

102 AVENUE LRT PEDESTRIAN CROSSWALK RECOMMENDATION

RECOMMENDATION

That the May 31, 2022, Integrated Infrastructure Services report IIS00899, be received for information.

Report Purpose

Information only

This report provides information to Committee on the opportunity to pedestrianize 102 Avenue adjacent to the Valley Line LRT including scenarios that could be implemented in the short term.

Previous Council/Committee Action

The following motion was passed at the December 6, 2021 City Council Meeting:

That Administration explore the opportunity to pedestrianize 102 Avenue adjacent to Valley Line LRT and return to Urban Planning Committee with options for consideration.

Executive Summary

- This report summarizes the constraints and opportunities to pedestrianize 102 Avenue and presents insights collected from a sample of stakeholder interviews.
- This report also presents possible pedestrianization scenarios that could be implemented in the short term, along with future considerations.
- Administration focused the review of pedestrianization scenarios on 102 Avenue adjacent to the Valley Line Southeast LRT, between 97 Street and 103 Street. The review considered the closure of the single eastbound vehicle travel lane and repurposing this space for active mode use.

REPORT

Administration completed a technical review and adjacent external stakeholder outreach in response to a December 6, 2021 City Council motion to consider options for 102 Avenue pedestrianization. This report explores the feasibility of a 102 Avenue travel lane closure, summarizes the associated constraints and opportunities and provides scenarios for short-term

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implementation. It also presents future considerations that will require additional technical studies, engagement, infrastructure modifications and funding to amend the approved LRT Concept Plan.

Corridor Constraints and Opportunities Considerations

Constraints and opportunities associated with the closure of the single eastbound traffic lane on 102 Avenue are outlined in Attachment 1 and grouped based on adjacent land use, repurposing of lane space, local access, corridor safety and network operation considerations. From the corridor review, a closure of the eastbound travel lane between 97 Street and 99 Street would not be feasible as it significantly impacts vehicular access to the underground parkade and loading area at Canada Place. The focus of this report is on the segment of 102 Avenue between 97 Street and 103 Street.

The following are constraints and opportunities associated with various segments of 102 Avenue.

Constraints

- Due to existing roadway network configuration, the pedestrianization of 102 Avenue between 100 Street and 103 Street would introduce dead-ends at 102 Street and 100A Street/Rice Howard Way as there is no continuation of these roads north of 102 Avenue. The dead-end at 100A Street/Rice Howard Way could be mitigated through the existing alleyway system; existing on-street parking north of alleyway will be removed due to limited turnaround space.
- 102 Street, between Jasper Avenue and 102 Avenue, connects to three private parkade accesses and provides access to adjacent local businesses. If 102 Avenue is to be pedestrianized, the dead-end at 102 Street would require accommodation of the potential for vehicles to turn around if not accessing the parkades. Based on this configuration the intersection at Jasper Avenue and 102 Street would have to be evaluated for potential capacity constraints. Along the corridor, stakeholders expressed a desire to maintain vehicular access to buildings and event venues, especially with respect to pick-ups and drop-offs, to support business operation and accessibility accommodations.
- From a roadway network perspective, partial closure of the 102 Avenue eastbound travel lane in Downtown is expected to divert approximately 300 and 600 eastbound vehicles during the morning and afternoon peak periods respectively. Most of the traffic is anticipated to be diverted to adjacent roadways (Jasper Avenue and 104 Avenue). The adjacent corridors have sufficient capacity to accommodate the anticipated traffic volume increase. However, it is expected that there would be increased pressure and delays at intersections directly adjacent to closure locations. For example, if 102 Avenue eastbound travel lane is to be closed between 101 and 103 Street, all vehicular traffic needing to access 102 Street would be funneled through the Jasper Avenue and 102 Street intersection, likely resulting in localized delays and queuing particularly around peak periods. Prior to Covid, the City received public inquiries and stakeholder feedback on localized traffic congestion experienced on 102 Street due to ongoing 102 Avenue closures.
- Pedestrianizing 102 Avenue will introduce a break for motorists, including wayfinding challenges for motorists and active modes. The eastbound vehicle travel lane is separated

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from the north sidewalk by the LRT tracks and from the south sidewalk by bike lanes. Pedestrian use of the travel lane space would also introduce new intersection crossing considerations, while discouraging jay walking across the LRT tracks and bike lanes elsewhere. Where pedestrianization ends, there will be a need to guide pedestrians from the travel lane space, across the LRT tracks or bike lanes, back to intersection corners and 102 Avenue sidewalks. Special consideration would be required for visually impaired pedestrians to assist with corridor navigation.

Opportunities

- The pedestrianization of a vehicular travel lane and the reallocation of the space to active modes would improve safety, comfort and operation for all remaining modes on 102 Avenue. Pedestrians would have improved access along the corridor and the overall bike network operations may benefit from reduced conflicts with vehicles.
- The overall severity of conflict points with vehicles at intersections is expected to be reduced with removal of the eastbound vehicular traffic; however, additional conflict points are introduced between pedestrians-cyclists and pedestrians-LRT. For pedestrian-cyclist conflicts, it is anticipated that active modes could likely self-regulate in the short term.
- There are different types of pedestrianization. While current land use may not support a pedestrian mall design where a street is lined with store fronts with minimal vehicular access, closing the vehicle lane on 102 Avenue could create a high quality, vehicle-free mobility corridor similar to 7th Avenue in Downtown Calgary. Aside from reducing conflicts, vehicle-free mobility corridors can also create a more attractive and comfortable environment for active transportation due to the reduced noise and car exhaust. Pedestrian use may increase due to the more attractive walking environment, and it is anticipated that cyclist and other active mode usage would increase as the Downtown bike network becomes more cohesive.

