

Improving Accessibility and Reducing Injuries through Snow and Ice Control

TT2018-0467
SPC on Transportation
and Transit





Previous Council Direction or Policy

In 2016 January, Council approved a pedestrian strategy called ***Step Forward*** that envisions a safer, more inviting and better maintained realm for pedestrians.

This plan set out 49 actions for Administration to take to achieve this goal, to encourage walking more often as a transportation mode. Four of these actions were directly related to snow and ice control for pedestrian spaces.

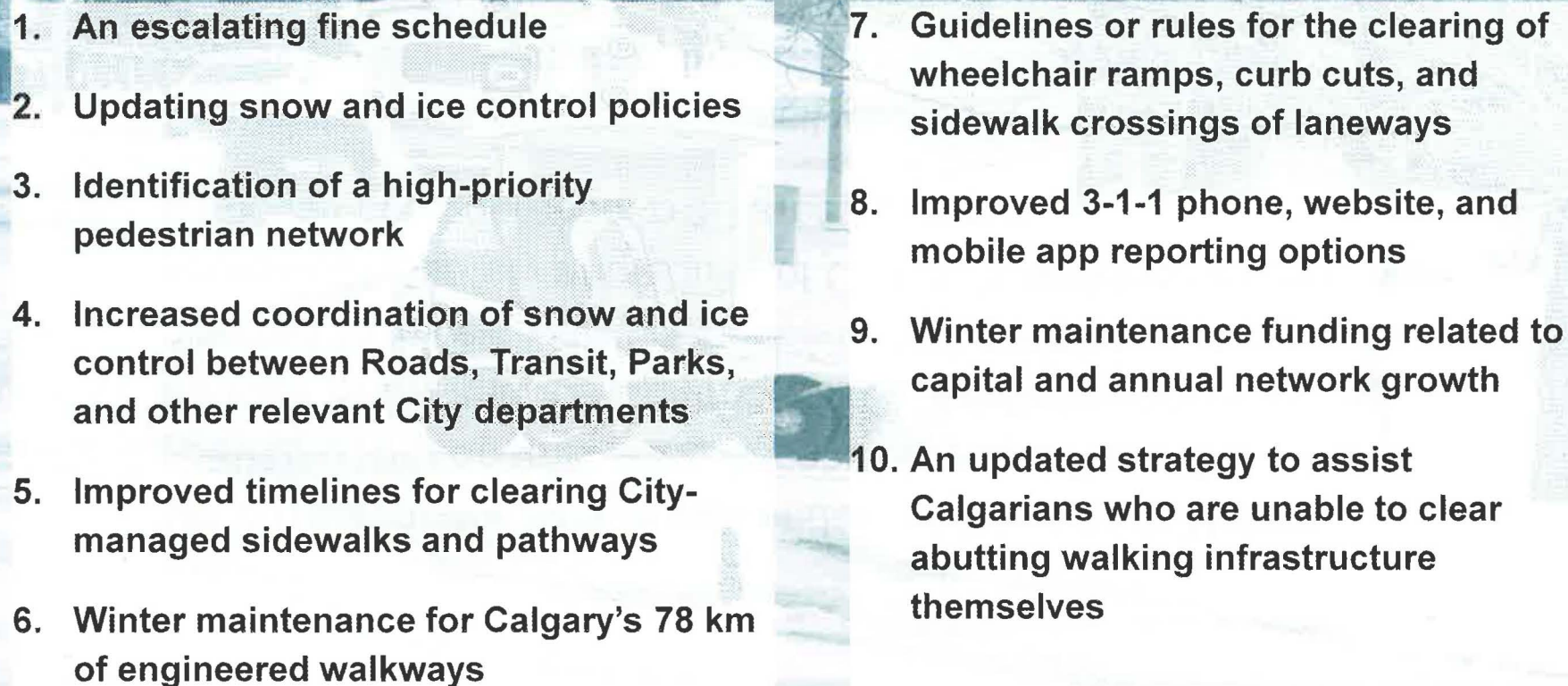
Previous Council Direction or Policy

On 2018 January 29, Council endorsed a Notice of Motion (C2018-0107) on Improving Accessibility and Reducing Injuries through Snow and Ice Control (SNIC). Administration was directed to review walking-focused SNIC policies to improve the accessibility, safety and equity of Calgary's walking network, with particular consideration to 10 areas of focus.

