

Streets

Led by: Director of Mobility

Description

Our streets connect people and places throughout Calgary. We drive, walk, cycle and ride every day to and from work or school, for social or recreational activities, and to move goods and services. Streets provide critical access for emergency services and rights-of-way for all underground and overhead utilities. We provide space for on-street parking which supports businesses and residential users. We also support The City's efforts to reduce greenhouse gas emissions.

Streets are Calgary's most abundant public space, and we support nearly every service The City of Calgary provides to Calgarians.

Value and benefits

Calgarians make 2.7 million trips per day in a vehicle. These trips require a safe, well planned, and maintained street network that adapts to change, and allows for predictable travel. We strive to provide pavement surfaces that are smooth, clear in winter and clean in summer, clearly marked, and well-lit at night.

We also provide traffic signals and other controls required for safe and effective traffic management through intersections and enable the safe interaction of different users of the space. Streets require well-signed speed zones, road rules, wayfinding, and are the principal public space in the city. Streets are also a backbone of The City's built environment and enable movement between places, influence travel, drive the economy, transport goods, support future growth and allow special road use such as those requested through street-related permits.

Customers

Streets are used by the public and businesses, including freight, emergency services, and services such as Public Transit and Waste & Recycling. Private and public utilities run overhead or underground infrastructure on our rights-of-way. Street space is also used by businesses as a work space; to meet and host festivals and special events.

Partners

We partner and consult with a large variety of diverse internal and external groups to deliver services that Calgarians need. These partners include the traveling public, Alberta Transportation, developers, the construction industry, and the goods movement industry. Services and initiatives are delivered through engagement with the community, business associations and Calgary Police Service.

What we deliver

Streets infrastructure is worth over \$19 billion, which includes planning, building and maintenance of streets and alleys, bridges, traffic signals and other controls that provide safe and efficient travel. Our street lights support safe activity throughout the day. Programs such as Snow and Ice Control and Spring Clean-up allow people and goods to move freely and safely throughout the city.

1.8 billion	Trips per year as a driver or passenger
16,958	Paved lane kms of roadway
103,503	Number of streetlights maintained
64,742	Number of service requests in 2021

Key assets

The primary asset classes in the Streets service line include: Vehicular Bridges /Tunnels (200), Pavement (16,958 lane-km), Curbs and Gutters (6,836 km), Sound Attenuation Walls (96.7 km), Signalized Intersections (1,103), Street Lights (88,550 poles), Lanes (3,112 lane-km), and Fences or Barriers (336 km).



* Gross operating budget may include internal recoveries that are also included in other services' gross operating cost.

Note: Internal recoveries is how The City accounts for the costs of goods or services between services

What we have heard & what we are watching

What we have heard

Citizen Satisfaction Surveys consistently show that infrastructure, traffic, and roads networks are important to Calgarians. Calgarians rated several activities with high importance, low satisfaction and an increased willingness to invest: in snow removal, road maintenance, pothole repairs, and traffic flow management. The Fall 2021 Citizen Satisfaction Survey shows high satisfaction with the Spring Clean-up program (92 per cent) and the City's overall operation of roads and infrastructure (85 per cent). However, satisfaction is lower for snow and ice control (68 per cent), pothole repairs (70 per cent) and traffic flow management (77 per cent).

Although we rank high compared to major cities in Canada, survey results indicate the need to continue to invest in our infrastructure, traffic assets and roads networks to continue to build a prosperous and accessible city.

What Council has directed

The Streets service is committed to supporting all Council focus areas. Regarding downtown revitalization, we will continue to support programs such as 'Clean to the Core' and the seasonal patio initiative. We will continue to focus on improving mobility network accessibility for all users while also adopting environmentally sustainable methods by building and maintaining infrastructure with environmentally friendly products. As technology, business, and priorities for Calgarians change, we are attentive, innovative and modernizing policies and services through automated-vehicle delivery and Snow and Ice Control route optimization. We understand the importance of the film industry and hosting special events on our streets, which we will continue to support through efficient processes. We will support Council's direction with plans and policies such as the Calgary Transportation Plan, the Safer Mobility Plan, the Goods Movement Strategy and the Neighbourhood Streets Policy.

