

Sidewalks & Pathways

Led by: Director of Mobility

Service Description

Mobility designs and maintains Calgary's network of sidewalks and pathways. This pathway system is one of the most extensive metropolitan pathway networks in North America. With traffic control and safety, sweeping and snow control, Mobility supports active travel modes and wheeling for all ages and abilities. Sidewalks, pathways, trails and protected on-street bikeways connect communities and provide Calgarians with safe and accessible year-round opportunities to walk, cycle, run, ride, and use mobility devices. We focus on inclusive, equitable, safe, accessible and reliable sidewalks and pathways to ensure that walking and wheeling are viable and attractive options for all Calgarians.

Service Updates

Key Service Results

Awards

John C. Bartholomew Award for Thematic Mapping

Service results include concrete construction to eliminate trip hazards & missing links, Plus 15 pedestrian bridge renovation and wayfinding maps, Peace Bridge railing rehabilitation, active & safe routes to school initiatives, painted crosswalks, and 16 Ave by 29 St NW multimodal bridge detailed design. Traffic control devices for pedestrians have also been installed to support the Always Available for All Ages and Abilities (5A) network. Replacements occurred for 5,650 metres of failing pathway assets, 134 bollards were removed to enhance accessibility, 1,200 metres of new pathways were added and signs were installed to communicate regulations and unfavourable conditions to pathway users. Crowchild Tr./Glenmore Tr. and 14 Street SW bridge to Glenmore Tr. bridge rehabilitation was also completed.

Pathways Education Signage program mobilized signage during summer & fall seasons at 18 park spaces and along pathway networks, and new infrastructure was added to snow clearing activities. Approximately 1,800 pathways-related service requests were responded to in 2023 (a 26% increase from 2022), and the average pathway service response time in 2023 was 4 days, versus 7 days in 2022.

Service Challenges

Acquiring sufficient funds to remove missing links for both sidewalks and pathways is a challenge. For certain aspects of service delivery, lack of material, equipment, staff, and contractor availability resulted in procurement difficulties and work delays. Other challenges include balancing infrastructure availability while construction, rehabilitation or maintenance of sidewalk and pathway assets occur.

Trends & Potential Uncertainties

There is a trend towards increasing costs of materials and resource unavailability. Material costs are increasing due to inflation and lack of availability, and asset deterioration with limited funding for maintenance is another trend across various assets. There is also an increase in pedestrian, accessible and active mode volumes. Coordination with other projects and programs, managing expectations and requirements related to timelines, budget and scope also present uncertainties which are mitigated through robust planning and consistent communication. Other uncertainties include schedule and cost risks due to the lack of availability of resources and internal enabling services.