Administration's report to Council would contain options to improve walking-focused snow and ice control, including One Calgary budget impacts, returning through the Standing Policy Committee on Transportation and Transit by the end of Q2 2018.



10 Areas of Focus

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- A background image showing a snowy street scene with trees and a building in the distance.
1. An escalating fine schedule
 2. Updating snow and ice control policies
 3. Identification of a high-priority pedestrian network
 4. Increased coordination of snow and ice control between Roads, Transit, Parks, and other relevant City departments
 5. Improved timelines for clearing City-managed sidewalks and pathways
 6. Winter maintenance for Calgary's 78 km of engineered walkways
 7. Guidelines or rules for the clearing of wheelchair ramps, curb cuts, and sidewalk crossings of laneways
 8. Improved 3-1-1 phone, website, and mobile app reporting options
 9. Winter maintenance funding related to capital and annual network growth
 10. An updated strategy to assist Calgarians who are unable to clear abutting walking infrastructure themselves

Current State of Snow and Ice Control

Snow and Ice Control (SNIC) Policy and the 7-Day Plan

Established the priorities, standards and service levels of The City's snow and ice control operations for streets and sidewalks

The SNIC Policy lays out response targets that are focused primarily on the roadway conditions



COUNCIL POLICY

Policy Title: Snow and Ice Control Policy

Policy Number: TP004

Report Number: TTP2003-39, C2007-44, LPT2011-57

Approved by: City Council

Effective Date: Interim policy approved 2009 December 14 and amended 2011 June 20

Business Unit: Roads

BACKGROUND

The City of Calgary Roads business unit is responsible for The City's snow and ice control program and is committed to helping make The City of Calgary safe for pedestrian and vehicle passage along the developed rights-of-ways according to the City-Council approved policy and priority system.

The Snow and Ice Control Policy is necessary to make a clear statement of the intent of the City of Calgary winter maintenance operations and establish the priorities, standards and service levels of the snow and ice control program. An effective and efficient snow and ice control program is necessary to allow the municipality to function under normal winter weather conditions to reduce snow and ice hazards and to provide reasonable winter mobility on City infrastructure including roadways, sidewalks and pathways.

The City of Calgary will manage snow and ice control operations on City infrastructure within City of Calgary Right of Ways in accordance with Council approved policy and priority system, relevant City Bylaws and the Municipal Government Act (MGA).

The intent of the snow and ice control program is to minimize the economic loss to the community, reduce the inconvenience and hazards of winter conditions for motorists, cyclists and pedestrians, and facilitate the operation of Transit and Emergency Services vehicles.

The aim of the Snow and Ice Control Policy is to provide reasonable winter driving conditions for vehicles/cycles that are:

- properly equipped for winter driving; and
- are operated in a manner consistent with good winter driving habits.

