

Shared Pathway Considerations

Shared pathways are important facilities for enhancing mobility options for those wishing to walk, bike or roll. They are used widely throughout Edmonton in both greenfield and brownfield developments, and are widely constructed along arterial and collector roadways. However, local context is required to determine where they are best applied.

Some considerations related to the application of shared pathways are outlined below.

Right-of-way constraints: Current collector road right-of-way widths are not always wide enough to accommodate shared pathways, while local roads do not have sufficient right-of-way. Options and trade-offs can be examined to enable shared pathways to still be included. For example, there may be a preference for shrinking or removing different aspects of the carriageway (such as parking) to provide space for a shared pathway or other feature, rather than simply widening the right-of-way.

Development implications: Changes to the Complete Streets Standards and associated cross-sections to accommodate shared pathways instead of sidewalks would require a review of all current approved cross-sections and engagement with City-building partners, such as Urban Development Institute (UDI) and franchise utility companies, among others. If changes were to be made to cross-sections in the Complete Streets Standards, they would be applicable to new neighbourhoods going forward, as well as approved/developing neighbourhoods, where appropriate, through plan amendments and policy updates.

Conflicts between users: Shared pathways may not be an appropriate design solution in all locations. In areas with higher pedestrian volumes, the increased conflict between people biking or rolling and people walking can create operational and safety challenges.

Maintenance and lifecycle cost implications: Shared pathways, which are traditionally constructed using asphalt, are initially less expensive. However, they have a significantly shorter lifespan and often require more reactive maintenance than concrete sidewalks. As a result, shared pathways require more capital and operating interventions throughout the same time period.

The conversion from a 1.8 metre concrete sidewalk to a 3.0 metre asphalt pathway requires careful consideration of several factors. Some of the maintenance challenges include:

- Asphalt typically deteriorates faster than concrete (30 years vs. 50 years), leading to more frequent maintenance and replacement.
- Settlement on asphalt pathways is also more common, which can result in uneven surfaces and increased ponding which can impact proper drainage across the pathway.
- The wider pathway (3.0 metres asphalt shared pathway compared to minimum 1.8 metre concrete sidewalk) would increase the amount of hard surfaced area within the right-of-way and could result in an increase of drainage entering the stormwater system.
- Within existing local and collector right-of-ways, implementing a shared pathway could reduce the amount of boulevard space. With less boulevard, water will have a more difficult time dissipating (absorb and run off).
- While asphalt is cheaper to construct initially, it becomes more expensive to maintain over time. The increased footprint of the pathway results in higher replacement and maintenance/repair costs.
 - The cost to replace an asphalt shared pathway, in comparison to a concrete sidewalk, is approximately 113 per cent more.
 - The cost for repair and maintenance activities is estimated at 239 per cent more for shared pathways in comparison to concrete sidewalks. This only includes costs associated with direct activities, Indirect and overhead costs are excluded.

Snow and Ice Control (SNIC) Implications: Expansion of the shared pathway network will have impacts on snow and ice control.

- The City currently completes snow and ice control for shared pathways, while sidewalks are often the responsibility of adjacent property owners.
- If there is an existing sidewalk that SNIC maintains that is converted to a shared pathway, the addition of this inventory is a 50 per cent cost increase (due to the second pass). An additional machine and FTEs would be needed for every 60 km.

Attachment 3

- For new infrastructure, or an existing sidewalk that was not previously cleared by the City, the addition of this inventory is a 100 per cent cost increase to the winter maintenance costs for that area. An additional machine and staff is needed for every 30 km of added inventory.
- If the City had primarily shared pathways instead of sidewalks, the Snow and Ice Control Policy C409K may require updates, and prioritization of infrastructure maintenance activities would need to be examined in more detail.