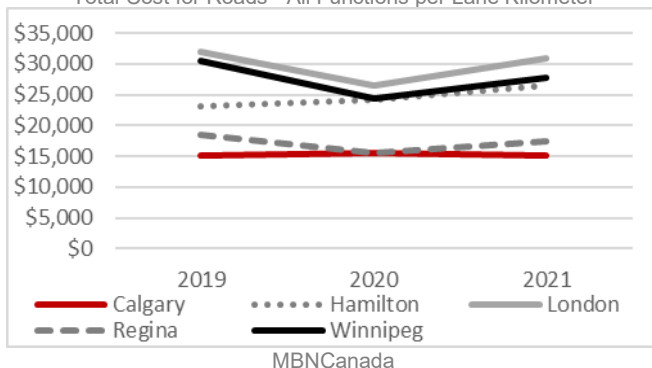
What we are watching

Expectations of Calgarians are changing as demographics and behaviors evolve. As city growth continues to drive network expansion, our goal is to continue to connect communities. We monitor and adjust to trends that impact delivery of our streets service to best align with the evolving needs of our city.

Trends we monitor include an increasing focus on safety, the impact and frequency of severe weather events, further enabling non-mobility uses (e.g. street patios, pop-up parks), as well as transparency and speed of internal and external processes. We focus on innovation, continuous improvement and changes in emerging technologies such as snow removal lumebots which enable new approaches to street maintenance. We are also introducing innovative solutions in our rights-of-way such as roadside naturalization and low CO2 concrete mixtures.

We use data to drive our decisions and continue to collect a wide range of data to support decision-making for future investments and improvements.

Total Cost for Roads - All Functions per Lane Kilometer



Comparing our service

While cities may experience a variety of conditions that impact service delivery, a useful and consistent benchmark amongst municipalities is the cost per lane kilometer. Benchmarking results depict a low cost per lane kilometer for the City of Calgary in comparison to other Canadian cities. In 2021, Calgary's total cost for roads reduced by 2 percent from the previous year and when typically compared to other municipalities, the relatively low 2021 cost for Calgary's lane kilometers is attributed to factors that include lower costs for winter roadway maintenance.

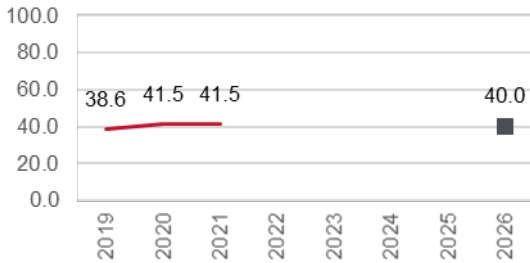
Measuring performance & where we want to go

For Council Approval

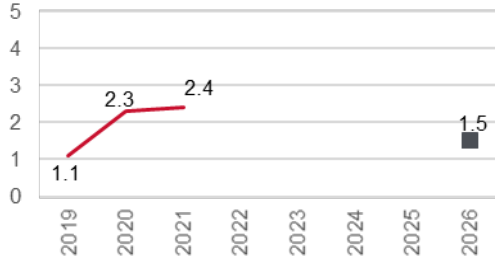
Actuals

Expected Future Performance

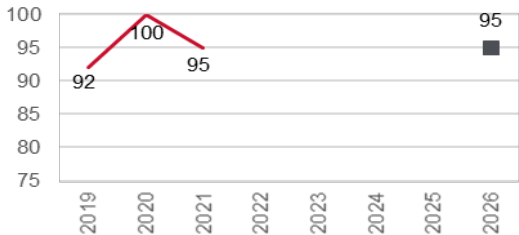
PM1: Pavement in good or very good condition (per cent)



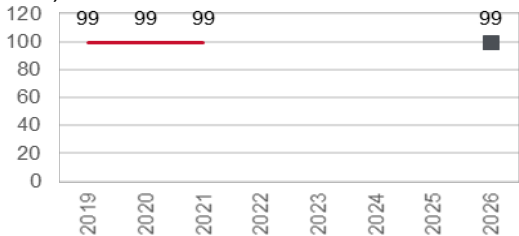
PM2: Paved roads over the network (per cent lane kilometer paved roads / total lane kilometer of roads)



PM3: Snow and ice control completion on priority 1 & 2 routes within targeted timeframes (per cent)



PM4: Signal uptime during peak hours (per cent)



PM5: Signal system connectivity to Traffic Management Center (per cent)



Story behind the curve

The overall pavement condition is maintained or improved through annual infrastructure investments. However, without sufficient investments to the lifecycle phases of pavement surfaces, deterioration of the asset will occur and could lead to significant cost increases and decreased percentages of pavements that are in good or very good condition, especially if optimal annual pavement surface rehabilitation or renewal windows are missed. Sufficient funding, cost effective pavement maintenance, timing and treatments results in improved pavement conditions and road reconstruction savings.