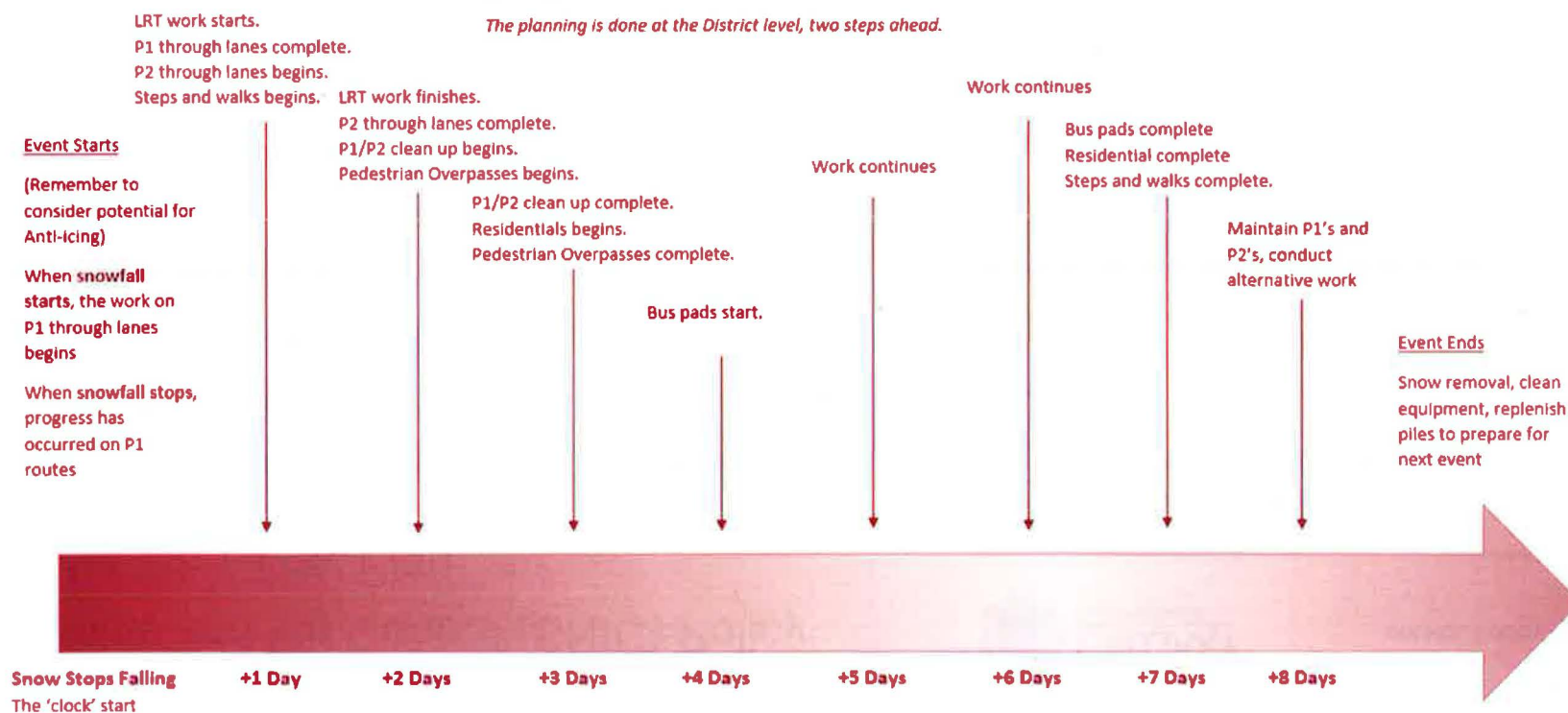
It is expected that there will be Extreme Winter Conditions where the immediate demand for snow and ice control services will exceed the available resources. Public Service Announcements will be issued at these times to provide information and to encourage safe driving practices in these poor driving/cycling conditions. In the event of Extreme Winter Conditions additional funding may be accessed with City Council approval.

Background

SNIC RESPONSE TIME FRAMES – SNOW EVENT START TO END

Once the snow event begins, Districts authorize OT as required to meet timelines.

The planning is done at the District level, two steps ahead.



Current Investment

Calgary	
Km of Sidewalks	5,681
Km of Sidewalks Cleared by City	583
Annual Snow Fall	126.4 cm
2017 Sidewalk Clearing Budget	\$3.4 million
Overall 2017 SNIC Budget	\$39.2 million
% Allocated to Sidewalk Clearing	8.6%

Lower percentage of SNIC investment for sidewalks than other winter cities:

12.2% - 21.1%

Council added \$2M in 2015-2018 budget for priority bus stops (700) to be cleared within 24 hours

Recent Improvements

2018 Snow Storms

Increased focus on pedestrian facilities in the downtown area:

- ❖ More staff called in to complete clearing within four days instead of 6-7 days
- ❖ Staff start times were adjusted to get a head start on sidewalks prior to the AM rush hour
- ❖ Leveling of windrows at crosswalks were also done as required





