form and land use of the surrounding land use pattern (see Attachment 1). The

Concept Plan identified Larkhaven Park as municipal reserve and provided for an extension of Robin Crescent through the park.

Larkhaven Park was originally intended to serve as greenspace for residents of McNabb Park, guests of nearby hotels, and employees of nearby businesses. The Recreation and Community Development Division has since identified the park as underutilized, and received approval in October 2018 to remove the Municipal Reserve designation. Once the park is closed, the land would be able to be developed as light industrial.

Report

Amendment to the Aero Green Business Park Concept Plan

Saskatoon Land is proposing to identify the Larkhaven Park sites as development sites for light industrial land uses and remove the Robin Crescent Extension (Extension) shown going through Larkhaven Park in the Concept Plan (see Attachment 1). As a condition of this removal, Saskatoon Land was required to submit a Traffic Impact Assessment analyzing both intersections affected by the future development of Larkhaven Park (see Attachment 2). The Traffic Impact Assessment concluded that the new trips generated as a result of development can be accommodated safely and at an acceptable level of service without the Extension. Installation of yield signs at both intersections to control vehicles exiting the area of development was also recommended. This Traffic Impact Assessment was approved by the Transportation and Utilities Department.

Amendment to Bylaw No. 8770, Zoning Bylaw

Prior to any development occurring on the Larkhaven Park site, a servicing strategy must be developed and necessary infrastructure installed. Existing water, sewer, and storm water infrastructure lacks sufficient capacity to adequately service new development in this area. To ensure that development does not commence prior to a servicing strategy and the necessary infrastructure being installed, it is recommended that the Holding Symbol (H) be placed on these lands (see Attachment 3). Servicing requirements for this site have been identified in conjunction with the servicing of land in the Hampton Village Business Park and Aero Green Business Park.

The Holding Symbol (H) is currently applied to lands adjacent to the north: Parcels E, F, and G (see Attachment 1).

The Larkhaven Park site and parcels E, F, and G are currently zoned IL1 – General Light Industrial District and there are currently no plans to amend this. Once services are provided to the sites, the Holding Symbol (H) may be removed and development of the sites would be able to proceed.

Options to the Recommendation

City Council could choose to deny this application. This option would maintain the Robin Crescent Extension, and potentially create confusion regarding the timing and potential for development of Larkhaven Park.

Public and/or Stakeholder Involvement

A notice detailing the Concept Plan Amendment and Zoning Amendment was delivered to property owners and business owners within 75 meters of Larkhaven Park. No comments or concerns precluding either the rezoning or Concept Plan amendment were received.

A Public Information Meeting was held on June 21, 2018 from 4 p.m. to 7 p.m. at the Heritage Inn Hotel & Convention Centre, located at 102 Cardinal Crescent. A Community Engagement Summary is provided in Attachment 4.

Other Considerations/Implications

There are no policy, financial, environmental, privacy, or CPTED implications or considerations. A communication plan is not required at this time.

Due Date for Follow-up and/or Project Completion

Future reports will address the removal of the Holding Symbol (H).

Public Notice

Public notice is required for consideration of this matter, pursuant to Section 11(a) of Policy No. C01-021, Public Notice Policy.

Once this application has been considered by the Municipal Planning Commission, it will be advertised in accordance with Policy No. C01-021, Public Notice Policy, and a date for a public hearing will be set. A notice will be placed in The StarPhoenix two weeks prior to the public hearing.

Attachments

1. Aero Green Business Park Concept Plan
2. Zoning Amendment IL1 to IL1(H)
3. Larkhaven Parcel Traffic Impact Assessment
4. Community Engagement Summary

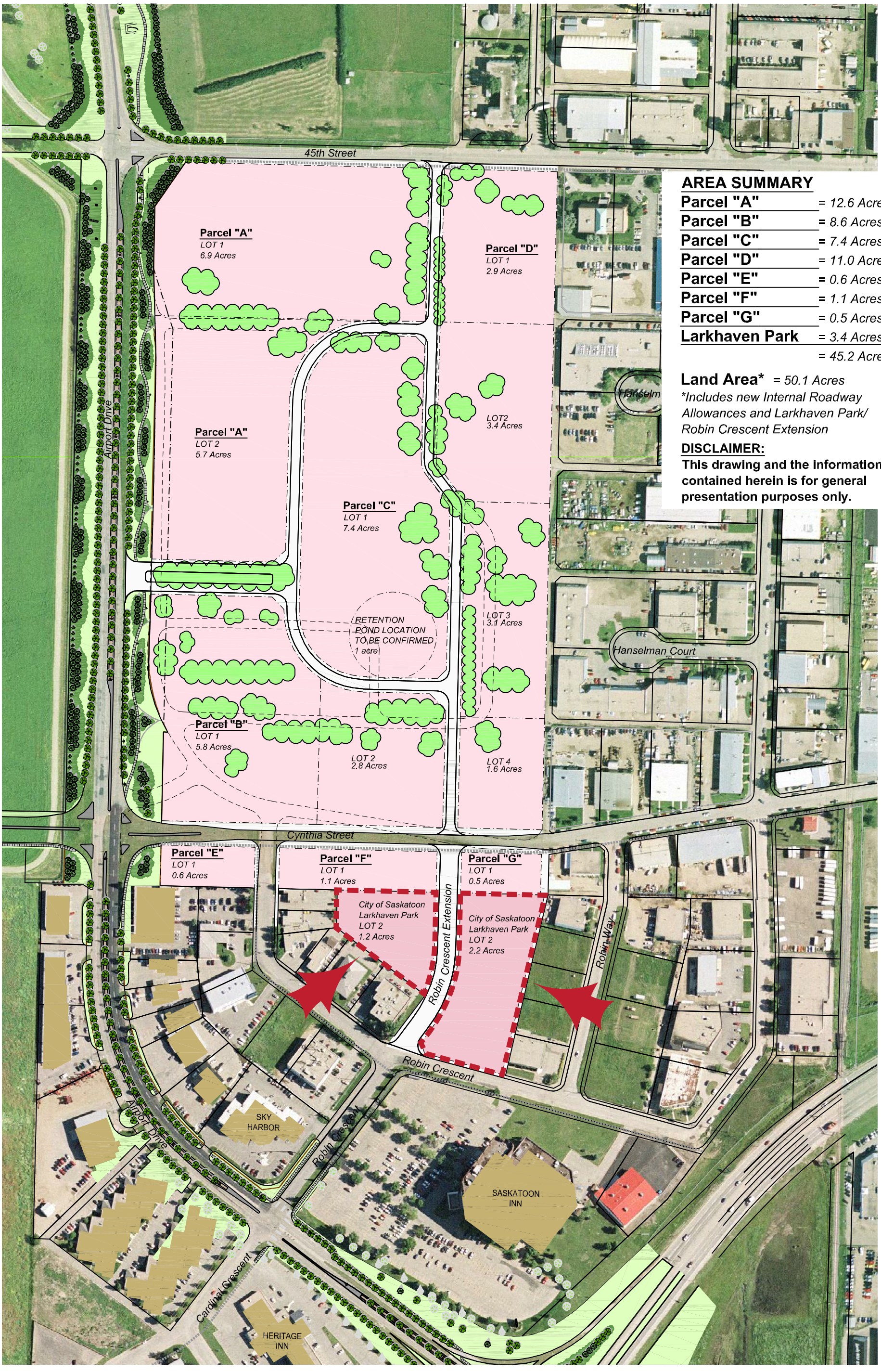
Report Approval

Written by: Jonathan Derworiz, Planner, Planning and Development
Reviewed by: Lesley Anderson, Director of Planning and Development
Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/PD – MPC – Proposed Rezoning – Holding Symbol – Larkhaven Park/df

Aero Green Business Park Concept Plan

ATTACHMENT 1



AREA SUMMARY

Parcel "A"	*= 12.6 Acres*
Parcel "B"	*= 8.6 Acres*
Parcel "C"	*= 7.4 Acres*
Parcel "D"	*= 11.0 Acres*
Parcel "E"	*= 0.6 Acres*
Parcel "F"	*= 1.1 Acres*
Parcel "G"	*= 0.5 Acres*
Larkhaven Park	*= 3.4 Acres*
	= 45.2 Acres

Land Area* *= 50.1 Acres*

**Includes new Internal Roadway Allowances and Larkhaven Park/ Robin Crescent Extension*

DISCLAIMER:

This drawing and the information contained herein is for general presentation purposes only.

P1.2

1:3000

FILE No. 0834

09.01.09 (Y.M.D)

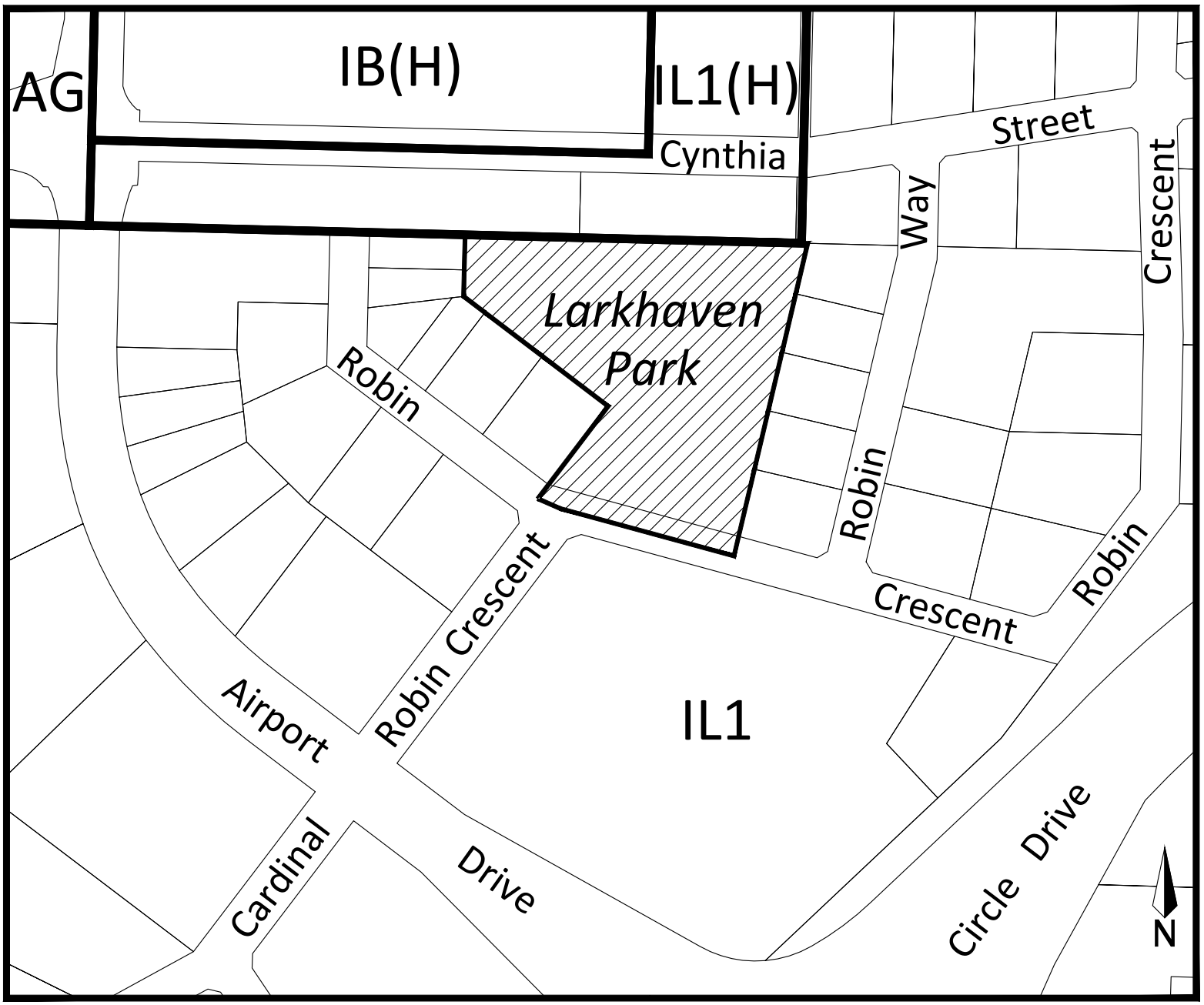
NORTH

Concept Plan with Context Aerial Image

Aero Green Business Park

SASKATOON, SASKATCHEWAN

KINDRACHUK AGREY ARCHITECTURE
619 Main Street East
Saskatoon, Saskatchewan
Canada S7H 0J8
P: 664 2100 F: 664 3300
E: Design@Kindrachuk-Agrey.ca



ZONING AMENDMENT

From IL1 to IL1(H)

Larkhaven Parcel TIA Technical Memo			
100-2100 Airport Drive, Saskatoon, SK S7L 6M6 Phone: 306-242-4303			
Date:	09 February 2017	Project Number:	16SK0350
Attention:	Matt Grazier, MCIP, RPP	Project Description:	Larkhaven Parcel TIA
Company:	City of Saskatoon	File Number:	1900
Phone:	306-975-3305	From:	Paul Nyirongo, M.Eng, P.Eng.
Fax:	306-975-3070	Email:	pnyirongo@allnorth.com
Email:	Matt.Grazier@Saskatoon.ca		
Copy To:			

1 PROJECT DESCRIPTION

The City of Saskatoon retained Allnorth Consultants to conduct a Traffic Impact Assessment (TIA) for a proposed business park on the Larkhaven Parcel in the Airport Business Area of the City. This parcel is currently zoned IL1 (Light Industrial District), and is intended to accommodate light industrial, business park offices and/or retail uses. The total lands consist of two parcels totaling 5.09 acres. It is anticipated that a full build out of the parcel will occur is in 2019. The lands north of Cynthia Street, directly across from Intersection #1, are not part of this assignment and will not be included in the analysis.

The analysis will be based on the City of Saskatoon Transportation-System Impact Study (TIS) Guidelines, Revision 1 –Nov 1, 2011.

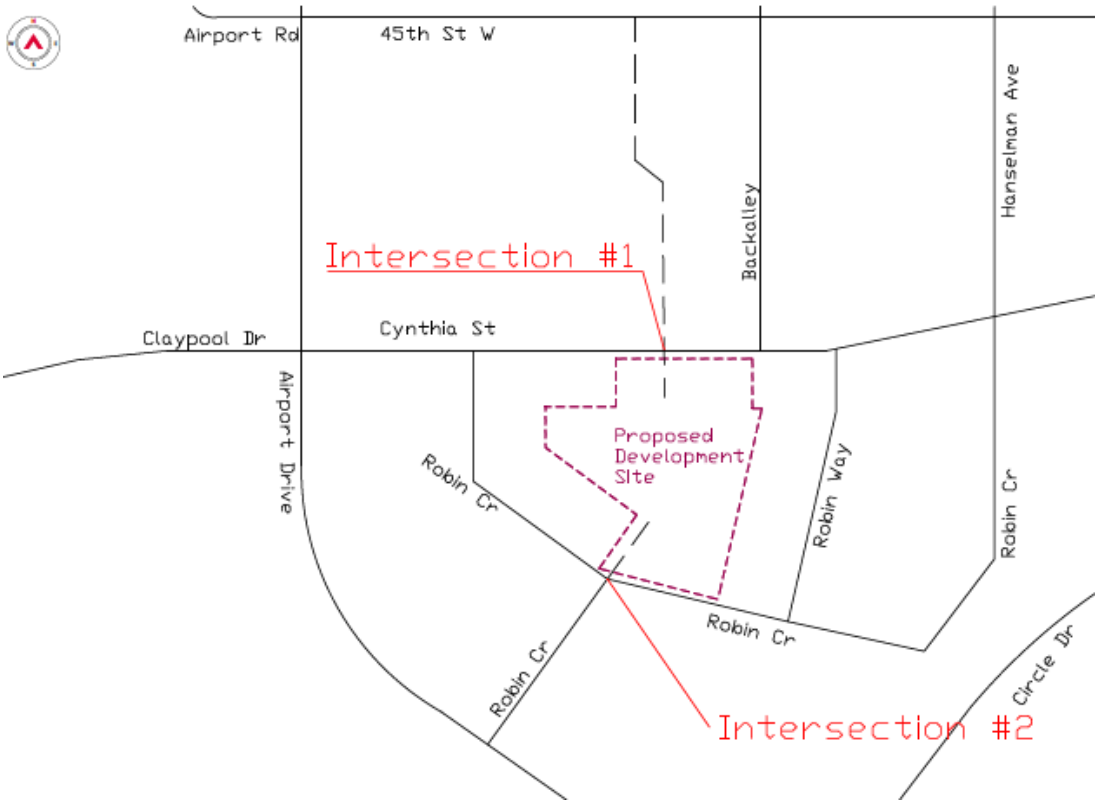
2 STUDY AREA AND TRANSPORTATION SYSTEM

The TIA is required to assess the impact of this proposed development on two specific intersections:

- Cynthia St and Future Access Road (Intersection #1)
- Robin Cr and Robin Cr (Intersection #2)

The two intersections are illustrated in the Study Area, **Figure 1**.

Figure 1: Study Area



3 EXISTING CONDITIONS

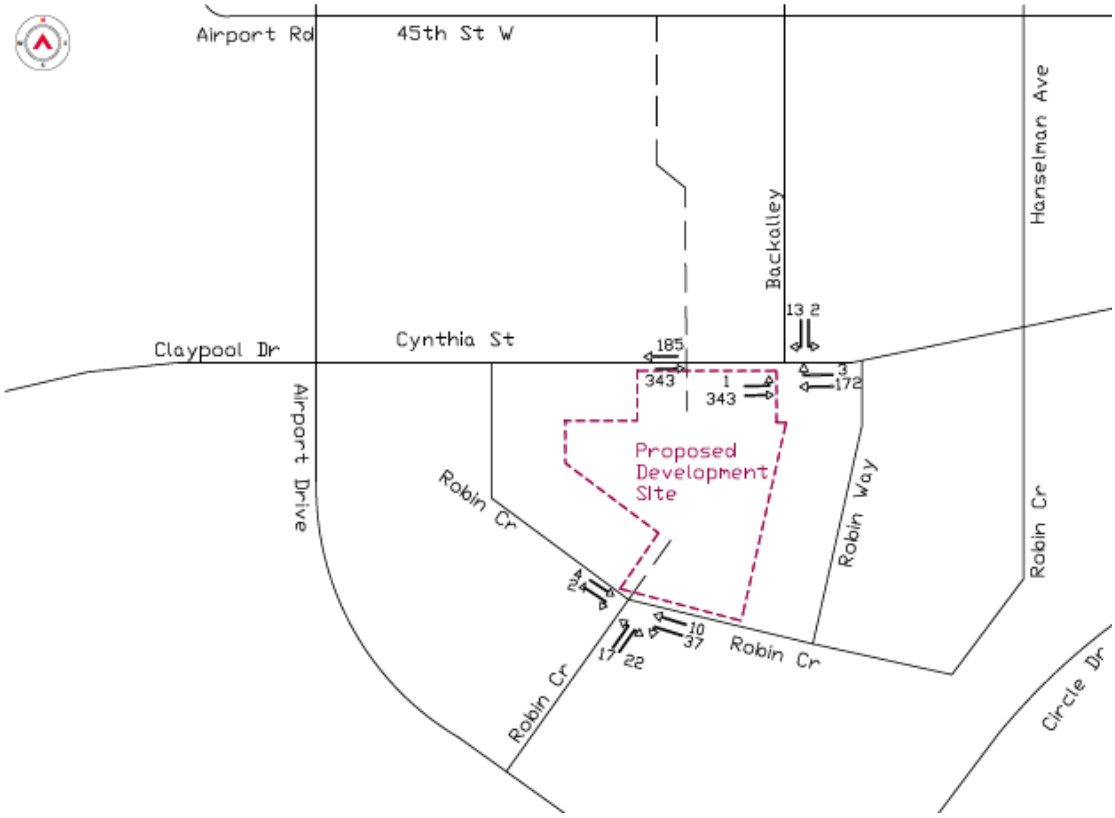
Geometry and Traffic Controls

Intersection #1 is a future intersection located on Cynthia Street which is a two lane roadway. Intersection #2 is located on Robin Crescent which is also a two lane roadway. Intersection #2 is controlled by a yield sign. The yield sign is for northbound traffic, the other movements are uncontrolled.

Traffic Counts

The 2017 turning movements were counted on January 9, 2017 and January 12, 2017. The peak hour occurred between 4:15 pm and 5:15 pm at both locations. Since Intersection #1 does not exist, the count on Cynthia Street was conducted at the back alley intersection. The back alley intersection, which is located about 70 m east of the proposed Intersection #1, acted as a surrogate intersection for the future intersection. The 2017 turning movements for the two intersections are illustrated in **Figure 2.** The raw traffic count tally sheets are illustrated in **Appendix A**.

Figure 2; 2017 PM Peak Hour Traffic



2017 Intersection Operations

A Synchro analysis was conducted using the existing 2017 traffic volumes. **Table 1** illustrates the overall level of service (LOS) and delays at the two intersections.

Table 1: 2017 LOS and Delays

Intersection #	Overall Intersection LOS	Delay (sec)
1	A	0.3
2	A	5.4

4 FUTURE CONDITIONS 2019

The future condition analysis was conducted for the build out year of Larkhaven Parcel (2019) and five years after build out (2024). A growth rate of 2% will be used to grow the background traffic, as recommended in the City of Saskatoon Transportation-System Impact Study (TIS) Guidelines. The assessment considered level of service analysis in the afternoon peak hour and delays as the measures of effectiveness.

The proposed Larkhaven Parcel development will use intersections #1 and #2 as the main access points.

Trip Generation Rates

New trips generated by the Larkhaven Parcel are based on the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, land use number 130: Industrial/Business Park. Based on land use 130 the in the PM peak hour, the site will generate an average of 8.84 new trips per acre of development. The Larkhaven Parcel consists of 5.09 acres, which results in 45 new trips in the afternoon peak hour. Of the 45 trips 79% (36 trips) will be exiting the site and 21%(9 trips) will be entering the site.

Trip Distribution and Assignment

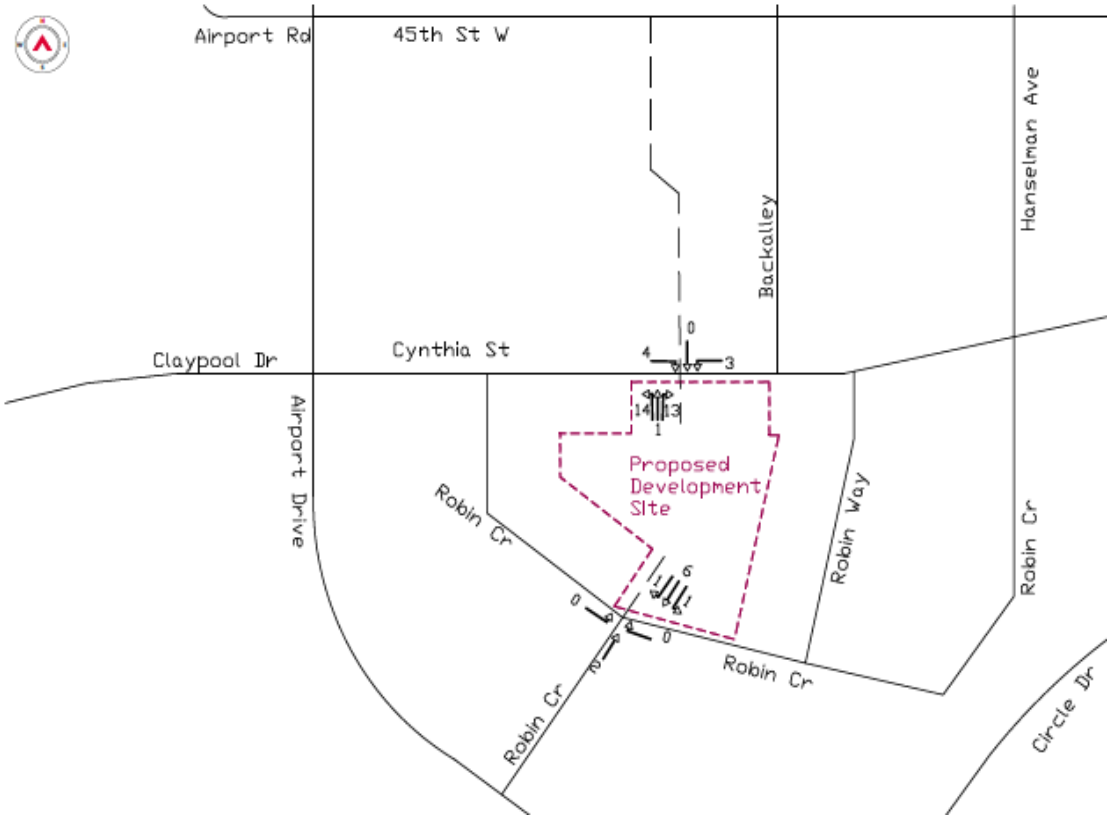
In order to determine the impact of the traffic generated from the developments, traffic must be distributed and assigned to the roadway system. The directions from which traffic will enter and exit the site can vary depending on many factors, including:

- The type of proposed development and the area from which it will attract traffic
- The presence or absence of competing developments within the same market area
- The size of the proposed development, and
- The conditions on the surrounding street system

For the Larkhaven Parcel the most reasonable and likely distribution is that 80% of the traffic will access the development through the Cynthia Street entrance. This is because Cynthia Street is a major roadway and has a signalized intersection on Airport Drive to the west and connects to Avenue C to the east, which is also signalized. The remaining 20% will access the site from Robin Crescent entrance.

Figure 3 illustrates the distribution of the 45 site generated trips based on the assumed distribution.

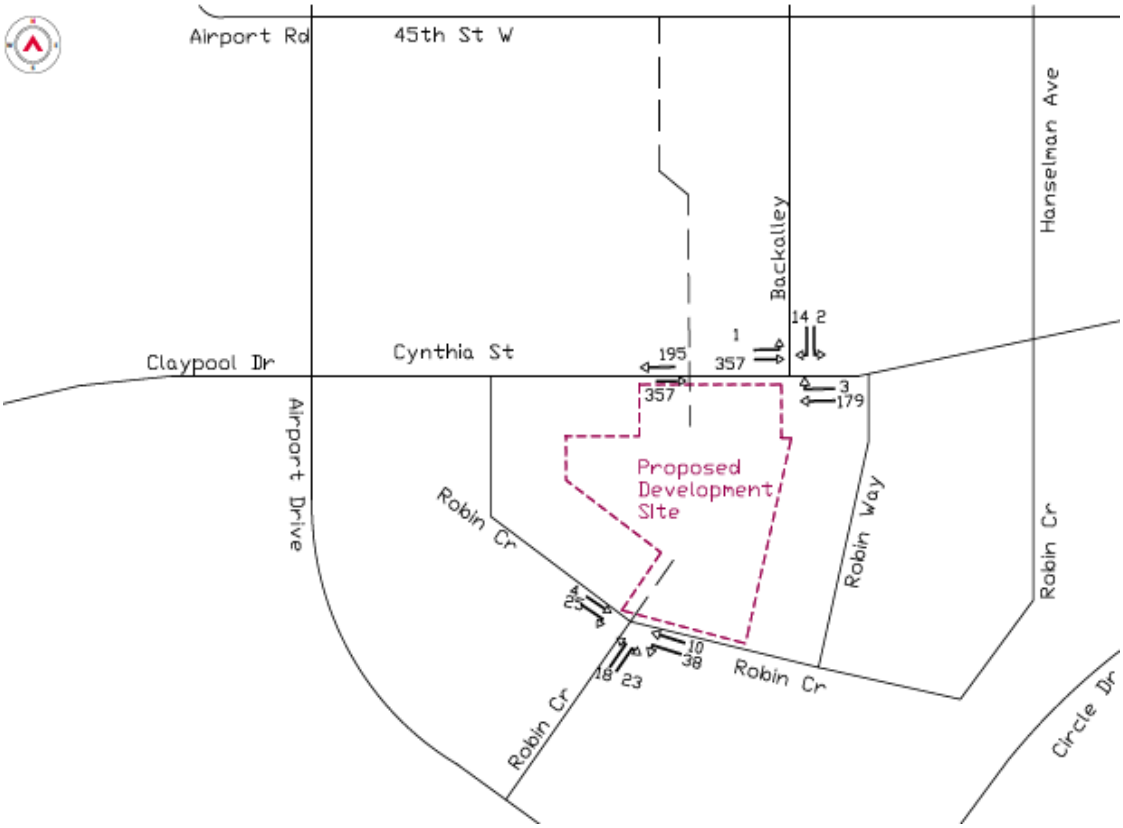
Figure 3: Site Generated PM peak Traffic



Background Traffic

Background traffic refers to the traffic that already uses the roadway or will use the roadway in the planning horizon, regardless of the proposed development. Based on the City of Saskatoon Guidelines, a 2% growth factor was used to grow traffic from the existing 2017 traffic to 2019 the full build out of the site. **Figure 4** illustrates the 2019 background traffic.

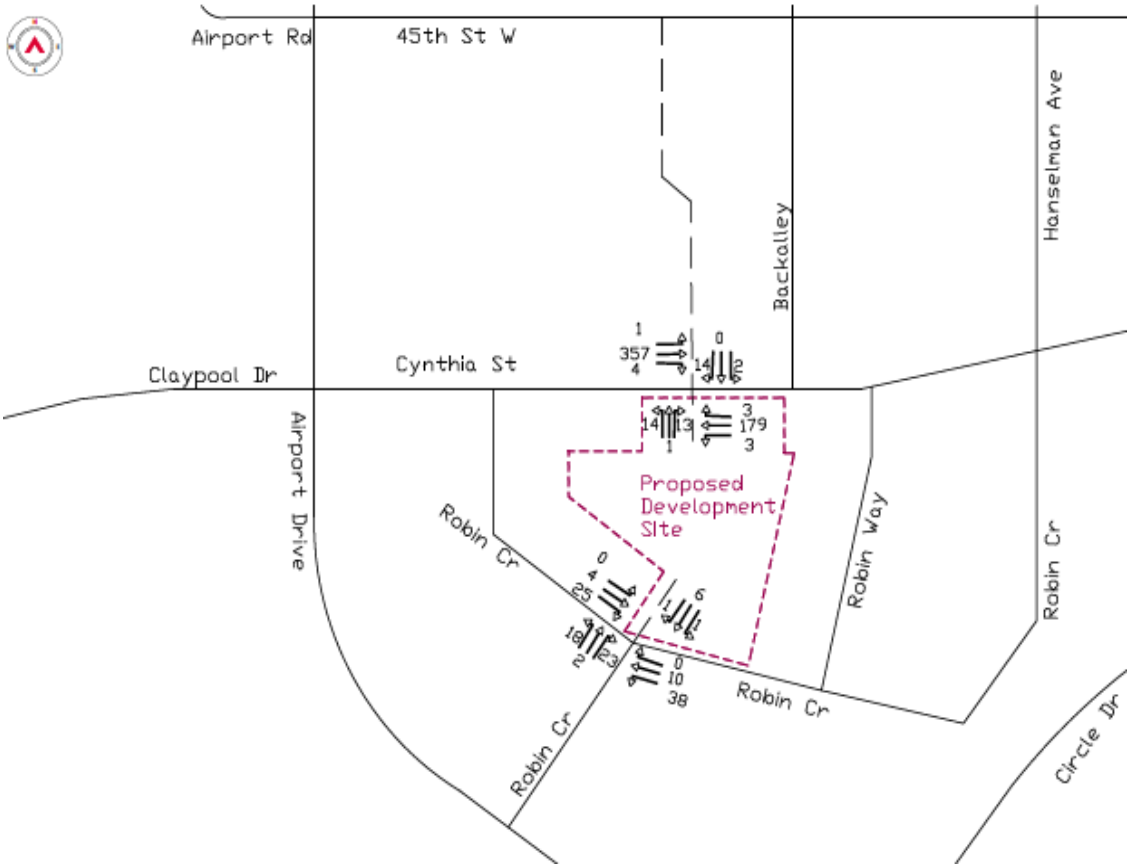
Figure 4: 2019 Background Traffic



2019 Combined Traffic

Combined traffic refers to the sum of site generated traffic and background traffic. The impact of the proposed development is analyzed using the combined traffic. The combined traffic is illustrated in **Figure 5**.

Figure 5: 2019 Combined Traffic



2019 Intersection Operations

A Synchro analysis was conducted on the combined traffic. The result of the analysis are illustrated in

Table 2: 2019 LOS and Delays

Intersection #	Overall Intersection LOS	Delay (sec)
1	A	0.9
2	A	5.9

5 FUTURE CONDITIONS 2024

It was necessary to assess the operations of the intersection five years (2024) after the full build out of Larkhaven Parcel. To obtain projected 2024 traffic volumes, the 2019 combined traffic was grown using a 2% growth rate. The resulting traffic volumes are illustrated in **Figure 6**. A Synchro analysis was performed to determine the operational characteristics of the intersection five years after full build out of Larkhaven Parcel. **Table 3** illustrates the LOS and delays associated with the 2024 volumes.

Figure 6: 2024 PM Peal Hour Traffic Volumes

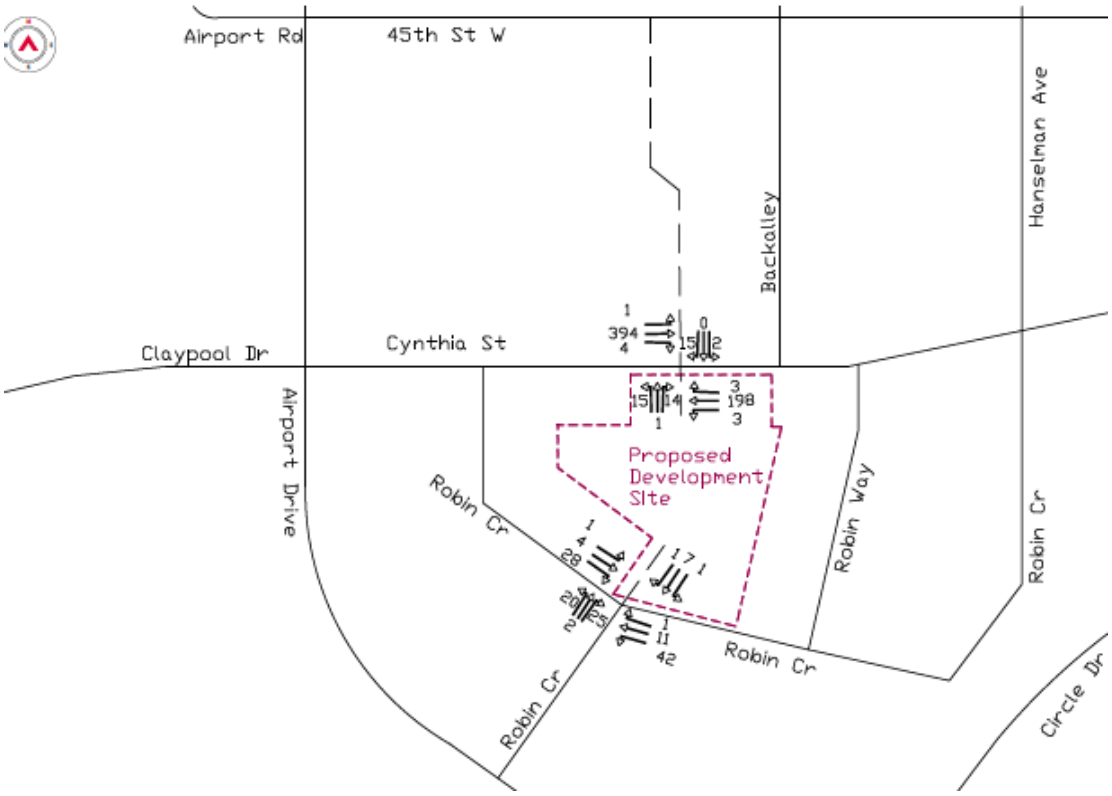


Table 3: 2024 LOS and Delays

Intersection #	Overall Intersection LOS	Delay (sec)
1	B	0.9
2	A	5.9

6 CONCLUSIONS

1. The proposed development of the Larkhaven Parcel will generate 45 new trips in the PM peak hour. The new trips can be accommodated safely and at acceptable LOS at the full build out in 2019 as well as five years after full build out in 2024. **Table 4** below illustrates the resulting intersection LOS and the selected planning horizons.

   Table 4: LOS Summary at Selected Planning Horizons

Table 4	Overall Intersection Level of Service (LOS)		
Intersection #	**2017**	**2019**	**2024**
1	A	A	B
2	A	A	A

2. At both intersections yield signs should be installed to control the traffic exiting the Larkhaven Parcel.

3. The separation between the proposed Intersection #1 and the existing back alley to the east is about 70m. In the future the City should consider closing the back alley to maintain the integrity of Cynthia Street as a collector roadway.

Appendix A Data Collection Tally

Allnorth

DIRECTIONAL TRAFFIC COUNT SUMMARY

ROAD **REFERENCE NO.:** 16-SK-0350 **INTERSECTION OF:** Aero Green Business Park-Robin Crescent

LATITUDE (degrees): **LONGITUDE (degrees):** **LEGAL DESCRIPTION:**

DAY & DATE OF COUNT: Tuesday, January 9th, 2017 **COUNT DURATION:** HOURS (3:00 PM TO 6:00 PM)

	APPROACHING INTERSECTION																													
	SOUTHBOUND															NORTHBOUND														
INTERVAL	LEFT					THROUGH					RIGHT					LEFT					THROUGH					RIGHT					TOTALS
3:00 - 3:15																2	2									4					8
3:15 - 3:30																2										1		1			4
3:30 - 3:45																1										4	1				6
3:45 - 4:00																4										9	1	1		1	16
4:00 - 4:15																1										3	1				5
4:15 - 4:30																3										2	1	1			7
4:30 - 4:45																5	1									5					11
4:45 - 5:00																3										4		1			8
5:00 - 5:15																5										8					13
5:15 - 5:30																1										6		1			8
5:30 - 5:45																4										3					7
5:45 - 6:00																0										5		1			6
6:00 - 6:15																															0
6:15 - 6:30																															0
6:30 - 6:45																															0
6:45 - 7:00 pm																															0
VEH CLASS	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	3	0	0	0	0	0	0	0	0	54	4	6	0	1	99

Allnorth

DIRECTIONAL TRAFFIC COUNT SUMMARY

ROAD | REFERENCE NO.: 16-SK-0350 | INTERSECTION OF: Aero Green Business Park-Cythia St

LATITUDE (degrees): | LONGITUDE (degrees): | LEGAL DESCRIPTION:

DAY & DATE OF COUNT: Thursday, January 12th, 2017 | COUNT DURATION: HOURS (3:00 PM TO 6:00 PM)

	APPROACHING INTERSECTION																											
	WESTBOUND														EASTBOUND													
INTERVAL	LEFT					THROUGH					RIGHT					LEFT					THROUGH					RIGHT					TOTALS	GRAND TOTALS
2:45 - 3:00																														0	0
3:00 - 3:15						34															29	1		1						65	66
3:15 - 3:30	1					35	1			1											38				1	1				78	81
3:30 - 3:45	1					34															49					2				86	86
3:45 - 4:00						32		1													47	1				3				84	90
4:00 - 4:15						47	1		1												51									100	103
4:15 - 4:30						42															58									100	101
4:30 - 4:45						37	2	1													92									132	135
4:45 - 5:00	1					45		1													85					1				133	138
5:00 - 5:15	2					44															107	1								154	160
5:15 - 5:30	1			1		39															54									95	97
5:30 - 5:45	3					40			1												43			1						88	89
5:45 - 6:00	1					37			1												41	2				1				83	84
6:00 - 6:15																														0	0
6:15 - 6:30																														0	0
6:30 - 6:45																														0	0
6:45 - 7:00																														0	0
VEH CLASS	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E		
TOTALS	10	0	0	1	0	466	4	3	3	1	0	0	0	0	0	0	0	0	0	0	694	5	0	2	1	8	0	0	0	0	1198	1230

City of Saskatoon ENGAGE

saskatoon.ca/**engage**

Community Engagement Summary

Public Information Meeting for the proposed closure and rezoning of Larkhaven Park, and proposed amendment to the Aero Green Business Park Neighbourhood Concept Plan.

Applicant:

Saskatoon Land Division on behalf of the Recreation and Community Development Division.

File:

PL 4350 – Z21/16

Project Description:

A public information meeting was held regarding the proposed closure and rezoning of Larkhaven Park, and the corresponding Aero Green Business Park Concept Plan amendment. The meeting occurred on June 21st, 2018, from 4:00pm to 7:00pm at the Heritage Inn & Suites (102 Cardinal Crescent).

Community Engagement Strategy:

Purpose:

To inform and consult. Attendees were provided with an overview of the following:

- Recreation and Community Development's proposal to close Larkhaven Park;
- The applicant's proposal to apply the Holding Symbol (H) to Larkhaven Park by way of a rezoning;
- The applicant's proposal to remove the Robin Crescent Extension through Larkhaven Park by way of a Concept Plan amendment; and,
- A high level overview of what future development of the site may look like.

Attendees were asked to provide comments on the above proposals.

Form of Community Engagement Used:

Public information meeting. Attendees were provided the opportunity to speak directly with City staff about the proposals and the rezoning process, and view the Aero Green Business Park Concept Plan. Next steps and timeline were also discussed with attendees.

Level of Input or Decision Making Required from the Public:

Comments, concerns, and opinions were sought from the public.

Who was Involved:

- Internal stakeholders. The standard referral process was followed, and relevant internal divisions of the City were contacted for comments. Councillor Donauer was also contacted.
- External stakeholders. In advance of the meeting, a flyer with details of the meeting was distributed to business owners and property owners within an approximate 75 metre radius of the subject site (a total of 125 notices).
- Five members of the public attended the meeting.

Summary of Community Engagement Feedback:
Five attendees were present at the meeting. Each attendee was given a brief summary of the proposal, the rationale, and the future plans for Larkhaven Park. Each person inquired about a timeline for development of the site and were given the response of five or more years. All attendees expressed support for the following:

- The closure of Larkhaven Park and sale of Municipal Reserve to Saskatoon Land for future development.
- The application of the Holding Symbol (H) to Larkhaven Park by way of rezoning.
- The removal of the Robin Crescent Extension through Larkhaven Park by way of a Concept Plan amendment.

Next Steps:

Action	Anticipated Timing
Planning and Development Division prepares and presents to Municipal Planning Commission (MPC). MPC reviews proposal and recommends approval or denial to City Council.	October 30, 2018
Public Notice - Community Consultant, Ward Councillor as well as all participants that attended the Public Information Meeting will be provided with direct notice of the Public Hearing, as well as all residents who were notified previously. A notification poster sign will be placed on site. Advertisements prepared and placed in the Star Phoenix, City Page (as per the City's Public Notice Policy).	November 3-17, 2018
Public Hearing – Public Hearing conducted by City Council, with opportunity provided to interested persons or groups to present. Proposal considered together with the reports of the Planning and Development Division, Municipal Planning Commission, and any written or verbal submissions received by City Council.	November 19, 2018
Council Decision - may approve or deny proposal.	November 19, 2018

City of Saskatoon

Office of the City Clerk
222 3rd Avenue North
Saskatoon SK S7K 0J5

www.saskatoon.ca
tel (306) 975.3240
fax (306) 975.2784

November 9, 2018

City Clerk

Dear City Clerk:

Re: Proposed Concept Plan and Rezoning – Application of Holding Symbol – Larkhaven Park [File No. CK 4351-018-022 and PL 4350-Z21/16]

The Municipal Planning Commission, at its meeting held on October 30, 2018, considered a report of the General Manager, Community Services Department dated October 30, 2018, on the above application. After consideration, the Committee supports the following recommendation of the Community Services Department:

1. That the proposed amendment to the Aero Green Business Park Concept Plan, as outlined in the October 30, 2018 report of the General Manager, Community Services Department, be approved; and
2. That the proposed amendment to Bylaw No. 8770, the Zoning Bylaw, to rezone the Larkhaven Park lands, be approved.