The yearly per cent paved roads over the network depicts the percentage of lane kilometres roads paved in the city yearly compared to the total lane kilometres of roads in the city. Estimated funds for 2025 and 2026 for road paving provide an expected future paving percentage of 1.5 percent for 2026.

The target for percent snow and ice control completion was set to provide a high level of service and safe mobility on streets and is among the highest targets for this performance measure in Canada for large cities. It is also an annual target driven by Council policy. Higher targets can present challenges due to the nature of major weather events.

At least 99 percent of signal uptime is targeted for traffic signals to be good working condition during the morning and evening peak hours to ensure high quality service is provided.

This is a new performance measure that tracks the percentage of connectivity to the Mobility system's Mobility Operations Centre (MOC). The expected future performance was determined to advance signal connectivity to the MOC from an estimated or expected lower value to an expected increased connectivity of 78 percent in 2026.

What we plan to do

Result for 2023-2026

The Streets service is committed to providing an accessible mobility network for all people. Our service focuses on safety, environmental sustainability, the voice of Calgarians, innovation, improvement, modernizing technology, data-driven decisions and supporting Council's strategic direction.

How we are going to get there

Enhance safety and accessibility of the mobility network by promoting safety-related processes, procedures and communication, and by installing ramps and related infrastructure.

Maintain safe workspaces while delivering services to Calgarians by establishing employee safety enhancements to support staff with safety meetings, and techniques and guidelines for incorporating safety-based awareness and thinking in day-to-day tasks and activities.

Promote actions that encourage transportation mode changes such as from driving to walking or the use of transit and vice-versa through participation in transportation mode projects, activities and collaborations with other workgroups or partners.

Expand employee training, awareness and learning opportunities regarding respect in the workplace, diversity and inclusion, and code of conduct through encouraged participation in City-specific learning and development programs, team communications, internal courses and employee-centered discussions.

Enable opportunities for positive economic and environmental impacts by determining strategies and mechanisms to reduce travel hours within specified or peak travel periods.

Minimize construction costs and interruptions to the public or to traffic flows through enhanced or continued engagement, collaboration and coordination with internal and external groups.

Improve work efficiency, lower costs, generate savings and maintain or improve levels of service and overall service delivery by researching, exploring and implementing technologies that provide efficiencies and solutions.

Provide longer lasting roadway results and less invasive roadway repair activities by utilizing efficient roadway-associated repair and rehabilitation methods such as narrow trenching for utility work and durable pothole repair patches.

Maximize the useful life of roadway assets by continually monitoring and managing asset lifecycles, planning for timely maintenance, making the best use of resources, proactively procuring materials and implementing efficient asset rehabilitation and replacement activities.

Eliminate or minimize procurement-related disruptions by continuing to work with Supply Management and other internal teams/resources, and external groups and partners including contractors, vendors and consultants to conduct procurement in a timely manner.

Enable appropriate adjustments as a result of emerging trends regarding the use of streets by engaging and working with various groups to better understand and incorporate transportation data and street-use feedback.

Eliminate work duplications and maximize efficiencies with other workgroups by exploring other channels of efficiencies related to working with colleagues and partners, to develop strategies and achieve common goals.

Operating budget needed to achieve results

For Council Approval

Breakdown of net operating budget (\$000s)

	2023		2024		2025		2026	
	Base	One-time	Base	One-time	Base	One-time	Base	One-time
Previous Year's Net Budget	149,561		157,294		163,391		165,554	
Previously approved One-time budget		-		-		-		-
2022 One-time carry forward		-		-		-		-
Revenue Changes	-	250	-	-	-	-	-	-
Internal Recoveries Changes	(770)	-	-	-	-	-	-	-
Inflation	7,065	-	5,613	-	2,028	-	1,901	-
Operating Impact of Previously Approved Capital	128	-	77	-	135	-	194	-
Operating Impact of New Capital (Incremental)	-	-	-	-	-	-	-	-
Service Reductions	-	-	-	-	-	-	-	-
Service Increases	1,310	3,178	407	3,178	-	3,178	-	3,178
Transfers to/(from) reserves	-	(500)	-	(500)	-	(500)	-	(500)
Total net budget*	157,294	2,928	163,391	2,678	165,554	2,678	167,649	2,678

*The previous year's One-Time Budget is not carried forward to the following year.