Other Considerations

- Stakeholder feedback indicated that there is generally reserved interest by the area business community to support City initiatives on the closed travel lane space, with the hope of drawing additional pedestrian traffic in and around the Downtown core. However, there was a strong sense from the business community that their main focus in the short term is COVID recovery and that it would be unrealistic to expect businesses to lead any programming initiatives in the short-term timeframe. There is also a sentiment that the Downtown core has experienced significant changes over the past few years and that, in general, everyone could benefit from a period of status quo for observation and adjustment prior to other large-scale changes.
- From a pedestrian activity perspective, the current mixed land along 102 Avenue may not be conducive to generating or supporting pedestrian activity within the streetscape. The eastbound travel lane width ranges from 3 meters to 3.3 meters. With the need to maintain emergency access it would prevent the inclusion of any fixed landscape or streetscape enhancements, it would be considered a less desirable space for formal programming compared to nearby amenity spaces such as Churchill Square. While the operation of Valley Line LRT is expected to generate increased pedestrian activities around LRT stops, the removal

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of vehicular traffic from 102 Avenue could result in a general reduction of natural surveillance, particularly during non-peak periods.

102 Avenue Pedestrianization Scenarios

Below are 102 Avenue pedestrianization scenarios for consideration. The scenarios focus on concepts that could be implemented in the short term with minimal to no change to the 102 Avenue corridor infrastructure that is newly constructed as part of the Valley Line Southeast LRT. Based on the review of constraints and opportunities as well as stakeholder feedback, Administration does not recommend pedestrianization for the sections of 102 Avenue between 97 to 99 Street and 101 to 103 Street in the short term.

- **Temporary short term closures:**
 - Provide temporary roadway closures to accommodate special events and activities.
 - This can be achieved through current City processes.
- **Full closure of the traffic lane on 102 Avenue between 99 Street and 100 Street as a one year pilot project**
 - The closed traffic lane space will be reallocated for pedestrian movement purposes.
 - Interrupts Downtown 102 Avenue roadway network, but does not directly impact local vehicular access.
 - Reduces vehicular conflict points with other transportation modes at 99 Street and 100 Street intersections.
 - North-south travel on 99 Street and 100 Street would be maintained.
 - A one year pilot would allow for assessment of travel patterns for the different modes along the linear section and how to best accommodate them long-term.
- **Full closure of the traffic lane on 102 Avenue between 99 to 101 Street as a one year pilot project**
 - The closed traffic lane space will be reallocated for pedestrian movement purposes.
 - Improves pedestrian connection between 100A Street/Rice Howard Way and the Civic Precinct area.
 - Interrupts Downtown 102 Avenue roadway network, limiting vehicular access to 100A Street/Rice Howard Way. Drivers on 100A Street would be required to use the alley south of 102 Avenue. Some on-street parking on 100A Street would be removed due to limited turnaround space north of the alleyway.
 - Pedestrian movements will need to be managed along the closed travel lane to ensure crossings occur at the appropriate locations.
 - Reduces vehicular conflict points with other transportation modes at 99 Street, 100 Street, 100A Street/Rice Howard Way and 101 Street intersections.
 - North-south travel on 99 Street, 100 Street and 101 Street would be maintained

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- A one year pilot of the closure would allow for assessment of the desired lines for the different transportation modes along the linear sections and across intersections, and how to best accommodate them long-term.

Future Considerations:

- With the opportunity to implement a pilot short term closure Administration would have an opportunity to gain a greater understanding of opportunities and constraints. Administration recommends the following if considering a longer term approach to pedestrianizing 102 Avenue:
 - A planning study would identify potential Downtown corridors best suited for a pedestrian focused design. Further public engagement activities would inform the planning study to ensure feedback from the public is incorporated into the design.
 - Additional design, safety assessments, as well as an LRT concept plan amendment would also be required. Stakeholders expressed a desire for further engagement if a permanent travel lane closure is contemplated.
 - Permanent modification of the existing 102 Avenue corridor design will impact the existing Valley Line Southeast LRT agreement between City of Edmonton and TransEd Partners as any change would affect the infrastructure that is TransEd's responsibility to operate and maintain until December 2050. Additional financial, legal and operational factors will need to be carefully considered.
- A vibrant pedestrian-friendly corridor requires conscientious design for pedestrian comfort and safety. It considers the allocation of space, the introduction of streetscape elements and the development of complementary active storefronts and building edges to generate interest and activity, while at the same time, considering the local access needs for loading and emergency vehicles. While the current mixed land use along 102 Avenue is generally not conducive to a pedestrian mall design, there are pockets of opportunities to coordinate with adjacent property owners to activate the ground floor commercial space to maximize pedestrian and business interface.

Budget/Financial Implications

It is anticipated that short-term closures and a one-year pilot closure of 102 Avenue can be implemented within current City budgets and processes. Further considerations will require additional funding to undertake planning and designs such as corridor studies.

Legal Implications

The City has retained TransEd Partners to design, construct, operate and maintain the Valley Line Southeast LRT until December 2050. Permanent infrastructure or operational changes to the current Valley Line Southeast LRT corridor will require contract changes.

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COMMUNITY INSIGHT

Administration engaged with a total of 11 area stakeholders to understand the potential opportunities and impacts associated with the travel lane closure on 102 Avenue. A summary of the feedback is presented in Attachment 2 of this report.

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The review and scenarios development was based on the diverse social, technical and business perspectives heard from area stakeholders and internal City Administration. Where appropriate, specific accessibility considerations are also highlighted within the report to increase transparency and discussion of potential impacts and opportunities for all users.

ATTACHMENTS

1. Constraints and Opportunities Matrix
2. Stakeholder Interview Summary