The Commission respectfully requests that the above recommendations be considered by City Council at the time of the public hearing.

Yours truly,

Penny Walter, Committee Assistant
Municipal Planning Commission

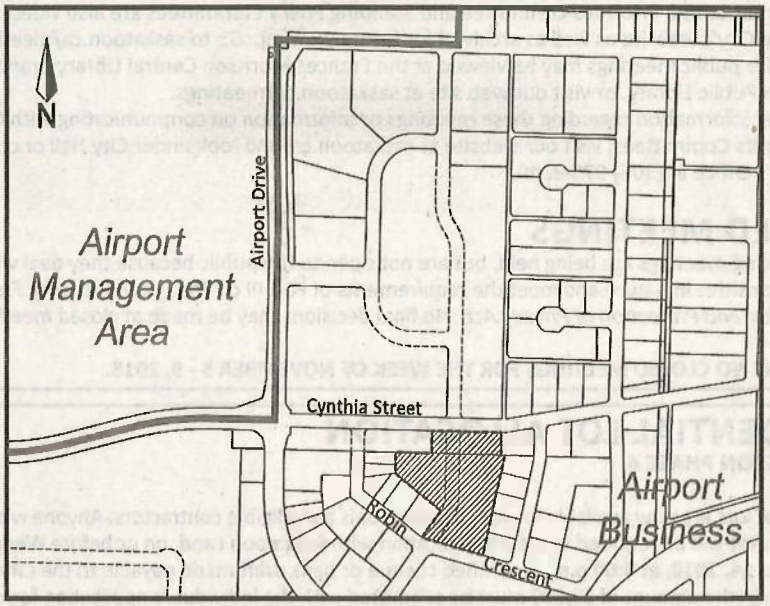
PW:

THE STARPHOENIX, SATURDAY, NOVEMBER 3, 2018
THE STARPHOENIX, MONDAY, NOVEMBER 5, 2018

PUBLIC NOTICE

AERO GREEN BUSINESS PARK
PROPOSED AERO GREEN BUSINESS PARK CONCEPT PLAN AMENDMENT

Saskatoon City Council will further consider the amendment to the Aero Green Business Park Concept Plan submitted by The Saskatoon Land Division. The amendment applies to Larkhaven Park.



PROPOSED CONCEPT PLAN AMENDMENT
AERO GREEN BUSINESS PARK

Amendment Area

REASON FOR THE AMENDMENT – The purpose of the proposed amendment is to allow for the site comprising Larkhaven Park to be redeveloped as light industrial land uses.. The proposed amendment consists of the removal of the Robin Crescent extension that is proposed through the Larkhaven Park site, and the removal of the Municipal Reserve designation currently applied to the site. If approved, the site could then be prepared for development into light industrial uses as prescribed by the Aero Green Business Park Concept Plan.

INFORMATION – Questions may be directed to the following:
Community Services Department, Planning and Development
Phone: 306-975-2645 (Jonathan Derworiz)

PUBLIC HEARING – City Council will hear all submissions on the proposed amendment, and all persons who are present at the City Council meeting and wish to speak on **Monday, November 19, 2018 at 6:00 p.m. in City Council Chamber, City Hall, Saskatoon, Saskatchewan.**

All written submissions for City Council's consideration must be forwarded to:
His Worship the Mayor and Members of City Council
c/o City Clerk's Office, City Hall
222 Third Avenue North, Saskatoon, SK S7K 0J5.

All submissions received by the City Clerk by **10:00 a.m. on November 19, 2018** will be forwarded to City Council. City Council will also hear all persons who are present and wish to speak to the proposed Bylaw.

BYLAW NO. 9541

The Zoning Amendment Bylaw, 2018 (No. 27)

The Council of The City of Saskatoon enacts:

Short Title

1. This Bylaw may be cited as *The Zoning Amendment Bylaw, 2018 (No. 27).*

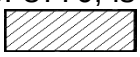
Purpose

2. The purpose of this Bylaw is to amend the Zoning Bylaw to rezone the lands described in the Bylaw from an IL1 District to an IL1(H) District.

Zoning Bylaw Amended

3. The Zoning Bylaw is amended in the manner set forth in this Bylaw.

IL1 District to IL1(H) District

4. The Zoning Map, which forms part of the Zoning Bylaw No. 8770, is amended by rezoning the lands described in this Section and shown as  on Appendix "A" to this Bylaw from an IL1 District to an IL1(H) District:

(1) Surface Parcel No.: 131933875
Legal Land Description: Blk/Par MR2 Plan 79S17444 Ext 0
As described on Certificate of Title 91S13088.

Coming Into Force

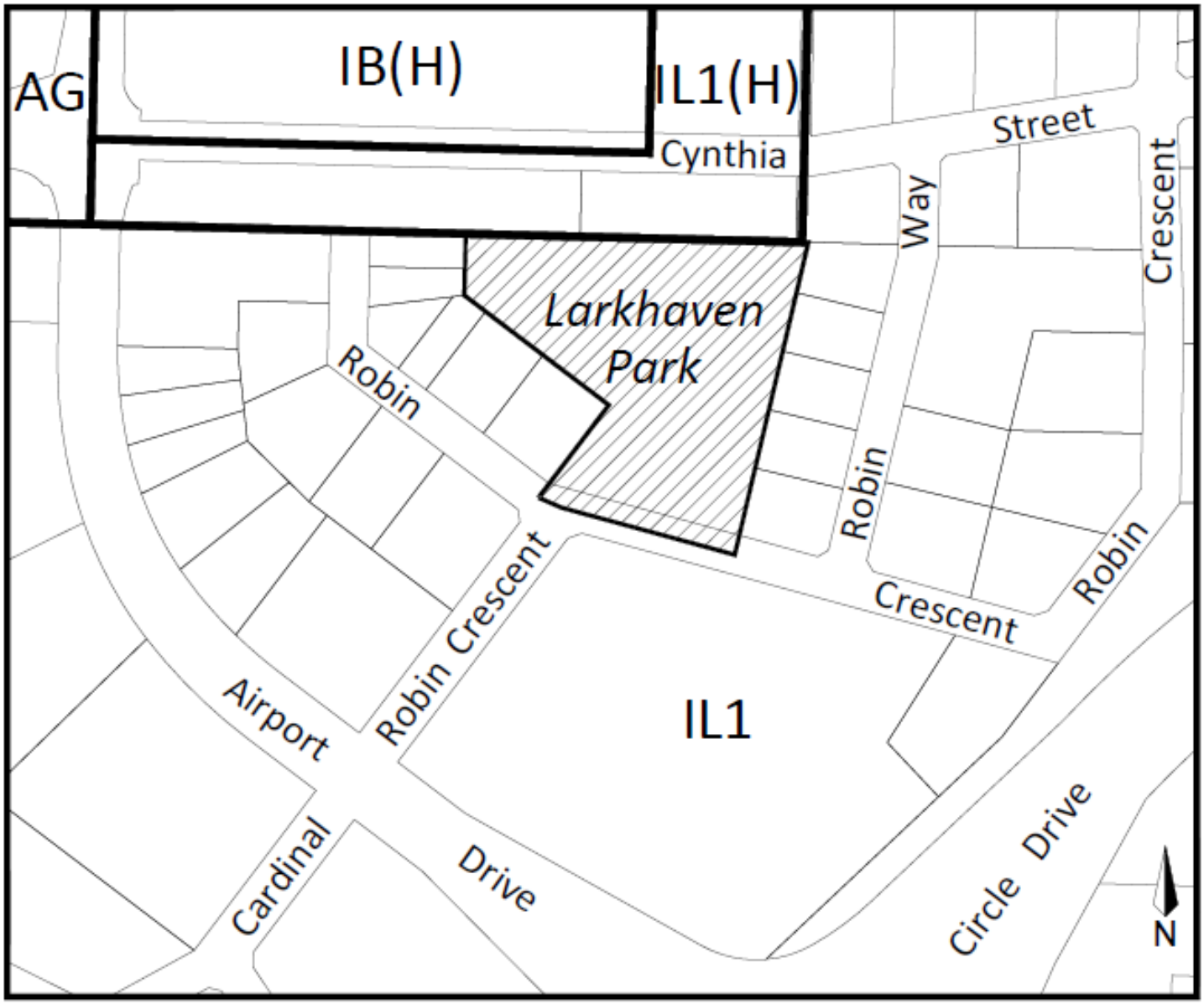
5. This Bylaw shall come into force upon the day of its final passing.

Read a first time this	day of	, 2018.
Read a second time this	day of	, 2018.
Read a third time and passed this	day of	, 2018.

Mayor

City Clerk

Appendix "A"



ZONING AMENDMENT

From IL1 to IL1(H)

N:\Planning\MAPPING\Rezonings\2016\RZ21_16.dwg

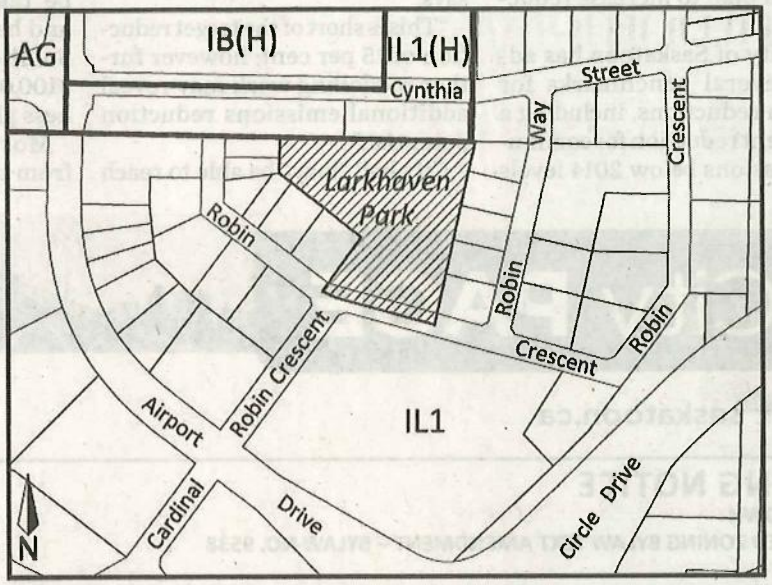
City of Saskatoon

ZONING NOTICE

AIRPORT BUSINESS AREA NEIGHBOURHOOD
PROPOSED ZONING BYLAW AMENDMENT – BYLAW NO. 9541

Saskatoon City Council will consider an amendment to the City's Zoning Bylaw (No. 8770) regarding land in the Airport Business Area. By way of Bylaw No. 9541, The Zoning Amendment Bylaw, 2018 (No. 27), the subject property (Larkhaven Park) is proposed to be rezoned from an IL1 – Light Industrial District to an IL1 (H) – Light Industrial District with Holding Symbol (H).

LEGAL DESCRIPTION – Parcel MR2, Plan No. 79S17444.



PROPOSED ZONING AMENDMENT

From IL1 to IL1(H)

File No. RZ21-2016

REASON FOR THE AMENDMENT – The Saskatoon Land Division is proposing to apply the Holding Symbol (H) to the existing IL1 – Light Industrial District to the Larkhaven Park by way of a zoning amendment. The Municipal Reserve designation will be removed the site, and it will be redeveloped for light industrial land uses. The Holding Symbol (H) will prevent development from occurring until a servicing strategy is approved. Currently, the servicing capacity in the area does not meet the needs of the intended land uses for the site.

INFORMATION – Questions regarding the proposed amendment or requests to view the proposed amending Bylaw, the City of Saskatoon Zoning Bylaw and Zoning Map may be directed to the following without charge:
Community Services Department, Planning and Development
Phone: 306-986-0902 (Jonathan Derworiz)

PUBLIC HEARING – City Council will hear all submissions on the proposed amendment, and all persons who are present at the City Council meeting and wish to speak on **Monday, November 19, 2018 at 6:00 p.m. in City Council Chamber, City Hall, Saskatoon, Saskatchewan.**

All written submissions for City Council's consideration must be forwarded to:
His Worship the Mayor and Members of City Council
c/o City Clerk's Office, City Hall
222 Third Avenue North, Saskatoon, SK S7K 0J5.

All submissions received by the City Clerk by **10:00 a.m. on November 19, 2018** will be forwarded to City Council. City Council will also hear all persons who are present and wish to speak to the proposed Bylaw.

BYLAW NO. 9538

The Zoning Amendment Bylaw, 2018 (No. 24)

The Council of The City of Saskatoon enacts:

Short Title

1. This Bylaw may be cited as *The Zoning Amendment Bylaw, 2018 (No. 24).*

Purpose

2. The purpose of this Bylaw is to amend the Zoning Bylaw and encourage development in the Downtown area as part of efforts to streamline the Downtown development process by amending the RA1 – Reinvestment District 1 and renaming it the MX2 – Downtown Warehouse Mixed Use District.

Zoning Bylaw Amended

3. The Zoning Bylaw No. 8770 is amended in the manner set forth in this Bylaw.

Section 3.0 Amended

4. Subsection 3.1 is amended by:

    (a) striking out “RA1 Reinvestment District 1”; and

    (b) adding “MX2 Downtown Warehouse District” after “MX1 Mixed Use District 1”.

Section 4.0 Amended

5. Subclause 4.7.2(1) is amended by striking out “the RA1 and the MX1 Districts” and substituting “the MX1 District”.

Section 5.0 Amended

6. Clause 5.26(2) is amended by striking out “RA1” and substituting “MX2”.

Section 12.0 Amended

7. (1) Subsection 12.6 is repealed and replaced with subsection 12.6 as shown on Schedule “A” to this Bylaw.

(2) Subsection 12.7 is repealed and replaced with subsection 12.7 as shown on Schedule “B” to this Bylaw.

Appendix A – Sign Regulations Amended

8. The Sign Regulations, being Appendix “A” to Bylaw 8770 and forming part of the Bylaw, are amended by:

(a) striking out “RA1” in subsection 2.1 and substituting “MX2”;

(b) striking out “RA1” in subsection 3.5 and substituting “MX2”; and

(c) striking out “RA1” in subclause 3.5.3.6 wherever it appears and substituting “MX2”.

Coming into Force

9. This Bylaw shall come into force on the day of its final passing.

Read a first time this	day of	, 2018.
Read a second time this	day of	, 2018.
Read a third time and passed this	day of	, 2018.

Mayor	City Clerk

Schedule "A"

12.6 MX1 - Mixed Use District 1

12.6.1 Purpose

The purpose of the MX1 District is to facilitate reinvestment in core neighbourhoods and industrial areas of the city by encouraging mixed uses in new development, as well as promoting the rehabilitation of existing structures. The MX1 District is intended to facilitate a broad range of compatible commercial, industrial, institutional, cultural, and residential uses, including live/work units.

12.6.2 Permitted Uses

The Permitted Uses and Minimum Development Standards in an MX1 District are set out in the following chart:

	Minimum Development Standards (in Metres)						
MX1 District	**Site Width**	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard** [2]	**Rear Yard**	**Building Height (Max.)**
12.6.2 Permitted Uses							
(1) Offices and Office Buildings	7.5	30	225	0_1	0	0	24
(2) All uses of buildings and land are permitted except those specifically noted as prohibited or discretionary in the sections below	7.5	30	225	0	0	0	14

12.6.3 Prohibited Uses

The Prohibited Uses in an MX1 District are set out in the following chart:

MX1 District		Minimum Development Standards (in Metres)						
		Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Max.)**
12.6.3 Prohibited Uses								
(1)	Junk and auto salvage yards, automobile wrecking yards, and other similar uses							
(2)	Gas manufacturing, bulk storage or the filling of bulk gas cylinders							
(3)	Arsenals or explosives manufacturing or storage							
(4)	Refining or wholesale storage of petroleum products or explosive derivatives thereof							
(5)	Intensive livestock operations and stockyards							
(6)	Sawmills and planing mills							
(7)	Steel mills, blast furnaces, smelters & foundries							
(8)	Chemical manufacturing							
(9)	Campgrounds and mobile home courts							
(10)	All uses of land, buildings, and industrial process that may be noxious or injurious, or constitute a nuisance beyond the building which contains it by reason of the production or emission of dust, smoke, refuse, matter, odour, gas, fumes, noise vibration or other similar substances or conditions							
(11)	Dangerous goods manufacturing							
(12)	Lumber and building materials storage yards							
(13)	Contractor's yards							
(14)	Crematoriums							
(15)	Trucking terminals							
(16)	Adult mini-theatres							
(17)	Bus storage or repair yards							
(18)	Distilleries and breweries							
(19)	Retail stores used for the purpose of a pawn shop							
(20)	Adult service agency							
(21)	Independent adult service agency							
(22)	Adult entertainment venues							

12.6.4 Discretionary Uses

The Discretionary Uses and Minimum Development Standards in an MX1 District are set out in the following chart:

MX1 District		Minimum Development Standards (in Metres)						
		Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard [2]**	**Rear Yard**	**Building Height (Max.)**
12.6.4 Discretionary Uses								
(1)	Multiple-Unit Dwellings	15	30	450	0[1]	0	4.5	24
(2)	Live / Work Unit [4]	7.5	30	225	0	0.75	4.5	10
(3)	Multiple Live/Work Units [4]	15	30	450	0[1]	0.75	4.5	24
(4)	One-unit Dwellings (OUD)	7.5	30	225	0	0.75	4.5	10
(5)	Two-unit Dwellings (TUD)	15	30	450	0	0.75	4.5	10
(6)	Semi-detached Dwellings	7.5	30	225	0	0.75	4.5	10
(7)	Secondary Suites	Refer to General Provisions Section 5.30						
(8)	Dwelling Groups	30	30	900	0[1]	0	4.5	24
(9)	Street Townhouses	7.5	30	225	0	0.75[3]	4.5	10
(10)	Child Care Centres and Preschools [5]	7.5	30	225	0	0	4.5	10
(11)	Custodial Care Facility – Type I [6]	7.5	30	225	0	0	4.5	10
(12)	Custodial Care Facility – Type II [6]	15	30	450	0	0	4.5	10
(13)	Special Needs Housing	15	30	450	0[1]	0	4.5	24
(14)	Boarding Houses	7.5	30	225	0	0	4.5	10
(15)	Boarding Apartments	15	30	450	0[1]	0	4.5	24
(16)	Special Care Homes	15	30	450	0[1]	0	4.5	24
(17)	Convents and Monasteries – Type I	7.5	30	225	0	0	4.5	10
(18)	Convents and Monasteries – Type II	15	30	450	0[1]	0	4.5	24
(19)	Residential Care Homes – Type I [6]	7.5	30	225	0	0	4.5	10
(20)	Residential Care Homes – Type II [6]	15	30	450	0	0	4.5	10
(21)	Bed and Breakfast Homes [7]	7.5	30	225	0	0.75	4.5	10
(22)	Adult Day Care Centres – Type I [8]	7.5	30	225	0	0	4.5	10
(23)	Adult Day Care Centres – Type II [8]	15	30	450	0[1]	0	4.5	24
(24)	Hostels – Type I	7.5	30	225	0	0	4.5	10
(25)	Hostels – Type II	15	30	450	0[1]	0	4.5	24
(26)	Public Garages	7.5	30	225	0	0	0	10
(27)	Car Washes	7.5	30	225	0	0	0	10
(28)	Gas Bars and Service Stations	7.5	30	225	0	0	0	10
(29)	Manufacturing, fabricating or processing, of materials, goods or products	7.5	30	225	0[1]	0	0	24
(30)	Motor Vehicle Dealers	7.5	30	225	0	0	0	10
(31)	Nightclubs and Taverns	7.5	30	225	0[1]	0	0	24
(32)	Dwelling units in conjunction with and attached to any other non-residential permitted use	7.5	30	225	0[1]	0	0	24
(32)	Commercial Parking Lots	15	30	450	0	0	0	0
(33)	Parking Stations	15	30	450	0	Refer to Section 6.4		

12.6.5 Notes to Development Standards

1 For any portion of the building above 14 metres, the front yard setback shall be 2 metres.

2 (a) Where an MX1 District abuts any R District site without an intervening lane, a minimum side yard shall be provided of 1.5 metres. This side yard shall be increased in width by 2 metres for any portion of the building above 14 metres.

(b) On a corner site along a flanking street or lane, a minimum side yard shall be provided of 1.5 metres. This side yard shall be increased in width by 2 metres for any portion of the building above 14 metres.

3 No side yard shall be required for an attached street townhouse dwelling with two shared common walls.

4 Refer to General Provisions Section 5.38.

5 Refer to General Provisions Section 5.32.

6 Refer to General Provisions Section 5.34.

7 Refer to General Provisions Section 5.31.

8 Refer to General Provisions Section 5.35.

12.6.6 Landscaping

(1) A landscaped strip of not less than 3.0 meters in depth throughout lying parallel to and abutting the front site line shall be provided on every site for that portion of the site not covered by a building and shall be used for no purpose except landscaping and necessary driveway access to the site.

(2) Where an MX1 site abuts any R District site without an intervening lane, there shall be a strip of land adjacent to the abutting site line of not less than 1.5 metres throughout, which shall not be used for any purpose except landscaping.

(3) On corner lots, in addition to the landscaping required in the front yard, a landscaped strip of not less than 1.5 metres in width throughout lying parallel to and abutting the flanking street shall be provided.

12.6.7 Signs

(1) The regulations governing signs in an MX1 District shall be those contained in Signage Group No. 4 of **Appendix A – The Sign Regulations.**

12.6.8 Parking

The regulations governing parking and loading in an MX1 District are contained in **Section 6.3.6**.

12.6.9 Gross Floor Space Ratio

(1) The gross floor space ratio shall not exceed 5:1.

12.6.10 Outdoor Storage

Subject to the limitations provided in Section 5.38 2(b):

(a) outdoor storage shall be permitted in side and rear yards subject to the provisions of clause (2); and

(b) all areas set aside for outdoor storage must be suitably screened from view from any public streets.

Schedule "B"

12.7 MX2 – Downtown Warehouse Mixed Use District

12.7.1 Purpose

The purpose of the MX2 District is to encourage growth in Downtown's Warehouse District by facilitating mixed uses and flexible zoning standards, as well as promoting the rehabilitation of existing structures. The MX2 District is intended to facilitate a broad range of compatible industrial, commercial, cultural, entertainment and residential uses, including live/work units.

12.7.2 Permitted Uses

The Permitted Uses and Minimum Development Standards in an MX2 District are set out in the following chart:

MX2 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.7.2 Permitted Uses [1]							
(1) All uses of buildings and land are permitted except those specifically noted as prohibited or discretionary in the sections below							**8**
(2) Residential uses limited to multiple-unit dwellings, boarding houses and boarding apartments[2]							**8**
(3) Live/work units[2]							**8**

12.7.3 Prohibited Uses

The Prohibited Uses in an MX2 District are set out in the following chart:

MX2 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.3 Prohibited Uses							
(1) Junk and salvage yards, vehicle wrecking yards, and other similar uses							
(2) Gas manufacturing, bulk storage or the filling of bulk gas cylinders							
(3) Arsenals or explosives manufacturing or storage							
(4) Refining or wholesale storage of petroleum products or explosive derivatives thereof							
(5) Intensive livestock operations and stockyards							
(6) Sawmills and planing mills							
(7) Steel mills, blast furnaces and smelters							
(8) Chemical manufacturing							
(9) Campgrounds and mobile home courts							
(10) All uses of land, buildings and industrial process that may be noxious or injurious, or constitute a nuisance beyond the boundaries of the subject site by reason of the production or emission of dust, smoke, refuse, matter, odour, gas, fumes, noise, vibration or other similar substances or conditions							
(11) Dangerous goods manufacturing							
(12) Lumber and building materials storage yards							
(13) Contractor's yards							
(14) Crematoriums							
(15) Retail stores used for the purpose of a pawnshop							
(16) Motor vehicle dealers – excluding small, personal recreational vehicles such as motorcycles, snowmobiles, ATVs, etc.							
(17) Trucking operations							
(18) Adult mini-theatres							
(19) Retail stores with a gross floor area exceeding 9600 m^2							
(20) One and two unit dwellings and semi-detached dwellings							
(21) Adult Service Agency							
(22) Independent adult service agency							
(23) Adult entertainment venues							

12.7.4 Discretionary Uses

The Discretionary Uses and Minimum Development Standards in an MX2 District are set out in the following chart:

MX2 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.4 Discretionary Uses 1							
(1) Public garages							8
(2) Gas bars and service stations							8
(3) Child care centres and pre-schools							8
(4) Custodial care facilities							8
(5) Private schools							8

12.7.5 Notes to Development Standards

1 Except for the minimum height standard and the prohibition of retail stores exceeding 9600 m^2 in gross floor area, there are no minimum or maximum size restrictions on buildings or sites.

2 All proposed developments containing residential uses shall be required to provide environmental reporting and if necessary, testing and remediation satisfactory to the Approving Authority, prior to receiving a development permit.

12.7.6 Signs

(1) Except as provided in clause (2), the regulations governing signs in an MX2 District shall be those contained in Signage Group No. 5 of **Appendix A - Sign Regulations**.

(2) Portable signs are not permitted in an MX2 District.

12.7.7 Parking

No off-street parking shall be permitted in the front yard of any site.

12.7.8 Outdoor Storage

(1) Outdoor storage shall be permitted in side and rear yards subject to the provisions of clause (2).

(2) All areas set aside for outdoor storage must be suitably screened from view from any public streets.

Proposed Zoning Bylaw No. 8770 Amendment – Review of Zoning Conditions in the RA1 District

Recommendation

That a copy of this report be submitted to City Council recommending that at the time of the public hearing, City Council consider the Administration's recommendation that the proposed amendments to Bylaw No. 8770, Zoning Bylaw, as outlined in this report, be approved.

Topic and Purpose

This report proposes amendments to the RA1 – Reinvestment District 1 contained within Bylaw No. 8770, Zoning Bylaw. The amendments are intended to encourage development in the area as part of the City of Saskatoon's efforts to streamline the Downtown development process.

Report Highlights

1. Changing the zone's name would better convey its flexibility.
2. Moving residential uses from discretionary to permitted would streamline the approval process for this type of development.
3. The proposed zoning amendments align with Bylaw No. 8769, The Official Community Plan Bylaw, 2009 (OCP).

Strategic Goals

This report supports City Council's priority of Downtown Development, along with the City of Saskatoon's (City) Strategic Goals of a Culture of Continuous Improvement, Economic Diversity and Prosperity, and Sustainable Growth. The RA1 zone has been reviewed with the objective of streamlining the development process and encouraging development in the Downtown.

Background

At its October 1, 2018 meeting, the Standing Police Committee on Planning, Development and Community Services (Committee) received as information a report that outlined potential changes to the RA1 zone. This report, which includes a more detailed discussion of the changes contemplated, is included as Attachment 1.

The report to Committee was provided in response to a resolution of City Council from its February 26, 2018 meeting, where it approved a number of initiatives intended to streamline and encourage development in the Downtown, including:

> "8. That the Planning and Development Division review the specific zoning conditions within the Reinvestment District 1 (RA1), including the name, and report back to the Standing Policy Committee on Planning, Development and Community Services

with possible changes to encourage development for this unique area."

This report proposes the specific set of amendments to the text of the RA1 zone that are necessary to implement these changes.

Report

Proposed Amendments to the RA1 Zone

The Administration is proposing the following amendments to the RA1 zone:

1. Name Change – RA1 is proposed to be renamed MX2 – Downtown Warehouse Mixed Use to better reflect the centrality of the zone's location, as well as its permissive and mixed-use nature. This includes an adjustment to the zone's purpose statement.
2. Permit Residential Uses – Multiple-unit dwellings, boarding houses, and boarding apartments, which are currently discretionary within the zone, are proposed to be moved to the list of permitted uses. A requirement to submit the necessary environmental reports for a given site at the time a development permit application is made for one of these uses will be included within the zone's regulations. A development permit would not be issued until it is confirmed that the environmental conditions are satisfactory.
3. Housekeeping – The text of the RA1 zone differs from the rest of the Zoning Bylaw by referring to outdoor storage as surface storage. This terminology is proposed to be adjusted for consistency.

The report to the October 1, 2018 meeting of the Committee, included as Attachment 1, may be consulted for a more detailed discussion of the changes proposed.

The specific set of amendments to the Zoning Bylaw's text that are necessary to implement the changes summarized above is included as Attachment 2.

Alignment with The Official Community Plan Bylaw, 2009

The properties zoned RA1 are located entirely within the Downtown. The OCP identifies the following objectives for the Downtown:

a) to ensure the Downtown remains the centre and heart of the financial, administrative, cultural, and commercial activities of the City and Region;

b) to ensure the Downtown is an attractive, functional, and vibrant place; and

c) to encourage a significant share of the City's overall housing development to take place in the Downtown.

The Downtown Land Use Map, contained within the OCP, identifies the area zoned RA1 as part of the "Warehouse/Service Area," which is identified to accommodate a variety of industrial, entertainment, and service uses, as well as residential development.

The zoning amendments proposed by this report align with the guidance provided by the OCP.

Options to the Recommendation

City Council could decline the recommendation of this report. This option is not recommended as the proposed amendments are intended to encourage development in the area as part of the City's efforts to streamline the Downtown development process.

Public and/or Stakeholder Involvement

Stakeholder involvement has occurred and will continue through the ongoing discussions with the development community through the Mayor's Infill Roundtable, Developer Liaison Committee, and Infill Liaison Committee.

The Environmental and Corporate Initiatives Division has been involved in discussions relating to moving residential land uses from discretionary to permitted within the RA1 zone.

Communication Plan

As noted, ongoing communication will continue with the development community. Part of the City Centre Planner's role is to actively work to promote Downtown development.

Environmental Implications

This report outlines an option to move residential land uses from discretionary to permitted within the RA1 zone while maintaining oversight respecting contaminated sites. This proposed amendment also aligns with goals of the Brownfield Renewal Strategy to encourage and facilitate infill brownfield development.

Other Considerations/Implications

There are no policy, financial, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

A review of the zoning conditions of the B6 – Downtown Commercial District is also underway, with reporting on the matter expected in 2019.

Public Notice

Public notice is required for consideration of this matter, pursuant to Section 11(a) of Policy No. C01-021, Public Notice Policy.

Once this application has been considered by the Municipal Planning Commission, it will be advertised in accordance with the Public Notice Policy, and a date for the public hearing will be set. A notice will be placed in The StarPhoenix two weeks prior to the public hearing.

Owners of property zoned RA1 will be notified in writing of the public hearing date.

Attachments

1. Report to October 1, 2018 Meeting of SPC on PDCS – Streamlining the Downtown Development Process – Review of Zoning Conditions in the RA1 District
2. Proposed Amendments to Zoning Bylaw No. 8770 – RA1 District

Report Approval

Written by: Brent McAdam, City Centre Planner, Planning and Development
Reviewed by: Lesley Anderson, Director of Planning and Development
Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2018/PD/MPC – Proposed Zoning Bylaw Amendment – Review of Zoning Conditions in RA1 District/lc

Streamlining the Downtown Development Process – Review of Zoning Conditions in the RA1 District

Recommendation

That the report of the General Manager, Community Services Department, dated October 1, 2018, be received as information.

Topic and Purpose

This report provides a review of the RA1 – Reinvestment District 1 and outlines potential amendments to the zoning district to encourage development in the area as part of the City of Saskatoon's efforts to streamline the Downtown development process.

Report Highlights

1. The RA1 – Reinvestment District 1 (RA1) was conceived through the Warehouse District Local Area Plan and adopted by City Council in 2003.
2. The RA1 zone contains several features that provide a flexible and permissive framework to accommodate new development.
3. Changing the zone's name would better convey its flexibility.
4. Moving residential uses from discretionary to permitted would streamline the approval process for this type of development.

Strategic Goals

This report supports City Council's priority of Downtown Development, along with the Strategic Goals of a Culture of Continuous Improvement, Economic Diversity and Prosperity, and Sustainable Growth. The RA1 zone has been reviewed with the objective of streamlining the development process and encouraging development in the Downtown.

Background

At its February 26, 2018 meeting, City Council approved a number of initiatives intended to streamline and encourage development in the Downtown, including:

> "8. That the Planning and Development Division review the specific zoning conditions within the Reinvestment District 1 (RA1), including the name, and report back to the Standing Policy Committee on Planning, Development and Community Services with possible changes to encourage development for this unique area."

This report provides a response to this resolution.

RA1 Zone Emerged from Warehouse District Local Area Plan

RA1 zoning was conceived through the Warehouse District Local Area Plan, endorsed by City Council in 2002, which proposed a number of land use and zoning changes within the Warehouse District of Downtown. The purpose of these changes was to reflect current and expected future development trends for the area, de-emphasize industrial uses, and integrate the Warehouse District with the rest of Downtown.

In 2003, City Council adopted the RA1 zone into the Zoning Bylaw that was in effect at that time and applied it to property in the Warehouse District previously zoned IL1 – General Light Industrial District (see Attachment 1). RA1 blends light industrial, commercial, and residential mixed uses within a permissive zone intended to facilitate reinvestment in the area (see Attachment 2). A comprehensive review of the zone has not been conducted since its adoption.

City Centre Plan Identifies Warehouse District for Significant Growth

The City Centre Plan, endorsed by City Council in 2013, identifies the Warehouse District as a significant node for growth in the Downtown. One of the City Centre Plan's key strategies envisions a new "West Downtown", including the Warehouse District, which would include new mixed-use development, public spaces, and improvements to the pedestrian environment.

The implementation and priority strategy for the City Centre Plan, considered by City Council in 2014, identifies a review of the zoning pattern for the West Downtown area as a mid-term project to be completed in five to ten years. This review of the RA1 zone fulfills this deliverable for a large portion of the West Downtown, while a future review of the B6 – Downtown Commercial District, and implementation of the Imagine Idylwyld project, will address this further.

Report

Features of the RA1 Zone an Asset to Encouraging Development

The RA1 zone contains several features that provide a flexible and permissive framework for desired forms of development in the Warehouse District:

- broad range of land uses permitted;
- no minimum parking requirements; and
- no minimum building setback requirements.

The RA1 zone also contains two features intended to align development with overall downtown objectives:

- minimum building height of 8.0 metres ensures new buildings maintain the scale established by the historic warehouses in the area; and
- prohibition of front yard parking and portable signs on all sites to improve aesthetics and encourage a positive relationship with the street.

The simplicity of the RA1 regulations is a considerable asset to encouraging development within the zone's boundaries and, as such, a comprehensive overhaul is

not necessary. However, the Administration has identified two principal issues with the zoning district that warrant being addressed.

Issue 1: Current Name of Zone Gives the Wrong Impression

The RA1 prefix has been cited as being too similar to that of the R1A – One-Unit Residential District, a restrictive and low-density residential zoning district present in residential neighbourhoods. This gives the impression that the RA1 zone is also restrictive when, in fact, it is highly flexible and permissive.

Solution: MX2 – Downtown Warehouse Mixed Use

A new name for the RA1 zone can emphasize the district's inherent flexibility. "MX2 – Downtown Warehouse Mixed Use" would convey the centrality of the district's unique location, as well as its permissive and mixed-use nature.

The RA1 zone parallels the existing MX1 – Mixed Use District 1 (MX1) in several ways, including the blending of light industrial, commercial, and residential mixed uses. MX1 has also been applied within Local Area Plan neighbourhoods to lands formerly zoned for light industrial. Given this, a renamed RA1 zone would fit appropriately within the MX designation.

Issue 2: Residential Uses Require Discretionary Use Approval

The RA1 zone currently provides for residential uses (limited to multiple-unit dwellings, boarding houses, and boarding apartments) on a discretionary basis, with approval delegated to the Administration. The Warehouse District Local Area Plan recommended that residential uses be discretionary for two principal reasons:

1. Environmental Concerns – Previous industrial uses in the area entail the potential for environmental contamination and required remediation of land to a residential standard.
2. Land Use Conflict – The potential for land use conflict between new residential development and existing light industrial uses was also a cited concern.

Through the discretionary use review process, the Administration can consider the potential for land use conflicts, as well as request from the applicant the necessary environmental reports to determine site risks, the presence of contaminants, and the satisfactory completion of remediation, where necessary, prior to approving the development.

While environmental regulation is primarily a provincial responsibility, the Environmental and Corporate Initiatives Division has indicated that gaps in the regulatory regime for contaminated sites make it preferable that the City of Saskatoon (City) maintain some measure of oversight when it comes to development in areas of concern such as the RA1 zone.

However, it is felt that continued environmental oversight in this area can be achieved with a simpler process than a discretionary use application that would save both time and money for developers looking to build in this area of Downtown. A discretionary

use application of this type requires a fee of $1,950 and an average processing time of 14 to 18 weeks, along with the dedication of staff time to process the application.

Solution: Move Residential Uses from a Discretionary to Permitted Use

Moving residential uses from discretionary to permitted would remove a considerable step in the development approval process for this type of use. This change aligns well with efforts to streamline processes.

This change is supported by addressing the reasons that the Warehouse District Local Area Plan cited for requiring discretionary oversight:

1. Environmental Concerns – The requisite environmental reports can be requested at the time the development permit application is made for a residential use. The Development Officer reviewing the permit would forward these reports to the Environmental and Corporate Initiatives Division for review and response, and a development permit would not be issued until it is verified that there are no outstanding environmental concerns. This maintains administrative oversight of the issue while removing the extra time and cost of a discretionary use application.
2. Land Use Conflict – The land use character within the RA1 zone has changed sufficiently in the 15 years since the zone's implementation that the potential for land use conflicts between new residential development and existing light industrial uses is significantly reduced. This is discussed in greater detail below.

Land Use Character has Changed Since 2003

Since the adoption of the RA1 zone in 2003, a number of developments in the Warehouse District have shifted the land use character of the area and de-emphasized its historically industrial nature. Notable developments include:

a) conversion of historic warehouses to residential/commercial mixed use: Fairbanks Morse (12 dwelling units) and Rumley Building (18 dwelling units);
b) sale and conversion of the City-owned Arthur Cook Building for office use;
c) construction of two new three- and four-storey office buildings;
d) commitment of the City-owned John Deere Building for future use by a proposed University of Saskatchewan School of Architecture;
e) construction of the 25th Street extension between Idylwyld Drive and 1st Avenue;
f) construction of the new Saskatoon Police Service headquarters on 25th Street; and
g) miscellaneous building renovations and additions for use by new tenants.

A comparison of the business licenses issued in this area when the zone was adopted in 2003, and presently in 2018, further illustrate a shift in the character of the area. Most notably, offices relating to architectural and construction services, lawyers, web design, investment advice, and resource extraction have increased in this time frame.

None of these businesses were present in 2003. There are currently no licensed businesses in the RA1 zone that are overtly industrial in nature that would conceivably pose a land use conflict with new residential uses being established.

While it is possible that a light industrial land use (such as manufacturing) could establish in this zone, the RA1 District does expressly prohibit:

> "all uses of land, buildings and industrial process that may be noxious or injurious, or constitute a nuisance beyond the boundaries of the subject site by reason of the production or emission of dust, smoke, refuse, matter, odour, gas, fumes, noise, vibration or other similar substances or conditions."

If a land use were to produce nuisance conditions that affected other properties, enforcement action can be undertaken to remedy the situation. A review of complaints that the City has received in this area since 2003 reveal no complaints specific to an industrial land use conflicting with a residential use. Given these considerations, it is felt that the potential for land use conflict between residential uses and light industrial uses is no longer a concern.

Options to the Recommendation
City Council could direct the Administration to review other specific aspects of the RA1 zone. The RA1 regulations are considered to be generally appropriate with respect to encouraging development, and the two principal changes identified by this report would further aid in this objective.

Public and/or Stakeholder Involvement
Stakeholder involvement has occurred and will continue through the ongoing discussions with the development community through the Mayor's Infill Roundtable, Developer Liaison Committee, and Infill Liaison Committee.

The Environmental and Corporate Initiatives Division has been involved in discussions relating to moving residential land uses from discretionary to permitted within the RA1 zone.

Communication Plan
As noted, ongoing communication will continue with the development community. Part of the City Centre Planner's role is to actively work to promote Downtown development.

Environmental Implications
This report outlines an option to move residential land uses from discretionary to permitted within the RA1 zone while maintaining oversight respecting contaminated sites. This proposed amendment also aligns with goals of the Brownfield Renewal Strategy to encourage and facilitate infill brownfield development.

Other Considerations/Implications
There are no policy, financial, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion
A subsequent report containing a proposed set of text amendments to the Zoning Bylaw will be forwarded to the Municipal Planning Commission and then to City Council for a public hearing. A public hearing is anticipated to occur at the November or December 2018 meeting of City Council.

A review of the zoning conditions of the B6 – Downtown Commercial District is also underway, with reporting on the matter expected in 2019.

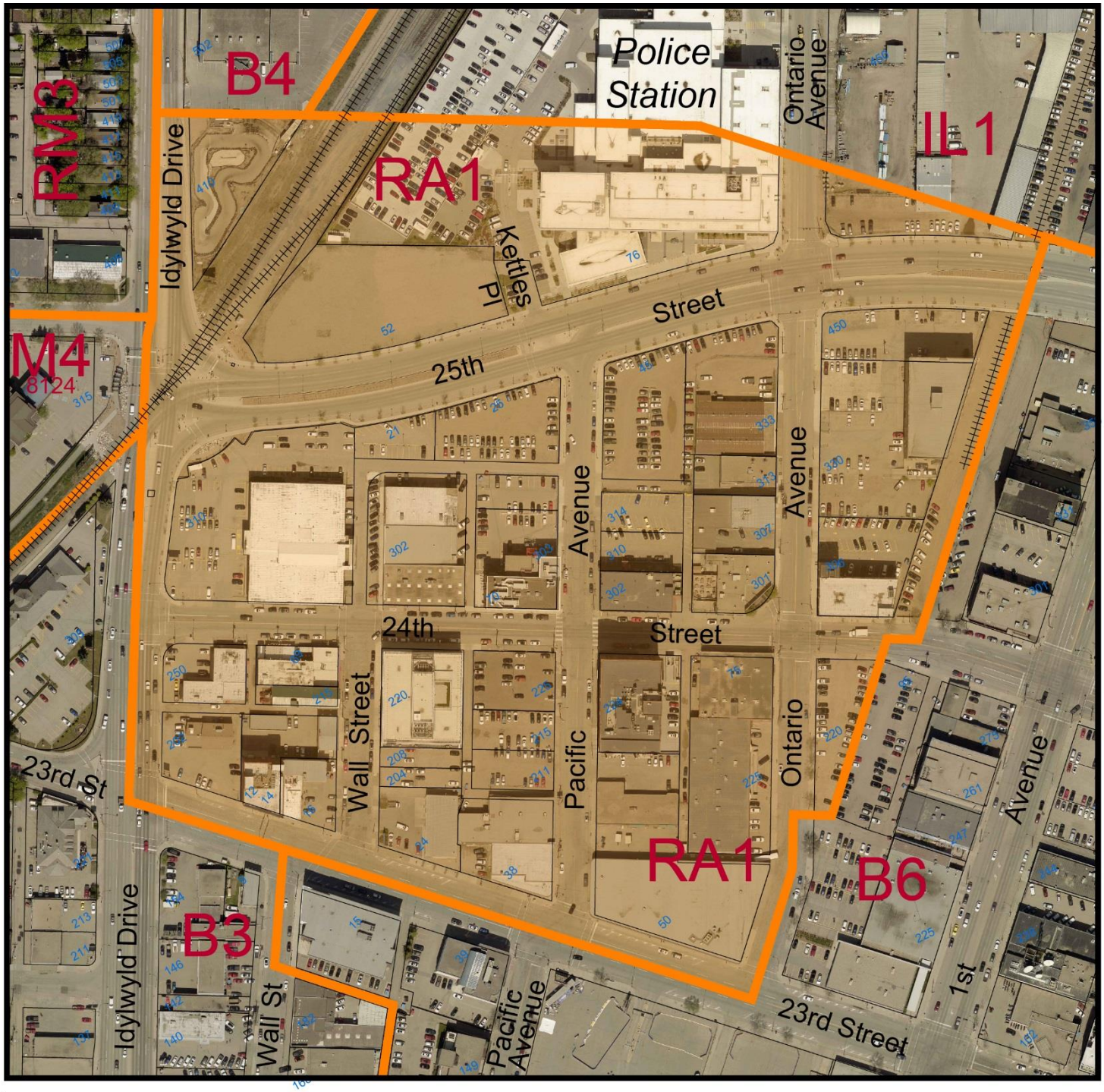
Public Notice
Public notice will be required for consideration of this matter when the bylaw containing proposed amendments to the Zoning Bylaw are forwarded to City Council for a public hearing. Appropriate notice pursuant to Policy No. C01-021, Public Notice Policy, will be provided at that time.