Making the Case for Investment

2018 Survey Results



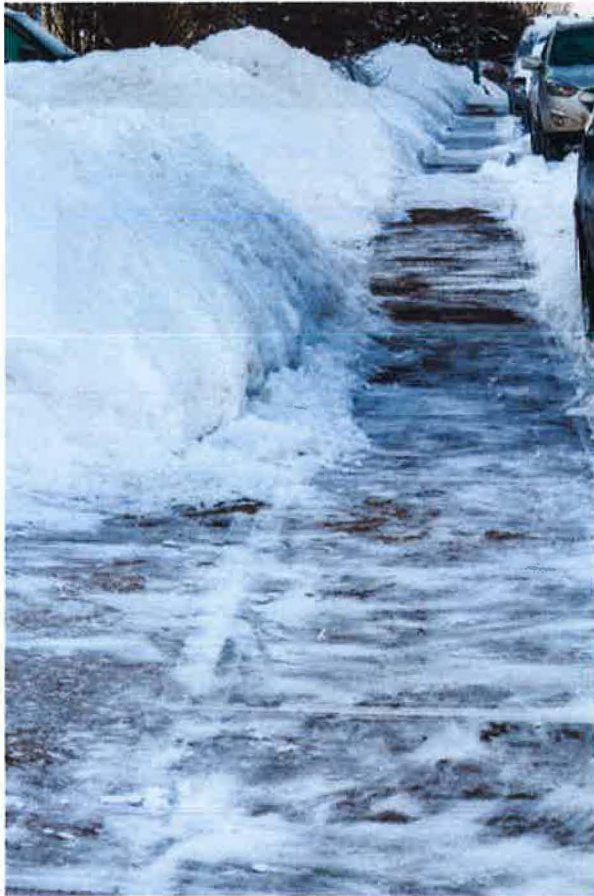
Community Engagement

Slips and Injury Reporting

2016 Pedestrian Strategy

Action 30	Enhance SNIC control operations to reduce obstructions at transit stops and road crossings in high pedestrian activity areas
Action 31	Undertake an assessment of engineering walkways and develop a management plan
Action 36	Increase the snow clearing response time to 24 hours of a snow event on City-managed sidewalks in high pedestrian activity areas
Action 49	Investigate ways to encourage property owners to undertake prompt snow and ice clearing from sidewalks

Fines and Penalties



No current fine specified for failing to clear the sidewalk of snow and ice

Warnings generally lead to compliance (89%)

Non-compliance results in City doing the work and billing the property owner

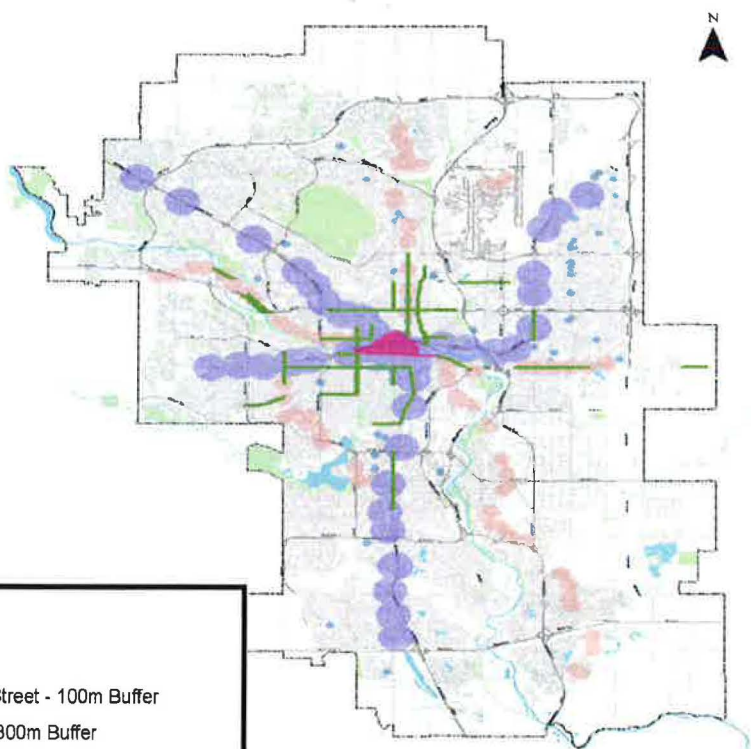
Options Presented	Proposed Penalty
Specify a Penalty for when a Summons is issued	\$250
Include an escalating penalty scale for repeat offenders	+ \$150 - \$200