Measuring Our Performance

Legend

— Actuals

■ Expected Future Performance

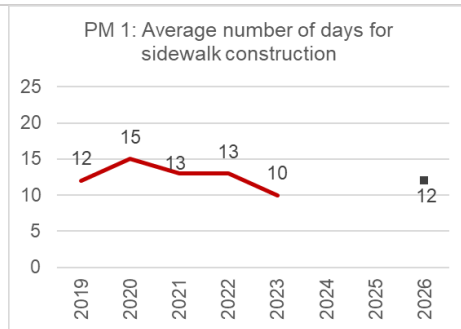
➔ Progressing as planned

⊖ Not progressing as planned

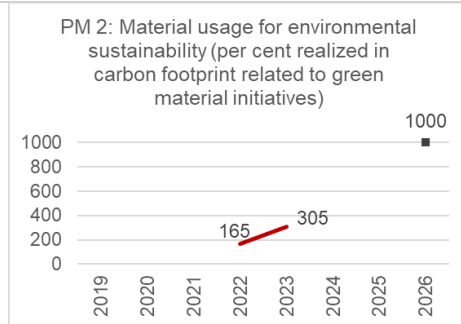
Performance Measures

Story behind the numbers

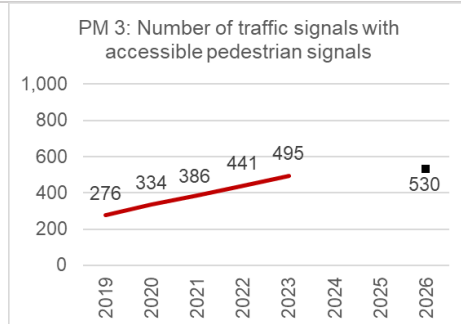
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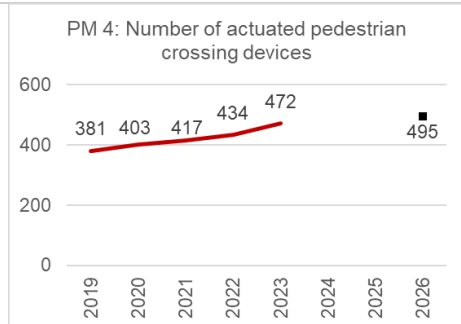
To keep sidewalks safe, concrete repairs, maintenance and construction are essential. As regular maintenance occurs, sidewalks can become unavailable for use by Calgarians, which can disrupt daily activities. Hence, this performance measure tracks the length of time it takes to complete sidewalk construction. Sidewalk construction delays occur for various reasons including weather, site constraints and procurement delays. In 2023, the average number of days for sidewalk construction reduced to 10 days, benefitting Calgarians with the timely provision of reliable and safe infrastructure.



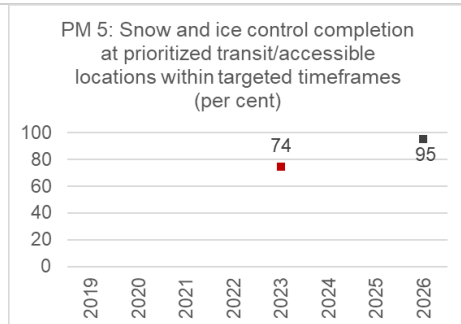
The City has increased the use of green (low carbon) cement to reduce carbon footprints. This approach aligns with the construction industry's standards of adopting sustainable materials which provide equivalent or better performance while also reducing adverse environmental impacts. In 2023, City concrete sidewalk projects resulted in 305 tonnes of carbon reduction, which is a significant increase from 165 tonnes of carbon reduction in 2022.



Accessibility is an essential component of providing a mobility network that can be used by all people, ages, and abilities. Traffic signals with accessible pedestrian signals provide equity of service to vehicular, wheeling, and pedestrian traffic on City pathways, sidewalks, crosswalks, and other parts of the network. By continuously increasing the number of traffic signals with accessible pedestrian signals, the service improves infrastructure accessibility and inclusivity for all Calgarians.



Road network crossing devices that are activated by pedestrians support safe movement across road lanes. These devices include overhead flashers, Rectangular Rapid Flashing Beacons (RRFBs), and pedestrian signals. The increase in actuated pedestrian crossing devices supports multiple modes of mobility and enhances safety of the transportation network.



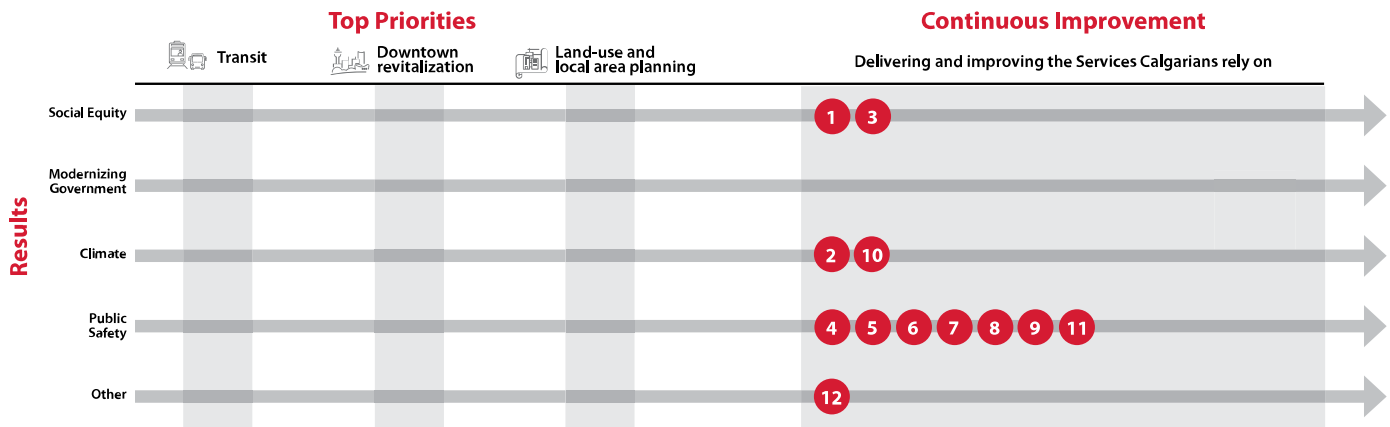
Pilot projects and testing to enable new service enhancements aim to expand the snow clearing service, enhance accessibility and support network coverage. This new annual measure reflects service response for the previous 2022/23 winter season. With multiple events involving snowfall advisories or extreme cold in the fourth quarter of 2023, performance expectations decreased slightly. However, average response times continue to trend positively. Updates to contracts and the upcoming snow and ice clearing policy approval will support snow and ice clearing in future years.