Attachments
1. Map of RA1 District
2. Excerpt of Bylaw No. 8770, Zoning Bylaw – RA1 District

Report Approval
Written by: Brent McAdam, City Centre Planner, Planning and Development
Reviewed by: Lesley Anderson, Director of Planning and Development
Approved by: Randy Grauer, General Manager, Community Services Department

S/Reports/2018/PD/PDCS –Streamlining Downtown Development Process/lc

Map of RA1 District



Excerpt of Bylaw No. 8770, Zoning Bylaw – RA1 District

12.6 RA1 - Reinvestment District 1

12.6.1 Purpose

The purpose of the RA1 District is to facilitate reinvestment in older core areas and core industrial areas by facilitating mixed uses and flexible zoning standards, as well as promoting the rehabilitation of existing structures. The RA1 District is intended to facilitate a broad range of compatible industrial, commercial, cultural, entertainment and residential uses, including live/work units.

12.6.2 Permitted Uses

The Permitted Uses and Minimum Development Standards in an RA1 District are set out in the following chart:

RA1 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.2 Permitted Uses [1]							
(1) All uses of buildings and land are permitted except those specifically noted as prohibited or discretionary in the sections below							8

12.6.3 Prohibited Uses

The Prohibited Uses in an RA1 District are set out in the following chart:

RA1 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.3 Prohibited Uses							
(1) Junk and salvage yards, vehicle wrecking yards, and other similar uses							
(2) Gas manufacturing, bulk storage or the filling of bulk gas cylinders							
(3) Arsenals or explosives manufacturing or storage							
(4) Refining or wholesale storage of petroleum products or explosive derivatives thereof							
(5) Intensive livestock operations and stockyards							
(6) Sawmills and planing mills							
(7) Steel mills, blast furnaces and smelters							
(8) Chemical manufacturing							
(9) Campgrounds and mobile home courts							
(10) All uses of land, buildings and industrial process that may be noxious or injurious, or constitute a nuisance beyond the boundaries of the subject site by reason of the production or emission of dust, smoke, refuse, matter, odour, gas, fumes, noise, vibration or other similar substances or conditions							
(11) Dangerous goods manufacturing							
(12) Lumber and building materials storage yards							
(13) Contractor's yards							
(14) Crematoriums							
(15) Retail stores used for the purpose of a pawnshop							
(16) Motor vehicle dealers – excluding small, personal recreational vehicles such as motorcycles, snowmobiles, ATVs, etc.							
(17) Trucking operations							
(18) Adult mini-theatres							
(19) Retail stores with a gross floor area exceeding 9600 m^2							
(20) One and two unit dwellings and semi-detached dwellings							
(21) Adult Service Agency							
(22) Independent adult service agency							
(23) Adult entertainment venues							

(Revised – Bylaw No. 9023 – July 18, 2012)
(Revised – Bylaw No. 9151 – December 2, 2013)

12.6.4 Discretionary Uses

The Discretionary Uses and Minimum Development Standards in an RA1 District are set out in the following chart:

RA1 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.4 Discretionary Uses [1]							
(1) Residential uses limited to multiple unit-dwellings, boarding houses and boarding apartments							8
(2) Live/work units							8
(3) Public garages							8
(4) Gas bars and service stations							8
(5) Child care centres and pre-schools							8
(6) Custodial care facilities							8
(7) Private schools							8

12.6.5 Notes to Development Standards

1 Except for the minimum height standard and the prohibition of retail stores exceeding 9600 m^2 in gross floor area, there are no minimum or maximum size restrictions on buildings or sites.

12.6.6 Signs

(1) Except as provided in clause (2), the regulations governing signs in an RA1 District shall be those contained in Signage Group No. 5 of **Appendix A - Sign Regulations**.

(2) Portable signs are not permitted in an RA1 District.

12.6.7 Parking

No off-street parking shall be permitted in the front yard of any site.

12.6.8 Surface Storage

(1) Surface storage shall be permitted in side and rear yards subject to the provisions of clause (2).

(2) All areas set aside for surface storage must be suitably screened from view from any public streets.

Proposed Amendments to Zoning Bylaw No. 8770 – RA1 District

12.6 ~~RA1 - Reinvestment District 1~~ MX2 – Downtown Warehouse Mixed Use District

12.6.1 Purpose

The purpose of the ~~RA1~~ **MX2** District is to ~~facilitate~~ **encourage** ~~reinvestment~~ **growth** in **the** ~~older core areas and core industrial areas~~ **Downtown's Warehouse District** by facilitating mixed uses and flexible zoning standards, as well as promoting the rehabilitation of existing structures. The ~~RA1~~ **MX2** District is intended to facilitate a broad range of compatible industrial, commercial, cultural, entertainment and residential uses, including live/work units.

12.6.2 Permitted Uses

The Permitted Uses and Minimum Development Standards in an ~~RA1~~ **MX2** District are set out in the following chart:

~~RA1~~ MX2 District	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.2 Permitted Uses [1]							
(1) All uses of buildings and land are permitted except those specifically noted as prohibited or discretionary in the sections below							8
(2) Residential uses limited to multiple-unit dwellings, boarding houses, and boarding apartments[2]							**8**

12.6.3 Prohibited Uses

The Prohibited Uses in an ~~RA1~~ **MX2** District are set out in the following chart:

~~RA1~~ **MX2 District**	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.3 Prohibited Uses							
(1) Junk and salvage yards, vehicle wrecking yards, and other similar uses							
(2) Gas manufacturing, bulk storage or the filling of bulk gas cylinders							
(3) Arsenals or explosives manufacturing or storage							
(4) Refining or wholesale storage of petroleum products or explosive derivatives thereof							
(5) Intensive livestock operations and stockyards							
(6) Sawmills and planing mills							
(7) Steel mills, blast furnaces and smelters							
(8) Chemical manufacturing							
(9) Campgrounds and mobile home courts							
(10) All uses of land, buildings and industrial process that may be noxious or injurious, or constitute a nuisance beyond the boundaries of the subject site by reason of the production or emission of dust, smoke, refuse, matter, odour, gas, fumes, noise, vibration or other similar substances or conditions							
(11) Dangerous goods manufacturing							
(12) Lumber and building materials storage yards							
(13) Contractor's yards							
(14) Crematoriums							
(15) Retail stores used for the purpose of a pawnshop							
(16) Motor vehicle dealers – excluding small, personal recreational vehicles such as motorcycles, snowmobiles, ATVs, etc.							
(17) Trucking operations							
(18) Adult mini-theatres							
(19) Retail stores with a gross floor area exceeding 9600 m^2							
(20) One and two unit dwellings and semi-detached dwellings							
(21) Adult Service Agency							
(22) Independent adult service agency							
(23) Adult entertainment venues							

(Revised – Bylaw No. 9023 – July 18, 2012)
(Revised – Bylaw No. 9151 – December 2, 2013)

12.6.4 Discretionary Uses

The Discretionary Uses and Minimum Development Standards in an ~~RA1~~ **MX2** District are set out in the following chart:

~~RA1~~ **MX2 District**	Minimum Development Standards (in Metres)						
	Site Width	**Site Depth**	**Site Area (m^2)**	**Front Yard**	**Side Yard**	**Rear Yard**	**Building Height (Min.)**
12.6.4 Discretionary Uses [1]							
~~(1) Residential uses limited to multiple unit dwellings, boarding houses and boarding apartments~~							~~8~~
(2) Live/work units							8
(3) Public garages							8
(4) Gas bars and service stations							8
(5) Child care centres and pre-schools							8
(6) Custodial care facilities							8
(7) Private schools							8

12.6.5 Notes to Development Standards

(1) Except for the minimum height standard and the prohibition of retail stores exceeding 9600 m^2 in gross floor area, there are no minimum or maximum size restrictions on buildings or sites.

(2) All proposed developments containing residential uses shall be required to provide environmental reporting and, if necessary, testing and remediation satisfactory to the Approving Authority, prior to receiving a development permit.

12.6.6 Signs

(1) Except as provided in clause (2), the regulations governing signs in an ~~RA1~~ **MX2** District shall be those contained in Signage Group No. 5 of **Appendix A - Sign Regulations**.

(2) Portable signs are not permitted in an ~~RA1~~ **MX2** District.

12.6.7 Parking

No off-street parking shall be permitted in the front yard of any site.

12.6.8 ~~Surface~~ Outdoor Storage

(1) ~~Surface~~ **Outdoor** storage shall be permitted in side and rear yards subject to the provisions of clause (2).

(2) All areas set aside for ~~Surface~~ **outdoor** storage must be suitably screened from view from any public streets.

City of Saskatoon

Office of the City Clerk
222 3rd Avenue North
Saskatoon SK S7K 0J5

www.saskatoon.ca
tel (306) 975.3240
fax (306) 975.2784

November 9, 2018

City Clerk

Dear City Clerk:

Re: Proposed Zoning Bylaw No. 8770 Amendment – Review of Zoning Conditions in the RA1 District [File No. CK 4350-018-001 and PL 4350-Z18/18]

The Municipal Planning Commission, at its meeting held on October 30, 2018, considered a report of the General Manager, Community Services Department dated October 30, 2018, on the above application. After consideration, the Committee supports the following recommendation of the Community Services Department:

> That the proposed amendments to Bylaw No. 8770, Zoning Bylaw, as outlined in the October 30, 2018 report of the General Manager, Community Services Department, be approved.

The Commission respectfully requests that the above recommendation be considered by City Council at the time of the public hearing.

Yours truly,

Penny Walter, Committee Assistant
Municipal Planning Commission

PW:

ZONING NOTICE

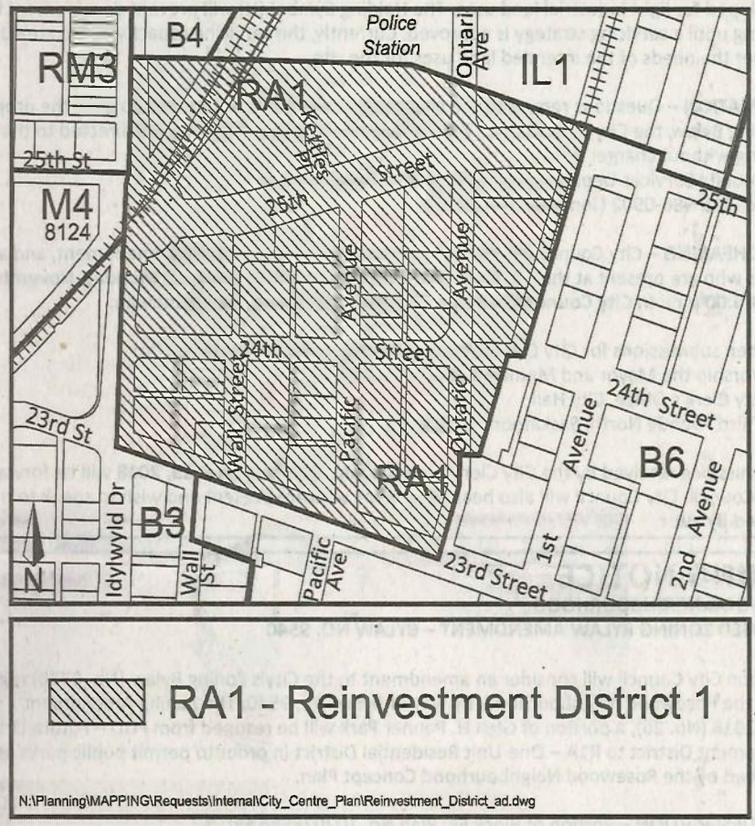
DOWNTOWN

PROPOSED ZONING BYLAW TEXT AMENDMENT – BYLAW NO. 9538

Saskatoon City Council will consider an amendment to the City's Zoning Bylaw (No. 8770). By way of Bylaw No. 9538, The Zoning Amendment Bylaw, 2018 (No. 24), the text of the RA1 – Reinvestment District 1 will be amended to provide the following:

- A change of the zone's name to "MX2 – Downtown Warehouse Mixed Use" to better convey its central location and flexibility; and
- Moving residential uses from the list of discretionary uses to the list of permitted uses.

If approved by City Council, the changes would apply to properties zoned RA1 in the Warehouse District area of Downtown. The zone was conceived through the Warehouse District Local Area Plan and was adopted into the Zoning Bylaw in 2003 and applied to properties previously zoned for light industrial. It provides for a blend of light industrial, commercial, and residential mixed uses.



REASON FOR THE AMENDMENT – The proposed changes are in response to a February 26, 2018 resolution of City Council to review the specific conditions of the zone to identify possible changes to encourage development in the area.

The RA1 prefix had been identified as being too similar to that of the R1A – One-Unit Residential District, a restrictive and low-density residential zoning district. This gives the impression that the zone is also restrictive when, in fact, it is highly flexible and permissive.

Removing the requirement for discretionary use approval for residential uses is intended to simplify the approval process and encourage residential growth. Residential uses were initially made discretionary due to environmental concerns from previous industrial uses in the area, and the potential for land use conflicts between new residential development and existing industrial uses. The land use character has shifted over the past 15 years since the zone's adoption such that the potential for land use conflicts is no longer a primary concern. Environmental reports that confirm there are no outstanding environmental concerns respecting a specific property will be required at the time that a development permit application for a residential use is made.

INFORMATION – Questions regarding the proposed amendment or requests to view the proposed amending Bylaw, the City of Saskatoon Zoning Bylaw and Zoning Map may be directed to the following without charge:

Community Services Department, Planning and Development
Phone: 306-986-3688 (Brent McAdam)

PUBLIC HEARING – City Council will hear all submissions on the proposed amendment, and all persons who are present at the City Council meeting and wish to speak on **Monday, November 19, 2018 at 6:00 p.m. in City Council Chamber, City Hall, Saskatoon, Saskatchewan.**

All written submissions for City Council's consideration must be forwarded to:

His Worship the Mayor and Members of City Council
c/o City Clerk's Office, City Hall
222 Third Avenue North, Saskatoon, SK S7K 0J5.

All submissions received by the City Clerk by **10:00 a.m. on November 19, 2018** will be forwarded to City Council. City Council will also hear all persons who are present and wish to speak to the proposed Bylaw.

November 9, 2018

His Worship Charlie Clark and City Councillors
c/o City Clerk's Office, City Hall
222 Third Avenue North
Saskatoon, SK S7K 0J5

Re: Proposed Amendment to Zoning Bylaw No. 8770 – RA1 District

Downtown Saskatoon is supportive of the proposed amendments scheduled to be considered by City Council on Monday, November 19, 2018 as a result of what was outlined in a letter we received dated November 5, 2018 from Mr. Brent McAdam on the proposed amendments.

Downtown Saskatoon agrees the land use within the Downtown Warehouse District has changed considerably over the last several years. We are supportive of removing the discretionary use for residential development. We look forward to seeing continued development in this area, with an eye to preserving its unique character and heritage in the process.

Sincerely,

Brent Penner
Executive Director

cc: Cynthia Block, Ward 6 City Councillor
Brent McAdam, City Centre Planner
Lesley Anderson, City Planner

From:	Heidi Kalyniuk
To:	Web E-mail - City Clerks
Subject:	Proposed Amendment to Zoning Bylaw No. 8770 - RA1 District
Date:	Thursday, November 15, 2018 10:25:37 AM
Attachments:	image001.png Commercial.pdf Residential - 2013 RAC-FCM Guidelines (3).pdf

Hi,

Further to your letter of November 5 re Notice of Public Hearing covering the subject, please keep in mind that Canadian Pacific (CP) is opposed to residential development adjacent to our right-of-way as that type of land use is not compatible with railway operations. The health, safety and welfare of the public could be adversely affected by railway activities.

CP is not opposed to Commercial/Industrial type developments adjacent to our right of way. Please ensure any future developments do not encroach onto CP owned lands, that they do not drain onto the railway right of way and that there is adequate clearance around buildings and facilities so that maintenance work of same will also not encroach onto the CP right of way lands.

Notwithstanding that stated above, we recommend that residential and commercial/industrial developments meet certain criteria based upon site specific conditions and intended use/development as per the attached guidelines.

We would appreciate being circulated on all future correspondence as it relates to specific developments. Thank you.

Heidi

Heidi C. Kalyniuk
Specialist, Real Estate
[redacted]

[redacted] Ogden Dale Road SE
Calgary AB [redacted]

Commercial development serviced by the railway and/or industrial use:

Commercial developments or buildings serviced by the railways may be built adjacent to or over siding tracks in accordance with the clearances stipulated in the Standard Practice Circular – Track..

Commercial development not serviced by rail and/or non-industrial use:

Should at no times be on the railway right of way, and depending on track speed should be no less than the following distances from the nearest rail:

Type of Track	Track Speed	Distance from Track Centerline	Track Classification
Main	40 kph or less (25 mph)	9 Meters (30 feet)	Class 2 track
Main	65 kph or less (40 mph)	12.2 Meters (40 feet)	Class 3 track
Main	More than 65 kph (40 mph)	15.2 Meters (50 feet)	Class 4 & 5 track
Other than Main track	N/A	4.6 Meters (15 feet)	N/A

Fencing:

In instances where public parking lots and open spaces are adjacent to railway property, the CPR has concerns with respect to pedestrian trespass and the safety issues associated with same it is recommended that a 1.83 metre high chain link fence be constructed and maintained along the common property line of the Railway and the development by the developer at his expense. The developer is to also include a covenant running with the lands, in all deeds, obliging the purchasers of the land to maintain the fence in a satisfactory condition at their expense.

Otherwise, fencing is to be provided by the developer as follows:

Agricultural use - None - Provided purchaser provides CPR with letter for fencing exemption.
Pasture use - 4 strand barb wire or equal
Industrial use - 1M (4') chain link or equal

Existing Drainage Patterns:

Any proposed alterations to the existing drainage pattern affecting railway property including but not limited to acceleration of surface runoff must receive prior concurrence from the Railway, and be substantiated by a drainage report.

Services:

Any proposed utilities under, over or along railway property to serve the development must be designed in accordance with the appropriate CSA standards, Railway Association of Canada Standards and American Railway Engineering Association Standards as may be applicable. All plans for utility occupancies of railway property must be approved by the Railway prior to construction and installation.

Access Across Railway Property:

Any access roads across the railway will be subject to Railway approval, and must be in compliance with the latest Transport Canada regulations concerning same. If the crossing is approved, the owner will be required to execute a license agreement with respect to the terms and conditions of the crossing.

*Note: Railway road crossings are all subject to Transport Canada requirements. Maintaining proper sight lines at road crossings could affect the positioning of buildings on property adjacent to railways. Should sight lines not be maintained, other crossing protection as required by Transport Canada will be installed at the expense of the developer.

GUIDELINES

for New Development in Proximity to Railway Operations

PREPARED FOR
THE FEDERATION OF CANADIAN MUNICIPALITIES
AND THE RAILWAY ASSOCIATION OF CANADA

May 2013

DIALOG®

J.E. COULTER ASSOCIATES LIMITED

Guidelines for New Development in Proximity to Railway Operations

May 2013

These guidelines were developed through the collaboration of the Railway Association of Canada and the Federation of Canadian Municipalities, who work together through the FCM/RAC Proximity Initiative. For further information, please visit our joint website at www.proximityissues.ca, or contact:

The Railway Association of Canada
99 Bank Street, Suite 901
Ottawa, Ontario K1P 6B9

Tel : (613) 567-8591
Fax : (613) 567-6726

Federation of Canadian Municipalities
24 Clarence Street
Ottawa, Ontario K1N 5P3

Tel : (613) 241-5221
Fax : (613) 241-7440

COVER PHOTOS COURTESY OF THE RAILWAY ASSOCIATION OF CANADA

FCM FEDERATION OF CANADIAN MUNICIPALITIES FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

Railway Association of Canada

DIALOG

J.E. COULTER ASSOCIATES LIMITED

FCM FEDERATION OF CANADIAN MUNICIPALITIES FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

Railway Association of Canada

FCM/RAC Proximity Initiative

May, 2013

We are very pleased to present the new *Guidelines for New Development in Proximity to Railway Operations*.

These new guidelines are intended to replace and build on the FCM/RAC Proximity Guidelines and Best Practices Report, which was originally prepared and published in 2004 and reprinted in 2007. Since that time, there have been significant changes in both federal legislation and some provincial land use acts. The original guidelines have been reviewed, edited, and updated with the help and participation of stakeholders from railways, municipalities, and government to reflect the new legislative framework as well as to add a new section of guidelines and best practices that can be applied when converting industrial/commercial property into residential use when in proximity to railway operations.

The *Guidelines for New Development in Proximity to Railway Operations* is intended for use by municipalities and provincial governments, municipal staff, railways, developers, and property owners when developing lands in proximity to railway operations. They are meant to assist municipal governments and railways in reviewing and determining general planning policies when developing on lands in proximity to railway facilities, as well to establish a process for making site specific recommendations and decisions to reduce land-use incompatibilities for developments in proximity to railway operations. A key component is a model review process for new residential development, infill, and conversions in proximity to railways.

The guiding philisophy of this document is that, by building better today, we can avoid conflicts in the future.

Sincere Regards,

Sean Finn

FCM-RAC Proximity Co-Chair
Executive VP Corporate Services
and Chief Legal Officer, CN

Doug Reycraft

FCM-RAC Proximity Co-Chair
Mayor, Southwest Middlesex, ON

ACKNOWLEDGMENTS//

These guidelines and best practices were developed by the FCM/RAC Proximity Initiative with the help and participation of stakeholders from government, freight, passenger, and commuter railway operators, municipal councillors and mayors, municipal urban planners, the Federation of Canadian Municipalities and the Railway Association of Canada.

I would like to especially acknowledge the members of the Guidelines Working Group who gave their time, expertise, and insight in vetting the research, developing the format, and editing the product from start to finish.

Adam Snow (Chair)	Third Party Projects Officer - GO Transit
Nick Coleman	Manager, Community Planning & Development, CN
Orest Rojik	Right-of-Way Representative, CPR
Giulio Cescato	Planner, City of Toronto

And also Daniel Fusca of DIALOG who worked with the team.

The project was initiated and approved through the Steering Committee of the FCM/RAC Proximity Initiative:

Doug Reycraft - FCM Co-chair, Mayor, Southwest Middlesex, Ontario

Sean Finn - RAC Co-chair, Executive VP & Chief Legal Officer, CN

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We gratefully acknowledge their valued input and support.

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CONTENTS//

As cities in Canada continue to urbanize, and as they place a greater emphasis on curbing urban sprawl, demand for new forms of infill development is growing, including on sites in proximity to railway corridors.

In particular, commercial and industrial properties in proximity to railway operations, and in some cases the buildings situated on those properties, are increasingly being converted to residential uses. At the same time, both the passenger and freight operations of railways are growing steadily, leading to an increasing potential for conflicts between rail operations and adjacent land uses.

Areas in proximity to railway operations are challenging settings for new development, and in particular, for residential development. It is often difficult to reconcile the expectation and concerns of residents with railway operations. For this reason, developments must be carefully planned so as not to unduly expose residents to railway activities as well as not to interfere with the continued operation of the corridor itself, or the potential for future expansion, as railways play an important economic role in society that must be safeguarded.

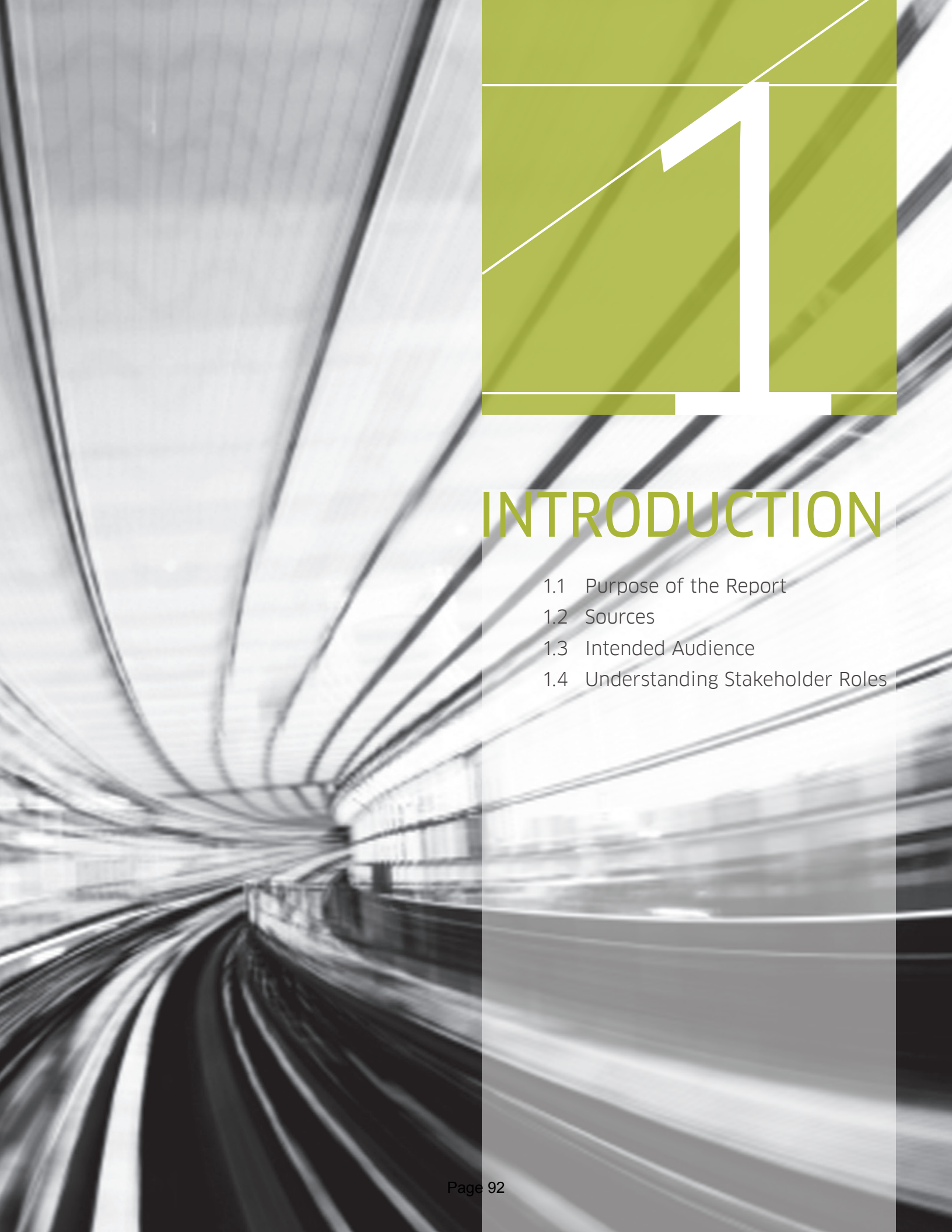
This report strongly recommends that municipalities should take a proactive approach to identifying and planning for potential conflicts between rail operations and new developments in proximity to railway corridors. Prior to the receipt of an application for a specific project, the municipality should have already have identified key sites for potential redevelopment, conversion, or future rail crossings, and will have generated site-specific policies to manage such future change.

To further assist municipalities and other stakeholders, this report provides a comprehensive set of guidelines for use when developing on lands in proximity to railway operations. The intent of the guidelines is to:

- promote awareness around the issues (noise, vibration, safety) and mitigation measures associated with development near railway operations, particularly those associated with residential development;
- promote greater consistency in the application of relevant standards across the country;
- establish an effective approvals process for new residential development, infill, and conversions from industrial/commercial uses that allows municipal planners to effectively evaluate such proposals with an eye to ensuring that appropriate sound, vibration, and safety mitigation is secured; and
- enhance the quality of living environments in close proximity to railway operations.

The report builds on the 2004 FCM/RAC Proximity Guidelines and is intended for use by municipalities and provincial governments, municipal staff, railways, developers, and property owners when new developments in proximity to railway operations are proposed. Information has been assembled through a comprehensive literature/best practices review from national and international sources as well as a consultation process involving planners, architects, developers, and other professionals from across Canada, the USA, and Australia, as well as members of RAC and FCM.

In addition to the detailed guidelines, the report offers a set of implementation tools and recommendations that are meant to establish a clear framework for the dissemination, promotion, and adoption of the guidelines; as well as suggested improvements to the development approval process. A key recommendation is for a new development assessment tool, called a Development Viability Assessment, which will allow municipal planners to better evaluate proposals for residential development in areas where standard mitigation cannot be accommodated due to site constraints.



1

INTRODUCTION

1.0 // INTRODUCTION

Cities are the economic engines of Canada, and our quality of life and economic competitiveness depend on strong municipalities and sustainable municipal growth and development.

Equally important to the economy of Canada, railways ensure the efficient movement of goods and people. In so doing, railways make a vital contribution to the Canadian economy and to the success of Canadian communities. As cities across Canada begin to realize the benefits of curbing urban sprawl, and as consumer demand for more housing in urban centres grows, the push to intensify existing built-up areas, including sites in proximity to railway operations, has grown steadily stronger. At the same time, increased demand for rail service, the high cost of transport fuel, and new sustainability objectives have added new pressure to the railway industry, which is expanding rapidly. When issues related to proximity to railway operations are not properly understood and addressed, the resulting problems can often be intractable and long lasting.

Rail/municipal proximity issues typically occur in three principle situations: land development near rail operations; new or expanded rail facilities; and road/rail crossings. The nature and integrity of railway corridors and yards need to be respected and protected. In addition to noise and vibration, safety, trespass, drainage, and/or blocked crossings are other inherent issues generated when both commnuities and railways grow in proximity to one another. The lack of a comprehensive set of proximity management guidelines, applied consistently across municipal jurisdictions, has greatly amplified these proximity issues in recent years, resulting in some cases in (real and perceived) social, health, economic, and safety issues for people, municipalities, and railways.

In 2003, the FCM and RAC began an important partnership to develop common approaches to the prevention and resolution of issues arising from development occurring in close proximity to railway corridors and other rail operations. Under a Memorandum of Understanding (MOU) agreed to by both parties, a Community-Rail Proximity Initiative was established and a Steering Committee was formed with a mandate to develop and implement a strategy to reduce misunderstanding and avoid unnecessary conflicts arising from railway-community proximity. The result was a framework for a proximity initiative, with the following areas requiring action:

- develop commonly understood proximity guidelines;
- improve awareness among all stakeholders regarding the need for effective planning and management; and
- develop dispute resolution protocols to guide concerned parties when issues emerge.

In 2004 the FCM and RAC Proximity Initiative published a report identifying best practices and guidelines for new developments in proximity to railway operations (reprinted 2007). This document is intended to update and replace that original document, and includes additional best practices and guidelines dealing specifically with residential conversion or infill projects on former industrial or commercial lands. The intent of this report is to provide municipalities with the necessary tools to facilitate decision-making, and to provide a framework for ensuring that new development in proximity to railway corridors is suitably configured to address the various risks and constraints present in railway environments.

Additionally, this report is intended to address the variable nature in the delivery of mitigative measures for new developments in proximity to railway operations across Canadian jurisdictions. A site-specific process is identified whereby the specific site conditions related to a proposed development can be assessed by municipalities in order to determine the mitigation measures most appropriate for that site, especially in locations where standard mitigation cannot be accommodated in a reasonable manner. Additionally, when a development application involves a residential component, the process will help municipalities to decide whether the site is appropriate for such a use. When it comes to safety, all parties must be aware that there are inherent safety implications associated with new developments in proximity to a railway line, and that these implications can often be mitigated, but typically not entirely eliminated. The goal is to establish a common, standardized process, whereby potential impacts to safety in the context of development applications in proximity to rail corridors can be assessed.

Finally, it is desirable for municipalities to take a proactive approach to identifying and planning for potential rail -oriented conflicts prior to the receipt of an application

PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

for a specific project. In the context of creating municipal and secondary plans, it behooves planners to identify key sites for potential redevelopment, conversion, or future rail crossings, and to generate site-specific policies to manage this future change.

1.1 // PURPOSE OF THE REPORT

The main objective of this report is to provide a set of guidelines that can be applied to mitigate the impacts of locating new development in proximity to railway operations. It is important to note that these guidelines are not intended to be applied to existing locations where proximity issues already exist, as these locations present their own unique challenges which must be addressed on site specific basis.

The report will:

- provide a framework to better facilitate municipal and railway growth;
- develop awareness around the issues associated with new development along railway corridors, including residential conversion or infill projects, particularly in terms of noise, vibration, and safety;
- provide model development guidelines, policies, and regulations, and illustrate best practices for use and adaptation as appropriate by all stakeholders, most particularly railways, municipalities, and land developers;
- establish a mechanism that allows municipal planners to effectively evaluate the appropriateness of an application to convert industrial or commercial lands in proximity to railway corridors to residential uses, and of other residential infill projects near railway corridors;
- establish a balance between the railway operational needs and the desire of municipalities to facilitate residential and other intensification in existing built-up areas;
- inform and influence railway and municipal planning practices and procedures through the provision of guidelines that ensure planning systems and development approval processes more effectively anticipate and manage proximity conflicts;
- promote greater consistency in the application of guidelines across the country;
- identify strategies to enhance the quality of living environments while reducing incompatibility; and
- inform and influence federal and provincial governments with respect to the development and implementation of applicable policies, guidelines, and regulations.

1.2 // SOURCES

The information in this report has been derived from two primary sources:

- a thorough review of academic literature as well as municipal, state, provincial, and federal policy documents from Canada, the USA, and Australia; and
- extensive stakeholder interviews with municipal planners, railways, provincial and state bureaucrats, developers, and professionals with expertise in a variety of fields including property law, noise and vibration mitigation, and crash wall and berm construction.

A full list of references is provided at the end of this report **(Appendix I)**, in addition to a list of organizations consulted as part of the stakeholder interview process **(Appendix H)**.

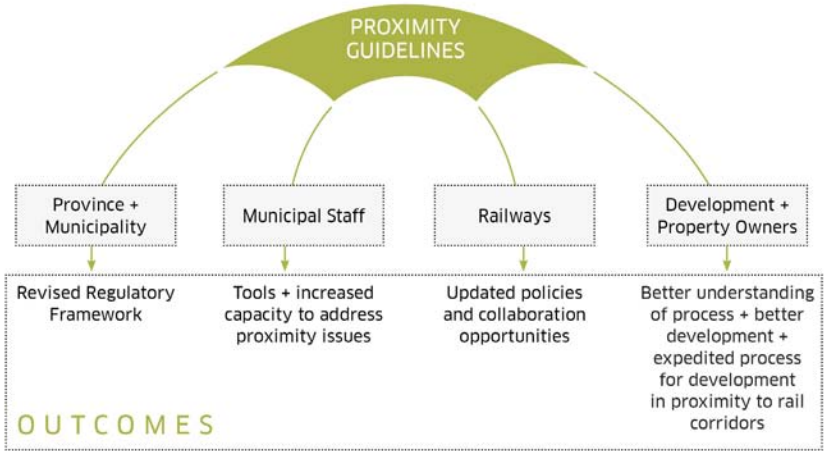


FIGURE 1 // OUTCOMES OF THE GUIDELINES FOR VARIOUS STAKEHOLDER GROUPS.

1.3 // INTENDED AUDIENCE

This report is intended to be used by:

- Municipalities and Provincial Governments, to create or update their policies, regulations, and standards related to new development along railway corridors, in order to create more consistency across the country.
- Municipal staff, as a tool to better understand the safety, vibration, noise, and other issues related to new development along railway corridors, and to more effectively evaluate and provide feedback on development proposals, particularly when they involve a residential component.
- Railways, to update their internal policies regarding development in proximity to railway corridors, particularly residential infill development and conversions, and to provide opportunities for collaboration with stakeholders.
- Developers and property owners, of sites in proximity to railway corridors to better understand the development approval process and the types of mitigation measures that might be required.

1.4 // UNDERSTANDING STAKEHOLDER ROLES

The research associated with this report has revealed the complexity of interaction between public and private agencies and individuals. It further indicated that a lack of understanding of roles and responsibilities has contributed to the problems identified. This section provides a brief overview of these roles. Recommendations for how each stakeholder can assist in the advancement of the goal of reducing proximity issues are found in Section 4.2 Advancing Stakeholder Roles.

1.4.1 Federal

The federal government regulates the activities of CN, CPR, and VIA Rail Canada, and some short line railways that operate interprovincially or internationally. These federal railways are regulated by such legislation as the *Railway Safety Act* (RSA), and the *Canada Transportation Act* (CTA). Applicable legislation, regulations, and guidelines are available from the respective websites.

1.4.2 Provincial

Provinces provide the land use regulatory framework for municipalities through Planning Acts, Provincial Policy Statements or Statements of Provincial Interest, Environmental Assessment Acts, and air quality and noise guidelines (such as the Ontario Ministry of the Environment Noise Assessment in Land Use Planning documents). This legislation generally provides direction on ensuring efficient and appropriate land use allocation and on tying land use planning to sound transportation and planning principles. Generally, provinces also have jurisdiction to establish land use tribunals to adjudicate disputes, although the approach taken by provinces with respect to establishing and empowering such tribunals varies across the country. Additionally, some provinces regulate shortline railways.

1.4.3 Municipal

Municipalities are responsible for ensuring efficient and effective land use and transportation planning within their territory, including consultation with neighbouring property owners (such as railways), in carrying out their planning responsibilities. Municipal planning instruments include various community-wide and area plans, Zoning By-law/ Ordinances, Development Guidelines, Transportation Plans, Conditions of Development Approval, and Development

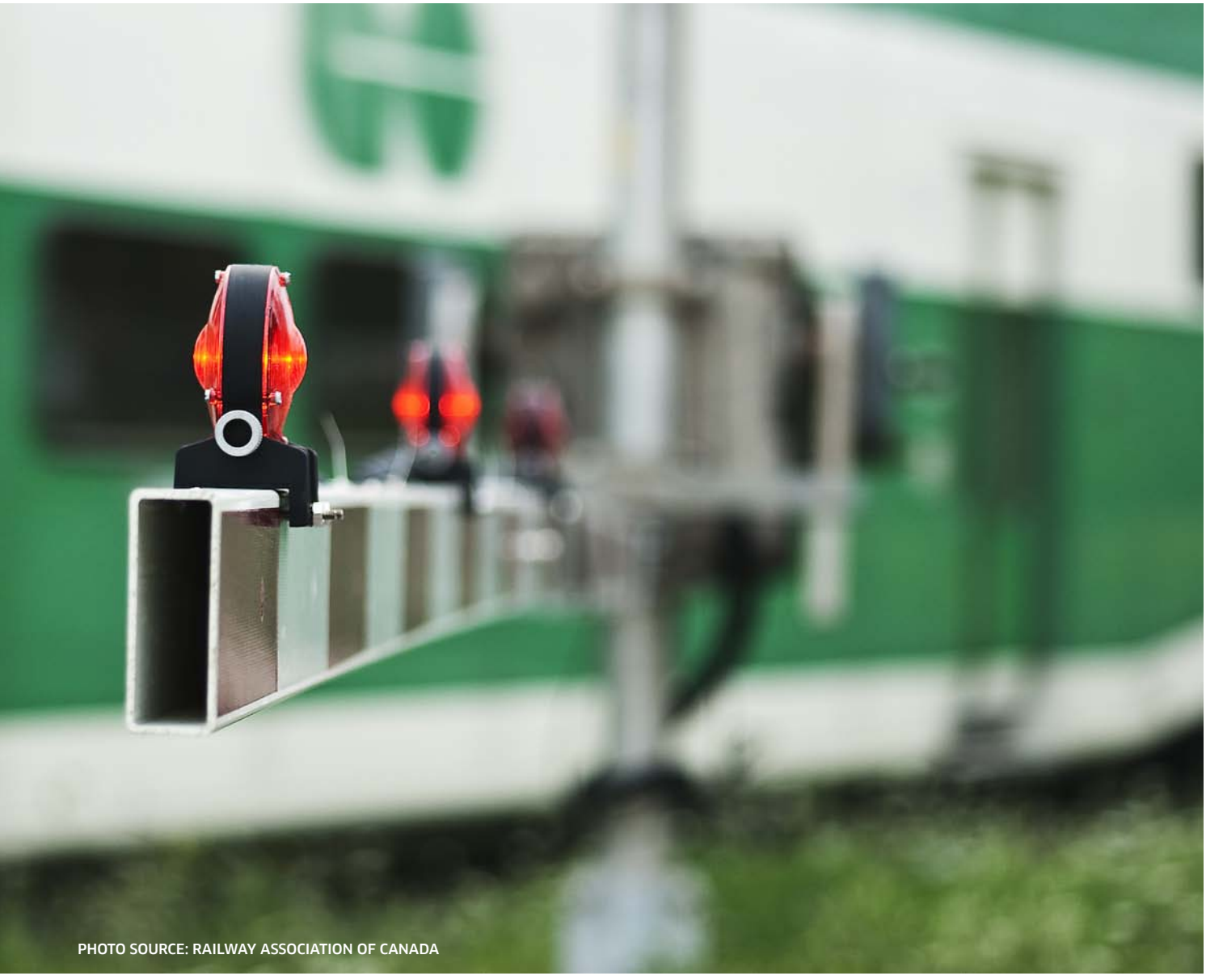


PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

Agreements to secure developer obligations and requirements. Municipal governments have a role to play in proximity issues management by ensuring responsible land use planning policies, guidelines, and regulatory frameworks, as well as by providing a development approvals process that reduces the potential for future conflicts between land uses.

1.4.4 Railway

Federally regulated railways are governed, in part, by the requirements of the *Canada Transportation Act* (CTA). Under the CTA, railways are required to obtain an approval from the Canadian Transportation Agency for certain new railway construction projects. Through this process, railways must give notification and consult with interested parties. For existing railway operations, the CTA requires that railways make only such noise and vibration as is reasonable, taking into consideration their operational requirements and the need for the railway to meet its obligation to move passengers and the goods entrusted to it for carriage. Additionally, federal railways are required to adhere to the requirements of the *Railway Safety Act* (RSA), which promotes public safety and the protection of property and the environment in the operation of a railway. Railways also typically establish formal company environmental management policies and participate in voluntary programs and multi-party initiatives such as Direction 2006, Operation Lifesaver, TransCAER, and Responsible Care®.

Both CN and CPR, as well as VIA Rail Canada, and many short line railways across the country, have established guidelines for new development in proximity to their railway corridors, and they have a significant role to play in providing knowledge and expertise to municipal and provincial authorities, as well as developers and property owners.

1.4.5 Land Developer / Property Owner

Land developers are responsible for respecting land use development policies and regulations to achieve development that considers and respects the needs of surrounding existing and future land uses. As initiators of urban developments, they also have the responsibility to ensure that development projects are adequately integrated in existing environment.