Identifying a High Priority Network

MAP A

High Priority Areas Map

LRT, BRT, CBD, Main Streets, High Use Bus Stops



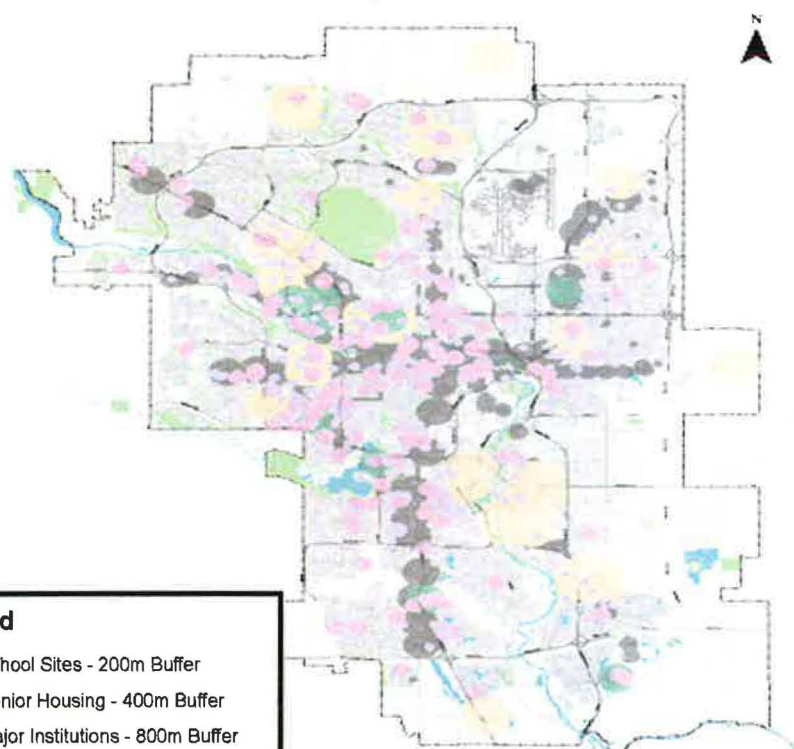
Legend

- CBD
- Main Street - 100m Buffer
- LRT - 800m Buffer
- BRT Stops - 400m Buffer
- High Use Bus Stops - 200m Buffer

MAP B

High Priority Areas Map

School Sites, Senior Housing, Major Institutions, Major Activity Centres



Legend

- School Sites - 200m Buffer
- Senior Housing - 400m Buffer
- Major Institutions - 800m Buffer
- Major Activity Centre - 800m Buffer
- MapA_All



Updating Snow and Ice Control Policies

Investment Options

Act – Achieve – Exceed

Act	Under \$10M
Clear an additional 100km of pathway	\$500K to \$1 million
Plow windrows from high-priority wheelchair ramps	\$2-3 million
Expand inventory of sidewalks & pathways that City clears	\$2.5-6 million
City-managed sidewalks in 24 hours	\$3-5 million
Clear all bus zones in 24 hours	\$4.5-6.5 million
City clears engineered walkways	\$6-8 million

Updating Snow and Ice Control Policies

Act	\$10-20 million
Clear all laneway crossings	\$12-15 million
Plow windrows from all wheelchair ramps	\$12-21 million
Achieve	\$10-20 million
Clear the High Pedestrian Use areas	\$9-14 million
Pedestrian Strategy winter walking goals	\$12-21 million
Exceed	Over \$20 million
Clear the High Priority Network	\$20-30 million
Clear all public sidewalks, walkways & pathways	\$30-40 million



Increased Coordination of SNIC Activities

SNIC Services	
Roads	Roadways, sidewalks, bus stop pads, and some pathways
Parks	Pathways and sidewalks adjacent to park spaces
Transit	LRT Stations
Other BUs	Sidewalks or pathways adjacent to their facility



Roads, Parks and Transit do regularly coordinate work

The establishment of a new Sidewalks and Pathways service line (One Calgary) will likely lead to a single, more efficient work plan for all SNIC activities

Improved Timelines for Clearing Sidewalks Next to City Property

Land Steward	Number of Parcels	Approx. Length of Sidewalk (km)
Calgary Parks	5,827	300
Roads	431	14.9
Transportation Infrastructure	113	2.4
TOTALS	6,371	317.3

Option Presented	Cost Ranges
Clear all sidewalks adjacent to City property within 24 hours	\$3-5 million