Progress on Service Delivery




Alignment with Council Refined Priorities and Result Areas



- Legend**
- Completed
 - Progressing as planned
 - Not progressing as planned
 - Not started
 - Initiative number

Initiative	Initiative Update	Status
1 Enhance support for walking and wheeling as preferred mobility choices to and beyond schools, shopping, parks, recreational and other locations by prioritizing Always Available for All Ages and Abilities (5A) routes, enabling coordinated lifecycle replacements with adjacent roadway assets and other engineering measures that connect or extend routes, and address missing sidewalk or pathway links.	In alignment with priorities for the Always Available for All Ages and Abilities (5A) network, ongoing project activities include establishing safe routes to schools, incorporating pavement rehabilitation planning, and installing traffic control devices to improve safety at high-risk crossing locations for pedestrians. Site reviews are underway to complete installations of more safety enhancements for pedestrians at crossings and intersections. Missing links have also been prioritized for construction in 2024.	
2 Provide innovative and environmentally-friendly approaches to sidewalk design and construction, and reduce carbon dioxide emissions through the exploration and implementation of carbon upcycling practices, using waste material such as fly ash in concrete sidewalks and by adopting the usage of glass materials in new use categories such as concrete construction.	Material innovation and research continues to improve the types of materials used on City infrastructure. Examples of material innovation activities include the use of concrete mixes that contain high recycled glass while maintaining or improving material durability.	
3 Improve the availability and use of sidewalks and pathways infrastructure to Calgarians by enhancing coordination, engagement, collaboration, feedback and communication activities with workgroups, supporting partners and impacted communities.	Various workgroups including internal teams, vendors, and contractors, continue to collaborate to provide safe and accessible sidewalk and pathways infrastructure. Communication across teams and procurement planning are minimizing sidewalk and pathway construction delays.	

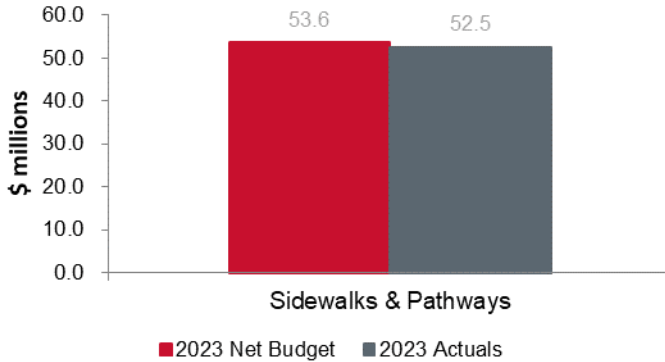
Initiative	Initiative Update	Status
4 Improve the safety, accessibility and attractiveness of the pedestrian realm through continuous improvement, design, maintenance, innovation, benchmarking, and implementation of related programs and technology such as piloting the use of heave phenomena control devices that control the expansion and contraction of concrete.	Construction and surface overlay programs added wheelchair ramps to the network. Fibre reinforced concrete was used extensively for sidewalk repairs, and plastic and steel tactile warning surface indicators are being tested for durability.	
5 Strengthen the culture of safety throughout the sidewalks and pathways network by establishing safety protocols and projects through the Safer Mobility Plan, and exploring opportunities for more social media-based campaigns and short animated clips about safe pedestrian behavior that would engage various age groups and focus on the shared responsibility of safety for all sidewalk, pathway and roadway users.	Monthly mobility safety updates occur on Calgary.ca to enhance the communication of safety initiatives to the public. A Mobility Safety Education Toolkit which includes an educational activity book and a pedestrian crossing safety video to support street safety for children is available online and in print.	
6 Enhance maintenance and functional performance through the use of collected data, analysis, reporting, forecasting, risk-based approaches and innovative equipment exploration such as the use of Segway-style paint machines for painting longer stretches or tight areas, and the use of durable marking products that make crosswalks and high pedestrian traffic areas visible even after winter and increase safety for pedestrians.	Performance management reviews and enhancements established key performance indicators. Engagement through risk assessment also provided opportunities to collaborate, and minimize or eliminate risk. Service teams were engaged to provide risk reviews, and crosswalk paint research collaborations with higher learning institutions also enhanced crosswalk safety.	
7 Provide Calgarians with stronger sidewalks that require less maintenance and have an extended lifespan through updated sidewalk designs and specifications.	A newly developed sidewalk specification is used for concrete sidewalk construction and provides Calgarians with sidewalks that are more durable, have extended lifespans, require less maintenance, and are less susceptible to freeze and thaw damage.	
8 Continually enhance responses to community traffic, walking and biking concerns or issues, through attention to 3-1-1 trends and innovative techniques to delivery efficient and effective service improvement.	Configuration and information improvements have been made to mobility service requests from Calgarians to support effective response delivery. Content for email notifications have also been reviewed and appropriately updated for all impacted service requests.	
9 Enhance snow and ice control on sidewalks and pathways by continuing to explore cost-effective methods and innovative technology-based solutions for removing snow and ice.	Snow and ice clearing material trials and project pilots to explore potentially better materials were conducted in 2023. An additional initiative began at year-end to determine cost-effective opportunities for snow and ice clearing on sidewalks and pathways.	