1.4.6 Real Estate Sales / Marketing and Transfer Agents

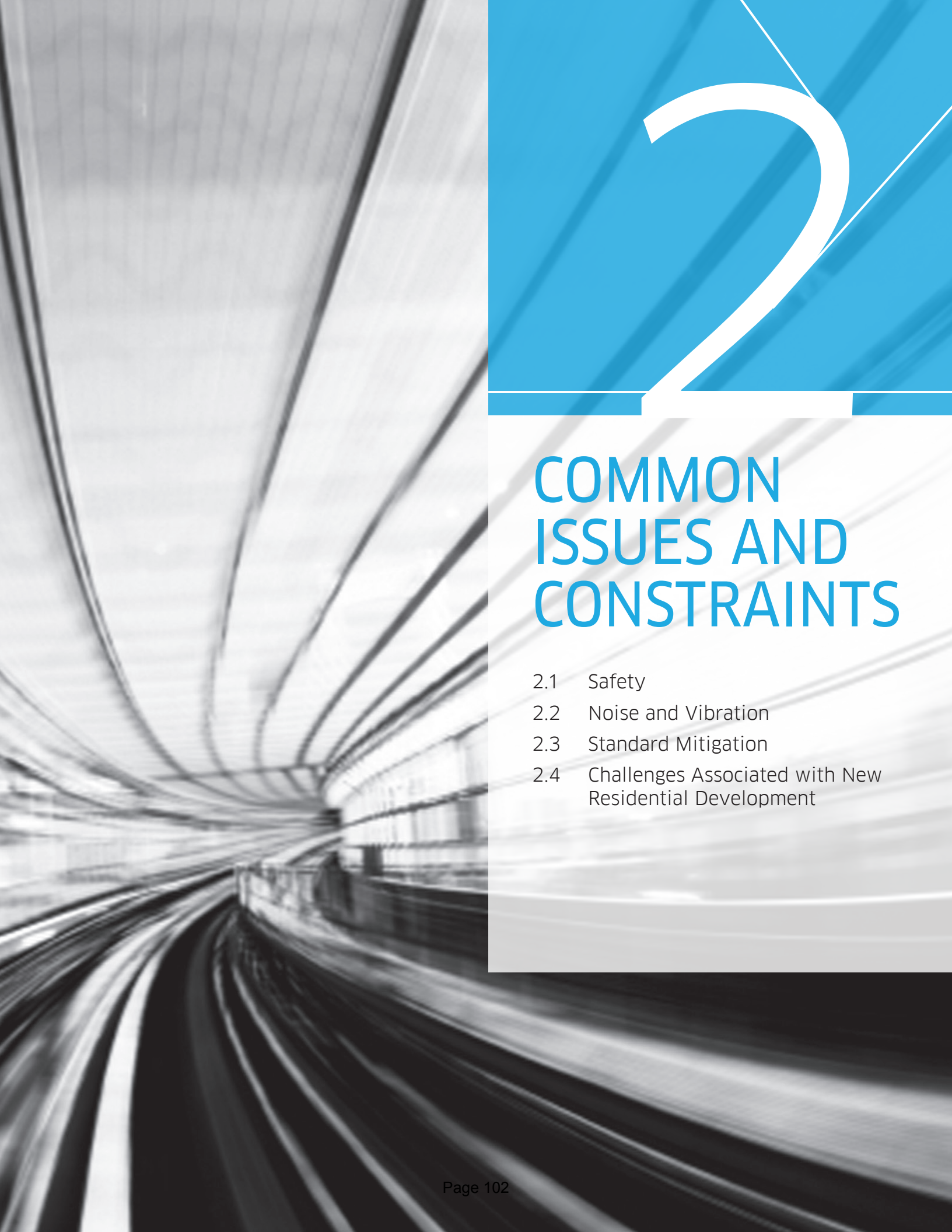
Real estate sales people and property transfer agents (notaries and lawyers) are often the first and only contacts for people purchasing property, and therefore have a professional obligation to seek out and provide accurate information to buyers and sellers.

1.4.7 Academia and Specialized Training Programs

Academic institutions provide training in all fields related to land use planning, development, and railway engineering.

1.4.8 Industry Associations

Industry associations include bodies such as the RAC, FCM, Canadian Association of Municipal Administrators (CAMA), Canadian Institute of Planners (CIP), provincial planning associations, the Canadian Acoustical Association (CAA), and land development groups such as the Urban Development Institute.



2

COMMON ISSUES AND CONSTRAINTS

2.0 // COMMON ISSUES AND CONSTRAINTS

The practice of developing land in close proximity to rail operations, as well as the expansion of rail operations in urban areas, have generated a variety of opportunities...

...as well as challenges for municipalities, developers, and railways, who must work together to balance a variety of sometimes competing goals and aspirations, including:

- the desire to promote excellence in urban design;
- the need, in some cases, to preserve employment lands and protect them from encroaching residential development;
- the growing demand for infill development that promotes the principles of sustainability and smart growth;
- the need to provide sufficient noise and vibration mitigation and safety measures;
- the desire of developers for consistency and clarity in the development process;
- the desire of developers and municipalities to see an improved and streamlined development review process for residential projects in proximity to railway corridors; and
- the necessity of recognizing the significant economic contributions of the railways, and of ensuring their continued ability to provide their services unimpeded.

In addition, it is important to recognize that areas in proximity to railway operations are challenging settings for new development, and in particular, residential development. Railway operations can generate concerns, such as blocked crossings, dangers to trespassers, as well as impacts on the quality of life of nearby residents due to the effects of inherent noise, vibration, and railway incidents . Conversely, developments must be carefully planned so as not to interfere with the continued operation of railway activities, or the potential for future expansion, as railways play an important economic role in society that must be safeguarded.

The most significant constraints related to railway proximity can be broadly categorized as follows:

1. **Inadequate communication** - both formal and informal notification and consultation is lacking between and among stakeholders.
2. **Lack of understanding and awareness of rail/municipal proximity issues** - the issues and regulations affecting rail operations and municipal land use decisions are complex and involve every level of government. Individual stakeholders are not always familiar with the mandate and operating realities of other stakeholder agencies. Rail/municipal proximity issues only arise infrequently for many municipalities, particularly smaller ones, and staff may not be aware of required or appropriate mitigation measures.
3. **Absence of comprehensive or consistent development review** - policies, regulations, and approaches for dealing with land use decisions involving rail proximity issues vary greatly from municipality to municipality, and are lacking detail in most cases. In particular, there is a need for a new development review process that deals specifically with residential development proposals, especially those involving a conversion from commercial or industrial uses, or which are to be located on tight infill sites.

In addition to these common constraints, there are a number of very specific issues which, in some cases, are a result of the constraints, and in others, fuel them. These include issues around safety, noise, vibration, the accommodation of safety mitigation measures, and the accommodation of residential development near railway corridors. Following is a brief summary of some of the

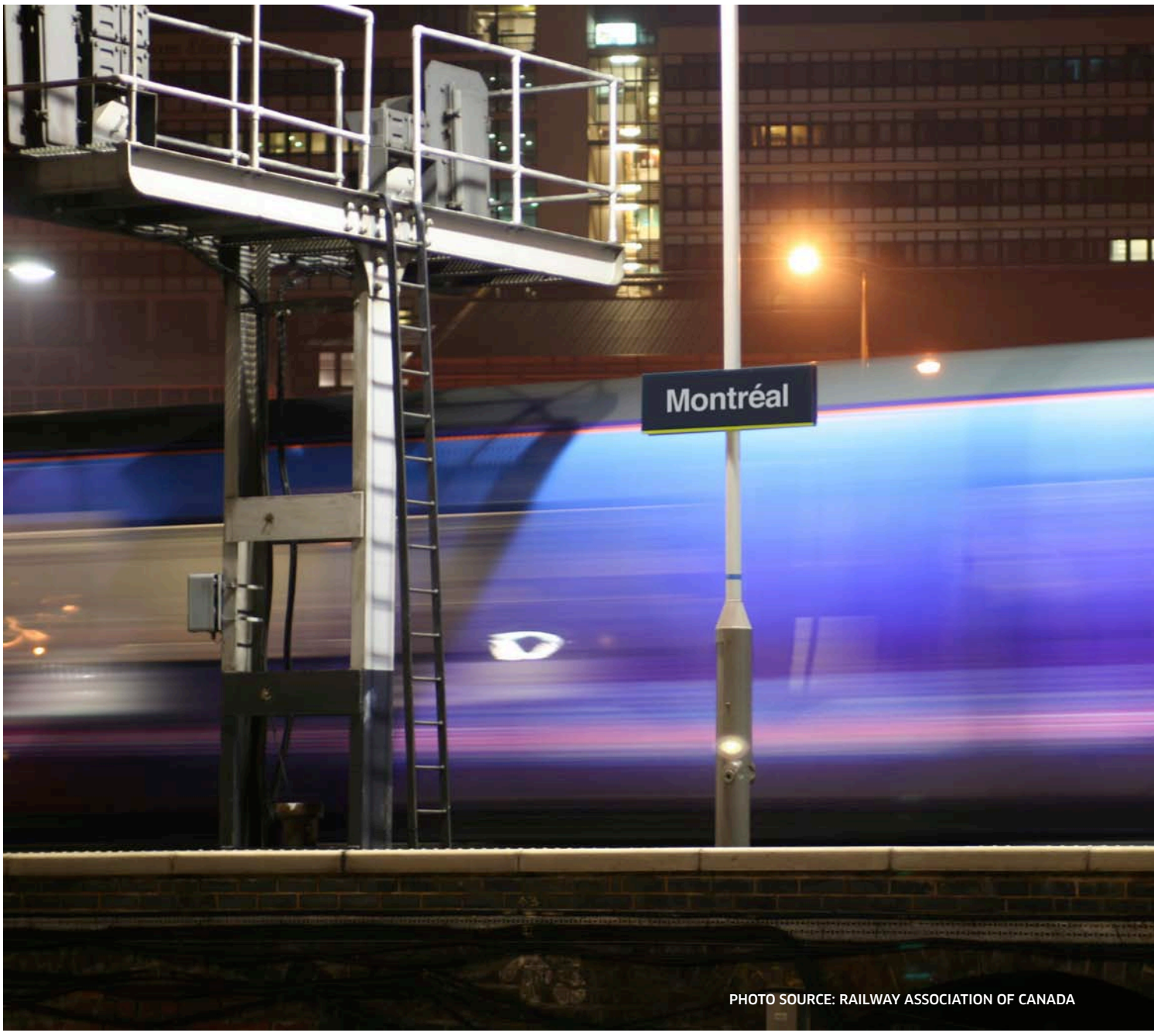


PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

more specific issues associated with new development in proximity to railway operations.

2.1 // SAFETY

Safety is a concern which has been expressed by residents living in proximity to railways. In *Stronger Ties: A Shared Commitment to Railway Safety (2007),* a report commissioned as part of a review of the Railway Safety Act, it is noted that rail is one of the safest modes of transportation, and that Canada's railways are among the safest in North America. When accidents do occur, the vast majority are non-main track collisions and derailments occurring primarily in yards or terminals. Only slightly more than 10 percent of railway accidents are collisions or derailments that occur on track between stations or terminals, including branch and feeder lines, although these are the accidents with the greatest consequences in terms of property and environmental damage. Additionally, the number of accidents involving the transportation of dangerous goods has been falling steadily since 1996, even as rail transport of regulated dangerous goods has grown by as much as 60 percent. By far, the greatest number of annual fatalities resulting from railway accidents involves trespassers or vehicle occupants or pedestrians being struck at crossings.[1] As a result, trespassing is at least as great, if not greater a safety concern than is derailment.

2.1.1 Train Derailments

The desire to ensure safety and promote a high quality of life for people living and working in close proximity to railway corridors is a principal objective of railways. As part of that objective, railways have, since the early 1980s, promoted mitigation in the form of a standard setback and berm. These measures have been developed based on a detailed analysis of past incidents and derailments. Together, they contain the derailed cars and allow a derailed train enough room to come to a complete stop. In addition, setbacks and berms also allow for the dissipation of noise and vibration, and have typically been effective at ameliorating the proximity concerns perceived by residents living near railway operations. While these measures are recommended for all types of new development in proximity to railway operations, they have typically only been considered by the railways as a mandatory requirement for residential development. Nevertheless, in some cases where conversion or infill sites are small and cannot accommodate standard setbacks, reduced setbacks may be possible under certain conditions (for example, if the railway line is located in a cut), but in the majority of cases, an alternate form of safety barrier (such as a crash wall) will be required.

Most jurisdictions across Canada have yet to establish a formal requirement for rail corridor building setbacks. In some cases, minimum setback requirements are considered to be too onerous, and are either ignored or subjectively reduced. Ontario, which mandates the involvement of railways on any development proposal in proximity to railway facilities, is the only province where standard setbacks are typically achieved. This creates a perception that developers in that province are treated differently since they bear the additional costs associated with implementing safety mitigation, whereas developers in other provinces do not. In reality, this is simply an outcome of Ontario's stronger regulatory framework for dealing with development in railway environments.

1 Railway Safety Act Review Secretariat. (2007). Stronger ties: A shared commitment to railway safety. Retrieved from the Transport Canada website: www.tc.gc.ca/tcss/RSA_Review-Examen_LSF

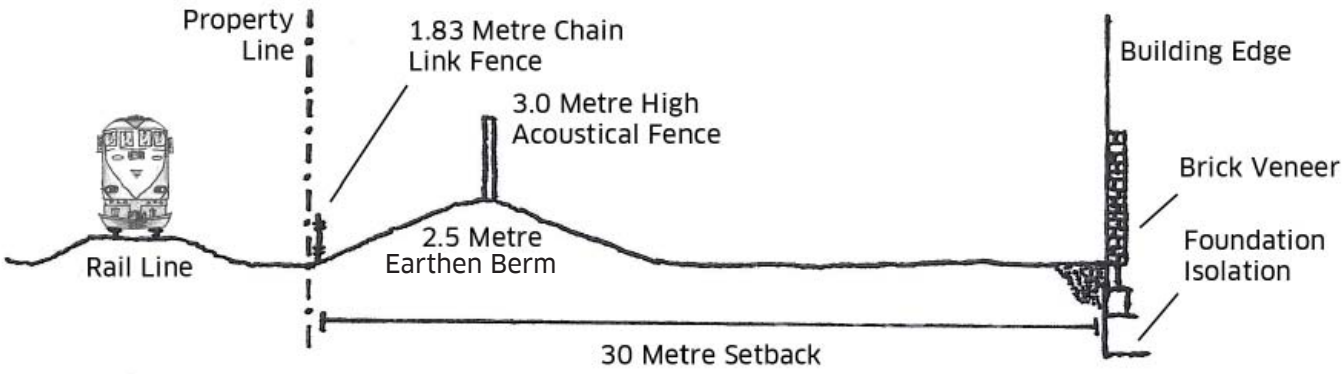


FIGURE 2 // STANDARD MITIGATION FOR NEW RESIDENTIAL DEVELOPMENT IN PROXIMITY TO A MAIN LINE RAILWAY

2.1.2 Crossings

As urban areas grow in proximity to railway corridors, road traffic at existing crossings increases and can lead to demands for improvements to such crossings, demands for additional crossings, or demands for grade separations to accommodate the flow of the traffic from the new development to areas on the other side of the railway. Conversely, Transport Canada and the railways strive to reduce the number of at-grade crossings since each new crossing increases the risk exposure for potential vehicle/train and pedestrian accidents, as well as the related road traffic delays. Grade-separated crossings address both these issues, but are expensive to construct. Safety at railway crossings is a concern for all stakeholders and planning is necessary to consider alternatives to creating new grade crossings, including upgrading and improving safety at existing crossings and grade-separated crossings.

2.2 // NOISE AND VIBRATION

Noise and vibration from rail operations are two of the primary sources of complaints from residents living near railway corridors. Airborne noise at low frequencies (caused by locomotives) can also induce vibration in lightweight elements of a building, which may be perceived to be ground-borne vibration.

There are two sources of rail noise: noise from pass-by trains, and noise from rail yard activities, including shunting. Pass-by noise is typically intermittent, of limited duration and primarily from locomotives. Other sources of pass-by noise include whistles at level crossings[2], and car wheels on the tracks.

Freight rail yard noises tend to be frequent and of longer duration, including shunting cars, idling locomotives, wheel and brake retarder squeal, clamps used to secure containers, bulk loading/unloading operations, shakers, and many others.

Beyond the obvious annoyance, some studies have found that the sleep disturbance induced by adverse levels of noise can affect cardiovascular, physiological, and mental health, and physical performance.[3] However, there is no clear consensus as to the real affects of adverse levels of noise on health.

Ground borne vibration from the wheel-rail interface passes through the track structure into the ground and can transfer and propagate through the ground to nearby buildings. Vibration is more difficult to predict and mitigate than noise and there is no universally accepted method of measurement or applicable guidelines. Vibration evaluation methods are generally based on the human response to vibration. The effects of vibration on occupants include fear of damage to the occupied structure, and interference with sleep, conversation, and other activities.

2.3 // STANDARD MITIGATION

In order to reduce incompatibility issues associated with locating new development (particularly new residential development) in proximity to railway corridors, the railways suggest a package of mitigation measures that have been designed to ameliorate the inherent potential

2 Applicable to federally regulated railways and some provincially regulated railways (notably in Quebec and Ontario). Trains are required to sound their whistles for at least 400 metres before entering a public crossing, unless relief has been granted in accordance with the regulatory process.

3 Berglund, B., Lindvall, T., & Schwela, D. H., eds. (1999). Guidelines for community noise [Research Report]. Retrieved from World Health Organization website: http://www.who.int/docstore/peh/noise/guidelines2.html

for the occurrence of safety, security, noise, vibration, and trespass issues. These mitigation measures (illustrated in FIGURE 2) include a minimum setback, earthen berm, acoustical and/or chain link security fence, as well as additional measures for sound and vibration attenuation.

It should be noted that many of these measures are most effective only when they are implemented together as part of the entire package of standard mitigation measures. For example, the setback contributes to mitigation against the potential impact of a railway incident as well as noise and vibration, through distance separation. The earthen berm, in turn, can protect against the physical components of a derailment (in conjunction with the setback), and provides mitigation of wheel and rail noise, reduces the masonry or wood component (and cost) of the overall noise barrier height, and offers an opportunity for the productive use of foundation excavations. Implementation of the entire package of mitigation measures is, therefore, highly desirable, as it provides the highest possible overall attenuation of incompatibility issues. It should also be noted that implementation of such measures is easiest to achieve for new greenfield development. For this reason, these measures are not intended as retrofits for existing residential neighbourhoods in proximity to railway operations. As well, challenges may be encountered in the case of conversions or infill projects on small or constrained sites, and any implications related to the use of alternative mitigation measures need to be carefully evaluated.

2.3.1 Maintenance

A common issue that emerged through this process was that of the responsibility for maintaining mitigation infrastructure. Currently, there is no standard approach to dealing with the maintenance of mitigation infrastructure. In some cases, as is the current practice in Saskatoon, the municipality takes on this responsibility. Increasingly, however, this is seen as an undue burden on municipal coffers, particularly within the current difficult budgetary climate. In Ontario, there was a time when the railways occasionally took possession of the portion of the berm beyond the fence facing onto the railway corridor, but this land attracted property taxes at residential rates. As such, this practice has largely ended. Commonly, property owners maintain ownership of this portion of land, and are expected to maintain the mitigation infrastructure themselves. This strategy can work for commercial or industrial developments, or in the case of condominium developments, where the land becomes part of the common areas of the condominium and maintenance becomes the responsibility of the corporation. In the case of freehold developments, however, where the responsibility for maintenance lies with individual property owners, it is virtually impossible for them to easily access the side of the berm facing onto the railway corridor, and would be dangerous for them to do so in any case. Recommendations regarding a Mitigation Infrastructure Maintenance Strategy are included in Section 4.1.2 of this report.

2.4 // CHALLENGES ASSOCIATED WITH NEW RESIDENTIAL DEVELOPMENT

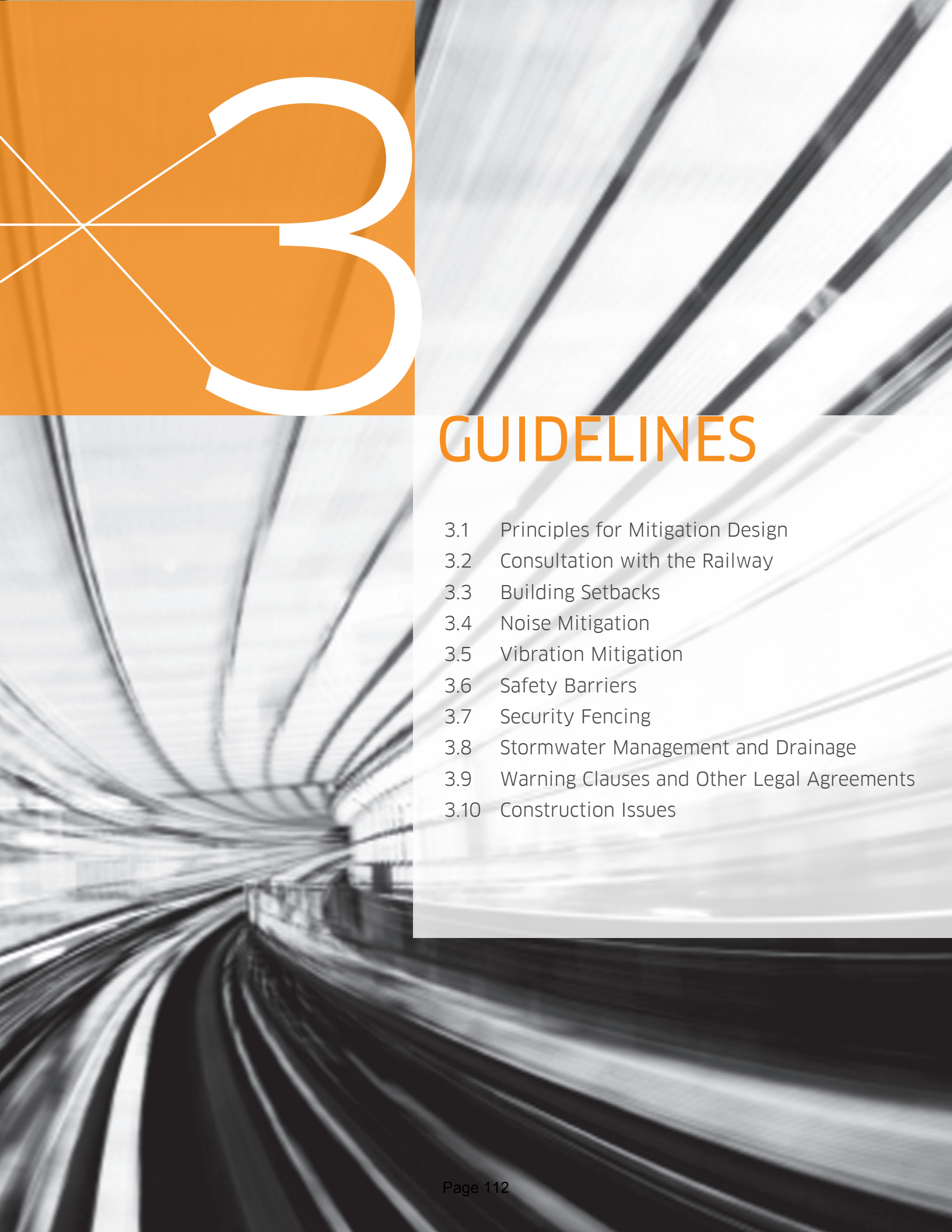
Residential development is particularly challenging in the context of a railway environment. As noted above, safety, noise, and vibration issues become more significant when dealing with residential development. Partly, this is because people are more sensitive to these issues in the context of their own homes than in other contexts (work, leisure, etc.). It is also because the negative effects of noise and vibration become more

pronounced when they disturb normal sleeping patterns.

When residential development in proximity to railway corridors occurs on large greenfield sites, dealing with these issues is typically not a challenge, as standard mitigation measures can be easily accommodated, and are quite effective. Residential development becomes significantly more challenging, however, when the context is a small infill site, such as those typically associated with the conversion of commercial or industrial properties. In addition to their small size, these sites are also often oddly shaped, and do not easily accommodate standard mitigation measures such as a setback and berm. In addition, existing commercial buildings that are typically associated with conversions to residential use may not meet current residential building code specifications and for this reason it is very important that proper mitigation measures are implemented for these buildings.

In the case of high-density development, crash walls and extensive vibration isolation become economically feasible, negating the problems associated with small sites. However, where high-density development is not appropriate given the site context, these solutions are not financially feasible for the developer, and a different approach is required. Across Canada, there have been inconsistencies in the way these sites are dealt with, and in some cases, residential development has been allowed with little to no mitigation, which could present proximity issues and concerns to residents in the future.

A major contributing factor with respect to inconsistencies in the application of mitigation measures across Canada is the lack of a clear development approval process for residential development in proximity to railway corridors in most jurisdictions outside of Ontario. A new approach is required that will ensure more consistent outcomes across the country. In particular, municipalities will need to carefully consider the viability of sites for conversion to residential uses, based on criteria such as: existing contextual land use, size of site, appropriateness of high-density development, and the demonstrated effectiveness of alternative mitigation measures. Recommendations regarding a Model Review Process for Residential Development, Infill, and Conversions Adjacent to Railway Corridors can be found in **Section 4.1.1** of this report.



3 GUIDELINES

3.0 // GUIDELINES

The intention of these guidelines is to provide a level of consistency in the approach to the design of buildings and their context in proximity to railway corridors, and the type of mitigation that is provided across the country.

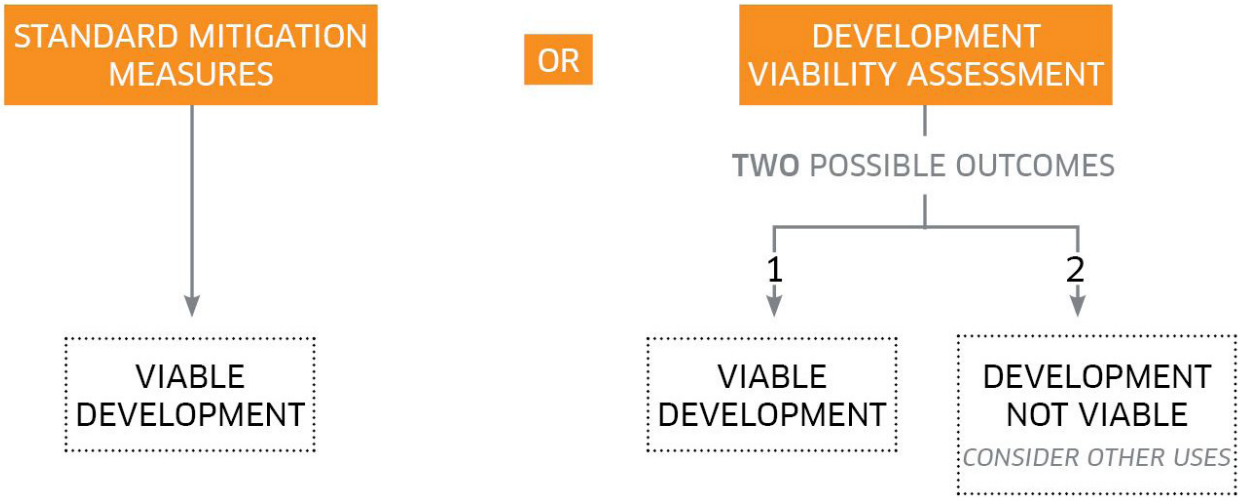


FIGURE 3 // THE DEVELOPMENT VIABILITY ASSESSMENT TOOL IS TO BE USED WHERE STANDARD MITIGATION MEASURES CANNOT BE ACCOMMODATED

The main objective is to mitigate railway-oriented impacts such as noise, vibration, and safety hazards, to ensure that the quality of life of a building's residents and users is not negatively affected. The guidelines are intended to be applied primarily to new residential development but may be useful for all other types of new development as well.

3.1 // PRINCIPLES FOR MITIGATION DESIGN

The following principles for mitigation design should be considered when applying the guidelines below. They are an expression of the intent of the guidelines, and both developers as well as municipalities should have regard for them when designing or assessing new residential development in proximity to a railway corridor.

1. Standard mitigation measures are desired as a minimum requirement.
2. In instances where standard mitigation measures are not viable, alternative development solutions may be introduced in keeping with the Development Viability Assessment process (SEE FIGURE 3).
3. All mitigation measures should be designed to the highest possible urban design standards. Mitigation solutions, as developed through the Development Viability Assessment process, should not create an onerous, highly engineered condition that overwhelms the aesthetic quality of an environment.

3.2 // CONSULTATION WITH THE RAILWAY

Consultation with all stakeholders, including the railways, at the outset of a planning process is imperative to building understanding and informing nearby neighbours. In addition, initiating a conversation with railways can confirm the feasibility of a project and the practicality of proceeding. Key issues or concerns that may need to be addressed will be identified.

- Early contact between the proponent and the railway (preferably in the project's early design phase), is highly recommended, especially for sites in close proximity to railway corridors. This consultation is important in order to determine:
  - » the location of the site in relation to the rail corridor;
  - » the nature of the proposed development;
  - » the frequency, types, and speeds of trains travelling within the corridor;
  - » the potential for expansion of train traffic within the corridor;
  - » any issues the railway may have with the new development or with specific uses proposed for the new development;
  - » the capacity for the site to accommodate standard mitigation measures;
  - » any suggestions for alternate mitigation measures that may be appropriate for the site; and
  - » the specifications to be applied to the project.

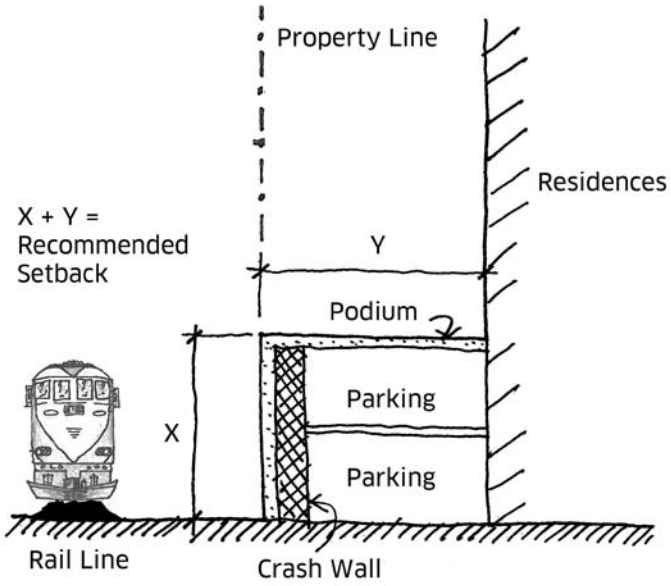


FIGURE 4 // INCORPORATING A CRASH WALL INTO A DEVELOPMENT CAN REDUCE THE RECOMMENDED SETBACK.

3.3 // BUILDING SETBACKS FOR NEW DEVELOPMENTS

A setback from the railway corridor, or railway freight yard, is a highly desirable development condition, particularly in the case of new residential development. It provides a buffer from railway operations; permits dissipation of rail-oriented emissions, vibrations, and noise; and accommodates a safety barrier. Residential separation distances from freight rail yards are intended to address the fundamental land use incompatibilities. Proponents are encouraged to consult with the railway early in the development process to determine the capacity of the site to accommodate standard setbacks (see below). On smaller sites, reduced setbacks should be considered in conjunction with alternative safety measures. Where the recommended setbacks are not technically or practically feasible due, for example, to site conditions or constraints, then a Development Viability Assessment should be undertaken by the proponent to evaluate the conditions specific to the site, determine its suitability for new development, and suggest options for mitigation. Development Viability Assessments are explained in detail in Appendix A.

3.3.1 Guidelines

- The standard recommended building setbacks for new residential development in proximity to railway operations are as follows:
  - » **Freight Rail Yard:** 300 metres
  - » **Principle Main Line:** 30 metres
  - » **Secondary Main Line:** 30 metres
  - » **Principle Branch Line:** 15 metres
  - » **Secondary Branch Line:** 15 metres
  - » **Spur Line:** 15 metres
- Setback distances must be measured from the mutual property line to the building face. This will ensure that the entire railway right-of-way is protected for potential rail expansion in the future.

» Policy Recommendation

Municipalities should establish minimum setback requirements through a zoning bylaw amendment.

- Under typical conditions, the setback is measured as a straight-line horizontal distance.
- Where larger building setbacks are proposed (or are more practicable, such as in rural situations), reduced berm heights should be considered.
- Marginal reductions in the recommended setback of up to 5 metres may be achieved through a reciprocal increase in the height of the safety berm (see Section 3.6 Safety Barriers)
- Horizontal setback requirements may be substantially reduced with the construction of a crash wall (see Section 3.6 Safety Barriers). For example, where a crash wall is incorporated into a low-occupancy podium below a residential tower, the setback distance may be measured as a combination of horizontal and vertical distances, as long as the horizontal and vertical value add up to the recommended setback. This concept is illustrated in FIGURE 4.
- Where there are elevation differences between the railway and a subject development property, appropriate variations in the minimum setback should be determined in consultation with the affected railway. For example, should the railway

FIGURES 5 (LEFT) & 6 (RIGHT) // SETBACK CONFIGURATION OPTIONS FOR OPTIMUM SITE DESIGN

Note that in both scenarios displayed in Figures 5 & 6, the presence of intervening structures between the railway and the outdoor amenity areas may negate the need for a sound barrier. Where a barrier is not required for noise, vegetative or other screening is recommended to provide a visual barrier to the sometimes frightening onset of a high speed passenger train.

tracks be located in a cut, reduced setbacks may be appropriate.

- Appropriate uses within the setback area include public and private roads; parkland and other outdoor recreational space including backyards, swimming pools, and tennis courts; unenclosed gazebos; garages and other parking structures; and storage sheds.

Example setback configurations are illustrated in FIGURES 5 AND 6.

3.4 // NOISE MITIGATION

Noise resulting from rail operations is a key issue with regards to the liveability of residential developments in proximity to railway facilities, and may also be problematic for other types of sensitive uses, including schools, daycares, recording studios, etc. As well as being a major source of annoyance for residents, noise can also have impacts on physical and mental health, particularly if it interferes with normal sleeping patterns.[1] The rail noise issue is site-specific in nature, as the level and impact of noise varies depending on the type of train operations. (see Appendix B for a sample rail classification system). Proponents will have to carefully plan any new development in proximity to a railway corridor to ensure that noise impacts are minimized as much as possible. Generally, during the day, noise should be contained to a level conducive to comfortable speech communication or listening to soft music, and at night it should not interfere with normal sleeping patterns.[2] For building retrofits, while the majority of the guidelines below will apply, special attention should be paid to windows, doors, and the exterior cladding of the building.

3.4.1 Guidelines

- Since rail noise is site-specific in nature, the level and impact of noise on a given site should be accurately assessed by a qualified acoustic consultant through the preparation of a noise impact study. The objective of the noise impact study is to assess the impact of all noise sources affecting the subject lands and to determine the appropriate layout, design, and required control measures. Noise studies should be undertaken by the proponent early in the development process, and should be submitted with the initial proposal.

» Policy Recommendation

Municipalities should consider amending their Official Plan or other appropriate legislation to require noise impact studies as part of any rezoning or Official Plan amendment near railway operations.

- The recommended minimum noise influence areas to be considered for railway corridors when undertaking noise studies are:
  - » **Freight Rail Yards:** 1,000 metres
  - » **Principal Main Lines:** 300 metres
  - » **Secondary Main Lines:** 250 metres
  - » **Principal Branch Lines:** 150 metres
  - » **Secondary Branch Lines:** 75 metres
  - » **Spur Lines:** 75 metres

1 Berglund, B., Lindvall, T., & Schwela, D. H., eds. (1999). Guidelines for community noise [Research Report]. Retrieved from World Health Organization website: http://www.who.int/docstore/peh/noise/guidelines2.html

2 Canada Mortgage and Housing Corporation. (1986). Road and rail noise: Effects on housing [Canada]: Author.

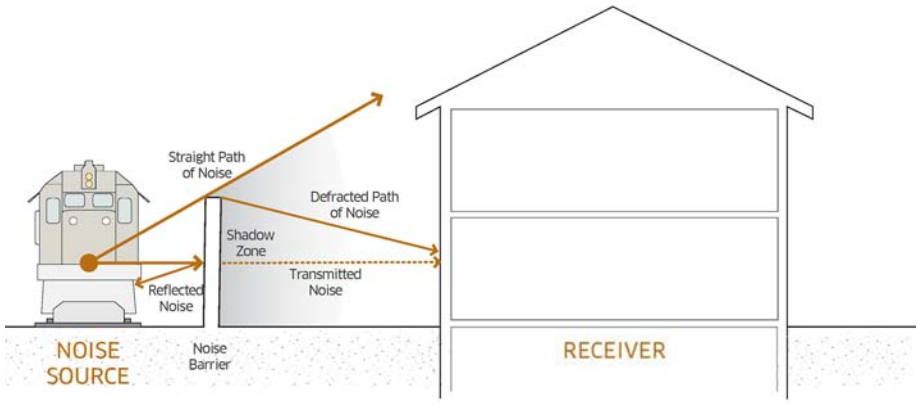


FIGURE 7 // EFFECT OF A NOISE BARRIER ON THE PATH OF NOISE FROM THE RECEIVER TO THE SOURCE. A NOISE BARRIER REDUCES NOISE LEVELS IN THREE WAYS: BY DEFLECTING NOISE OFF OF IT, BY DAMPENING THE NOISE THAT IS TRANSMITTED THROUGH IT, AND BY BENDING, OR DIFFRACTING NOISE OVER IT. THE AREA RECEIVING THE MOST PROTECTION BY THE NOISE BARRIER IS TYPICALLY REFERRED TO AS THE "SHADOW ZONE".

- The acoustic consultant should calculate the external noise exposure, confirm with measurements if there are special conditions, and calculate the resultant internal sound levels. This should take into account the particular features of the proposed development. The measurements and calculations should be representative of the full range of trains and operating conditions likely to occur in the foreseeable future at the particular site or location. The study report should include details of assessment methods, summarize the results, and recommend the required outdoor as well as indoor control measures.
- To achieve an appropriate level of liveability, and to reduce the potential for complaints due to noise emitted from rail operations, new residential buildings in proximity to railway operations should be designed and constructed to comply with the sound level limits criteria shown in AC.1.4 (see AC.1.6 for sound limit criteria for residential buildings in proximity to freight rail shunting yards). Habitable rooms should be designed to meet the criteria when their external windows and doors are closed. If sound levels with the windows or doors open exceed these criteria by more than 10 dBA, the design of ventilation for these rooms should be such that the occupants can leave the windows closed to mitigate against noise (e.g. through the provision of central air conditioning systems).
- In Appendix C, recommended procedures for the preparation of noise impact studies are provided, as well as detailed information on noise measurement. These should be observed.
- It is recommended that proponents consult Section 2.4 of the Canadian Transportation Agency (CTA) report, *Railway Noise Measurement and Reporting Methodology* (2011) for guidance on the recommended content and format of a noise impact study.

3.4.1.1 Avoiding Adverse Noise Impacts through Good Design

Many of the adverse impacts of railway noise can be avoided or minimized through good design practices. Careful consideration of the location and orientation of buildings, as well as their internal layout can minimize the exposure of sensitive spaces to railway noise. Site design should take into consideration the location of the rail corridor, existing sound levels, topography, and nearby buildings. Noise barriers, acoustic shielding from other structures, and the use of appropriate windows, doors, ventilation, and façade materials can all minimize the acoustic impacts of railway operations. Note that many of the design options recommended below have cost and market acceptability liabilities that should be evaluated at the outset of the design process.

3.4.1.2 Noise Barriers

- A noise barrier can effectively reduce outdoor rail noise by between 5dBA and 15dBA, although the largest noise reductions are difficult to achieve without very high barriers. Noise barriers provide significant noise reductions only when they block the line of sight between the noise source and the receiver. Minimum noise barrier heights vary by the classification of the neighbouring rail line.[3] Though the required height will be determined by

3 Note that the height of a noise barrier can be achieved in combination with that of a berm, if present.

FIGURE 8 // PRECEDENT IMAGERY DEMONSTRATING THE INCORPORATION OF URBAN DESIGN AND LIVING WALLS INTO NOISE BARRIERS
SOURCES: (LEFT) WESTFIELD WINDBREAK BY WILTSHIREBLOKE. CC BY-NC-ND 3.0. RETRIEVED FROM: HTTP://WWW.FLICKR.COM/PHOTOS/WILTSHIREBLOKE/3580334228/. (MIDDLE) AUTUMN COLORS BY GEIR HALVORSEN. CC BY-NC-SA 3.0. RETRIEVED FROM: HTTP://WWW.FLICKR.COM/PHOTOS/DAMIEL/47160698/. (RIGHT) IMAGE BY DIALOG.

an acoustic engineer in a noise report, they are typically at least:

- » **Principal Main Line:** 5.5 metres above top of rail
- » **Secondary Main Line:** 4.5 metres above top of rail
- » **Principal Branch Line:** 4.0 metres above top of rail
- » **Secondary Branch Line:** no minimum
- » **Spur Line:** no minimum

Differences in elevation between railway lands and development lands may significantly increase or decrease the required height of the barrier, which must at least break the line of sight. Thus, when not at the same grade, the typical barrier heights are measured from an inclined plane struck between the ground at the wall of the dwelling and the top of the highest rail.

- In keeping with existing railway guidelines for new developments, noise barriers must be constructed adjoining and parallel to the railway right-of-way with returns at each end. They must be constructed without holes or gaps and should be made of a durable material with sufficient mass to limit the noise transmission to at least 10dBA less than the noise that passes over the barrier,[4] at least 20 kg per square metre of surface area. Masonry, concrete, or other specialist construction is preferred in order to achieve the maximum noise reduction combined with longevity. Well-built wood fences are acceptable in most cases. Poorly constructed fences of any type are an unnecessary burden on future residents.
- Consideration should be made to limiting the visual impact of noise barriers in order to maintain a high level of urban design in all new developments, and to discourage vandalism. This can be accomplished by incorporating public art into the design of the barrier, or through the planting of trees and shrubs on the side of the barrier facing the development, particularly where it is exposed to regular sunlight.
- Alternatively, the barrier itself may be constructed as a living wall, which also has the benefit of providing additional noise attenuation. FIGURE 8 provides some examples of how good design practices may be incorporated into the design of noise barriers.

N.B. New barriers constructed on one side of a railway opposite an older neighbourhood without barriers may lead to concerns from existing residents about the potential for noise increases due to barrier reflections. It is common for the characteristics of the noise to change due to frequency, duration, and time of onset, which, combined, may be perceived as a significant increase in noise levels. However, this is not generally supported through onsite measurement, as the train will act as its own barrier to any reflected noise during pass-by.