Engineered Walkways



Option 1: Adjacent Property

Bylaw amendment
to require property
owners to clear

Option 2: Blended Approach

City clear priority
walkways only
\$3-4M operating
\$2.5-3.5M capital

Option 3: Full Service

City clears all
walkways
\$6-8M operating
\$5-7M capital

SNIC for Wheelchair Ramps, Curb Cuts, and Sidewalk Crossings of Laneways



Option 1: Adjacent Property

Bylaw amendment
to require property
owners to clear

Option 2: Blended Approach

City clear lane
crossings only

\$12-15M operating

Improved 3-1-1 Reporting Options

311 Snow Related Service Requests (SR)

Roads – CCS – Parks

Year	Number
2017	26,708
2018 (Q1)	39,350

Recent Improvements

Now captures eight common concerns in a drop-down menu

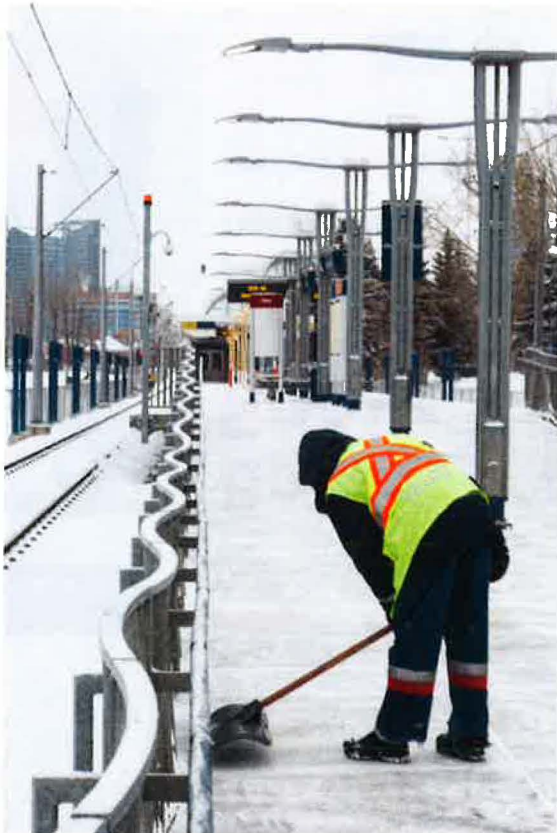
Information available online and used by 311 has been updated

Roads *Snow and Ice Control* SR reconfigured to improve customer service and increase efficiency

Future Improvements

Two projects: Live Maps and Worker App

Connect Winter Maintenance Funding with Network Growth



Network Growth has not historically been factored into the operating budget for snow and ice control activities

- ❖ Sidewalk inventory grows an average of 100 km per year
- ❖ Pathway inventory grows an average of 30 km per year
- ❖ New LRT and BRT infrastructure built and planned

Assisting Calgarians Unable to Clear Walking Infrastructure Themselves



Calgary

**Be a
Snow
Angel**

Help a
neighbour out

calgary.ca/snowangels

1,152 Volunteer Angels

Media Sponsor
CTV

Seniors Services
Home Maintenance

400 households
receive snow removal
service

SNIC Maintenance
Agreements

Six RA/HOA's
conduct additional
snow clearing in their
neighbourhood

Next Steps

Level of Service to be Decided

Council to choose from a menu of options to make the pedestrian experience in winter safer and more accessible

Policy to be updated to reflect the Service Levels

Engineered Walkways



\$6-8 million

Pedestrian Strategy



\$12-21 million

STEP FORWARD

High Use Areas



\$9-14 million

Bylaw Amendments

Administration would need to bring bylaw amendments back to Council if there are new penalties added or changes made to citizen responsibilities.

Communications

A communications campaign for all Calgarians would be necessary leading into the future SNIC seasons. Budget would need be assigned.

Budget Decisions

Based on the pedestrian SNIC service level discussions, there may be operating and capital budget scenarios to review and package for consideration in the One Calgary 2019-2022 budget. These decisions would also influence additional investment levels for the SNIC Reserve Fund.

Recommendations

That the SPC on Transportation and Transit recommends that Council receive this report for information and direct Administration to propose a budget commitment through the One Calgary process for the 2018-2019 SNIC season (and through 2019-2022) to be made at the September Strategic Council meeting.

End of Report

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