Initiative	Initiative Update	Status
10 Advance additional carbon dioxide emission reduction, incorporating green technologies and materials for environmental sustainability, through the use of materials such as Green Concrete which can store carbon dioxide and by replacing cement material with limestone which reduces cement content by five percent.	Use of General Use Limestone (GUL) cement to enhance environmental sustainability increased in 2023, resulting in increased carbon footprint reduction. GUL cement is specially formulated to produce lower emissions.	
11 Adopt permanent public realm enhancements by continuing to review, explore and investigate temporary options for transition towards permanent public realm structures where applicable or required.	Permanent mobility network installations have occurred where temporary installations were used to address safety issues. Engagement with communities is ongoing to transition other temporary installations to permanent structures such as permanent signage and traffic calming measures.	
12 Provide service quality and responsiveness associated with the sidewalks and pathways service by continually monitoring and reviewing overall network usage and fee schedules.	Transportation data was collected for various modes of travel including walking, cycling, driving, and wheeling. Data collected supported planning and forecasting regarding network use and trends. Customer experience analysis and material costs are also tracked to improve service responsiveness and delivery.	



Service Updates on Financial Performance

Net Operating Budget and Actuals as of December 31, 2023

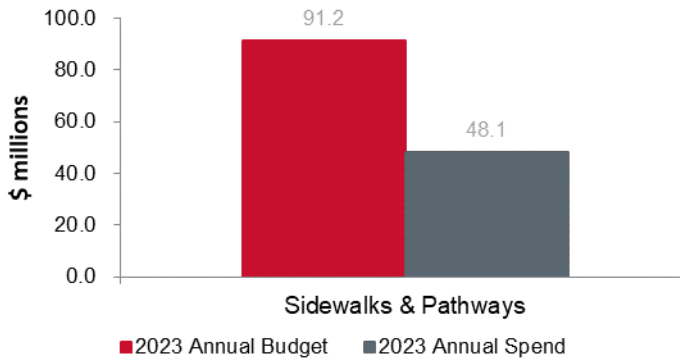


Operating Budget Updates - 2023 net operating budget vs actuals:

Sidewalks & Pathways has a favourable operating variance of \$1.1 million. The main reasons that have contributed to the variance are mild weather conditions resulting in lower winter operation spending, favourable revenue from traffic permits and concrete repairs was offset by increased costs for materials, equipment, and supplies.

Streetlight maintenance, pedestrian bridge maintenance, traffic detours and Plus 15 bridge maintenance were completed using the service's operating budget to provide Calgarians with safe, accessible, equitable and sustainable modes of travel. The operating budget also supports concrete repairs utilizing environmentally friendly materials, snow and ice clearing, and street sweeping.

Capital Budget and Spend as of December 31, 2023



Capital Budget Updates - 2023 total capital budget vs 2023 spend:

Sidewalks & Pathways capital spend rate was 52.7 per cent as of December 31, 2023. Enhancing active modes of travel, community vibrancy and public safety for Calgarians continues to be a focus. Highlights include Main Streets projects at 33 Ave SW, 17 Ave SW, and 1 Ave NE, and Community Mobility Improvement construction on 12 Street Memorial Drive. Other capital work completed include Plus 15 bridge rehabilitation, installing over 300 wheelchair ramps, and wayfinding improvements. Public Realm Investments are in conceptual design stage.

Pathway rehabilitation has also been completed for three sites, and new pathway network segment development has launched to serve local schools in Albert Park/Radisson Heights, adjacent to Radcliffe Drive and 36 Street SE. Active and Safe Routes to School Program initiatives and city-wide in-road pedestrian sign deployment are currently in progress. The service also continues to monitor procurement, project schedules, and contractor capacity for efficient budget spending and service delivery.