3.4.1.3 Building Location, Design Orientation, and Room Layout

While low-rise buildings may benefit from shielding provided by topography, barriers, or other buildings, high-rise buildings usually receive less noise shielding, and are, therefore, typically more exposed to noise from

4 Rail Infrastructure Corporation. (November 2003). Interim guidelines for applicants: Consideration of rail noise and vibration in the planning process. Retrieved from http://www.daydesign.com.au/downloads/Interim_guidelines_for_applicants.pdf

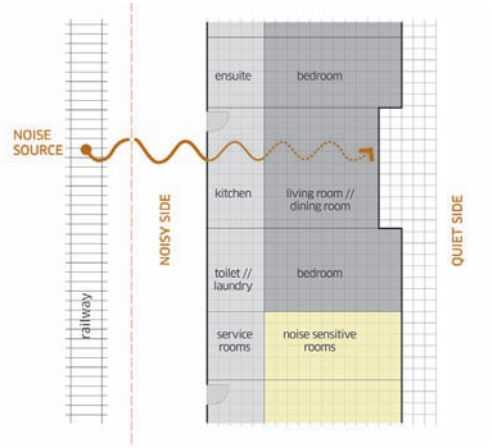


FIGURE 9 // **LOCATING NOISE SENSITIVE ROOMS AWAY FROM RAIL NOISE IN DETACHED DWELLINGS; AND FIGURE 10 (RIGHT) - LOCATING NOISE SENSITIVE ROOMS AWAY FROM RAIL NOISE IN MULTI-UNIT DWELLINGS.** (SOURCE: ADAPTED FROM FIGURE 3.6 IN THE DEVELOPMENT NEAR RAIL CORRIDORS AND BUSY ROADS - INTERIM GUIDELINE BY THE STATE OF NEW SOUTH WALES, AUSTRALIA)

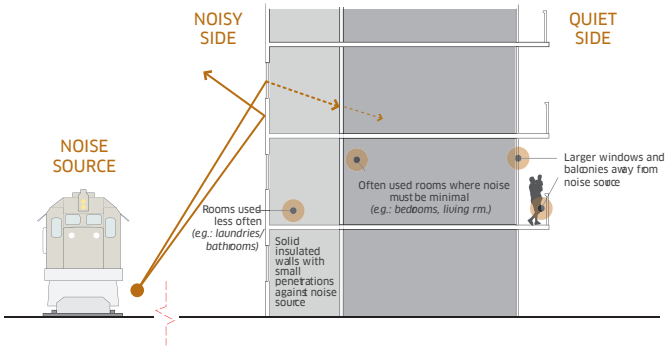


FIGURE 10 // **LOCATING NOISE SENSITIVE ROOMS AWAY FROM RAIL NOISE IN MULTI-UNIT DWELLINGS** (SOURCE: ADAPTED FROM FIGURES 3.5 & 3.6 IN THE DEVELOPMENT NEAR RAIL CORRIDORS AND BUSY ROADS - INTERIM GUIDELINE BY THE STATE OF NEW SOUTH WALES, AUSTRALIA)

» Policy Recommendations

Urban Design Guidelines for development near railway corridors would be a valuable tool in suggesting building layout and design. Alternatively, municipal planners should pay close attention to these issues through a site planning process. Jurisdictions that do not allow comprehensive site planning may wish to consider amendments to their land use planning legislation.

Comprehensive zoning for podiums would be a valuable tool for areas in proximity to railway operations that municipalities have identified for redevelopment. Urban Design Guidelines can also speak to appropriate built form, including podium design, setbacks, step backs etc. At a minimum, municipal planners should secure podium massing as part of a site-specific zoning by-law amendment.

Balconies can be regulated through zoning if administered comprehensively and can be secured as part of a site-specific zoning by-law. Urban Design Guidelines should also speak to appropriate balcony design (e.g. recessed versus protruding balconies).

Urban Design Guidelines should contain comprehensive information on best practices for landscape design, and appropriate types and species of plants.

Urban Design Guidelines can speak to materiality. Some jurisdictions, such as Ontario, allow municipalities to regulate external materials through the site plan process. This practice should be encouraged and jurisdictions that do not currently allow for this should consider making appropriate amendments to their land use planning legislation.

rail operations. In either case, noise mitigation needs to be considered at the outset of a development project, during the layout and design stage.

- One of the most effective ways of reducing the impact of rail noise is through the use of a setback, by increasing the separation between the source of noise and the noise sensitive area. Generally, doubling the distance from the noise source to the receiver will reduce the noise levels by between 3dBA and 6dBA.[5] **(See Section 3.3 Building Setbacks)**
- The layout of residential buildings can also be configured to reduce the impact of rail noise. For example, bedrooms and other habitable areas should be located on the side of the building furthest from the rail corridor. Conversely, rooms that are less sensitive to noise (such as laundry rooms, bathrooms, storage rooms, corridors, and stairwells) can be located on the noisy side of the building to act as a noise buffer. This concept is illustrated in FIGURES 9 AND 10.
- Minimizing the number of doors and windows on the noisy side of the dwelling will help to reduce the intrusion of noise. In the case of multi-unit developments, a single-loaded building where the units are located on the side of the building facing away from the rail corridor is another potential solution for reducing noise penetration.

3.4.1.4 Podiums

- Outdoor rail noise can be substantially reduced by building residential apartments on top of a podium or commercial building space. If the residential

5 State Government of New South Wales, Department of Planning. (2008). Development near rail corridors and busy roads - interim guideline. Retrieved from http://www.planning.nsw.gov.au/rdaguidelines/documents/DevelopmentNearBusyRoadsandRailCorridors.pdf

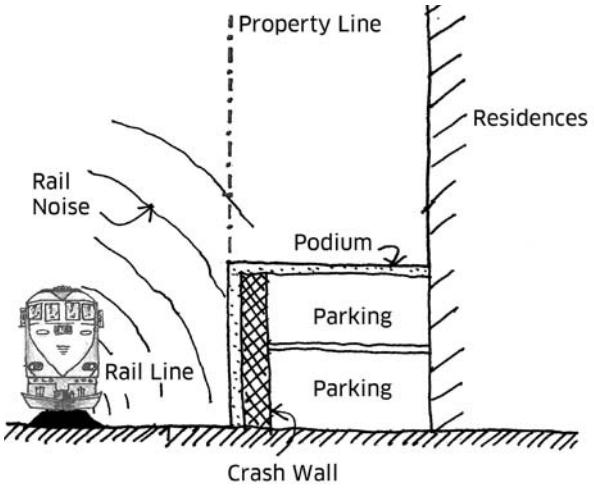


FIGURE 11 // PODIUMS CAN HELP REDUCE THE AMOUNT OF NOISE THAT REACHES RESIDENCES IF A SETBACK IS USED. (SOURCE: ADAPTED FROM FIGURE 3.13 IN THE DEVELOPMENT NEAR RAIL CORRIDORS AND BUSY ROADS - INTERIM GUIDELINE BY THE STATE OF NEW SOUTH WALES, AUSTRALIA).

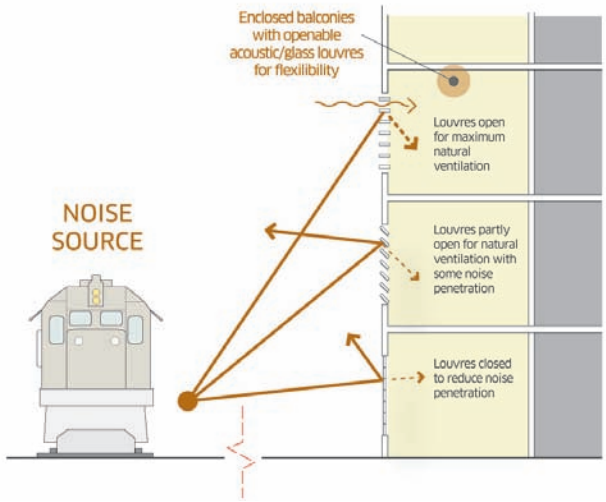


FIGURE 12 // USING ENCLOSED BALCONIES FACING A RAILWAY CORRIDOR AS NOISE SHIELDS. (SOURCE: ADAPTED FROM FIGURE 3.16 IN THE DEVELOPMENT NEAR RAIL CORRIDORS AND BUSY ROADS - INTERIM GUIDELINE BY THE STATE OF NEW SOUTH WALES, AUSTRALIA).

tower is set back, then the podium acts to provide increased distance from the railway corridor, thus reducing the noise from the corridor and providing extra shielding to the lower apartments. This concept is illustrated in FIGURE 11.

3.4.1.5 Balconies

- Providing enclosed balconies can be an effective means of reducing the noise entering a building. Where enclosed balconies are used, acoustic louvres and possibly a fan to move air into and out of the balcony space may be installed to address ventilation requirements. This concept is illustrated in FIGURE 12.

3.4.1.6 Vegetation

- While vegetation such as trees and shrubs does not actually limit the intrusion of noise, it has been shown to create the perception of reduced noise levels. Vegetation is also valuable for improving the aesthetics of noise barriers and for reducing the potential for visual intrusion from railway operations.

3.4.1.7 Walls

- In order to reduce the transmission of noise into the building, it is recommended that masonry or concrete construction or another form of heavy wall be used for all buildings in close proximity to railway corridors. This will aid in controlling the sound-induced vibration of the walls that rattles windows, pictures, and loose items on shelving. Additionally, care should be taken to ensure that the insulation capacity of the wall is not weakened by exhaust fans, doors, or windows of a lesser insulation capacity. To improve insulation response, exhaust vents can be treated with sound-absorbing material or located on walls which are not directly exposed to the external noise.

3.4.1.8 Windows

Acoustically, windows are among the weakest elements of a building façade. An open or acoustically weak window can severely negate the effect of an otherwise acoustically strong façade.[6] Therefore, it is extremely important to carefully consider the effects of windows on the acoustic performance of any building façade in proximity to a railway corridor. In addition to the recommendations below, proponents are advised to familiarize themselves with the Sound Transmission Class (STC) rating system, which allows for a comparison of the noise reduction that different windows provide.[7] In order to successfully ensure noise reduction from windows, proponents should:

- ensure windows are properly sealed by using a flexible caulking such as mastic or silicone on both the inside of the window and outside, between the wall opening and the window frame;
- use double-glazed windows with full acoustic seals. When using double-glazing, the wider the air space between the panes, the higher the insulation (50 mm to 100 mm is preferable in non-sealed widows and 25mm in sealed windows). It is also desirable in some cases to specify the panes with different thicknesses to avoid sympathetic resonance or to use at least one laminated lite to dampen the vibration within the window;
- consider reducing the size of windows (i.e. use punched windows instead of a window wall or curtain wall);

6 State Government of New South Wales, Department of Planning. (2008). Development near rail corridors and busy roads - interim guideline. Retrieved from http://www.planning.nsw.gov.au/rdaguidelines/documents/DevelopmentNearBusyRoadsandRailCorridors.pdf

7 The STC rating of a soundproof window is typically in the range of 45 to 54.

- consider increasing the glass thickness;
- consider using absorbent materials on the window reveals in order to improve noise insulation in particularly awkward cases;
- consider using hinged or casement windows or fixed pane windows instead of sliding windows;
- ensure window frames and their insulation in the wall openings are air tight; and
- incorporate acoustic seals into operable windows for optimal noise insulation.

Note that window frame contributions to noise penetration are typically less for aluminum and wood windows than for vinyl frames, as above.[8]

3.4.1.9 Doors

In order to ensure proper acoustic insulation of doors:

- airtight seals should be used around the perimeter of the door;
- cat flaps, letter box openings, and other apertures should be avoided;
- heavy, thick, and/or dense materials should be used in the construction of the door;
- there should be an airtight seal between the frame and the opening aperture in the façade;
- windows within doors should be considered as they exhibit a higher acoustic performance than the balance of the door material; and
- sliding patio doors should be treated as windows when assessing attenuation performance.

8 Note that STC ratings should include the full window assembly with the frame, as frames have been shown to be a weak component, and may not perform as anticipated from the glazing specifications.

3.5 // VIBRATION MITIGATION

Vibration caused by passing trains is an issue that could affect the structure of a building as well as the liveability of the units inside residential structures. In most cases, structural integrity is not a factor. Like sound, the effects of vibration are site specific and are dependent on the soil and subsurface conditions, the frequency of trains and their speed, as well as the quantity and type of goods they are transporting.

The guidelines below are applicable only to new building construction. In the case of building retrofits, vibration isolation of the entire building is generally not possible. However, individual elevated floors may be stiffened through structural modifications in order to eliminate low-frequency resonances. Vibration isolation is also possible for individual rooms through the creation of a room-within-a-room, essentially by floating a second floor slab on a cushion (acting like springs), and supporting the inner room on top of it.[9] Additional information regarding vibration mitigation options for new and existing buildings can be found in the *FCM/RAC Railway Vibration Mitigation Report*, which can be found on the Proximity Project website.

3.5.1 Guidelines

- Since vibration is site-specific in nature, the level and impact of vibration on a given site can only be accurately assessed by a qualified acoustic or vibration consultant through the preparation of a vibration impact study. It is highly recommended that an acoustic or vibration consultant be obtained by the proponent early in the design process, as mitigation can be difficult. It is recommended

9 Howe, B., & McCabe, N. (March 15 2012). Railway vibration reduction study: Information on railway vibration mitigation [Ottawa, ON]: Railway Association of Canada.

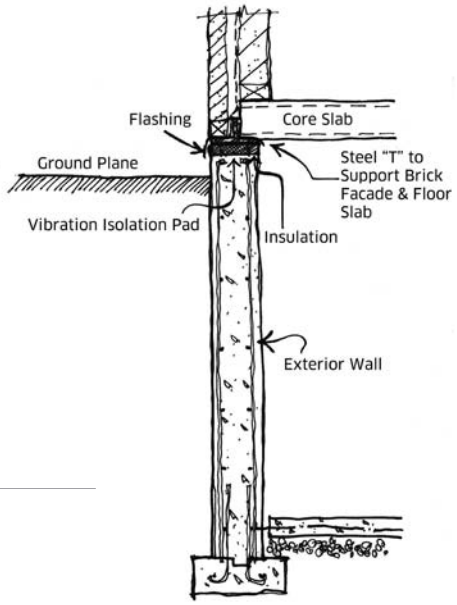


FIGURE 13 // SHALLOW VIBRATION ISOLATION

that the consultant be used to determine whether vibration mitigation measures are necessary and what options are available given the particular conditions of the development site in question. The consultant will employ measurements to characterize the vibration affecting the site in question. In the absence of a future rail corridor not yet operating, estimates based on soil vibration testing are required, although such sites are quite rare.

» **Policy Recommendation**

Municipalities should consider amendments to their Official Plan, where necessary, to make vibration studies a requirement for any zoning by-law amendment and Official Plan amendment applications.

- The recommended minimum vibration influence area to be considered is 75 metres from a railway corridor or rail yard.
- The acoustic consultant should carry out vibration measurements and calculate the resultant internal vibration levels. This should take into account the particular features of the proposed development. The measurements and calculations should be representative of the full range of trains and operating conditions likely to occur at the particular site or location. The study report should include details of the assessment methods, summarize the results, and recommend the required control measures.
- See AC.2.5 for recommended procedures for the preparation of vibration impact studies. These should be observed.
- The important physical parameters that should be considered by the consultant for designing vibration control can be divided into the following four categories:
  - » Operational and vehicle factors: including speed, primary suspension on the vehicle, and flat or worn wheels.
  - » Guideway: the type and condition of the rails and the rail support system.
  - » Geology: soil and subsurface conditions are known to have a strong influence on the levels of ground-borne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth of bedrock. Experience with ground-borne vibration is that vibration propagation is more efficient in stiff soils. Shallow rock (within a metre or two of the surface) seems to prevent significant vibration. Additional factors such as layering of the soil and depth to the water table, including their seasonal fluctuation, can have significant effects on the propagation of ground-borne vibration.
  - » Receiving building: the vibration levels inside a building depend on the vibration energy that reaches the building foundations, the coupling of the building foundation to the soil, and the propagation of the vibration through the building. The general guideline is that the heavier a building is, the lower the response will be to the incident vibration energy.

3.5.2 Examples of Vibration Mitigation Measures

Full vibration isolation requires a significant amount of specialist design input from both the acoustic consultant

and the structural engineer, and is therefore more suited to larger developments, which exhibit greater economies of scale.

3.5.2.1 Low-rise Buildings

- Vibration isolation of lightweight structures is difficult but possible for below grade floors. Normally, the upper floors are isolated from the foundation wall and any internal column supports using rubber pads designed to deflect 5 to 20mm under load. This concept is illustrated in FIGURE 13. Additionally, the following factors should be taken into consideration when designing vibration isolation for lightweight structures:
  - » Using hollow core concrete or concrete construction for the first floor makes the isolation problem easier to solve.
  - » Thought must be given to temporary wind and earthquake horizontal loads.
  - » A seam is created around the foundation wall that must be water sealed and insulated.
  - » Finishing components such as wood furring cannot be attached either above or below the isolation joint.
  - » All of these special items would likely be carried out by trades untrained in vibration control and therefore, a good deal of site supervision is required.
- Minor vibration control (usually only a 30% reduction) can be achieved by lining the outside of the foundation walls with a resilient layer. This practice takes advantage of the fact that the waves of vibration from surface rail travel mostly on the surface, dying down with depth. To obtain reasonable results, however, the lining must be quite soft and yet be able to withstand the lateral soil pressures present on the foundation wall.

3.5.3.2 Deep Foundation Buildings

- In the case of deep concrete foundations near rail lines, the design of vibration isolation for the surface wave should consider whether or not it is necessary to isolate the base of the building columns and walls. Often, these structures are anchored well below the depth where the surface wave penetrates and there are several levels of parking that the vibration must climb to reach a floor where vibration is of concern. Therefore, unless the rail corridor is running in a tunnel, isolation of deep foundation buildings may only require isolation of the foundation wall away from the structure.
- In severe cases, or locations where the foundation is not deeper than the surface wave, vibration isolation may also be required beneath the columns and their foundations, though it may only be necessary to isolate those portions of the structure located closest to the rail line. Consideration should be given to the differential deflection from one column row to the next, if only part of the building is vibration isolated.
- This is an unusual type of construction, which requires considerable professional supervision. The design is usually a joint effort between the vibration and structural engineers. Some architectural expertise is also needed, particularly for waterproofing the gap at the top of the foundation wall below the grade slab and making sure that there are no inadvertent connections between internal walls on the parking slabs and the vibrating

foundation wall, or between the grade slab and the lowest parking slab if the columns are isolated.

3.6 // SAFETY BARRIERS

Safety barriers reduce the risks associated with railway incidents by intercepting or deflecting derailed cars in order to reduce or eliminate potential loss of life and damage to property, as well as to minimize the lateral spread or width in which the rail cars and their contents can travel. The standard safety barrier is an earthen berm, which is intended to absorb the energy of derailed cars, slowing them down and limiting the distance they travel outside of the railway right-of-way. The berm works by intercepting the movement of a derailed car. As the car travels into the berm, it is pulled down by gravity, causing the car to begin to dig into the earth, and pulling it into the intervening earthen mass, slowing it down, and eventually bringing it to a stop.

3.6.1 Guidelines

3.6.1.1 Berms

- Where full setbacks are provided, safety barriers are constructed as berms, which are simple earthen mounds compacted to 95% modified proctor. Setbacks and berms should typically be provided together in order to afford a maximum level of mitigation. Berms are to be constructed adjoining and parallel to the railway right-of-way with returns at the ends and to the following specifications:
  - » Principle Main Line: 2.5 metres above grade with side slopes not steeper than 2.5 to 1
  - » Secondary Main Line: 2.0 metres above grade with side slopes not steeper than 2.5 to 1

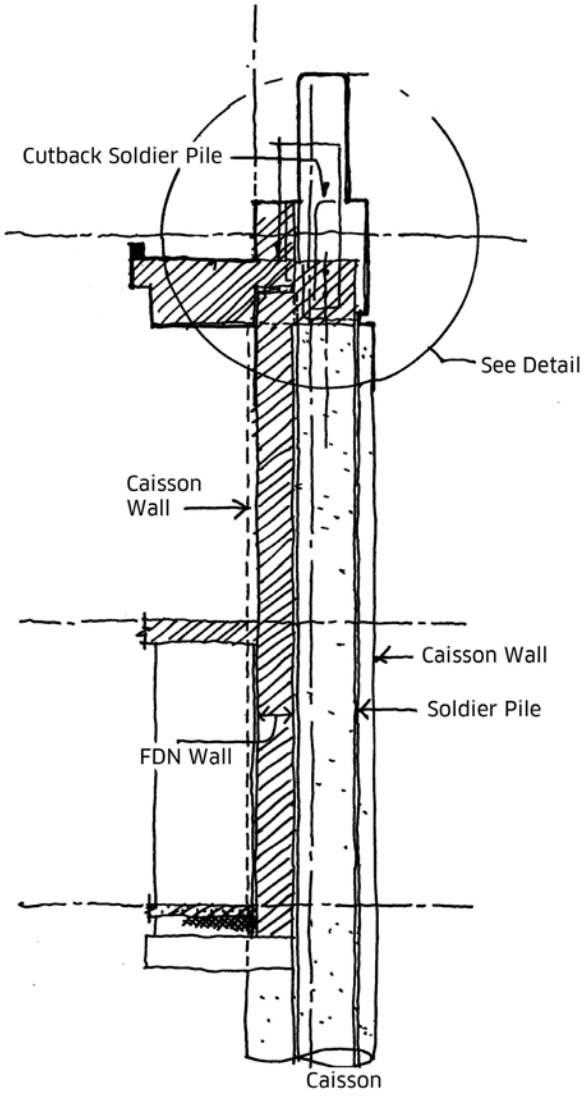


FIGURE 14A // DEEP VIBRATION ISOLATION, COMBINED WITH CRASH WALL.

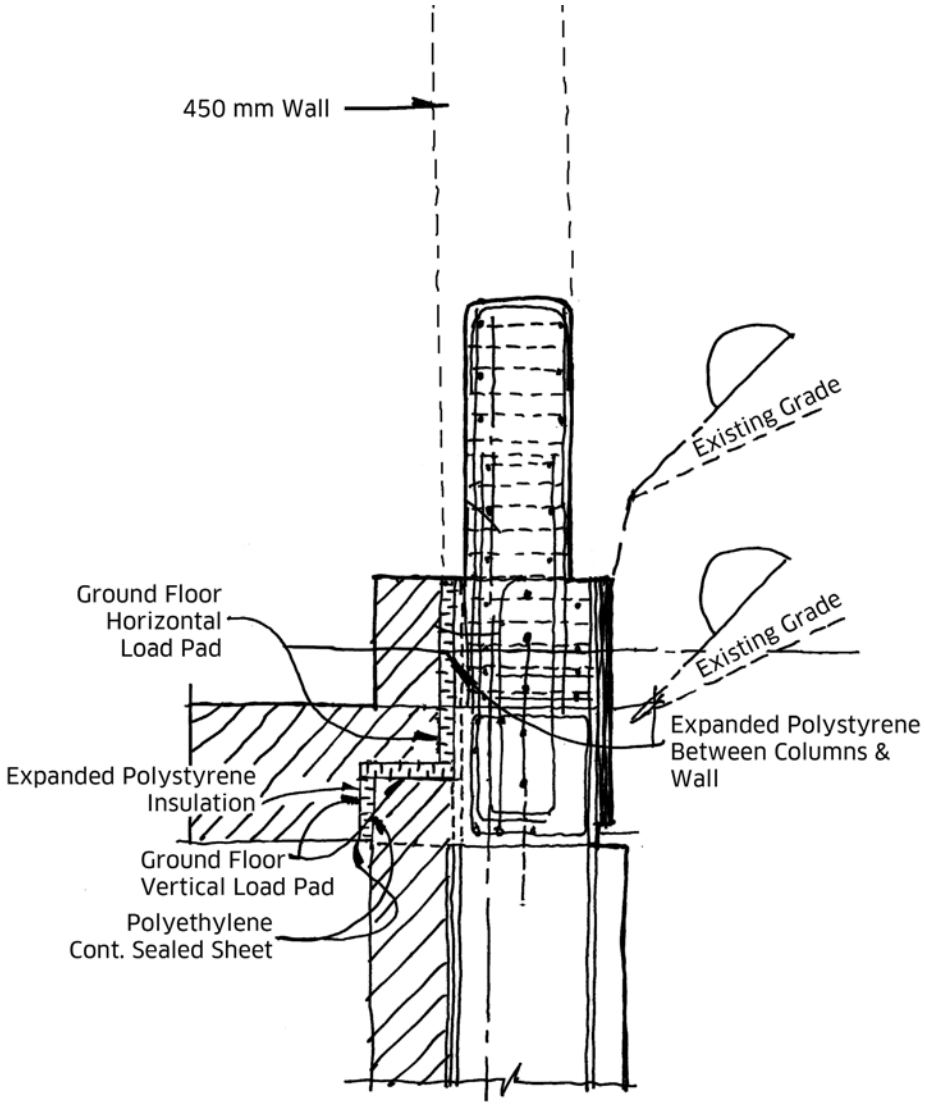


FIGURE 14B // DEEP VIBRATION ISOLATION DETAIL, COMBINED WITH CRASH WALL.

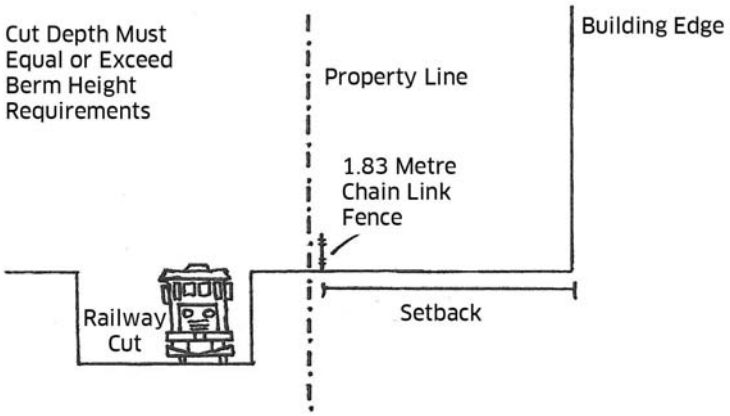


FIGURE 15 // NO BERM IS REQUIRED WHERE THE RAILWAY IS IN A CUT OF EQUIVALENT DEPTH

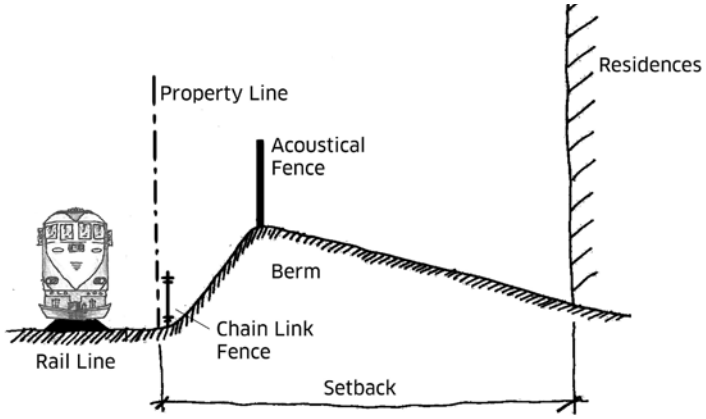


FIGURE 16 // GRADUALLY RETURNING TO GRADE FROM THE TOP OF THE BERM AVOIDS CREATING UNUSABLE BACKYARD SPACE OR BLOCKING SUNLIGHT

- » Principle Branch Line: 2.0 metres above grade with side slopes not steeper than 2.5 to 1
- » Secondary Branch Line: 2.0 metres above grade with side slopes not steeper than 2.5 to 1
- » Spur Line: no requirement

N.B. Berms built to the above specifications will have a full width of as many as 15 metres.

- Berm height is to be measured from grade at the property line. Reduced berm heights are possible where larger setbacks are proposed.
- Steeper slopes may be possible in tight situations, and should be negotiated with the affected railway.
- Where the railway line is in a cut of equivalent depth, no berm is required (FIGURE 15).
- There is no requirement for the proponent to drop back to grade on the side of the berm facing the subject development property. The entire grade of the development could be raised to the required height, or could be sloped more gradually. This may be desirable to avoid creating unusable backyard space, due to the otherwise steep slope of the berm. This concept is illustrated in FIGURE 16.
- Marginal reductions in the recommended setback of up to 5 metres may be achieved through a reciprocal increase in the height of the berm.
- If applicable to the site conditions, in lieu of the recommended berm, a ditch or valley between the railway and the subject new development property that is generally equivalent to or greater than the inverse of the berm could be considered (e.g. a ditch that is 2.5 metres deep and approximately 14 metres wide in the case of a property adjacent to a Principle Main Line). This concept is illustrated in FIGURE 17.
- Where the standard berm and setback are not technically or practically feasible, due for example, to site conditions or constraints, then a Development Viability Assessment should be undertaken by the proponent to evaluate the conditions specific to the site, determine its suitability for development, and suggest alternative safety measures such as crash walls or crash berms. Development Viability Assessments are explained in detail in APPENDIX A.

» **Policy Recommendation**

Urban Design Guidelines may be useful tools for establishing specifications for the proper use and design of berms.

3.6.1.2 Crash Berms

Crash berms are reinforced berms – essentially a hybrid of a regular berm and a crash wall. They are generally preferable to crash walls, because they are more effective at absorbing the impact of a train derailment. This results from both the berm's mass and the nature of the material of which it is composed. Crash berms are also highly cost effective and particularly useful in spatially constrained sites where a full berm cannot be accommodated.

In derailment scenarios other than a head-on or close to head-on interception, the standard earthen berm and setback distance will be more effective in absorbing the kinetic energy of the derailed train than a reinforced concrete crash wall. The reason for this is that anything other than a 90 degree interception of the crash wall will result in some deflection of the energy in the derailing

PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

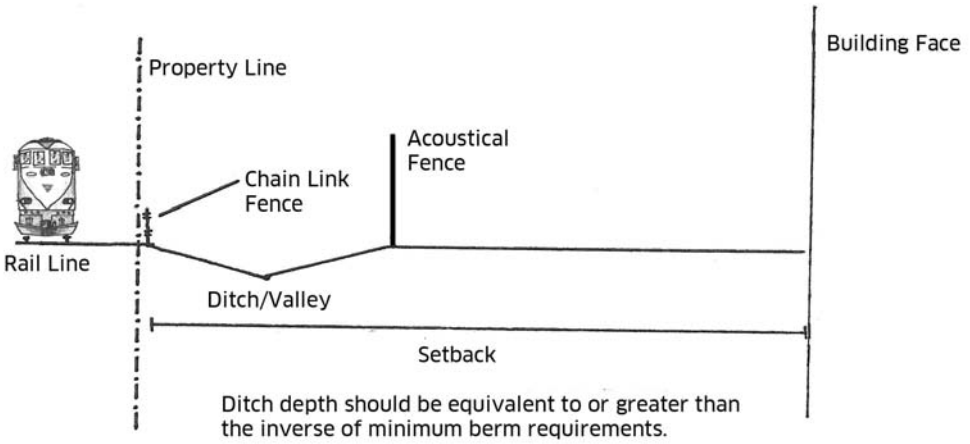


FIGURE 17 // A DITCH OR VALLEY OF EQUIVALENT DEPTH CAN BE USED IN PLACE OF A STANDARD BERM ADJACENT TO A MAIN LINE RAILWAY

train back towards the corridor, thus extending the time and distance of the derailment event. This extension of derailment time and distance results in greater risk of damage to private property along a longer section of the rail corridor, to more lives, and results in more expensive clean up and restoration work within the rail corridor. The preference therefore, is to design "crash berms" which are typically concrete wall structures retaining more earth behind the wall that in-turn provide more energy absorption characteristics (see FIGURE 18).

3.6.1.3 Crash Walls

Crash walls are concrete structures that are designed to provide the equivalent resistance in the case of a train derailment as the standard berm, particularly in terms of its energy absorptive characteristics. The design of crash walls is dependent on variables such as train speed, weight, and the angle of impact, which will vary from case to case. Changes in these variables will affect the amount of energy that a given crash wall will have to absorb, to effectively stop the movement of the train. In addition, the load that a wall is designed to withstand will differ based on the flexibility of the structure, and therefore, on how much deflection that it provides under impact. For these reasons, it is not possible to specify design standards for crash walls. In keeping with existing guidelines developed by AECOM, the appropriate load that a crash wall will have to withstand must be derived from the criteria outlined below.

- When proposing a crash wall as part of a new residential development adjacent to a railway corridor, the proponent must undertake a detailed study that outlines both the site conditions as well as the design specifics of the proposed structure. This study must be submitted to the affected municipality for approval and must contain the following elements:
  - » a location or key plan. This will be used to identify the mileage and subdivision, the classification of the rail line, and the maximum speed for freight and passenger rail traffic;
  - » a Geotechnical Report of the site;
  - » a site plan clearly indicating the property line, the location of the wall structure, and the centreline and elevation of the nearest rail track;
  - » layout and structure details of the proposed crash wall structure, including all material notes and specifications, as well as construction procedures and sequences. All drawings and calculations must be signed and sealed by a professional engineer;
  - » the extent and treatment of any temporary excavations on railway property; and
  - » a crash wall analysis, reflecting the specified track speeds for passenger and/or freight applicable within the corridor, and which includes the following four load cases:
    - i. Freight Train Load Case 1 - Glancing Blow: three locomotives weighing 200 tonnes each plus six cars weighing 143 tonnes each, impacting the wall at 10 degrees to the wall;
    - ii. Freight Train Load Case 2 - Direct Impact: single car weighing 143 tonnes impacting the wall at 90 degrees to the wall;
    - iii. Passenger Train Load Case 3 - Glancing Blow: two locomotives weighing 148 tonnes each plus 6 cars weighing 74 tonnes each impacting the wall at 10 degrees to the wall; and
    - iv. Passenger Train Load Case 4 - Direct Impact: Single car weighing 74 tonnes impacting the

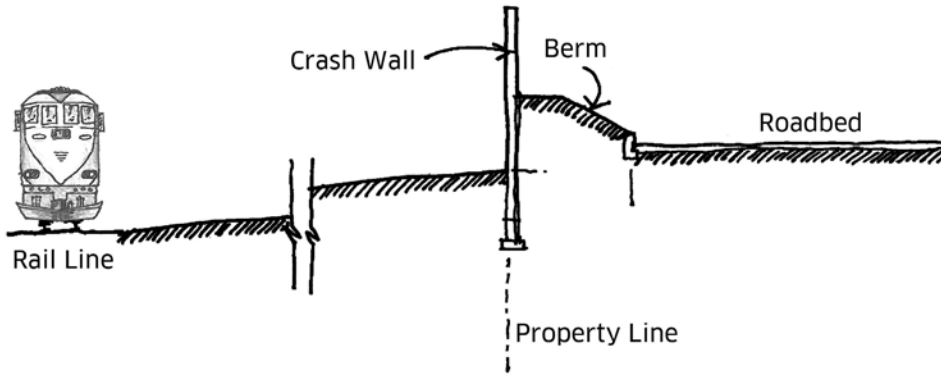


FIGURE 18 // EXAMPLE CONFIGURATION OF A CRASH BERM

wall at 90 degrees to the wall.

- The crash wall design must include horizontal and vertical continuity to distribute the loads from the derailed train.
- To assist in designing the crash wall safety structure, the following should be considered:
    i. The speed of a derailed train or car impacting the wall is equal to the specified track speed;
    ii. The height of the application of the impact force is equal to 0.914 m (3 feet) above ground; and
    iii. The minimum height of the wall facing the tracks is equal to 2.13 m (7 feet) abovethe top of rail elevation.
- For energy dissipation calculations, assume:
    i. Plastic deformation of individual car due to direct impact is equal to 0.3 m (1 foot) maximum;
    ii. Total compression of linkages and equipment of the two or three locomotive and six cars is equal to 3.05 m (10 feet) maximum; and
    iii. Deflection of the wall is to be determined by the designer, which would depend on material, wall dimensions and stiffness of crash wall.

3.7 // SECURITY FENCING

Trespassing onto a railway corridor can have dangerous consequences given the speed and frequency of trains, and their extremely large stopping distances, and every effort should be made to discourage it. This will save lives, reduce emergency whistling, and minimize disruptions to rail service.

3.7.1 GUIDELINES

- At a minimum, all new residential developments in proximity to railway corridors must include a 1.83 metre high chain link fence along the entire mutual property line, to be constructed by the owner entirely on private property. Other materials may also be considered, in consultation with the relevant railway and the municipality. Noise barriers and crash walls are generally acceptable substitutes for standard fencing, although additional standard fencing may be required in any location with direct exposure to the rail corridor in order to ensure there is a continuous barrier to trespassing.

» **Policy Recommendation**

Tresspass issues can be avoided through careful land use planning. Land uses on each side of a railway corridor or yard should be evaluated with a view to minimizing potential trespass problems. For example, schools, commercial uses, parks or plazas should not be located in proximity to railway facilities without the provision of adequate pedestrian crossings.

- Due to common increased trespass problems associated with parks, trails, open space, community centres, and schools located in proximity to the railway right-of-way, increased safety/security measures should be considered, such as precast fencing and fencing perpendicular to the railway property line at the ends of a subject development property.

PHOTO SOURCE: DIALOG

3.8 // STORMWATER MANAGEMENT AND DRAINAGE

Stormwater management and drainage infrastructure associated with a development or railway corridor adjustments should not adversely impact on the function, operation, or maintenance of the corridor, or should not adversely affect area development.

3.8.1 GUIDELINES

- The proponent should consult with the affected railway regarding any proposed development that may have impacts on existing drainage patterns. Railway corridors/properties with their relative flat profile are not typically designed to handle additional flows from neighbouring properties, and so development should not discharge or direct stormwater, roof water, or floodwater onto a railway corridor.
- Any proposed alterations to existing rail corridor drainage patterns must be substantiated by a suitable drainage report, as appropriate.
- Any development-related changes to drainage must be addressed using infrastructure and/or other means located entirely within the confines of the subject development site.
- Stormwater or floodwater flows should be designed to:
  - » maintain the structural integrity of the railway corridor infrastructure;
  - » avoid scour or deposition; and
  - » prevent obstruction of the railway corridor as a result of stormwater or flood debris.
- Drainage systems should be designed so that stormwater is captured on site for reuse or diverted away from the rail corridor to a drainage system, ensuring that existing drainage is not overloaded.
- Building design should ensure that gutters and balcony overflows do not discharge into rail infrastructure. Where drainage into the railway corridor is unavoidable due to site characteristics, discussion should be held early on with the railway. If upgrades are required to the drainage system solely due to nearby development, the costs involved should reasonably be met by the proponent. All disturbed surfaces must be stabilized.
- Similarly, railways should consult with municipalities where facility expansions or changes may impact drainage patterns.

3.9 // WARNING CLAUSES AND OTHER LEGAL AGREEMENTS

Warning clauses are considered an essential component of the stakeholder communication process, and ensure all parties interested in the selling, purchasing, or leasing of residential lands in proximity to railway corridors are aware of any property constraints and the potential implications associated with rail corridor activity.

3.9.1 GUIDELINES

- Municipalities are encouraged to promote the use of appropriate specific rail operations warning clauses, if feasible, in consultation with the appropriate railway, to ensure that those who may acquire an interest in a subject property are notified of the existence and nature of the rail operations, the potential for increased rail activities, the potential for annoyance

or disruptions, and that complaints should not be directed to the railways. Such warning clauses should be registered on title if possible and be inserted into all agreements of purchase and sale or lease for the affected lots/units.

- Municipalities are encouraged to pursue the minimum influence areas outlined in the report when using warning clauses or other notification mechanisms.
- Appropriate legal agreements and restrictive covenants registered on title are also recommended to be used, if feasible, to secure the construction and maintenance of any required mitigation measures, as well as the use of warning clauses and any other notification requirements.
- Where it is not feasible to secure warning clauses, every effort should be made to provide notification to those who may acquire an interest in a subject property. This can be accomplished through other legal agreements, property signage, and/or descriptions on websites associated with the subject property.
- Municipalities should consider the use of environmental easements for operational emissions, registered on title of development properties, to ensure clear notification to those who may acquire an interest in the property. Easements will provide the railway with a legal right to create emissions over a development property and reduce the potential for future land use conflicts.
- Stronger and clearer direction is recommended for real estate sales and marketing representatives, such as mandatory disclosure protocols to those who may acquire an interest in a subject property, with respect to the nature and extent of rail operations in the vicinity and regarding any applicable warning clauses and mitigation measures. The site constraints and mitigation measures being implemented should be communicated through marketing and promotional material, signage, website descriptions, and informed sales staff committed to full disclosure.
- Municipalities are encouraged to require appropriate signage/documentation at development marketing and sales centres that:
  - » identifies the lots or blocks that have been identified by any noise and vibration studies and which may experience noise and vibration impacts;
  - » identifies the type and location of sound barriers and security fencing;
  - » identifies any required warning clause(s); and
  - » contains a statement that railways can operate on a 24 hour a day basis, 7 days a week.

  Additionally, studies undertaken to assess and mitigate noise, vibration, and other emissions should be released to potential purchasers for review in order to enhance their understanding of the site constraints and to help minimize future conflict.
- Where title agreements, restrictive covenants, and/or warning clauses are not currently permitted, appropriate legislative amendments are recommended. This may require coordination at the provincial level to provide appropriate and/or improved direction to stakeholders.
- Warnings and easements provide notice to purchasers, but are not to be used as a complete alternative to the installation of mitigation measures.

PHOTO SOURCE: DIALOG

3.10 // CONSTRUCTION ISSUES

Planning for construction of new developments in proximity to railway corridors requires unique considerations that should aim to maintain safety while avoiding disruptions to rail service. The efficiency of the operation of railway services should be maintained and no adverse impacts on the corridor or railway operations should occur during the design and construction of a new development located in proximity to a railway corridor.

3.10.1 GUIDELINES

- Prior to the start of construction of a new development, rail corridor-related infrastructure must be identified and plans adjusted as required to ensure that these features are not adversely affected by the proposed construction. Rail corridor-related infrastructure may include, but is not limited to:
  - » trackage;
  - » fibre optic cables;
  - » retaining walls;
  - » bridge abutments; and,
  - » signal bridge footings.
- No entry upon, below, or above the rail corridor shall be permitted without prior consent from the railway.
- Appropriate permits and flagging are required for work immediately adjacent to railway corridors. The proponent is responsible for any related costs.
- Temporary fencing / hoarding is required, as appropriate, to discourage unauthorized access to the rail corridor. Plans illustrating proposed fencing / hoarding locations as well as any other construction related infrastructure, should be submitted to the approval authority and the relevant railway.
- Cranes, concrete pumps, and other equipment capable of moving into or across the airspace above railway corridors may cause safety and other issues if their operation is not strictly managed. This type of equipment must not be used in airspace over the rail corridor without prior approval from the railway.
- Existing services and utilities under a rail corridor must be protected from increased loads during the construction and operation of the development.
- Construction must not obstruct emergency access to the railway corridor.

IMPLEMENTATION

4

4.0 // IMPLEMENTATION

The following implementation recommendations are intended to provide specific guidance to municipal and provincial governments...

...towards ensuring that the guidelines are consistently and effectively adopted in as many jurisdictions as possible. Processes are identified that may be employed to entrench these guidelines in policy.

4.1 // IMPLEMENTATION MECHANISMS

4.1.1 Model Review Process For New Residential Development, Infill & Conversions in Proximity to Railway Corridors

OBJECTIVE:

Establish a clear and effective process that ensures consistent application of these Guidelines across all jurisdictions in Canada when dealing with new residential development, infill, and conversions.

RECOMMENDATION:

The Model Review Process for New Residential Development, Infill and Conversions in Proximity to Railway Corridors is outlined in FIGURE 19. It is meant to ensure clarity with respect to how railways are to be involved in a meaningful way at the outset of a planning process. Ultimately, the goal is to achieve a much greater level of consistency in the way proposals for new residential development in proximity to railway corridors are evaluated and approved across all Canadian provinces and territories.

The proposed process recognizes that there will be many sites that can easily accommodate the standard mitigation recommended by the railways. In instances where this is the case, it is expected that standard mitigation will be proposed. In urban areas land values and availability have placed greater development pressure on smaller sites close to railway corridors. These sites are less likely to be able to accommodate a standard berm and setback. In this case, a Development Viability Assessment report will be required.[1]

This report, which is explained in detail in APPENDIX A, will provide a comprehensive assessment of the site conditions of the property in question, including an evaluation of any potential conflicts with the new development that may result from its proximity to the railway corridor. It will also evaluate any potential impacts on the operation of the railway as a result of the new development, both during the construction phase and afterwards. It will take into consideration details of the proposed development site, including topography, soil conditions, and proximity to the railway corridor; details of the railway corridor, including track geometry or alignment, the existence of junctions, and track speed; details of the proposed development, including the number of potential residents, proposed collision protection in the event of a train derailment; construction details; and an identification of the potential hazards and risks associated with development on that particular site. Municipalities will use the Development Viability Assessment to determine whether development is appropriate given the site conditions and potential risks involved.

An important component of the new process is the requirement for pre-application consultation with the relevant railway. This will be a critical step towards ensuring a smooth and expedited approval process, and will be an important opportunity to have a frank discussion about development options, as well as to resolve any potential conflicts. It will be during these pre-application consultations that a decision will be made regarding the capacity of the site to accommodate standard mitigation. Where a Development Viability Assessment is required, this will also be an important opportunity for the

1 Again, this report does not recommend that all sites are appropriate for residential development. In cases where the standard setback and berm cannot be accommodated, municipalities should carefully consider the viability of the site for conversion to residential, based on criteria such as: existing contextual land use, size of site, appropriateness of high-density development, and the demonstrated effectiveness of alternative mitigation measures, as determined through the Development Viability Assessment.

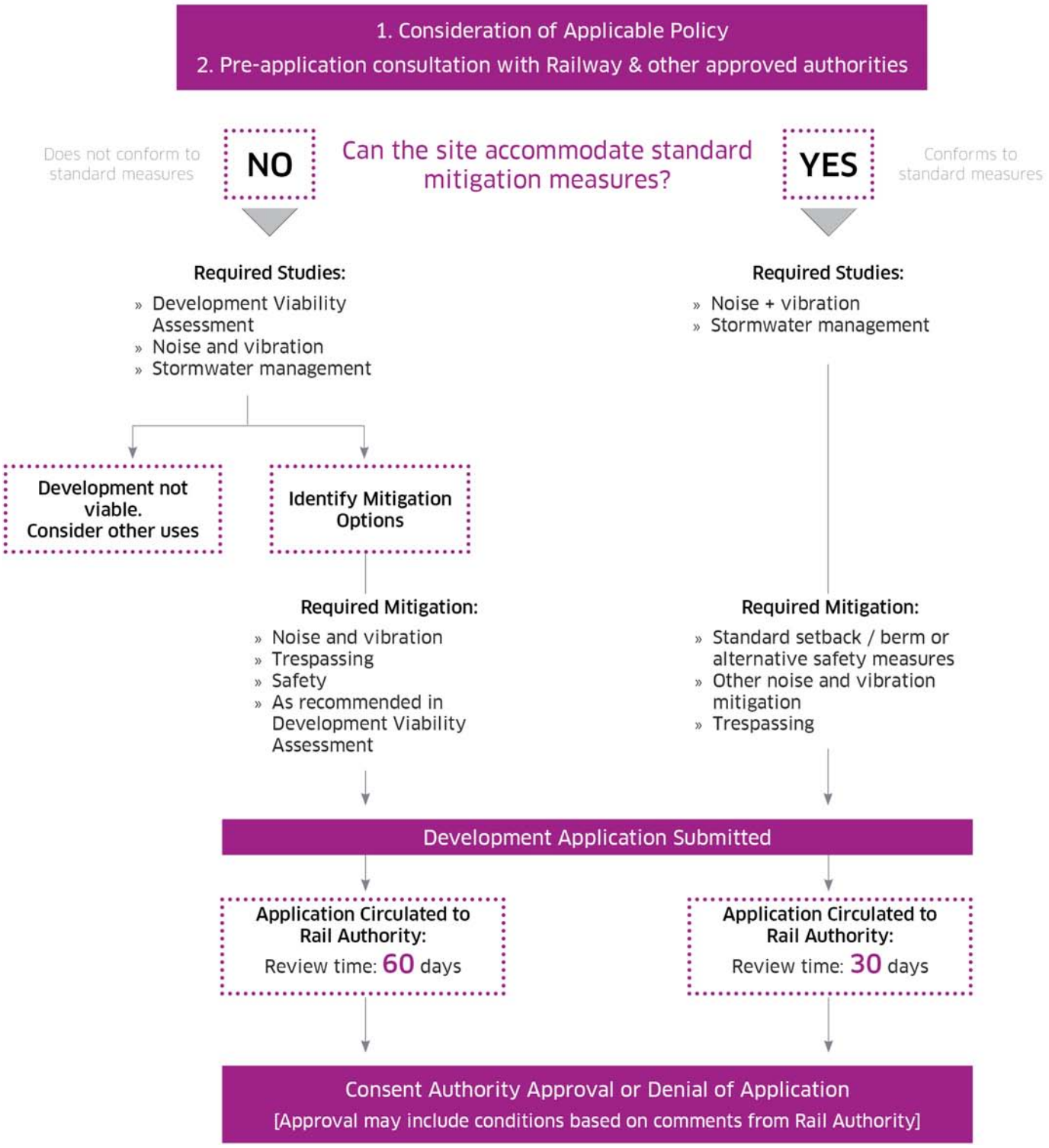


FIGURE 19 // MODEL REVIEW PROCESS FOR NEW RESIDENTIAL DEVELOPMENT, INFILL & CONVERSIONS IN PROXIMITY TO RAILWAY CORRIDORS

applicant to gain a better understanding of the process associated with developing one.

Once a development application has been submitted to the railway for review, it will have 30 days to respond (60 days in cases where a Development Viability Assessment has been required), and indicate any conditions for consideration and negotiation. The final decision as to whether or not to impose those conditions will lie with the approval authority (usually the municipality).

The Model Review Process for New Residential Development, Infill & Conversions in Proximity to Railway Corridors should be adopted by provincial governments, potentially through amendments to existing planning legislation, in order to ensure its consistent application across all municipalities. However, in the absence of provincial interest, the process could be adopted as a bylaw at the municipal level. It is recommended that this process be applicable to any residential development located on land within 300 metres of a railway right-of-way where an official plan amendment, plan of subdivision, or zoning bylaw amendment is required.

4.1.2 Mitigation Infrastructure Maintenance Strategy

OBJECTIVE:

Ensure a consistent and sensible approach to the future maintenance of mitigation infrastructure.

RECOMMENDATION:

Responsbility for the maintenance of berms, chainlink fences, and sound walls should be allocated as follows:

- Landowners should be responsible for maintaining the fence, the sound wall, and that portion of the berm contained within their site.
- In cases where a sound wall is erected, the portion of the berm situated on the side adjoining the railway corridor should be maintained by the railway. However, this should only occur if the property under that part of the berm becomes the property of the railway and has been exempted from all municipal property taxes as a concession to the railways for taking on a maintenance responsibility.

4.2 // ADVANCING STAKEHOLDER ROLES

OBJECTIVE:

To establish clarity regarding the roles and responsibilities of various stakeholders involved in reducing railway proximity issues.

RECOMMENDATIONS:

4.2.1 Federal

- The federal government and the Canadian Transportation Agency are encouraged to use and have regard for this report in proximity dispute investigations with respect to new developments built close to railway operations, and in the development and implementation of any related guidelines, to facilitate a more comprehensive approach that appropriately considers the land use planning framework for new developments along with the rail operations issues.

4.2.2 Provincial

- Provincial Authorities should consider revising their land use planning legislation to incorporate mandatory requirements for early consultations between municipalities, railways, and landowners in advance of

proposed land use or transportation changes, projects, or works within 300 metres of railway operations. The objective of doing so is to facilitate a collaborative approach to site development.

- Provincial Authorities should consider requiring mandatory notice to railways in the case of proposed official plans or official plan amendments, plans of subdivision, zoning by-laws, holding by-laws, interim control by-laws, and/or consent to sever lands, where the subject lands fall within 300 metres of railway operations.
- Provincial Authorities may also wish to empower their municipalities with stronger site plan controls where appropriate, such as:
  - » control of materiality;
  - » site layout and design; and
  - » road widening and land conveyances.
- Provincial Authorities should consider establishing a provincial noise guideline framework that sets impact study requirements (how and when to assess noise sources), and establishes specific sound level criteria for noise sensitive land uses.
- Provincial Authorities should consider amendments to their building codes that support extra mitigation for developments near railway corridors, such as:
  - » vibration isolation & foundation design,
  - » balcony design,
  - » podium design,
  - » drainage,
  - » appropriate fenestration, and
  - » door placement and materiality.
- Provincial Authorities should monitor compliance with relevant regulations and sanction their breach.

4.2.3 Municipal

- Municipalities, land developers, property owners and railways all need to place a higher priority on information sharing and establishing better working relationships both informally and formally through consultation protocols and procedures.
- Municipalities should ensure that planning staff are aware of and familiar with any applicable policies for development in proximity to railway operations (e.g. railway policies and/or guidelines).
- Municipalities are encouraged to provide clear direction and strong regulatory frameworks (e.g. through District Plans, Official Plans, Official Community Plans, Zoning By-laws, etc) to ensure that land development respects and protects rail infrastructure and will not lead to future conflicts. This may include:
  - » Undertaking a comprehensive evaluation of land uses in proximity to railway operations, with a view to minimizing potential conflicts due to proximity, including those related to safety, vibration, and noise. For example, residential development may not be appropriate in low-density areas where lot sizes preclude the possibility of incorporating standard mitigation measures. Additionally, schools or commercial uses located across a railway corridor from residential uses are likely to result in trespassing issues if there are no public crossings in the immediate vicinity;

- » Establishing a clear process for evaluating the viability of development proposals on sites that cannot accommodate standard mitigation measures, with a view to determining the appropriateness of the development, and identifying appropriate alternate mitigation measures. See Section 4.1.1 for recommendations on a Development Viability Assessment;
- » Establishing implementation mechanisms for mitigation measures, including long-term maintenance requirements if applicable (e.g. legal agreements registered on title). See Section 4.1.2 for recommendations on a Mitigation Infrastructure Maintenance Strategy;
- » Undertaking a comprehensive review of site access and railway crossings with a view to ensuring adequate site access setbacks from at-grade crossings (to prevent vehicular blockage of crossings), protecting at-grade road/rail crossing sightlines, implementing crossing improvements, and discouraging new at-grade road crossings;
- » Entrenching in policy the protection of railway corridors and yards for the movement of freight and people, including allowing for future expansion capacity, if applicable;
- » Planning and protecting for future infrastructure improvements (e.g. grade separations and rail corridor widenings); and
- » Respecting safe transportation principles. For example, the assessment of new, at-grade rail crossings should consider safe community planning principles and whether other alternatives are possible, not just simply whether a crossing is technically feasible.

- Municipalities are encouraged to use their planning policy and regulatory instruments (e.g. District Plans, Official Plans, Official Community Plans, Secondary Plans, Transportation Plans, Zoning By-laws/Ordinances, etc.) to secure appropriate railway consultation protocols as well as mitigation procedures and measures.
- As soon as planning is initiated or proposals are known by municipalities, notification and consultation should be initiated for:
  - » Development or redevelopment proposals within 300 metres of rail operations, or for proposals for rail-serviced industrial parks; and
  - » Infrastructure works, which may affect a rail facility, such as roads, utilities, etc.
- Municipal Authorities should consider amendments to their municipal regulatory documents (e.g. Official Plan, Official Community Plan, etc.) as required to implement mandatory noise and vibration studies for developments near railway operations, and to establish specific sound and vibration level criteria for sensitive land uses.
- Municipal Authorities should consider zoning by-law amendments as required to implement aspects of these guidelines, including securing appropriate mitigation measures.

  N.B. A note of caution is required for any systematic zoning by-law amendment. Blanket zoning by-law amendments should only be used to implement portions of this study in areas municipalities have already identified for redevelopment. This should

be applied comprehensively and with study as to their affect. For example, it makes little sense to employ a 30 metre setback in areas that do not have lot depths which can support them. In many cases, it may be more desirable for municipalities to secure mitigation measures in a site-specific manner, through the use of the Development Viability Assessment Tool. However, in employing such an approach, Municipal Planners should be mindful to secure appropriate mitigation measures in a site-specific by-law.

- Municipalities should consider and respect the plans, requirements, and operating realities of railways and work cooperatively with them to increase awareness regarding the railway legislative, regulatory, and operating environment, and to implement consultation planning protocols and procedures for land development proposals and applications.
- Municipalities should work with railways and other levels of government to increase coordination for development approvals that also require rail regulatory approvals (e.g. new road crossings) to ensure that the respective approvals are not dealt with in isolation and/or prematurely.
- Municipalities should be aware of and implement, where feasible, Transport Canada's safety recommendations with respect to sightlines for at-grade crossings. The recommendations include a minimum 30 metre distance between the railway right-of-way and any vehicular ingress/egress. In addition, trees, utility poles, mitigation measures, etc. are not to block sightlines or views of the crossing warning signs or systems.
- Municipal Authorities should consider developing Urban Design Guidelines for infill development near railway corridors. This document already contains a number of suggestions on what such a document could include and how it could be usefully employed.

4.2.4 Railway

- Municipalities, land developers, property owners and railways all need to place a higher priority on information sharing and establishing better working relationships both informally and formally through consultation protocols and procedures.
- As soon as planning is initiated or proposals are known by railways, communication should be initiated to discuss:
  - » transportation plans that incorporate freight transportation issues; and
  - » all new, expanded, or modified rail facilities.
- Railways are encouraged to be proactive in identifying, planning, and protecting for the optimized use of railway corridors and yards.
- Railways are encouraged to develop and/or modify company procedures and practices with respect to increased consultation and formal proximity issues management protocols with the following guidance:
  - » Undertake consultation for projects prior to seeking CTA approval;
  - » When new facilities are built or significant expansions are undertaken, implement on-going community advisory panel discussions with regular meetings. Such panels typically include representation from the railway, the municipality, the community, other levels of government, if applicable, and possibly industry; and,

    - » Railway initiation of long-term business and infrastructure planning exercises, in consultation with municipalities, can facilitate stronger and more effective relationships and partnerships.
- Railways are encouraged to work with municipalities, landowners, and other stakeholders in evaluating and implementing appropriate mitigation measures, where feasible, with respect to new rail facilities located in proximity to existing sensitive development.
- Railways should work cooperatively with municipalities to increase awareness regarding the railway legislative, regulatory, and operating environment.
- Railways should utilize opportunities to get involved in land-use planning processes and matters. Municipal planning instruments can be effective tools in implementing, or at least facilitating the implementation, of long-term rail transportation planning objectives.
- Railways are encouraged to work with industry associations and all levels of government to establish standardized agreements and procedures with respect to all types of crossings.
- Railways are encouraged to pursue implementation of the RAC Railroad Emission Guidelines (See **AE.1.1** for more information).
- Railways are encouraged to integrate transportation planning involving provincial, municipal, Port Authorities, and multiple railways, which is critical to balancing rail capacity upgrades, minimizing community impacts, and ensuring that economic benefits occur.

4.2.5 Land Developer/Property Owner

- Ideally, prospective land developers should consult with the appropriate railway prior to finalizing any agreement to purchase a property in proximity to railway operations. Otherwise, property owners should consult with municipalities and railways as early as possible on development applications and proposals to ensure compliance with policies, guidelines, and regulations, and in order to fulfill obligations of development approvals.
- Enter into agreements with municipalities and/or railways as required to ensure proximity issues are addressed now and into the future and comply with those requirements.
- Property owners should be informed, understand, acknowledge, and respect any mitigation maintenance obligations and/or warning clauses.

4.2.6 Real Estate Sales/Marketing and Transfer Agents

- Real estate sales people and property transfer agents should ensure that potential purchasers are made fully aware of the existence and nature of rail operations and are aware of and understand the mitigation measures to be implemented and maintained.

4.2.7 Academia and Specialized Training Programs

- These institutions should ensure that curriculums incorporate the latest research available to provide future land use planners, land developers, and railway engineers with better and more comprehensive tools and practices to anticipate and prevent proximity conflicts.

4.2.8 Industry Associations

- FCM, having undertaken to produce these guidelines, should continue to act as their steward. As such, a comprehensive strategy should be established to disseminate them to provincial and municipal planners and regulatory bodies, railways, developers, and other property owners. A component of this strategy may include integration at professional events and conferences. A key objective will be to promote their integration into regulatory policy frameworks.
- Other industry associations should ensure their membership is informed and involved in the latest research and proactively engaged in raising awareness and educating their members through seminars and other training programs.

4.3 // DISPUTE RESOLUTION

4.3.1 Background

In the vast majority of cases in Canada, railway company tracks and their stakeholder neighbours coexist seamlessly. However, disputes between railways and stakeholders can occasionally occur. These disputes provide insight into the issues that some stakeholders have experienced with noise, vibration, accidents, historical land use conflicts, and a variety of site-specific conditions that can result from railway operations. These disputes are often expressed through letters of complaint directed to railway, municipal and federal government officials, appeals to the Ontario Municipal Board, court cases, as well as complaints before the Canadian Transportation Agency (Agency).

4.3.2 Local Dispute Resolution Framework

In most disputes, complainants and railways can independently resolve matters by negotiating agreements amongst themselves. Stakeholders are encouraged to have regard for and utilize, where applicable, the Local Dispute Resolution Framework established by the RAC/FCM Dispute Resolution Subcommittee. This dispute resolution process should be considered prior to involving the Agency.

A. The following guiding principles should be considered through the local dispute resolution process:

1. Identify issues of concern to each party.
2. Ensure representatives within the dispute resolution process have negotiating authority. Decision making authority should also be declared.
3. Establish in-person dialogue and share all relevant information among parties.

B. Dispute Resolution Escalation Process

Municipal and railway representatives should attempt resolution in an escalating manner as prescribed below, recognizing that each of these steps would be time consuming for all parties.

1. Resolve locally between two parties using the Generic Local Dispute Resolution Process.
2. Proceed to third-party mediation/facilitation support if resolution not achieved.
3. Proceed to other available legal steps.

C. Generic Local Dispute Escalation Process

1. Face-to-face meeting to determine specific process steps to be used in resolution attempt. A Community Advisory Panel formation should be considered at this point.
2. Determination of which functions and individuals will represent the respective parties. Generally this would include the municipality, the railway, and other appropriate stakeholders.
3. Issue identification:

a) Raised through community to railway. This type of issues could be the result of an unresolved outstanding proximity issue, operational modifications, or changes in rail customer operation (misdirected to railway).

b) Planned railway development that may impact community in the future.

c) Raised through the railway to community. This type of issue could be the result of a municipal government action (rezoning, etc.).

4. Exploration of the elements of the issue. Ensure each party is made aware of the other's view of the issue – a listing of the various aspects/impacts related to the issue.
5. Consult any existing relevant proximity guidelines or related best practices (e.g. this report).
6. Face-to-face meetings between parties representing the issue to initiate dialogue for dispute resolution process. Education, advocacy of respective positions.
7. Attempt compromise/jointly agreed solution. (If not proceed to step B2 above).
8. For Jointly agreed solutions; determine necessary internal, external communication requirements and or requisite public involvement strategies for implementation of compromise.

4.3.3 The Canadian Transportation Agency's Mandate on Noise & Vibration

4.3.3.1 Agency Mandate Under the Canadian Transportation Act CTA)

The Agency is a quasi-judicial administrative tribunal of the federal government that can assist individuals, municipalities, railways, and other parties in resolving disputes.

The amendments to the Act now authorize the Agency to resolve complaints regarding *noise and vibration* caused by the construction and operation of railways under its jurisdiction.

Section 95.1 of the CTA states that a railway shall cause only such noise and vibration as is reasonable, taking into account:

- its obligations under sections 113 and 114 of the CTA, if applicable;
- its operational requirements; and
- the area where the construction or operation is taking place.

If the Agency determines that the noise or vibration is not reasonable, it may order a railway to undertake any change in its railway construction or operation that the Agency considers reasonable to comply with the noise and vibration provisions set out in section 95.1 of the

CTA. Agency decisions are legally binding on the parties involved, subject to the appeal rights.

The amendments to the CTA also grant power to the Agency to mediate or arbitrate certain railway disputes with the agreement of all parties involved, and in some cases in matters that fall outside of the Agency's jurisdiction.

The Agency has developed *Guidelines for the Resolution of Complaints Concerning Railway Noise and Vibration* (Guidelines) They explain the process to be followed and include a complaint form, and can be found through the following link: www.otc-cta.gc.ca/eng/rail-noise-and-vibration-complaints.

4.3.4 Collaborative Resolution of Complaints

The CTA specifies that before the Agency can investigate a complaint regarding railway noise or vibrations, it must be satisfied that the collaborative measures set out in the Guidelines have been exhausted.

Collaboration allows both complainants and railways to have a say in resolving an issue. A solution in which both parties have had input is more likely to constitute a long-term solution and is one that can often be implemented more effectively and efficiently than a decision rendered through an adjudicative process.

Under the Agency's Guidelines, collaborative measures are expected to be completed within 60 days of the railway receiving a written complaint - unless the parties agree to extend the process (The railway must respond to a written complaint within 30 days, and agree on a date within the following 30 days to meet and discuss the resolution of the complaint). To satisfy the collaborative measures requirements of the CTA, the following measures must be undertaken:

- Direct communication shall be established among the parties.
- A meaningful dialogue shall take place.
- Proposed solutions shall be constructive and feasible.
- Facilitation and mediation shall be considered.

Mediation is a collaborative approach to solving disputes in which a neutral third party helps to keep the discussion focused and assists the parties in finding a mutually beneficial solution. The parties jointly make decisions to resolve the disputed issues and ultimately determine the outcome. The mediation process is described below.

4.3.4.1 Mediation

Mediation has successfully resolved disputes with major rail and air carriers, airport authorities, and private citizens. It provides an opportunity for the parties involved to understand each other's perspective, identify facts, check assumptions, recognize common ground, and test possible solutions.

Mediation is an informal alternative to the Agency's formal decision-making process. It can be faster and less expensive, with the opportunity to reach an agreement that benefits both sides. Mediation tends to work well in disputes involving several major transportation service providers. In fact, a number of carriers have mentioned in recent years that they consider mediation their first alternative for dispute resolution.

To initiate a mediation process, contact the Agency and it will contact the other parties to determine if they are willing to participate. If all parties agree to join the process, an Agency-appointed mediator will manage the process. Discussions will take place in an informal setting. Collectively, all of the conflicting issues are addressed in

an attempt to negotiate a settlement.

Mediation must take place within a 30-day statutory deadline, which is much shorter than the 120-day deadline established in the CTA for the Agency's formal dispute-resolution process. The deadline can be extended if all parties agree. A settlement Agreement that is reached as a result of mediation may be filed with the Agency and, after filing, is enforceable as if it were an Order of the Agency. A complete description of the mediation process can be found on the Agency's web site.

All mediation discussions remain confidential, unless both parties agree otherwise. If the dispute is not settled and requires formal adjudication, confidentiality will be maintained and the mediator will be excluded from the formal process.

4.3.4.3 Filing a Complaint with the Agency

The Agency will only conduct an investigation or hear a complaint once it is satisfied that the parties have tried and exhausted the collaborative measures set out above. Should one of the parties fail to collaborate, the Agency may accept the filing of a complaint before the expiry of the above-noted 60 day collaborative period.

In cases where the parties are not able to resolve the issues between themselves or by way of facilitation or mediation, a complaint may be filed with the Agency requesting a determination under the formal adjudication process. The complaint must include evidence that the parties have tried and exhausted, or that one of the parties has failed to participate in, the collaborative measures set out above.

Formal complaints may be filed by individuals, institutions, local groups, or municipalities. When the Agency reviews a complaint, it will ensure that the municipal government is informed of the complaint and will seek its comments.

To avoid reviewing numerous complaints for the same concern(s), the Agency encourages complainants to consult others potentially affected before filing a complaint. This may save time and effort for all parties.

For such group complaints, parties should confirm the list of complainant(s) and who is represented under the group; provide contact information and evidence of authorization to represent; provide a list of the members of the association and their contact information, where there is an organization/association; provide, in the case of an organization/association, the incorporation documents and the a description of the organization/association and its members' interest in the complaint.

The *Guidelines for the Resolution of Complaints Concerning Railway Noise and Vibration* are primarily meant to address noise and vibration disputes with regard to existing railway infrastructure or facilities. For railway construction projects that require Agency approval under subsection 98(1) of the CTA, railways must evaluate various issues, including noise and vibration.

4.3.4.4 Formal Process

In accordance with its General Rules, after receiving a complaint, the Agency ensures that each interested party has the opportunity to comment on the complaint and any disputed issues. In general, the Agency invites the other interested parties to file their answer within 30 days, and then allows the complainant 10 days to reply.

Both complainants and railways are responsible for presenting evidence to support their position before the Agency. The Agency may pose its own questions, request further information, and conduct a site visit

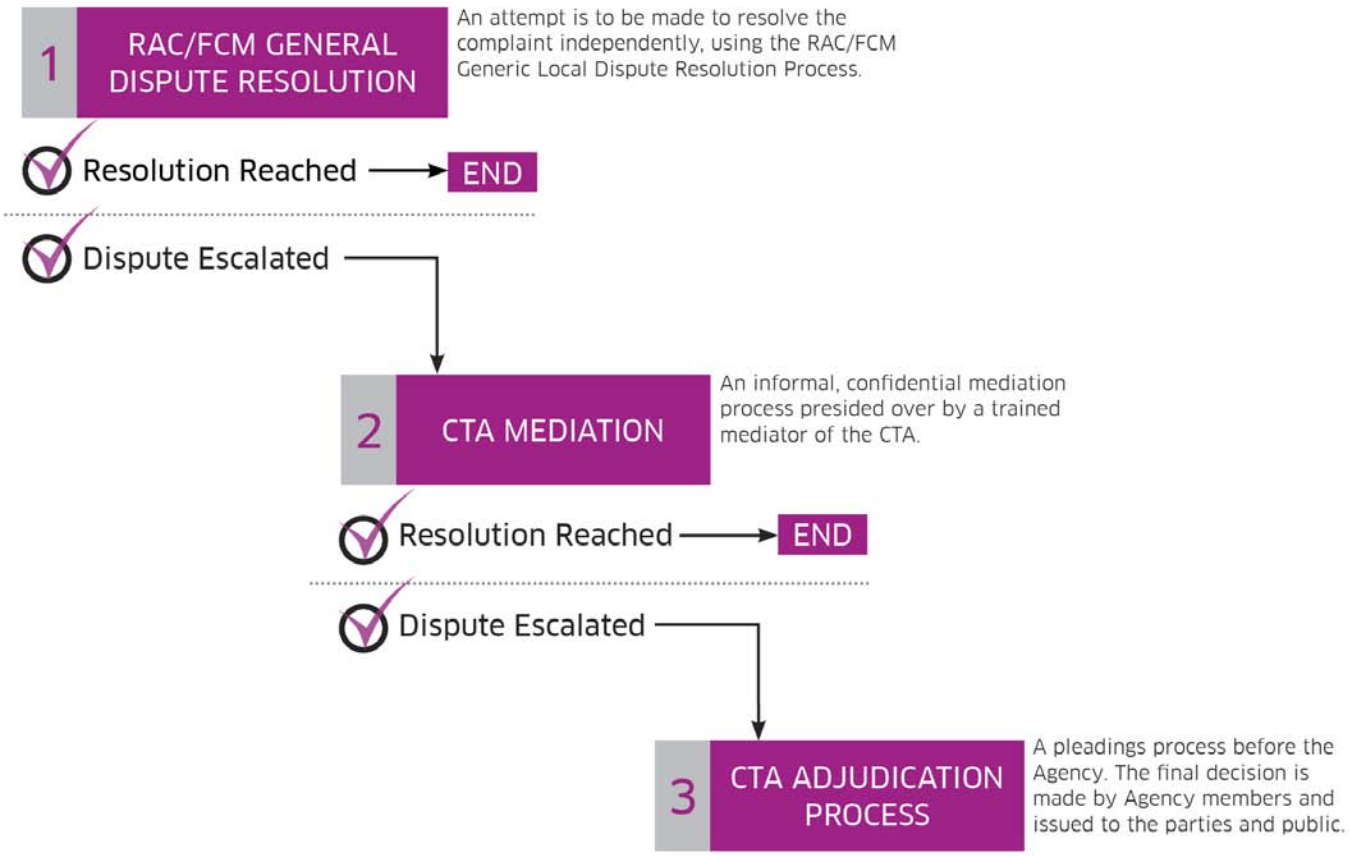


FIGURE 20 // DISPUTE RESOLUTION PROCESS

investigation where necessary.

As an impartial body, the Agency cannot prepare or document a complaint nor can it provide funding to any party for the preparation of a complaint, answer, or reply. The Agency reviews all evidence that it has obtained through its investigation to develop a comprehensive understanding of the circumstances of each case, before rendering its decision or determination.

The Agency strives to process complaints within 120 days of receiving a complete application. However, given the complexities or the number of parties involved in some noise or vibration complaints, this goal may not always be met. In such cases, the Agency will act as expeditiously as possible. Parties are encouraged to continue to work together to seek a resolution even though a complaint may be before the Agency.

When the Agency has reached a decision, the Agency provides it to all parties of the case and posts it on its public web site.

4.3.4.5 More Information

Canadian Transportation Agency
Ottawa, Ontario K1A 0N9
Telephone: 1-888-222-2592
TTY: 1-800-669-5575
Facsimile: 819-997-6727
E-mail: info@otc-cta.gc.ca
Web site: www.cta.gc.ca

For more information on the CTA, the Agency and its responsibilities, or Agency Decisions, and Orders, you can access the Agency's web site at www.cta.gc.ca.

Web site addresses and information on the Agency are subject to change without notice and were accurate at the time of publication. For the most up-to-date information, visit the Agency's web site.

PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

5

CONCLUSION

5.0 // CONCLUSION

As the shift continues towards curbing urban sprawl and intensifying existing built-up areas, lands close to railway corridors will continue to become more desirable for development.

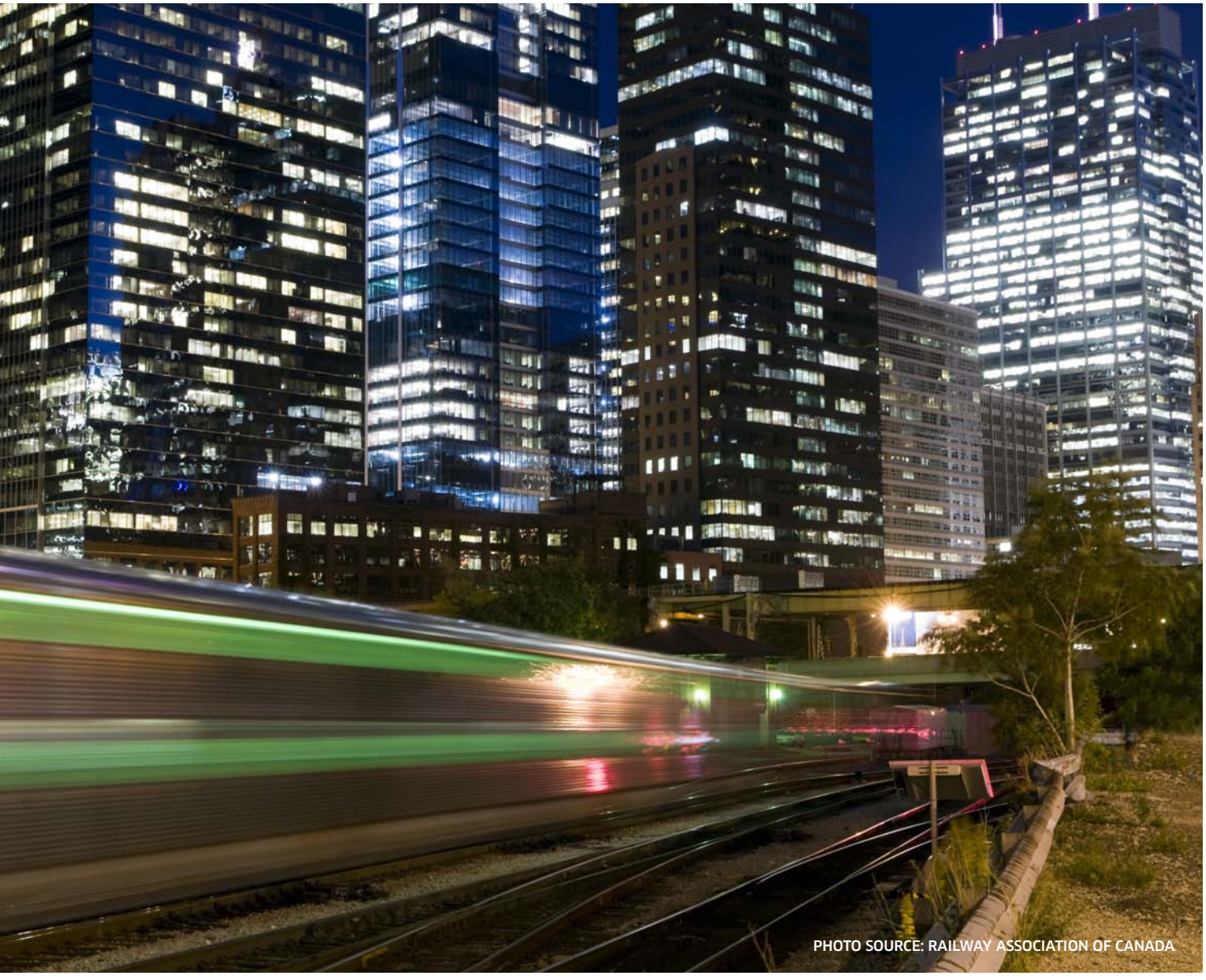


PHOTO SOURCE: RAILWAY ASSOCIATION OF CANADA

The proximity guidelines provided here are intended to help anticipate potential conflicts, improve awareness of development issues around railway operations, and clarify the requirements for new development in proximity to railway operations and activities. They provide strategies that will help to reduce misunderstanding and avoid unecessary conflicts arising between railway operations and nearby new development. The guidelines further provide recommendations to promote a higher level of consistency nationwide with respect to new development approval processes as well as the design of new development projects in proximity to railway operations and their respective mitigation measures.

Topics covered include:

- Common issues and constraints;
- A series of guidelines addressing mitigation design, consultation, setbacks, noise, vibration, safety barriers, security fencing, stormwater management and drainage, warning clauses and other legal agreements, and construction issues;
- Understanding of stakeholder roles; and
- Implementation.

Additionally, the report appendices contain the following:

- A Development Viability Assessment;
- A sample rail classification system;
- Noise and vibration procedures and criteria;
- Recommendations for the evaluation of new rail facilities or significant expansions to existing rail facilities in proximity to residential or other sensitive land uses; and
- A series of national and international best practices.

Careful consideration has been given to provide a balanced approach to new development in proximity to railway corridors that provides a thoughtful response to site-specific constraints, safety, and land-use compatibility. Ultimately it is in the interest of the public and all other parties involved to ensure that when new development is deemed to be appropriate near a railway corridor, the mitigation measures outlined in this report are taken to ensure they are both compatible and safe.

The various stakeholders identified are encouraged to review and establish or update, as necessary, their respective planning instruments and company practices/ procedures. Opportunities should be explored to inject these guidelines into relevant curriculum at education institutions teaching land use planning, civil engineering, and railway engineering, as well as disseminating this information through relevant professional associations.

APPENDICES

APPENDIX A // DEVELOPMENT VIABILITY ASSESSMENT

AA.1 // INTRODUCTION

Development of residential structures in proximity to railway corridors can pose many challenges, particularly in terms of successfully mitigating the various vibration, noise, and safety impacts associated with railway operations. The standard mitigation measures, illustrated below, have been designed to provide proponents with the simplest and most effective solution for dealing with these common issues.

However, in some cases, particularly in already built-up areas of the country's largest cities, development proposals will be put forward for smaller or constrained sites that are not able to accommodate these measures, particularly the full setback and berm. In cases where municipalities have already determined that residential is the best use for these sites, such proposals will be subject to a Development Viability Assessment, the intent of which is to evaluate any potential conflicts that may result from the proximity of the development to the neighbouring rail corridor, as well as any potential impacts on the operation of the railway as a result of the new development, both during the construction phase and afterwards. The proposed development will not be permitted to proceed unless the impacts on both the railway and the development itself are appropriately managed and mitigated. It must be noted that the intention of the Development Viability Assessment tool is not to justify the absence of mitigation in any given development proposal. Rather, it is to allow for an assessment based on the specific and inherent characteristics of a site, and therefore, the identification of appropriate mitigation measures.

As such, the Development Viability Assessment is a tool to assist developers who cannot accommodate standard mitigation measures in assessing the viability of their site for development and in designing the appropriate mitigation to effectively address the potential impacts associated with building near railway operations. The development viability assessment exercise, which should be carried out by a qualified planner or engineer in close consultation with the affected railway, must:

i. identify all potential hazards to the operational railway, its staff, customers, and the future residents of the development;

ii. take into account the operational requirements of the railway facilities and the whole life cycle of the development;

iii. identify design and construction issues that may impact on the feasibility of the new development;

iv. identify the potential risks and necessary safety controls and design measures required to reduce the risks to the safety and operational integrity of the railway corridor and avoid long-term disruptions to railway operations that would arise from a defect or failure of structure elements; and

v. identify how an incident could be managed if it were to occur.

It is strongly recommended that proponents consult with the affected railway when preparing a Development Viability Assessment to ensure that all relevant matters are addressed.

This document establishes the minimum generic requirements that must be addressed as part of a Development Viability Assessment accompanying a development application for land in proximity to railway operations. Proponents should note that there

may be additional topics that will need to be addressed in a Development Viability Assessment, depending on the unique nature of the subject site and proposed development. These additional topics should be determined in consultation with the affected railway and local municipality.

Municipalities should use the results of the Development Viability Assessment to determine whether proposed mitigation measures are appropriate.

The following sections outline basic content requirements for a standard Development Viability Assessment.

AA.2 // SITE DETAILS

The Assessment must include a detailed understanding of the conditions of the subject site in order to generate a strong understanding of the context through which conflicts may arise. At a minimum, the factors to be considered are:

i. site condition (cutting, embankments, etc.);

ii. soil type, geology;

iii. topography;

iv. prevailing drainage patterns over the site; and

v. proximity to the railway corridor and other railway infrastructure/utilities.

AA.3 // RAILWAY DETAILS

It is imperative that details of the railway corridor (or other facility) itself also be evaluated in order to properly determine the potential conflicts associated with a new development in close proximity to railway activities. At a minimum, the factors to be considered are:

i. track geometry and alignment (i.e. is the track straight or curved?);

ii. the existence of switches or junctions;

iii. track speed, including any potential or anticipated changes to the track speed;

iv. derailment history of the site and of other sites similar in nature;

v. current and future estimated usage and growth in patronage (10-year horizon);

vi. details of any future/planned corridor upgrades/works, or any protection of the corridor for future expansion, where no plans are in existence; and

vii. topography of the track (i.e. is it in a cut, on an embankment, or at grade?).

AA.4 // DEVELOPMENT DETAILS

Details of the development itself, including its design and operational components, are important in understanding whether the building has been designed to withstand potential conflicts as a result of the railway corridor, as well as ensuring that the new development will not pose any adverse impacts upon the railway operations and infrastructure. At a minimum, the following information must be provided:

i. proximity of the proposed development to the railway corridor or other railway infrastructure;

ii. clearances and setbacks of the proposed development to the railway corridor; and

iii. any collision protection features proposed for the new development, to protect it in the case of a train derailment.

AA.5 // CONSTRUCTION DETAILS

While it is understood that construction details will not be finalized at the development application stage, there are a number of impacts associated with construction on a site in proximity to a railway corridor that need to be considered prior to development approval. These construction impacts need to be considered as part of the Development Viability Assessment. This portion of the assessment is intended to ensure that the railway corridor, infrastructure, staff, and users can be adequately protected from activities associated with the construction of the development. At a minimum, the following information must be provided:

i. corridor encroachment - provide details with regard to:
    a. whether access to the railway corridor will be required;
    b. whether any materials will be lifted over the railway corridor;
    c. whether any temporary vehicle-crossing or access points are required; and
    d. whether there will be any disruption to services or other railway operations as a result of construction;

Generally, encroachment within a railway corridor for construction purposes is not permitted and alternative construction options will need to be identified.

i. provide details of how the security of the railway corridor will be maintained during construction, (i.e. by providing details about the type and height of security fencing to be used);
ii. provide details of any planned demolition, excavation and retaining works within 30 metres of the railway corridor and specify the type and quantity of works to be undertaken;
iii. services and utilities - provide details of:
    a. whether any services or utilities will be required to cross the railway corridor; and
    b. whether any existing railway services/ utilities will be interfered with; and
iv. stormwater, drainage, sediment, and erosion control - provide details of how any temporary stormwater and drainage will operate during construction, and how sediment and erosion control will be managed.

AA.6 // IDENTIFY HAZARDS AND RISKS

Once details unique to the site, railway corridor, development design, and construction have been determined, the individual risks must be identified and evaluated with individual mitigation measures planned for each. Such risks may include injury or loss of life and damage to public and private infrastructure. At a minimum, consideration must be given to:

i. the safety of people occupying the development and the potential for the loss of life in the event of a train derailment;
ii. potential structural damage to the proposed development resulting from a collision by a derailed train; and
iii. the ability of trespassers to enter into the railway corridor.

APPENDIX B // SAMPLE RAIL CLASSIFICATION SYSTEM

The following table is a general sample classification of rail line types. Proponents are advised to consult with the relevant railway to obtain information on the classification, traffic volume, and traffic speed, of the railway lines in proximity to any proposed development. Contact information for railways is available from the Proximity Project's website (see **APPENDIX G**).

SAMPLE RAIL CLASSIFICATION SYSTEM* (*TO BE CONFIRMED BY RELEVANT RAILWAY)

Main Line *(typically separated into "Principal" and "Secondary" Main Line)*	• Volume generally exceeds 5 trains per day • High speeds, frequently exceeding 80 km/h • Crossings, gradients, etc. may increase normal railway noise and vibration
Branch Line	• Volume generally has less than 5 trains per day • Slower speeds usually limited to 50 km/h • Trains of light to moderate weight
Spur Line	• Unscheduled traffic on demand basis only • Slower speeds limited to 24 km/h • Short trains of light weight

APPENDIX C // NOISE & VIBRATION PROCEDURES & CRITERIA

AC.1 // NOISE

The rail noise issue is site-specific in nature, as the level and impact of noise varies depending on the frequency and speed of the trains, but more importantly, the impact of noise varies depending on the distance of the receptor to the railway operations. The distance from rail operations where impacts may be experienced can vary considerably depending on the type of rail facility and other factors such as topography and intervening structures.

AC.1.1 // SOUND MEASUREMENT

The type of sound has a bearing on how it is measured. Typical sound level descriptors/metrics for non-impulsive sound events are summarized as follows:

- the A-weighted Sound Level (dBA) is an overall measurement of sound over all frequencies - but with higher weighting given to mid- and higher-frequencies - and provides a reasonable approximation of people's actual judgment of the loudness or annoyance of rail noise at moderate sound levels. Generally, an increase of 10dBA in sound level is equivalent to a doubling in the apparent loudness of the noise;[1]
- the Equivalent Sound Level (Leq), measured in A-weighted decibels (dBA), is an exposure-based descriptor that reflects a receiver's cumulative noise exposure from all events over a specified period of time (e.g. 1 hour, 16 hour day, 8 hour night or 24 hour day). It is the value of the constant sound level that would result in exposure to the same total sound energy as would the specified time varying sound, if the sound level persisted over an equal time interval. This is the commonly used descriptor for impact assessment purposes, and correlates well with the effects of noise on people;
- the Maximum Sound Level (Lmax) is the highest A-weighted sound level occurring during a single noise event. It is typically used in night-time emission limits, as a means of ensuring sleep protection.
- the Sound Exposure Level (SEL) describes the sound level from a single noise event and is used to compare the energy of noise events which have different time durations. It is equivalent to Leq but normalized to 1 second;
- Statistical Sound Levels (Ln%) describe the percentage of time a sound level is exceeded, for example L10%, L50%, etc
- Percent Highly Annoyed (%HA) is an indicator developed by Health Canada to assess the health implications of operational noise in the range of 45 - 75 dB. It is suggested that mitigation be proposed if the predicted change in %HA at a specific receptor is greater than 6.5% between project and baseline noise environments, or when the baseline-plus-project-related noise is in excess of 75 dB.[2]

1 Canada Mortgage and Housing Corporation. (1986). Road and rail noise: Effects on housing [Canada]: Author.

2 Health Canada. (2010). Useful information for environmental assessments. Retrieved from http://www.hc-sc.gc.ca/ewh-semt/alt_formats/hecs-sesc/pdf/pubs/eval/environ_assess-eval/environ_assess-eval-eng.pdf

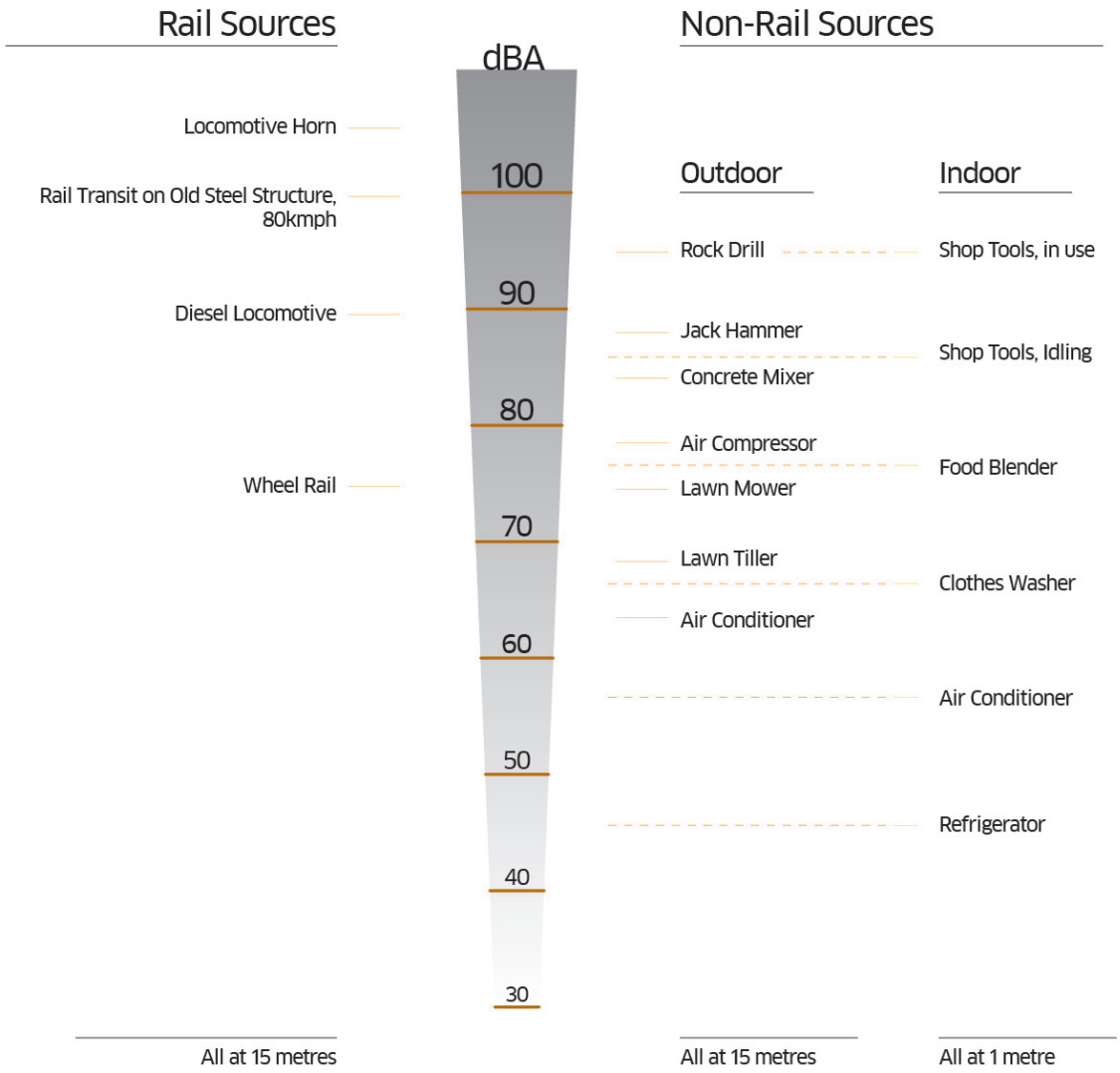


FIGURE 21 - **TYPICAL TRANSIT AND NON-TRANSIT SOURCES OF NOISE, AND THEIR ASSOCIATED DBA** (SOURCE: ADAPTED FROM FIGURE 2-11 IN TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT BY THE FEDERAL TRANSIT ADMINISTRATION).

AC.1.2 // SOURCES OF SOUND FROM RAILWAY OPERATIONS

Principal sources of noise from existing railway infrastructure include:

- wheels and rails;
- diesel locomotives – much of the noise is emitted at the top of the locomotive and in some cases the noise has a distinctive low-frequency character. Both of these factors make locomotive noise difficult to control by means of barriers such as noise walls or earth mounds, because they have to be quite high in order to break the line of sight, and therefore provide noise attenuation;
- special track forms, such as at switches, crossings, diamonds, signals, and wayside detection equipment, cause higher levels of noise and vibration and tend to be more impulsive;
- bridges and elevated structures due to the reverberation in the structures; and
- other sources including brake squeal, curve squeal, train whistling at railway crossings, bells at stations, shunting of rail cars, coupling, idling locomotives, compression or "stretching" of trains, jointed vs. welded tracks, and track maintenance.

AC.1.3 // RECOMMENDED PROCEDURES FOR THE PREPARATION OF NOISE ASSESSMENT REPORTS FOR NEW RESIDENTIAL OR OTHER SENSITIVE LAND USES IN PROXIMITY TO RAILWAY CORRIDORS

1. Studies should be undertaken by a qualified consultant using an approved prediction model.
2. Where studies are not economically or practically feasible, due for example to the scale of a development or the absence of an available mechanism to secure a study, reasonable and practical measures should be undertaken to minimize potential noise impacts, such as increased building setbacks, noise fencing, and building construction techniques (e.g. brick veneer, air conditioning), etc.
3. Obtain existing rail traffic volumes from railway.
4. Use most current draft plan/site plan and grading plans for analysis.
5. Escalate rail traffic volume data by 2.5% compounded annually for a minimum of 10 years, unless future traffic projections are available.
6. Conduct analysis at closest proposed sensitive receptor. The minimum setback distances based on the classification of the rail line, as specified by the railway should be used for the analysis (see Appendix B for a sample rail classification system). If the closest proposed residential receptor is at the greater distance than the minimum setback distance, then the greater distance may be used.
7. The analysis needs to be conducted at the following locations:
    - Outdoor amenity area receptor. This is usually in the rear yard at a point that is 3 m away from the rear wall of the house. This is typically a daytime calculation;
    - 1st, 2nd, and 3rd storey receptor for

low-rise dwellings. The nighttime calculation should be conducted at the façade where a bedroom could be located. The daytime calculation should be conducted at the façade where the living/dining/family areas could be located; and

- If the building is a multi-storey building the calculations should be conducted at the outdoor amenity areas and at the highest floor of the building.

8. The typical receptor heights are summarized below. These are to be used as a guide only. If the actual receptor heights are known they should be used.
    - Outdoor amenity area: 1.5 m above the amenity area elevation;
    - 1st storey receptor: 1.5 m above the 1st floor finished grade elevation;
    - 2nd storey receptor: 4.5 m above the 1st floor finished grade elevation; and
    - 3rd storey receptor: 7.5 m above the 1st floor finished grade elevation.
9. The analysis should be conducted assuming a 16 hour day (LeqDay) and an 8 hour night (LeqNight).
10. When no relief from whistling has been authorized they should be included in the analysis to determine the mitigation measures to achieve the indoor sound level limits. Whistles are not required to be included in the determination of sound barrier requirements.
11. Any topographical differences between the source and receiver should be taken into account.
12. The attenuation provided by dense, evergreen forest of more than 50 m in depth can also be included in the analysis (assuming it will remain intact).
13. Intervening structures that may provide some barrier effect may also be included in the analysis.
14. The results of this analysis should be compared to the applicable sound level limits listed in AC.1.4 to determine the required mitigative measures for both the outdoor amenity areas and the dwelling. Mitigative measures could include noise barriers, architectural and ventilation components (eg. brick veneer, air conditioning, forced air ventilation, window glazing requirements, etc.)
15. The required sound barrier heights to achieve the guidelines at the outdoor amenity areas can be determined using an appropriate model. The relative location with respect to the source and the receiver is required as well as the grades of the tracks, barrier location, and receptor.
16. The sound barrier needs to be designed taking into consideration the minimum safety requirements of the railway.
17. The architectural component requirements must include the minimum requirements of the railways. The remainder of the components can be determined using the AIF procedures found in the CMHC publication, “Road and Rail Noise: Effects on Housing”, (NHA 5156 08/86)

or the BPN 56 procedures found in the National Research Council publication "Building Practice Note 56, Controlling Sound Transmission into Buildings", September 1995.

18. In preparing the report all of the above information must be included so that the report can be appropriately reviewed. In addition to the above, the report should include the following:
    - Key plan;
    - Site plan/draft plan;
    - Summary of the rail traffic data, including the correspondence from the railways;
    - Figure depicting the location of the sound barrier, including any extensions or wraparounds;
    - Top of barrier elevations;
    - Sample calculations with and without the sound barrier;
    - Sample calculations of how the architectural requirements were determined;
    - Summary table of lots/blocks/units requiring mitigation measures, including lots that require air conditioning and warning clauses; and
    - Any other information relevant to the site and the proposed mitigation.

AC1.4 // RECOMMENDED NOISE CRITERIA FOR NEW RESIDENTIAL OR OTHER SENSITIVE LAND USES IN PROXIMITY TO FREIGHT RAILWAY CORRIDORS

TYPE OF SPACE	TIME PERIOD	SOUND LEVEL LIMIT Leq* (dBA) Rail**	OUTDOOR SOUND LEVEL LIMIT Leq * (dBA)
Bedrooms	2300 to 0700 hrs	35	50
Living/dining rooms	0700 to 2300 hrs	40	55
Outdoor Living Area	0700 to 2300 hrs	***55	N/A

* Applicable to transportation noise sources only.

** The indoor sound level limits are used only to determine the architectural component requirements. The outside façade sound level limits are used to determine the air conditioning requirements.

** Mitigation is recommended between 55dBA and 60dBA and if levels are 60dBA or above, mitigation should be implemented to reduce the levels as close as practicable to 55dBA.

(SOURCE: ADAPTED FROM THE ONTARIO MINISTRY OF THE ENVIRONMENT LU-131 GUIDELINE)

AC.1.5 // RECOMMENDED PROCEDURES FOR THE PREPARATION OF NOISE IMPACT STUDIES FOR NEW RESIDENTIAL OR OTHER SENSITIVE LAND USES IN PROXIMITY TO RAIL YARDS

1. Studies should be undertaken by a qualified consultant.
2. Obtain information from the railway regarding the operations of the freight rail yard in question. This information should include existing operations as well as potential future modifications to the rail facility.
3. Obtain minimum sound levels to be used for each source from the railway, if available. These data should also be verified by on-site observations and on-site sound measurements.
4. Calculate the potential impact of all the sources at the closest proposed residential receptor. This should be at a minimum of 300 m from the closest property line of the freight rail yard.
5. The analysis should be conducted for the worst case hour (Leq 1hr).
6. The calculation may be conducted using ISO 2613-2 or other approved model.
7. Impulsive activities, such as train coupling/ uncoupling and stretching should be analyzed using a Logarithmic Mean Impulse Sound Level (LLM) and not included as part of the 1 hour Leq.
8. The analysis may include any attenuation provided by permanent intervening structures as well as vegetation as set out by the prediction model. Topographical differences between the source and receiver should be taken into account.
9. Any tonal characteristics of the sound should be taken into consideration.
10. All analyses should take the proposed grading of the site as well as the grading at the rail yard, particularly when determining the sound barrier heights.
11. The source positions should be determined in consultation with the railway. They should be based on the most likely and reasonable location for that activity.
12. The consultant report shall include the following:
    - Key plan;
    - Site plan/draft plan of the proposed development;
    - Figure depicting the location of each of the sources modeled within the rail yard;
    - Summary table of the source sound levels used in the analysis;
    - Results of the predicted sound levels at various receptors;
    - Results of any on-site sound measurements;
    - Sample calculations with and without any proposed mitigation;
    - Summary table of all lots requiring mitigation;
    - Top of sound barrier elevations, if sound barriers are proposed; and
    - Any other information relevant to the site and the proposed mitigation.

13. The results of the analysis should be compared to the sound level criteria found in AC.1.6. Where an excess exists, mitigation that conforms to applicable stationary source guidelines should be recommended.

AC.1.6 // RECOMMENDED NOISE CRITERIA - RESIDENTIAL OR OTHER SENSITIVE LAND USES IN PROXIMITY TO FREIGHT RAIL SHUNTING YARDS

TIME OF DAY	ONE HOUR Leq (dBA) OR L_{LM} (dBAI)	
	Class 1 Area	Class 2 Area
0700 – 1900	50	50
1900 – 2300	47	45
2300 – 0700	45	45

*These criteria are applicable to any usable portion of the lot or dwelling.

**Class 1 and 2 Areas refer to the typical acoustical environment that can be expected within the development zone. Class 1 Areas are acoustic environments dominated by an urban hum, and Class 2 Areas have the acoustic qualities of both Class 1 and Class 3 Areas (which are rural) For more information, refer to Section 2 of the LU-131 Guidelines issued by the Ontario Ministry of the Environment.

(SOURCE: ADAPTED FROM THE ONTARIO MINISTRY OF ENVIRONMENT LU-131 GUIDELINE)

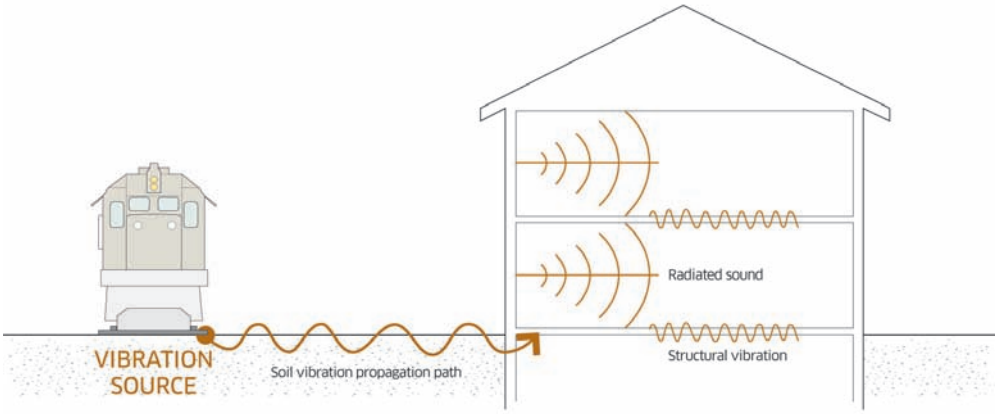


FIGURE 22 // GROUND-BORNE VIBRATION PROPAGATION (SOURCE: ADAPTED FROM FIGURE 7-1 IN TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT BY THE FEDERAL TRANSIT ADMINISTRATION).

AC.2 // VIBRATION

Vibration caused by passing trains is an issue that affects the structure of a building as well as the liveability of the units inside. In most cases, structural integrity is not a factor. Like sound, the effects of vibration are site-specific and are dependent on the soil and subsurface conditions, the frequency of trains and their speed, as well as the quantity and type of goods they are transporting.

Vibration is caused by the friction of the wheels of a train along a track, which generates a vibration energy that is transmitted through the track support system, exciting the adjacent ground and creating vibration waves that spread though the various soil and rock strata to the foundations of nearby buildings. The vibration can then disseminate from the foundation throughout the remainder of the building structure. Experience has shown that vibration levels only slightly above the human perception threshold are likely to result in complaints from residents.

Vibration in buildings in proximity to railway corridors can reach levels that may not be acceptable to building occupants for one or more of the following reasons:

- irritating physical sensations that vibration may cause in the human body;
- interference with activities such as sleep, conversation, and work;
- annoying noise caused by “rattling” of windowpanes, walls, and loose objects. Noise radiated from the motion of the room surfaces can also create a rumble. In essence, the room acts like a giant loudspeaker;
- interference with the proper operation of sensitive instruments (or) processes; and
- misplaced concern about the potential for structural or foundation damage.

Mitigation of vibration and ground-borne noise requires the transmission of the vibration to be inhibited at some point in the path between the railway track and the building. In some instances, sufficient attenuation of ground vibration is provided by the distance from the track (vibration is rarely an issue at distances greater than 50 metres from the track), or by the vibration 'coupling loss' which occurs at the footings of buildings. However, these factors may not be adequate to achieve compliance with the guidelines, and consideration may need to be given to other vibration mitigation measures. However, railway vibration is not normally associated with foundation damage.

AC.2.1 // GROUND-BORNE VIBRATION NOISE

Vibration is an oscillatory motion, which can be described in terms of its displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net displacement of the vibration element and the average of any of the motion descriptors is zero. The response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration. The concepts of ground-borne vibration for a rail system are illustrated in FIGURE 22.

AC.2.2 // PEAK PARTICLE VELOCITY AND THE ROOT MEAN SQUARE

The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal. Although PPV is appropriate for

evaluating the potential of building damage, it is not suitable for evaluating human responses, as it takes some time for the human body to respond to vibration signals. Because the net average of a vibration signal is zero, the root mean square (RMS) amplitude is used to describe the vibration amplitude.

The criteria for acceptable ground-borne vibration are expressed in terms of RMS velocity in decibels or mm/sec, and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels.

AC.2.3 // HUMAN PERCEPTION OF GROUND-BORNE VIBRATION AND NOISE

The background vibration velocity level (typically caused by passing vehicles, trucks, buses, etc.) in residential areas is usually less than 0.03mm/sec RMS, well below the threshold of perception for humans, which is around 0.1 mm/sec RMS. In the some cases, depending on the distance, intervening soils, and type of rail infrastructure, the vibration from trains can reach 0.4mm/sec RMS or more. Even high levels of perception, however, are typically an order of magnitude below the minimum levels required for structural or even cosmetic damage in fragile buildings.

Typical levels of ground-borne vibrations are shown in FIGURE 23.

For surface heavy rail traffic, the sound made by the vibration travelling through the earth is rarely significant because of the relatively low frequency content being less audible than the higher vibration frequencies common to surface transit and subways.

The relationship between ground-borne vibration and ground-borne noise depends on the frequency content of the vibration and the acoustical absorption of the receiving room. The more acoustical absorption in the room, the lower will be the noise level. This can be used to mitigate the ground-borne noise impact, but as noted above, is rarely required.

One of the problems in developing suitable criteria for ground-borne vibration is that there has been relatively little research into human response to vibration, in particular, human annoyance with building vibration. Nevertheless, there is some information available on human response to vibration as a function of vibration characteristics: its level, frequency, and direction with respect to the axes of the human body, and duration of exposure time. However, most of the studies on which this information is based were concerned with conditions in which the level and frequency of vibration are constant. Very few studies have addressed human response to complex intermittent vibration such as that induced in buildings by railway corridors. Nonetheless, several countries have published standards that provide guidance for evaluating human response to vibration in buildings. Proponents may utilize the following standards, used internationally, as a reference:

- International Standard ISO 2631-2: 2003 (1989)
- American Standard ANSI S2.71: 2006 (Formerly ANSI S3.29-1983)
- British Standard BS 6472-1: 2008 (1984)
- Norwegian Standard NS 8176.E: 2005
- New Zealand Standard NZS/ISO 2631-2: 1989
- Australian Standard AS 2670-2: 1990

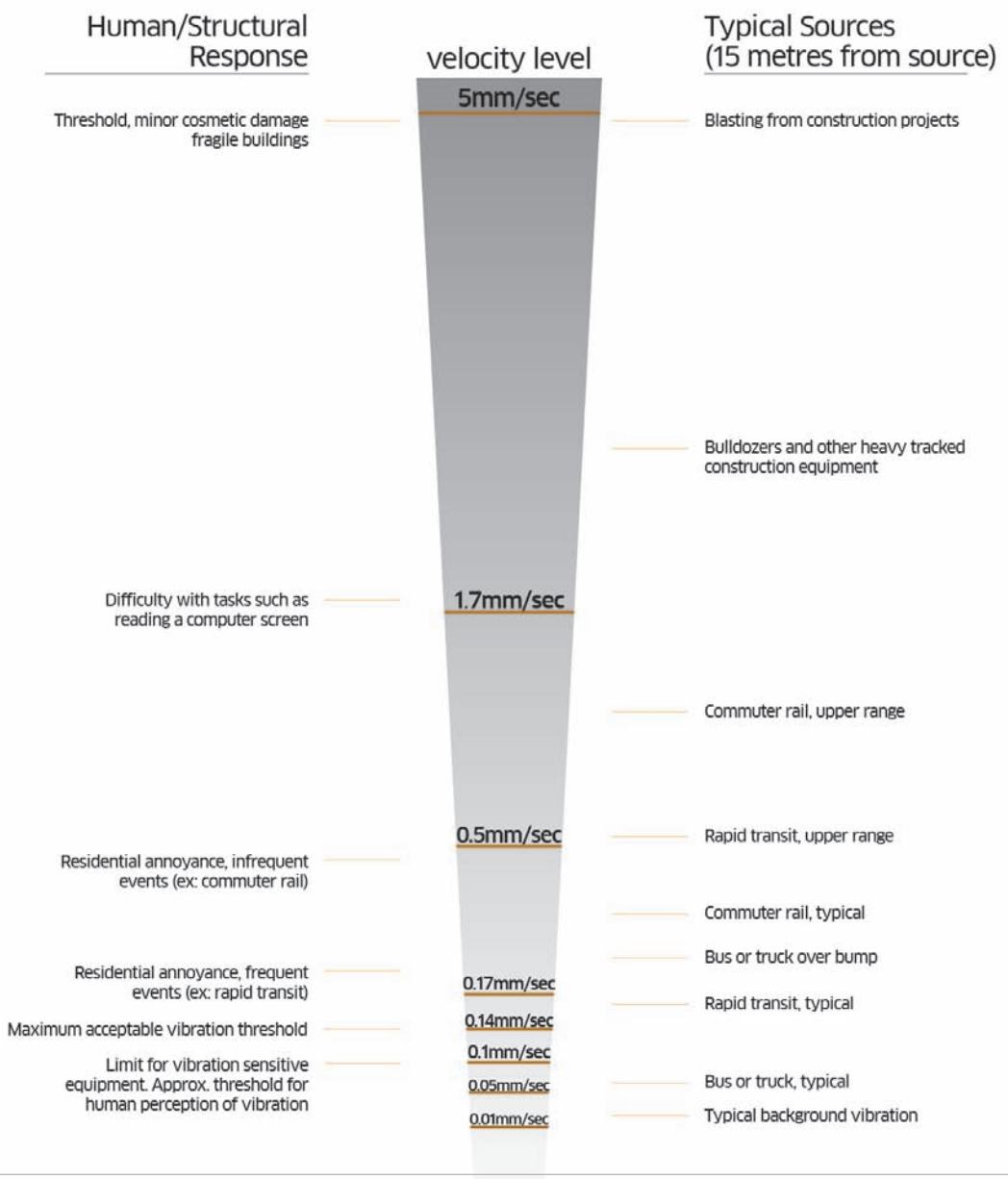


FIGURE 23 // TYPICAL VIBRATION SOURCES AND THEIR ASSOCIATED VELOCITY LEVELS (SOURCE: ADAPTED FROM FIGURE 7-3 IN TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT BY THE FEDERAL TRANSIT ADMINISTRATION).

AC.2.4 // FACTORS INFLUENCING GROUND-BORNE VIBRATION AND NOISE

Factors that may influence levels of ground borne vibration and noise, and that should be considered by the acoustic consultant in the preparation of a vibration impact study are described in the table below.

FACTORS RELATED TO VIBRATION SOURCE	
Factors	**Influence**
Wheel Type and Condition	Wheel flats and general wheel roughness are the major cause of vibration from steel wheel/steel rail systems.
Track/Roadway Surface	Rough track or rough roads are often the cause of vibration problems.
Speed	As intuitively expected, higher speeds result in higher vibration levels. Doubling speed usually results in a vibration level increase of 4 to 6 decibels.

FACTORS RELATED TO VIBRATION PATH	
Factors	**Influence**
Soil Type	Vibration levels are generally higher in stiff clay or well-compacted sandy soils than in loose or poorly compacted or poorly consolidated soils.
Soil Layering	Soil layering will have a substantial, but unpredictable, effect on the vibration levels since each stratum can have significantly different dynamic characteristics.
Depth to Water Table	The depth to the water table may have a significant effect on ground-borne vibration, but a definite relationship has not been established.

FACTORS RELATED TO VIBRATION RECEIVER	
Factors	**Influence**
Foundation Type	Generally, the heavier the building foundation, the greater the coupling loss as the vibration propagates from the ground into the building.
Building Construction	Since ground-borne vibration and noise are almost always evaluated in terms of indoor receivers, the propagation of the vibration through the building must be considered. Each building has different characteristics relative to structure-borne vibration, although, generally, the more massive the building, the lower the levels of ground-borne vibration.
Acoustical Absorption	The amount of acoustical absorption in the receiver room affects the levels of ground-borne noise.

(SOURCE: ADAPTED FROM TABLE 7-2 IN TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT BY THE FEDERAL TRANSIT ADMINISTRATION).

AC.2.5 // RECOMMENDED PROCEDURES FOR THE PREPARATION OF VIBRATION IMPACT STUDIES FOR NEW RESIDENTIAL OR OTHER SENSITIVE LAND USES IN PROXIMITY TO RAILWAY OPERATIONS

Mitigation can take the form of perimeter foundation treatment and thicker foundation walls and in more severe cases the use of rubber inserts to separate the superstructure from the foundation.

1. Studies should be undertaken by a qualified consultant.
2. Where studies are not economically or practically feasible, due for example to the scale of the new development or the absence of an available mechanism to secure a study, reasonable and practical measures should be undertaken to minimize potential vibration impacts, such as increased building setbacks, perimeter foundation treatment (eg. thicker foundations) and/or other vibration isolation measures, etc.
3. Vibration measurements should be conducted for all proposed residential/ institutional type developments. It is not acceptable to use vibration measurements conducted at other locations such as on the opposite side of the tracks, further down the tracks, etc.
4. The vibration measurements should be conducted at the distance corresponding to the closest proposed residential receptor, or on the minimum setbacks based on classification of the rail line. If the proposed dwelling units are located more than 75 m from the railway right-of-way, vibration measurements are not required.
5. Sufficient points parallel to the tracks should be chosen to provide a comprehensive representation of the potentially varying soil conditions.
6. A minimum of five (5) train passbys (comprised of all train types using the rail line) should be recorded at each measurement location.
7. The measurement equipment must be capable of measuring between 4 Hz and 200 Hz ± 3 dB with an RMS averaging time constant of 1 second.
8. All measured data shall be reported.
9. The report should include all of the above as well as:
    - Key plan;
    - Site/draft plan indicating the location of the measurements;
    - Summary of the equipment used to conduct the vibration measurements;
    - Direction, type, speed (if possible), and number of cars of each train measured;
    - Results of all the measurements conducted;
    - Exceedance, if any; and
    - Details of the proposed mitigation, if required.
10. Ground-borne vibration transmission is to be estimated through site testing and evaluation

to determine if dwellings within 75 metres of the railway right-of-way will be impacted by vibration conditions in excess of 0.14 mm/sec. RMS between 4 Hz. And 200 Hz. The monitoring system should be capable of measuring frequencies between 4 Hz and 200 Hz ± 3 dB, with an RMS averaging time constant of 1 second. If in excess, appropriate isolation measures are recommended to be undertaken to ensure living areas do not exceed 0.14 mm/sec. RMS on and above the first floor of the dwelling.

The following references provide additional insight on methods for measuring ground-borne vibration:

- Hunaidi, O. (1996). "Evaluation of human response to building vibration caused by transit buses". Journal of Low Frequency Noise and Vibration, Vol. 15 No.1, p. 25-42. NRCC Report No. 36963.
- Hunaidi, O. and Tremblay, M. (1997). "Traffic-induced building vibrations in Montreal". Canadian Journal of Civil Engineering, Vol. 24, p.736-753.
- Allen, D.E. and Pernica, G. (1998). "Control of floor vibration". Construction Technology Update No.22, Institute for Research in Construction, NRCC.
- Hanson, C.E., Towers, D.A. and Meister, L.D. (2006). "Transit Noise and vibration impact assessment". FTA-VA-90-1003-06, Office of Planning and Environment, Federal Transit Administration, USA.
- Garg, N. and Sharma, O. (2010). "Investigations on transportation induced ground vibrations". Proceedings of 20th International Congress on Acoustics, ICA 2010, Sydney, Australia.

APPENDIX D //
NEW RAIL FACILITIES AND SIGNIFICANT RAIL EXPANSIONS IN PROXIMITY TO RESIDENTIAL OR OTHER SENSITIVE LAND USES

Federally regulated railways are governed, in part, by the requirements of the Canada Transportation Act (CTA). Under the CTA, railways are required to obtain an approval from the Canadian Transportation Agency for certain railway construction projects. Additionally, federal railways are required to adhere to the requirements of the Railway Safety Act (RSA), which promotes public safety and protection of property and the environment in the operation of railways.

As such, evaluations of new rail facilities or significant rail expansions are conducted in accordance with applicable Federal regulations.

These include but are not limited to the following:

1. **Canadian Transportation Act - section 98**

http://www.cta-otc.gc.ca/eng/railway-line-construction

http://laws-lois.justice.gc.ca/eng/acts/C-10.4/page-34.html#h-51

2. **Railway Safety Act - Part 1 Construction or Alteration of Railway Works**

http://laws-lois.justice.gc.ca/eng/acts/R-4.2/page-3.html#docCont

http://laws-lois.justice.gc.ca/eng/regulations/SOR-91-103/page-1.html

3. **Railway Relocation and Crossing Act**

https://www.otc-cta.gc.ca/eng/publication/relocation-railway-lines-urban-areas

http://laws-lois.justice.gc.ca/eng/acts/R-4/index.html

4. **Canadian Environmental Assessment Act, 2012**

http://laws-lois.justice.gc.ca/eng/acts/C-15.21/index.html

APPENDIX E //
BEST PRACTICES

AE.1 // CURRENT BEST PRACTICES IN CANADA

AE.1.1 // RAILWAY NOISE EMISSION GUIDELINES, RAC (CANADA)

The Railway Association of Canada has prepared Noise Emission Guidelines that will assist in controlling noise emitted by moving rail cars and locomotives.

- The RAC initiative is the first attempt at such a guideline in Canada. Federal agencies have indicated that they support the RAC's efforts and look forward to working with all stakeholders on such initiatives and also that they encourage a blend of maximum levels of noise and annoyance-related approaches in the development of such guidelines.
- The RAC guidelines are based on the following United States Codes of Federal Regulations (CFR): CFR Title 40 - Protection of Environment - Part 201 Noise Emission Standards for Transportation Equipment; Interstate Rail Carriers – July 1, 2002; and, CFR Title 49 Transportation – Part 210 Railroad Noise Emission Compliance Regulations – Oct 1, 2002.
- The guidelines apply to the total sound emitted by moving rail cars and locomotives (including the sound produced by refrigeration and air conditioning units that are an integral element of such equipment), active retarders, switcher locomotives, car coupling operations, and load cell test stands, operated by a railway within Canada. There are exceptions where the guidelines do not apply, including steam locomotives, sound emitted from warning devices, special purpose equipment, and inert retarders.
- Railways and the RAC are encouraged to continue with proactive efforts and partnerships to undertake research and education initiatives that build on and improve the draft noise emission guideline, including incorporating aspects of the subject research.

A summary of the guidelines is below:

NOISE SOURCE	NOISE GUIDELINE - A-WEIGHTED SOUND LEVEL IN dB	NOISE MEASURE	MEASUREMENT LOCATION
All locomotives manufactured on or before Dec. 31, 1979			
Stationary, Idle Throttle setting	73	Lmax (slow)1/	30 m
Stationary, all other throttle settings	93	Lmax (slow)	30 m
Moving	96	Lmax (fast)	30 m
All locomotives manufactured after Dec. 31, 1979			
Stationary, Idle Throttle setting	70	Lmax (slow)	30 m
Stationary, all other throttle settings	87	Lmax (slow)	30 m
Moving	90	Lmax (fast)	30 m
Additional req't for switcher locos manufactured on or before Dec. 31, 1979 operating in yards where stationary switcher and other loco noise exceeds the receiving property limit of	65	L90 (fast)2/	Receiving property
Stationary, Idle Throttle setting	70	Lmax (slow)	30 m
Stationary, all other throttle settings	87	Lmax (slow)	30 m
Moving	90	Lmax (fast)	30 m
Rail Cars			
Moving at speeds of 45 mph or less	88	Lmax (fast)	30 m
Moving at speeds greater than 45 mph	93	Lmax (fast)	30 m
Other Yard Equipment and Facilities			
Retarders	83	Ladjavemax (fast)	Receiving property
Car-coupling operations	92	Ladjavemax (fast)	Receiving property
Loco load cell test stands, where the noise from loco load cell operations exceeds the receiving property limits of	65	L90 (fast)2/	Receiving property
Primary Guideline	78	Lmax (slow)	30 m
Secondary Guideline if 30 m measurement not feasible	65	Lmax (fast)	Receiving property located more than 120 m from Load Cell

1/Lmax= maximum sound level

L90= statistical sound level exceeded 90% of the time

Ladjavemax= adjusted average maximum sound level

2/ L90 must be validated by determining that L10-L99 is less than or equal to 4 dB (A).

Receiving property essentially means any residential or commercial property that receives sound (not owned by the railroad).

AE.1.2 // NOISE ASSESSMENT CRITERIA IN LAND USE PLANNING PUBLICATION LU-131 (ONTARIO, CAN)

This guideline outlines noise criteria to be considered in the planning of sensitive land uses adjacent to major facilities such as roads, airports, and railway corridors. It is the only provincial noise guideline applicable to residential development in Canada.[1] The document stipulates a maximum daytime outdoor sound level from rail noise of 55dBA; 35dBA for sleeping quarters at night; and 40dBA for living and dining rooms during the day. It also stipulates that a feasibility study is required within 100 metres of a Principal Main Line railway right-of-way, and 50 metres of a Secondary Main Line railway right-of-way. A detailed noise study is required when sound levels affecting proposed lands exceed the noise criteria by more than 5dBA. Finally, the guideline also outlines specific mitigation requirements when sound levels exceed certain limits.

AE.1.3 // PLANNING AND CONSERVATION LAND STATUTE LAW AMENDMENT ACT, 2006, BILL 51 (ONTARIO, CAN)

The Planning and Conservation Land Statute Law Amendment Act, 2006, Bill 51 provides a more transparent, accessible, and effective land-use planning process, empowering municipalities with more tools to address a variety of land-use planning needs. The bill allows for greater dissemination of information, participation, and consultation to take place earlier on in the planning process, giving local residents and community leaders more opportunity to play their crucial role in shaping their communities.

Bill 51 requires that notice shall be given to railways in the case of proposed official plans or official plan amendments, plans of subdivision, zoning by-laws, holding by-laws, interim control by-laws, and/or consent to sever lands, where the subject lands fall within 300 metres of a railway line. This is the only piece of provincial legislation in Canada which triggers the notification of railways when land-use changes and/or development is proposed in close proximity to rail lands.

AE.1.4 // GUIDELINE D-6: COMPATIBILITY BETWEEN INDUSTRIAL FACILITIES AND SENSITIVE LAND USES (ONTARIO, CAN)

The role of this guideline is to prevent or minimize the encroachment of sensitive land use upon industrial land use and vice versa. The incompatibility of these land uses is due to the possibility for adverse effects created by industrial operations on sensitive land uses.

Application of this guideline should occur during the land use planning process in an effort to prevent or minimize future land use conflicts. It is intended to apply when a change in land use is proposed. The guideline is a direct application of Ministry Guideline D-1, "Land Use Compatibility" (formerly Policy 07-03).

This guideline defines sensitive land uses as:

- recreational uses which are deemed by the municipality or provincial agency to be sensitive; and/or
- any building or associated amenity area which is not directly associated with the industrial use, where humans or the natural environment may be adversely affected by emissions generated by the operation of a nearby industrial facility. For example, residences, senior citizen homes, schools, day care facilities, hospitals, churches and other similar institutional uses, or campgrounds. Residential land is considered to be sensitive 24 hrs/day.

This guideline does not apply to railway corridors, but does apply to railway yards and other ancillary rail facilities.

Industrial facilities are categorized into three classes according to the objectionable nature of their emissions, physical size/scale, production volumes and/or the

1 Noise Guidelines exist in Alberta, but they are applicable only to the energy sector.

intensity and scheduling of operations. This guideline includes an implementation section that contains requirements or recommendations on the following:

- Potential influence area distances
- Land use planning considerations
- Recommended minimum separation distances
- How to measure separation distance
- Commenting or reviewing land use proposals
- Required studies: noise, dust, and odour
- Additional mitigation measures
- Legal agreements and financial assurance to ensure mitigation
- Redevelopment, infilling and mixed use areas requirements including official status, zoning, feasibility analysis, new use of existing buildings, public consultation, environmental warnings for sensitive land uses, phased/sequential development, and site clean-up & decommissioning.
- Accessory residential use

The recommendations or requirements for incompatible land uses are intended to supplement, not replace, controls which are required by legislation for both point source and fugitive emissions at the facility source.

AE.1.5 // DIRECTION 2006 (CANADA)

Community Trespass Prevention is an initiative of Direction 2006, a Government of Canada and public/private partnership initiated in 1996, with the goal of cutting the number of accidents and fatalities in half within 10 years, by 2006. As part of this initiative, the document, *Trespassing on Railway Lines: A Community Problem-Solving Guide* was developed. This document describes the Community, Analysis, Response and Evaluation (C.A.R.E.) problem solving model that was developed to assist communities in identifying and addressing the underlying causes of trespassing. It provides a step-by-step method of identifying, analyzing and effectively addressing trespassing issues in the community.

Direction 2006 has identified four areas of concentration (the four E's) with respect to crossing and trespass prevention, namely:

Education

Operation Lifesaver's success as a safety program lies in educating people of all ages about the dangers of highway/railway crossings and the seriousness of trespassing on railway property. The methods used to reach the public include the production and distribution of educational related material, early elementary and driver education curriculum activities, civic presentations, as well as media coverage.

Enforcement

Laws are in place governing motorists' and pedestrians' rights and responsibilities at highway/railway crossings and on railway property. Without enforcement, however, they will be ignored and disregarded, and incidents will continue to happen. Therefore, provincial and municipal law enforcement agencies are urged to deal with motorists and pedestrians who disregard these laws and jeopardize their lives as well as the lives of others.

Engineering

Highway/railway crossings, railway property and pedestrian crossings must be kept safe, both physically and operationally, and improvements must be made when needed. To ensure a high level of safety, the administrative process of improving railway rights-of-way needs to be reviewed and changed when needed. At the same time, the public needs to be made more aware of federal, provincial and other programs aimed at improving railway safety.

Evaluation

To maintain the quality of Operation Lifesaver, its effect should be measured against its stated goals. Funds are available for technical and program assistance.

Lessons that can be learned from Direction 2006 include:

- The benefits of multi-stakeholder initiatives to raise awareness of public safety matters and reduce the potential for future incidents.
- Promotion of rail safety improvement, particularly improvement and elimination of at-grade crossings and provision of funding for safety initiatives.

AE.2 // INTERNATIONAL BEST PRACTICES

The international case studies described here have been chosen because they represent examples of jurisdictions which employ a comprehensive approach towards mitigation of rail-related impacts on new residential development that includes the use of proximity guidelines. While Australia stands out as a model for Canadian jurisdictions to look towards when crafting their own policies for development adjacent to railway corridors, the differences between the two contexts should be kept in mind. For example, the Australian context allows for a greater government role in its approach to mitigation because railway infrastructure is largely state owned and operated. This is also the reason why the rail authorities must bear a larger share of the responsibility when it comes to mitigation, than is the case in Canada.

AE.2.1 // NEW SOUTH WALES, AUSTRALIA

New South Wales (NSW), located in southeastern Australia, is the largest Australian state by population, with over 7.2 million inhabitants. It is currently experiencing an extended period of urban renewal, particularly in and around Sydney, the state capital and the most populous city in the country. This renewal has led to increased pressure to develop urban infill sites along railway lines, particularly around existing passenger rail stations. At the same time, transportation by rail (both freight-based and passenger-based), has been growing steadily, generating a need to establish new railway lines in some parts of the state, and leading to an increase in the number of complaints about sound and vibration issues by residents living in proximity to existing lines.

In response to these circumstances, the government of NSW has developed a comprehensive strategy consisting of a series of complementary initiatives to address and manage the environmental impacts of noise and vibration from the state's rail system. These include:

- A ***Rail Infrastructure Noise Guideline*** that outlines a process for assessing the noise and vibration impacts of proposed rail infrastructure projects, and for determining appropriate mitigation.
- A ***new state policy,*** called the State Environmental Planning Policy (Infrastructure) 2007 that clearly

articulates a process and requirements for the approval of new residential developments adjacent to existing railway corridors. The policy specifies internal noise levels of 35dBA for bedrooms between 10pm and 7am, and 40dBA for other habitable rooms. It also stipulates conditions under which a rail authority must be notified of a development adjacent to its railway corridors, and gives the authority 21 days to respond.

- New ***planning guidelines*** for development near railway corridors and busy roads that outline procedures for assessing the noise and vibration impacts of existing rail facilities on new residential development, and suggest potential mitigation options.
- New *national rolling stock noise emission standards,* currently under development by the Australasian Railway Association.

Although the *Development Near Rail Corridors and Busy Roads - Interim Guideline* includes recommendations for mitigating against the risk of a derailment, these do not include a mandatory or recommended setback. The State's Director of Policy Planning Systems and Reform suggests that this is because any setback width would be considered arbitrary. Additionally, it is argued that it would be inappropriate to sterilize land adjacent to railway corridors by imposing a setback requirement without compensation or acquisition. In the case of new rail lines under development, it is considered preferable for the infrastructure provider to acquire a corridor wide enough to make accommodations for a buffer. In existing built-up areas around older railway lines, safety is considered on a case-by-case basis through individual risk assessments, although the primary concern of mitigation is the reduction of noise and vibration. It should be noted that developers of new residential buildings in NSW are responsible for all costs associated with providing safety, sound, and vibration mitigation in their developments.

The introduction of the new state policy and planning guidelines has significantly streamlined the development approvals process for new residential development adjacent to railway corridors across the state. The *State Environmental Planning Policy (Infrastructure)* 2007 takes precedence over existing municipal policies within the state, and municipalities must also 'have consideration' for the new guidelines when approving or denying a development application. Failure to do so may result in a decision being overturned by the courts. The privileged position of the rail authorities as adjacent landowners is recognized through the new process, but the 21-day period for providing comments ensures expediency. The state further encourages rail authorities to honour this time limitation through an annual publication of the names of those who consistently fail to meet the deadline. While the process allows for and encourages extensive negotiation, municipal Councils are free to reject the safety recommendations of rail authorities that they feel are unreasonable.

Although the state is still in the process of transitioning into this new system, overall, it is considered thus far, to be a success. The guidelines are heavily used, and new developments are seeing significant benefits, though there are still concerns expressed by residents living in existing housing stock.

AE.2.2 // QUEENSLAND, AUSTRALIA

Queensland, located in northeastern Australia, is the second largest Australian state by area, and the third largest by population, with over 4.5 million inhabitants. It is also home to the country's third most populace city, Brisbane. Regional and metropolitan plans throughout Queensland are calling for Transit Oriented Development (TOD) to address the state's continuing growth and development. These plans typically prescribe more compact urban forms, with higher density development located in the places of greatest accessibility. Increasingly, as in NSW, this has led to greater pressure to develop sites adjacent to railway corridors, generating concerns not only about noise and vibration, but also about the potential impact of new development on railway operations.

In order to properly manage these concerns, a partnership was established between Queensland Rail, Transport and Main Roads (TMR), and the Department of Infrastructure and Planning (DIP), through Growth Management Queensland (GMQ). Through this collaboration, a Guide for development in a railway environment was developed and made available for use by local municipalities and developers. The Guide provides direction for those interested in developing, excavating, or carrying out any other construction activity in or adjacent to a railway corridor, facilities, or infrastructure. It outlines what information must be reviewed and accounted for when undertaking development in a railway environment, which agencies hold jurisdictional responsibility, the applicability of regulatory provisions, the consultation process, and related development parameters. A checklist approach ensures the appropriate steps have been taken to address the matters influencing development in a railway environment, and is complemented by a risk assessment process to assist with the evaluation and refinement of development proposals.

AE.2.3 // CODE OF PRACTICE, RAILWAY NOISE MANAGEMENT, QUEENSLAND RAIL (QUEENSLAND, AUSTRALIA)

Queensland Rail (QR), an Australian government owned corporation, has developed a Code of Practice for Railway Noise Management. The *Code of Practice* is generally a self-imposed set of rules to achieve compliance with the duty to mitigate environmental impacts such as noise and vibration. The self-regulation is similar to the approach to the environment that has been adopted by the Class 1 and other railway companies in Canada.

As part of this *Code of Practice*, QR has developed a "Network Noise Management Plan" that initially involves conducting a statewide noise audit. If "potential noise-affected receptors" are identified then a detailed noise assessment is carried out. Mitigation measures will be implemented where noise levels exceed the EPP levels or if QR cannot achieve compliance with these levels, the railway will strive to comply with QR nominated interim noise levels of 70 dB(A) (24-hour average equivalent continuous A-weighted sound pressure level) and 95 dB(A) (single event maximum sound pressure level).

Queensland Rail has prepared and made available to Queensland local governments "QR Guidelines for Local Governments (and/or other Assessment Managers under the Integrated Planning Act) for Assessing Development Likely to be Affected by Noise from the Operation of a Railway or Railway Activities". These guidelines encourage Queensland local governments to apply noise impact assessments to development applications requiring assessment under the Integrated Planning Act

and which are intended to be located near a railway. The noise impact assessment may require the imposition of conditions on the development to help achieve the required noise levels. Conditions may include devices such as sealed windows and/or double glazing; minimizing the window area facing a noise source; barriers for low level receivers; effective building orientation; or provision of a suitable buffer distance.

Although the Canadian environment differs somewhat from QR (the main difference being that QR is government owned), there are lessons that can be learned, including:

- QR has developed a comprehensive "Network Noise Management Plan" and carries out a detailed noise assessment if potential noise-affected receptors are identified.
- QR has prepared noise impact assessment guidelines to assist local governments in applying guidelines to development applications. The guidelines are comprehensively applied.

AE.3.1 // ROBERTS BANK RAIL CORRIDOR CASE STUDY (BRITISH COLUMBIA, CAN)

The Roberts Bank Rail Corridor (RBRC) represents a 70-kilometre stretch of tracks, connecting Canada's largest container facility and a major coal terminal at Roberts Bank (south of Vancouver) with the North American rail network. Increasing volumes of international freight are shipped as part of Canada's Pacific Gateway, through communities in the Lower Mainland.

The Corridor is comprised primarily of single rail track and currently carries up to 18 trains per day, ranging from 6,000 to 9,500 feet in length. Train traffic volume is expected to increase to 28–38 trains per day by 2021, and it is anticipated that some trains may exceed 12,000 feet in length.

Existing and Future Conditions

The Corridor contains approximately 66 road-rail crossings, of which 12 are overpasses, 38 are public street-level crossings, and 16 are private street-level crossings. Roughly 388,000 vehicles cross the tracks daily, with expected increases to 560,000 vehicle crossings per day by 2021. Future increases in train traffic and vehicular traffic presented infrastructure challenges to the existing street-level rail crossings, impeding the operational efficiency of both rail and road networks. Additionally, the significant volume of trains passing through established communities presented many challenges with respect to noise, vibration, emissions, and safety.

Improving Network Efficiency and Addressing Proximity Issues

In February 2007, the *Roberts Bank Rail Corridor: Road/Rail Interface Study* prioritized the optimal locations for investment in road-rail projects. Careful consideration was also given to selected road closures, network reconfigurations, and traffic management measures designed to maximize benefits to motorists, railways and neighbouring communities. The study also gave consideration to a number of proximity related issues including noise, vibration, emissions, and safety.

The study was a collaborative effort among Transport Canada, British Columbia Ministry of Transportation and Infrastructure, South Coast British Columbia Transportation Authority (TransLink), the Vancouver Fraser Port Authority, and the Greater Vancouver Gateway Council, with contributions from stakeholders

such as corridor municipalities and railway companies. The various agencies turned to the 2007 FCM RAC Proximity Guidelines for direction on addressing issues related to noise and vibration, safety, dispute resolution, and setbacks. The Guidelines were proven to be an effective measure and valuable resource for balancing the needs of the rail agencies, stakeholders, and community members.

Roberts Bank Railway Corridor improvements are intended to:

- Improve the flow of local traffic;
- Improve traffic safety;
- Provide for better access by emergency vehicles during train events;
- Reduce idling of vehicles at level crossings, energy use, and greenhouse gas emissions;
- Reduce or eliminate the necessity for train whistling;
- Enhance the efficiency and safety of rail operations;
- Accommodate the anticipated growth in trade-related traffic; and
- Increase national trade competitiveness by increasing goods-movement along the corridor.

Results and Outcomes

The twelve partners are working proactively to improve road access and safety for local residents by providing alternate routes over increasingly busy railways. In total, eight overpasses and one rail siding project in the RBRC Program will be constructed by 2014. Additional rail improvements will reduce requirements for whistle blowing, close rail crossings to vehicular traffic, and provide an advanced early warning system that will notify drivers of approaching trains.

APPENDIX F //
GLOSSARY

Berm

A mound constructed of compacted earth that is situated within the setback area of a property adjacent to a railway line. Berms function of safety barriers, screen undesirable views, and reduce noise.

Crash Wall

A concrete structure often incorporated into the podium of a high-density building adjacent to a railway line that is designed to provide the equivalent resistance in the case of a train derailment as a standard berm.

Noise Impact Study

A study, undertaken by a qualified acoustic consultant, which assesses the impact of all noise sources on a subject property, and determines the appropriate layout, design, and required control measures.

Low Occupancy Podium

A building podium containing non-sensitive uses such parking, retail, or the common elements of a condominium. A low occupancy podium will never contain residential uses.

Railway Corridor

The land which contains a railway track or tracks, measured from property line to property line.

Rail Crossing

A crossing or intersection of a railway and a highway, at grade.

Railway

Any company which owns and operates one or more railway lines.

Railway Line

The physical tracks on which trains operate. Railway lines may be categorized as either a Main Line, Branch Line, or Spur Line, based on the speed and frequency of trains (see Appendix B for a sample rail classification system).

Railway Facility

Any structure or associated lands related to the operation of a railway. Railway facilities include railway corridors, freight yards, and train stations.

Railway Operations

Any activity related to the operation of a railway.

Recommended Setback

The recommended separation distance between a rail corridor and a sensitive land use, such as a residence.

Sensitive Land Uses

A land use where routine or normal activities occurring at reasonably expected times would experience adverse effects from the externalities, such as noise and vibration, generated from the operation of a railway. Sensitive land uses include, but are not limited to, residences or other facilities where people sleep, and institutional structures such as schools and daycares, etc.

STC Rating

STC stands for Sound Transmission Class, and is a single-number rating of a material's or an assembly's ability to resist airborne noise transfer. In general, a higher STC rating indicates a greater ability to block the transmission of noise.

Vibration Impact Study

A study, undertaken by a qualified acoustic or vibration consultant, which assesses the level and impact of vibration on a subject property, determines whether vibration mitigation is necessary, and recommends mitigation options based on the particular conditions of the development site in question.

APPENDIX G // LINKS & OTHER RESOURCES

Railway Association of Canada

www.railcan.ca

(includes relevant government links and links to member railway sites)

Federation of Canadian Municipalities

www.fcm.ca

(includes links to provincial affiliate associations and municipal sites)

RAC/FCM Proximity Project

www.proximityissues.ca

Government of Canada

www.canada.gc.ca

Transport Canada

www.tc.gc.ca

Canadian Transportation Agency

www.cta-otc.gc.ca

Ontario Ministry of the Environment

www.ene.gov.on.ca

Canada Mortgage & Housing Corporation

www.cmhc-schl.gc.ca

Operation Lifesaver

www.operationlifesaver.ca

Safe Communities

www.safecommunities.ca

Queensland Rail

www.corporate.qr.com.au

Queensland Department of Transport and Main Roads

www.tmr.qld.gov.au

New South Wales Department of Planning

www.planning.nsw.gov.au

APPENDIX H // LIST OF STAKEHOLDERS CONSULTED

Municipalities

Borough of Plateau Montreal, City of Montreal

Borough of Riviere-des-Prairies, Pointe-aux-Trembles, City of Montreal

Bureau du Plan, City of Montreal

City of Edmonton

City of Regina

City of Saskatoon

City of Toronto

City of Vancouver

City of Welland

City of Winnipeg

Greater Moncton Planning Commission

Town of Halton Hills

Town of Orangeville

Development Industry

BILD, Policy & Government Relations

Canada Lands Company

Conservatory Group

Hullmark Development

Montreal Design Zone

Namara Developments

Ontario Homebuilders Association

Perimeter Development

Professionals

Aecom

Evans Planning

Goodmans LLP

Jablonsky Ast & Partners

Jade Acoustics Inc.

JSW+ Associates

Canadian Railways & Railroad Operators

Canadian National Railway

Canadian Pacific Railway

Metrolinx

Trillium Railway

International

American Association of Railroads

City of Melbourne, Australia

City of Washington, DC

Government of New South Wales, Australia, Policy Planning Systems and Reform

Surface Transportation Board

Provincial & Federal Ministries & Regulating Agencies

Canadian Transportation Agency

Ontario Ministry of Transportation, Goods Movement Policy Office

Province of Nova Scotia

Saskatchewan Ministry of Municipal Affairs

APPENDIX I // REFERENCES

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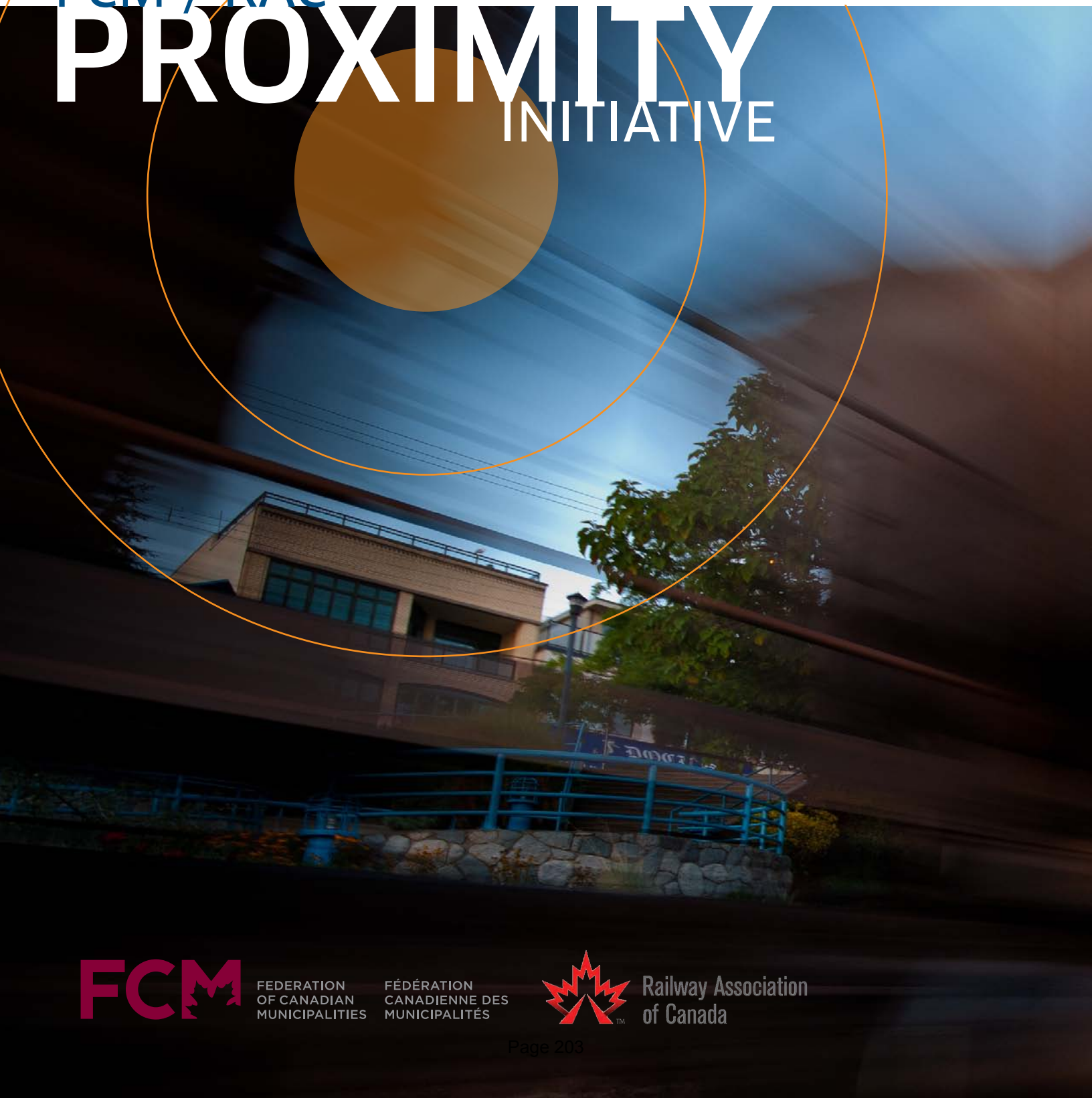
FCM / RAC

PROXIMITY INITIATIVE



FCM FEDERATION OF CANADIAN MUNICIPALITIES FÉDÉRATION CANADIENNE DES MUNICIPALITÉS

Railway Association of Canada

GOVERNANCE AND PRIORITIES COMMITTEE

Adjusting City Council Remuneration to Compensate for the Elimination of the Non-Accountable Allowance

Recommendation of the Committee

1. That, effective January 1, 2019, the Mayor's salary be adjusted to be equal to that of a Saskatchewan cabinet minister; and
2. That Administration make the appropriate amendments to *Council Policy C01-006, Remuneration – Members of City Council.*

History

The Governance and Priorities Committee, at its meeting held on November 13, 2018, considered a report from the Administration regarding the above, along with a letter submitting comments from Rodney Strohan dated November 9, 2018.

The Committee also heard from Mr. Paul Jaspar, Chair of the Municipal Review Commission, regarding the Commission's past reports with respect to City Council remuneration and recommendations in this regard.

Attachment(s)

1. Report of the City Manager dated November 13, 2018.
2. Letter submitting comments from Rodney Strohan dated November 9, 2018.

Adjusting City Council Remuneration to Compensate for the Elimination of the Non-Accountable Allowance

Recommendation
That the Governance and Priorities Committee recommend to City Council:
1. That, effective January 1, 2019, the Mayor's salary be adjusted to be equal to that of a Saskatchewan cabinet minister; and
2. That Administration make the appropriate amendments to *Council Policy C01-006, Remuneration – Members of City Council.*

Topic and Purpose
The purpose of this report is to provide options and recommendations for City Council remuneration, resulting from the Government of Canada's impending implementation of the elimination of the non-taxable allowances for certain elected officials.

Report Highlights
1. In Budget 2017, the Government of Canada announced it was removing the one-third tax exemption from the Personal Income Tax (PIT) for elected officials, effective January 1, 2019.
2. The City of Saskatoon's approach to Council remuneration was established by an independent commission and is enshrined in a Council Policy.
3. Jurisdictions across Canada that were utilizing the one-third tax exemption, or non-taxable allowance, have considered various options. The most common approach is to adjust the salary of affected officials to ensure the after-tax incomes in 2019 are equivalent to that in 2018.

Background
At the June 25, 2018, Public Hearing Meeting of City Council, Council considered a report from the Saskatoon Municipal Review Commission (SMRC) titled, "Remuneration - Benefits - Reimbursements - Allowances for Members of City Council". Council unanimously resolved:

> "That the report be received and referred to a meeting of the Governance and Priorities Committee for discussion, and to the Administration for review and written comments to the same meeting of the Governance and Priorities Committee."

The SMRC provided several recommendations relating to compensation for members of City Council. However, given the impending implementation of the Government of Canada's tax expenditure changes, this report exclusively addresses recommendation 5, which states:

> "If the federal government eliminates the non-accountable allowance (tax exemption for one-third of salary) for members of city councils, in order to

> maintain the integrity of Saskatoon's compensation model an adjustment of the Mayor's salary to 100% of a cabinet minister's salary and providing the corresponding adjustments to the salaries of Councillors will be required."

Other recommendations from the SMRC report will be presented to City Council for consideration at a future date.

Report

Elimination of Tax Exemptions for Elected Officials

In Budget 2016, the Government of Canada announced that it was undertaking a comprehensive review of federal tax expenditures. The objective of the review was to ensure that federal tax expenditures are "fair, efficient and fiscally responsible." Tax expenditures include credits, exemptions, and some benefits that are all applicable to specific taxpayers.

Under the federal personal income tax (PIT), benefits are either non-taxable or taxable. For example, the reimbursement of expenses incurred in the course of carrying out the duties of an office or employment is generally a non-taxable benefit to the recipient. By contrast, a non-accountable allowance for which an individual does not have to provide details or submit receipts to justify amounts paid is generally a taxable benefit to the recipient.

Certain officials may receive non-accountable allowances for work expenses that are not included in computing income for tax purposes. Generally, the non-accountable allowance provides a PIT exemption for one-third of the salary of elected members of provincial and territorial legislative assemblies and incorporated municipalities. According to the Government of Canada, "this exemption is only available to certain provincial territorial legislative assemblies and municipal office holders and provides an advantage that other Canadians do not enjoy".

As a result of the tax expenditure review, the Government of Canada announced in Budget 2017 that it was eliminating the non-accountable allowance for these officials. However, the reimbursement of employment expenses will remain a non-taxable benefit to the recipient. The Government of Canada also announced this measure will apply to the 2019 and subsequent taxation years to provide affected organizations more time to adjust their compensation schemes. The Government of Canada estimates that this tax expenditure resulted in $30 million in foregone annual PIT revenues.

City of Saskatoon's Approach to Council Remuneration

Saskatoon City Council has adopted a policy relating to the remuneration of the Mayor and City Councillors**:** *Council Policy C01-006, Remuneration – Members of City Council***.** The primary purpose of the policy is "to provide compensation sufficient to attract and retain competent and well qualified community-minded persons for the offices of Mayor and Councillor…". The existing policy is contained in Attachment 1.

The policy prescribes the annual remuneration for the Mayor and Councillors. According to subsection 2.2 of the Policy, the Mayor's annual remuneration shall be 85% of a Saskatchewan cabinet minister's salary and adjusted annually based on increments made to a cabinet minister's salary. The annual remuneration for a City Councillor is 46% of the Mayor's salary.

Table 1 shows the remuneration of the Mayor and City Councillors in 2018. The remuneration accounts for the one-third tax exemption, or non-taxable allowance.

Table 1: City Council Remuneration (2018)

	Annual Remuneration
Saskatchewan Cabinet Minister Salary (April 1, 2018)	$145,152
Mayor's Salary (85% of above)	$123,379
Councillor Salary (46% of above)	$56,754
Total Remuneration	$690,924

The City's general approach to Council remuneration was established by an independent commission, the Nutting Commission in 1980 and was reaffirmed in 2005 and 2016. As explained in the SMRC's 2016 Remuneration Report to Council, the Nutting Commission report recommended that the salary of the Mayor be linked to the salary of a Saskatchewan cabinet minister and the salary of a City Councillor be linked to the salary of the Mayor.

Thus, in 2005, the Mayor's salary was set to 85% of that of a Saskatchewan cabinet minister. Subsequently, the salaries of a City Councillor were set at 46% of the Mayor's salary. The 15% differential between the salary of a cabinet minister and the Mayor was adopted to account for the difference between a cabinet minister's fully taxable salary and the Mayor's partially tax-exempt salary (due to the non-taxable allowance).

Approaches to Address the Elimination of the Non-Accountable Allowance

In conducting research on this topic, jurisdictions across Canada that were utilizing the one-third tax exemption, or non-taxable allowance, have considered various options. The most common approach is to adjust the salary of affected officials to ensure the after-tax incomes in 2019 are equivalent to that in 2018. This concept is addressed more fully in Option 3.

This report address three options ranging from maintaining the existing salary structure to the aforementioned full adjustment approach. The evaluation of these options are based on various criteria such as fairness, transparency and more importantly, how well they support the spirit and intent of City Council's remuneration policy.

Option 1: Maintain the Existing Salary Structure

This option proposes to maintain the existing salary structure for the Mayor and City Councillors, as described in Table 1. This option would effectively reduce the after-tax compensation for all members of City Council. The primary advantage of this option is that it would not require any additional budgetary expenditures by the City to compensate for any potential salary adjustment.

However, there are two primary disadvantages to this option. First, the option violates the main purpose of Council's remuneration policy. Specifically, it may add a barrier to provide compensation sufficient to attract and retain competent and well qualified community-minded persons for the offices of Mayor and Councillor.

Second, this option violates the principle of fairness. The intent of the federal tax policy changes were not to necessarily reduce the remuneration of certain officials, but simply to remove the tax exemption to improve overall tax fairness. Because this measure results in a reduction in after-tax income for the Mayor and Councillors, this may create undue financial implications for those elected officials. Candidates who participated in the 2016 municipal election did so with an understanding of the City's remuneration policy.

If this option was adopted, the Mayor's after-tax income would be reduced by almost $12,000 per year or $985 per month (assuming a 28.7% combined tax rate) in 2019. Councillors would see a reduction of about $4,000 per year or $330 per month (assuming a 20.8% combined tax rate and no other income) in 2019.

Option 2: Partially Adjust the Existing Salary Structure

This option proposes to partially adjust salaries for the Mayor and, thus City Councillors, in 2019 and again in 2020. To illustrate how this would work, assume that the Mayor's salary is adjusted to 93%, approximately the mid-point difference of a Saskatchewan cabinet minister salary in 2019. A second adjustment would occur in 2020 to equalize the Mayor's salary to that of a Saskatchewan cabinet minister.

Note that a cabinet minister's salary is adjusted effective April 1 of each year. This enables the Mayor's salary to reach parity with a cabinet minister's salary over the two years, providing the same net pay levels to the Mayor and Councillors after-taxes in year two.

Table 2 shows the financial details of this option.

Table 2: City Council Remuneration with Two-Year Partial Adjustment

Option 2 (Year One)	2019 Annual Remuneration	Option 2 (Year Two)	2020 Annual Remuneration
Saskatchewan Cabinet Minister Salary (April 1, 2018)	$145,152	Saskatchewan Cabinet Minister Salary (April 1, 2019) *assumes 2% increase	$148,055
Mayor's Salary (93% of above)	$134,991	Mayor's Salary (100% of above)	$148,055
Councillor Salary (46% of above)	$62,096	Councillor Salary (46% of above)	$68,105
Total Remuneration	$755,952	Total Remuneration	$829,108
Difference from Status Quo	$65,028	Increase from 2019	$73,157

As the table shows, the potential cost increase is divided over two years. However, in year two, the analysis assumes a two percent annual increase to a cabinet minister's salary, thus, pushing up the costs in 2020 to compensate.

The primary advantage of this option is that it "eases" the cost transition to the City of Saskatoon. In other words, a partial adjustment in 2019 would result in an additional expenditure to the City of approximately $65,000 in 2019. Adjustments for year 2020 are estimated to be $73,000.

However, there are a couple of disadvantages to this option. First, many of the disadvantages explained in Option 1 are applicable to this option, so there is no need to elaborate. Second, this would create a so-called "administrative burden" in that salary adjustments would need to be made in two, or more, years.

If this option was adopted, the Mayor's after-tax income would be reduced by an estimated $375 per month (assuming a 38.5% marginal tax rate), in 2019. Councillors would see an estimated reduction of $150 per month (assuming a 33% marginal tax rate and no other income) in 2019.

Option 3: Fully Adjust the Existing Salary Structure

This option proposes to fully adjust the Mayor's salary in 2019 to 100% of that of a Saskatchewan cabinet minister. This option has been proposed by the SMRC and it essentially grosses up the compensation levels to provide the same net pay levels to the Mayor and Councillors after taxes. Several Canadian municipalities have adopted, or are adopting this approach.

Table 3 shows the financial details of this option.

Table 3: City Council Remuneration with Full Adjustment

Option 3	2019 Annual Remuneration
Saskatchewan Cabinet Minister Salary (April 1, 2018)	$145,152
Mayor's Salary (100% of above)	$145,152
Councillor Salary (46% of above)	$66,770
Total Remuneration	$812,851
Difference from Status Quo	$121,928

There are three primary advantages of this option. First, it maintains the spirit and intent of City Council's remuneration policy. Second, it ensures fairness as the option proposes to ensure that the after-tax incomes of the Mayor and Councillors are maintained. Finally, it meets transparency criteria by having Council remuneration fully linked to an independent source.

By contrast, the primary disadvantage of this option is that it increases the City's budgetary expenditures in 2019 by approximately $122,000.

Given the preceding analysis, and the work conducted by the SMRC, the Administration is recommending that Committee adopt Option 3. Option 3 best meets the evaluation criteria and follows common practices from other Canadian jurisdictions.

Options to the Recommendation

The options are addressed in the body of the report.

Public and/or Stakeholder Involvement

This report forms part of a public agenda to which citizens may submit written comment or requests to speak to the report. Moreover, because this issue requires public notice, interested citizens and stakeholders will have an opportunity to address the report prior to consideration by Committee and Council.

Policy Implications

If Council adopts the proposed recommendation, then *Council Policy C01-006, Remuneration – Members of City Council*, will require amendments to reflect the recommendation.

Financial Implications

The body of the report has provided the various financial implications for each of the options. To reiterate, if City Council adopts the proposed recommendation, then the proposed budgetary expenditure increase for 2019 would be approximately $122,000. This proposed expenditure increase is equivalent to a 0.05% impact to the municipal property tax.

In order to fund the proposed increase in 2019, Administration recommends that City Council utilize the contingency that is being held for 2019. There is approximately $300,000 in the contingency. The contingency has been set aside to protect the budget against any revenue assumptions, such as those from Assessment Growth, or any unplanned expenditures.

However, Council has four additional funding options for which to pay for this proposed expenditure increase:

- increase the municipal property tax by 0.05%;
- reduce other City Council program expenditures by $122,000, including all or a portion of City Council's Communications and Constituency Relations Allowance;
- reallocate funding from the Business Plan and Budget Options that are proposed to be addressed during Business Plan and Budget Deliberations; and
- a combination of all of the above.

Other Considerations/Implications

There are no additional communication, environmental, privacy, or CPTED implications or considerations.

Due Date for Follow-up and/or Project Completion

If Council adopts the recommendation, or Option 2, then the Administration would return in December 2018 to seek Council approval for amendments to *Council Policy C01-006, Remuneration – Members of City Council.*

Public Notice

Public notice is required for consideration of this matter, pursuant to Section 3(m) of Policy No. C01-021, Public Notice Policy. It will be advertised in accordance with Public Notice Policy No. C01-021. A notice will be placed in The StarPhoenix seven days prior to the public hearing.

Attachment

1. *Council Policy C01-006, Remuneration – Members of City Council*

Report Approval

Written by:	Mike Jordan, Director of Policy &Government Relations
Reviewed by:	Patricia Warwick, City Solicitor
	Joanne Sproule, City Clerk
	Clae Hack, Director of Finance
Approved by:	Jeff Jorgenson, City Manager

CITY OF SASKATOON COUNCIL POLICY

NUMBER
C01-006

POLICY TITLE *Remuneration – Members of City Council*	**ADOPTED BY:** *City Council*	**EFFECTIVE DATE** *January 1, 1980* **UPDATED TO** *June 27, 2016*
ORIGIN/AUTHORITY *Personnel and Organization Committee Reports 6-1980, 6-1992 and 7-1985; City Commissioner Reports 38-1985 and 4-1987; A Committee of the Whole Council Report No. 4-1986; Executive Committee Reports 12-1996, 14-2005; City Council Resolutions of June 13, 2005, September 12, 2011; and Governance and Priorities Committee, Item 9.11.1 – June 27, 2016.*	**CITY FILE NO.** *CK. 4670-5*	**PAGE NUMBER** *1 of 3*

1. PURPOSE

To provide compensation sufficient to attract and retain competent and well qualified community-minded persons for the offices of Mayor and Councillor and to provide for a death benefit to assist the family of a member of Council who dies while in office.

2. POLICY

2.1 General

a) The Mayor and Councillors shall be compensated for services rendered on behalf of the City of Saskatoon.

b) The remuneration shall be consistent with provisions of The Cities Act and shall be subject to approval of City Council.

2.2 Annual Remuneration

a) Mayor –The Mayor's annual remuneration shall be 85% of a Cabinet Minister's salary and adjusted annually based on increments made to a Cabinet Minister's salary.

b) Councillors – Councillors' annual remuneration shall be 46% of the Mayor's salary.

c) Deputy Mayor - All Councillors shall be deemed to have received remuneration in recognition of Deputy Mayor duties as part of their annual remuneration as Councillors.

d) No remuneration shall be paid to a member of Council appointed to a Board that is under the jurisdiction of Council.

e) Upon the death of a member of Council while in office, a payment will be made to the member's designated beneficiary of an amount equal to one month's salary for each period of twelve months of service to a cumulative lifetime maximum of twelve months.

2.3 Expenses

a) General Expenses - One-third of the annual remuneration paid to a member of Council shall be designated as having been paid in respect of general expenses incurred incidental to the discharge of the duties of the respective office.

b) Out-of-town Expenses - A member of Council, absent from the City on business of Council or attending a convention, shall, pursuant to authorization of Council, receive $100.00 per day plus reimbursement for actual expenses incurred.

c) In-town Expenses - A member of Council attending in-town business on behalf of Council, shall be reimbursed for all actual expenses incidental to such business, to a maximum of $100.00 per day.

d) Councillors shall be reimbursed for use of their personal vehicle for City business, based on a per kilometre reimbursement equal to the limits set by the Canada Revenue Agency for tax-exempt allowances for the use of personal vehicles.

e) All Councillors' expenses require authorization by His Worship the Mayor.

CITY OF SASKATOON
COUNCIL POLICY

NUMBER
C01-006

POLICY TITLE	EFFECTIVE DATE	UPDATED TO	PAGE NUMBER
Renumeration – Members of City Council	*January 1, 1980*	*June 27, 2016*	*3 of 3*

3. RESPONSIBILITIES

3.1 Governance and Priorities Committee - shall be responsible for reviewing any updates to this policy.

3.2 City Council – shall be responsible for approving any updates to the policy.

4670-5

From: City Council
Sent: Friday, November 09, 2018 12:44 PM
To: City Council
Subject: Form submission from: Write a Letter to Council

Submitted on Friday, November 9, 2018 - 12:43
Submitted by anonymous user: 71.17.211.74
Submitted values are:

Date: Friday, November 09, 2018
To: His Worship the Mayor and Members of City Council
First Name: Rodney
Last Name: Strohan
Email: [redacted]
Address: [redacted] Adelaide Street East
City: Saskatoon
Province: Saskatchewan
Postal Code: S7J-[redacted]
Name of the organization or agency you are representing (if applicable):
Subject: Pay Raises
Meeting (if known):
Comments:
After all the tax increases that this current council implemented and along with the garbage pick up fee proposal you honestly feel that you all deserve a raise.
All I see is a bunch of representitives at council meetings playing with their cell phones texting and looking at pictures.
Please do not say that it is city business because we all know that you would be lying and honest politicians do not lie or at the very least not supposed to.
The council member I elected turned out to be a disappointment and is the last person that deserves a raise along with this current council,your telling us to pay more and you give yourself raises.
ABOSULETLY PATHETIC
Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/265999

THE STARPHOENIX, SATURDAY, NOVEEMBER 10, 2018
THE STARPHOENIX, TUESDAY, NOVEMBER 13, 2018

PUBLIC NOTICE:
CITY COUNCIL REMUNERATION AND ALLOWANCES

Reports of the Governance & Priorities Committee will be tabled with City Council at its Public Hearing Meeting to be held on Monday, November 19, 2018 at 6:00 p.m. in the Council Chamber, City Hall, setting out recommendations with respect to:

- Salary adjustments to the Mayor and Councillors remuneration; and
- Amendments to Council Policy C01-006, Remuneration – Members of City Council
- Reimbursement of dependent care when travelling or attending events for City Council business.

The Cities Act, Section 101, requires that City Council give public notice under its Public Notice Policy before setting remuneration for members of Council.
For more information, contact the City Clerk's Office at **306-975-3240**.

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Wednesday, November 14, 2018 5:38:58 PM

Submitted on Wednesday, November 14, 2018 - 17:38
Submitted by anonymous user: 207.47.227.181
Submitted values are:

Date: Wednesday, November 14, 2018
To: His Worship the Mayor and Members of City Council
First Name: SHANE
Last Name: PRPICH
Email: [redacted]
Address: [redacted] Trotchie Ct
City: SASKATOON
Province: Saskatchewan
Postal Code: [redacted]
Name of the organization or agency you are representing (if applicable):
Subject: Adjusting City Council Remuneration to Compensate for the Elimination of the Non-Accountable Allowance
Meeting (if known): PUBLIC HEARING MEETING OF CITY COUNCIL on Monday, November 19, 2018, 6:00 p.m.
Comments:
I would like to speak to the report of Adjusting City Council Remuneration to Compensate for the Elimination of the Non-Accountable Allowance at the PUBLIC HEARING MEETING OF CITY COUNCIL on Monday, November 19, 2018, 6:00 p.m.

As a Citizen of Saskatoon I am being told that the increase was just to offset the loss of Federal Tax Exemptions, but when I read the report the recommended salary adjustments are well above and beyond those numbers and I WANT ANSWERS!
Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/266480

City Council
City of Saskatoon

The Saskatoon Citizens Committee for Remembrance Day presents to you for consideration, that the city of Saskatoon proclaim the week of November 6 – 12, 2018 as Veterans Week and that the Royal Canadian Legion Poppy Flag be flown at City Hall for that week.

Lest We Forget,

Brent Wignes
Chairman
Saskatoon Citizens Committee for Remembrance Day

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Tuesday, October 30, 2018 12:56:10 PM
Attachments: sample_proclamation.pdf

Submitted on Tuesday, October 30, 2018 - 12:55
Submitted by anonymous user: 24.72.25.150
Submitted values are:

Date: Tuesday, October 30, 2018
To: His Worship the Mayor and Members of City Council
First Name: Cindy
Last Name: Babcock
Email: [redacted]
Address: [redacted]
City: Regina
Province: Saskatchewan
Postal Code: [redacted]
Name of the organization or agency you are representing (if applicable): John Howard Society of Saskatchewan - Provincial Office
Subject: Proclamation - Restorative Justice Week
Meeting (if known):
Comments:
Background Information: We would like to ask the Mayor and City Council to proclaim Restorative Justice Week. Restorative Justice Week will be held in Canada, and throughout the world, from November 18-25, 2018. The theme for #RJWeek is Inspiring Innovation.
Restorative Justice is a philosophy and an approach that views crime and conflict as harm done to people and relationships. It is a non-adversarial, non-retributive approach to justice that emphasizes healing in victims, accountability of offenders, and the involvement of citizens in creating healthier, safer communities. The goal is to reach meaningful, satisfying, and fair outcomes through inclusion, open communication, and truth.

I have attached a sample proclamation for your information. Thank you. Best, Cindy
Attachments:
sample_proclamation.pdf: https://www.saskatoon.ca/sites/default/files/webform/sample_proclamation_0.pdf

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/265005

WHEREAS, in the face of crime or conflict, restorative justice offers a philosophy and approach that views these matters principally as harm done to people and relationships; and

WHEREAS, restorative justice is a non-adversarial, non-retributive approach to justice that emphasizes healing in victims, accountability of offenders, and the involvement of citizens in creating healthier, safer communities.

WHEREAS, this year's theme for Restorative Justice Week is ***"Inspiring Innovation"***, it is an opportunity to learn about restorative justice, educate and celebrate along with other communities across the country during the week.

THEREFORE, *I,* _____, *do hereby*
(Title and Name),

proclaim ***November 18 - November 25, 2018 as Restorative Justice Week*** *in the*

_____ *of* _____.
(type of municipality) (name of municipality)

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Thursday, October 25, 2018 6:34:41 PM

Submitted on Thursday, October 25, 2018 - 18:34
Submitted by anonymous user: 184.151.222.139
Submitted values are:

Date: Thursday, October 25, 2018
To: His Worship the Mayor and Members of City Council
First Name: Kevin
Last Name: Kardynal
Email: [redacted]
Address: [redacted] Haslam Place
City: Saskatoon
Province: Saskatchewan
Postal Code: [redacted]
Name of the organization or agency you are representing (if applicable): Ukrainian Canadian Congress - Saskatoon Branch
Subject: Holodomor Awareness Week Flag raising
Meeting (if known): Flag raising
Comments: To coincide with Holodomor Awareness Week (Nov 19-25) as declared by the City of Saskatoon, Ukrainian Canadian Congress - Saskatoon Branch is requesting that the Ukrainian, Canadian and Holodomor (black) flags be raised in Civic Square for that week. This year marks the 85thAnniversary of the Holodomor, the man-made genocide that killed millions of people in Ukraine.
Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/264409

November 1, 2018

His Worship the Mayor and Members of City Council
Office of the City Clerk
222 3rd Avenue North
Saskatoon, SK
S7K 0J5

His Worship and Members of City Council:

RE: Request for Proclamation
National Day of Remembrance and Action on Violence Against Women

The Saskatoon Women's Community Coalition is requesting that City Council proclaim December 6th National Day of Remembrance and Action on Violence Against Women. We also request that flags at all City of Saskatoon facilities fly at half-mast on that day.

Date: December 6, 2018

Description:

Why a National Day of Remembrance and Action on Violence Against Women?

December 6 is the National Day of Remembrance and Action on Violence Against Women in Canada. Established in 1991 by the Parliament of Canada, this day marks the anniversary of the murders in 1989 of 14 young women at l'École Polytechnique de Montréal. They died because they were women.

As well as commemorating the 14 young women whose lives ended in an act of gender-based violence that shocked the nation, December 6 represents an opportunity for Canadians to reflect on the phenomenon of violence against women in our society. It is also an opportunity to consider the women and girls for whom violence is a daily reality, and to remember those who have died as a result of gender-based violence. And finally, it is a day on which communities can consider concrete actions to eliminate all forms of violence against women and girls.

November and December are important months for raising awareness of gender-based violence in Canada and around the world. In addition to the National Day of Remembrance and Action on Violence Against Women on December 6, the International Day for the Elimination of Violence Against Women takes place on November 25 and marks the first day of the 16 Days of Activism Against Gender-Based Violence, which ends on December 10, with International Human Rights Day.

Activities Planned:

1. Displays at the University of Saskatchewan and Saskatchewan Polytechnic. These displays will raise public awareness about violence against women and honour the memory of all women who have lost their lives to gender-based violence.
2. Public displays including posters and informational postcards

Thank you for considering our request. If you require further information, please contact me at:

Saskatoon Women's Community Coalition
535 Mendel Terrace
Saskatoon, SK S7J 5J6

Sincerely,

June Zurowski

June Zurowski
Treasurer
Saskatoon Women's Community Coalition

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Friday, November 02, 2018 9:46:42 AM

Submitted on Friday, November 2, 2018 - 09:46
Submitted by anonymous user: 70.64.112.123
Submitted values are:

Date: Friday, November 02, 2018
To: His Worship the Mayor and Members of City Council
First Name: Sarah
Last Name: Fang
Email: [redacted]
Address: [redacted] Avenue F N
City: Saskatoon
Province: Saskatchewan
Postal Code: [redacted]
Name of the organization or agency you are representing (if applicable): AIDS Saskatoon
Subject: Flag Raising for AIDS Awareness Week
Meeting (if known):
Comments:
To His Worship the Mayor and Members of City Council,

I am writing to request the use of Civic Square for the raising of the Saskatchewan HIV Awareness Flag to mark the beginning of AIDS Awareness Week. We hope to raise the flag on Monday, November 26th, 2018 at 2:00pm. This would be the second annual HIV Awareness Flag raising to take place (last year it was on Monday, November 27th, 2017).

Please let me know what other information you require, and I would be happy to provide it.

Thanks,
Sarah Fang
Education & Prevention Coordinator
AIDS Saskatoon
Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/265352

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Tuesday, November 06, 2018 3:58:10 PM

Submitted on Tuesday, November 6, 2018 - 15:58
Submitted by anonymous user: 24.72.11.116
Submitted values are:

Date: Tuesday, November 06, 2018
To: His Worship the Mayor and Members of City Council
First Name: Megan
Last Name: Jane
Email: [redacted]
Address: [redacted] Gardiner Park Court
City: Regina
Province: Saskatchewan
Postal [redacted]
Name of the organization or agency you are representing (if applicable): Saskatchewan Construction Association
Subject: Saskatchewan Construction Week Proclamation
Meeting (if known):
Comments:
Good Afternoon Mayor Charlie Clark,

I am reaching out to you from the Saskatchewan Construction Association.

You may be aware that for the last couple of years, in the Spring, we have launched and celebrated a province-wide 'Saskatchewan Construction Week'. In years past, both the provincial government (Ministry of Trade and Economy), and the City of Prince Albert, have officially proclaimed Saskatchewan Construction Week (SCW), for which we were so grateful.

We are hoping that the City of Saskatoon would be willing to make that proclamation as well for 2019. SCW is dedicated to celebrating the social and economic contributions that construction makes to Saskatchewan, and the quality of life Saskatchewan residents enjoy.

The dates for SCW 2019 are April 8-12, 2019 and the website (www.constructionweek.ca) containing events for the week is being updated as I write this letter.

Please let me know if there is anything further I can do to help accommodate this request.

Thank you.
Sincerely,
Megan Jane, Executive Coordinator, Saskatchewan Construction Association

Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/265581

From: City Council
To: City Council
Subject: Form submission from: Write a Letter to Council
Date: Friday, November 16, 2018 9:56:03 AM

Submitted on Friday, November 16, 2018 - 09:55
Submitted by anonymous user: 69.11.123.55
Submitted values are:

Date: Friday, November 16, 2018
To: His Worship the Mayor and Members of City Council
First Name: David
Last Name: Hedlin
Email: [redacted]
Address: [redacted] Swan Crescent
City: Saskatoon
Province: Saskatchewan
Postal Code: [redacted]
Name of the organization or agency you are representing (if applicable): Amnesty International Group 33
Subject: Declaration of Human Rights Day, December 10
Meeting (if known):
Comments:
December 10 is recognized around the world as Human Rights Day. The UN Declaration of Human Rights was declared December 10, 1948, making this year its 70th Anniversary.

The legacy of 2018 is a mix of optimism and deep concern. Hope for the future depends on what every one of us do day by day. This City Council has done a lot to protect and advance the rights of all our citizens. Declaring December 10 as Human Rights Day is one more gesture, symbolic as it may be, to give courage to everyone who believes in the principles of the Declaration and its 'progeny' conventions, covenants, and understandings so many countries subscribe to and have rooted in their constitutions and systems of law.

For more information, and a brief video, see: http://www.un.org/en/events/humanrightsday/

Thank you for your attention

David Hedlin
Group 33 Secretary
Attachments:

The results of this submission may be viewed at:
https://www.saskatoon.ca/node/398/submission/266757