Total Operating Budget (\$000s) for Approval

	2022 Budget	2023			2024			2025			2026		
	At April 30	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total	Base	One-Time	Total
Expenditures	225,447	230,998	3,178	234,176	237,095	3,178	240,273	239,257	3,178	242,435	241,353	3,178	244,531
Recoveries	(46,302)	(47,072)	-	(47,072)	(47,072)	-	(47,072)	(47,072)	-	(47,072)	(47,072)	-	(47,072)
Revenue	(26,632)	(26,632)	(250)	(26,882)	(26,632)	(500)	(27,132)	(26,632)	(500)	(27,132)	(26,632)	(500)	(27,132)
Net	152,514	157,294	2,928	160,222	163,391	2,678	166,069	165,554	2,678	168,232	167,649	2,678	170,327
Base	149,561												
One-Time	2,953												

Note: Figures may not add up due to rounding.

Capital budget needed to deliver service

For Council Approval

Activity	Investment Name	2023 Request (\$000s)	2024 Request (\$000s)	2025 Request (\$000s)	2026 Request (\$000s)	2027+ Request (\$000s)	Total Request (\$000s)
Annual Investment Program(s)							
432200	Street Light Lifecycle & Upgrade	8,000	8,000	5,300	5,300	-	26,600
432271	Pavement Rehabilitation	21,500	21,500	14,244	14,244	-	71,488
433150	Bridge Rehabilitation	18,000	18,000	11,925	11,925	-	59,850
432270	Traffic Signal Lifecycle	5,000	5,000	5,000	5,000	-	20,000
433197	Railway Crossings	1,700	750	750	750	-	3,950
481357	Mobility Facilities and Depots	400	460	2,000	2,000	-	4,860
432240	New Traffic Signals	2,700	2,700	2,700	2,700	-	10,800
481361	Next Generation Mobility	1,500	1,500	1,500	1,500	-	6,000
464170	Major Road Reconstruction	6,500	6,500	4,306	4,307	-	21,613
432290	Technology Upgrades	750	750	750	750	-	3,000
481356	Signal Communications	1,500	1,500	1,500	1,500	-	6,000
481351	Sound Wall Lifecycle	1,500	1,500	1,500	1,500	-	6,000
432411	Ditch Reconstruction	200	200	200	200	-	800
481359	Mobility Infrastructure	1,500	1,500	1,500	1,500	-	6,000
433095	Various Street Improvements	350	350	350	350	-	1,400
432300	Plants Capital	1,210	1,219	1,308	1,316	-	5,053
Program(s)							
432514	Safety Improvements	5,000	5,000	5,000	5,000	-	20,000
432390	Slope Stabilization	400	400	400	400	-	1,600
433160	Subdivision Construction	700	700	700	700	-	2,800
422201	Development Infrastructure	700	700	700	700	-	2,800
481355	Operational Improvements	1,000	1,000	1,000	1,000	-	4,000
Projects(s)							
481407	144 Ave/Nose Creek	9,003	15,007	-	-	-	24,010
Sub-Total (New Budget Requests)		89,113	94,236	62,633	62,642	-	308,624
Previously Approved Budget Remaining		52,383	31,571	-	-	-	83,954
Total Capital Investment		141,496	125,807	62,633	62,642	-	392,578

Explanation of capital budget requests

Annual Investment Program(s)

Activity 432200: Street Light Lifecycle & Upgrade

This program will deliver lifecycle replacements of critical street light infrastructure and improving lighting quality in communities. The benefits of roadway lighting are to enhance public safety and comfort and to enhance nighttime personal and business activities.

Funding From: Municipal Sustainability Initiative (\$6,384 thousand) Canada Community-Building Fund (\$6,384 thousand) Lifecycle Maintenance & Upgrade Reserve (\$11,970 thousand) Pay-As-You-Go (\$1,862 thousand)

Contributing Services: None

Operating Impact: None

Activity 432271: Pavement Rehabilitation

Program delivers safe, reliable, sustainable, and efficient pavement network for Calgarians through lifecycle investments. Well maintained roads improve citizen satisfaction and provides reduced overall life cycle costs by minimizing the costly rehabilitation treatments.

Funding From: Municipal Sustainability Initiative (\$16,558 thousand) Canada Community-Building Fund (\$8,545 thousand) Lifecycle Maintenance & Upgrade Reserve (\$19,232 thousand) Pay-As-You-Go (\$18,917 thousand) Capital Reserves (\$8,236 thousand)

Contributing Services: None

Operating Impact: None

Activity 433150: Bridge Rehabilitation

Investment in the repair and preservation of bridge assets, ensuring public safety and maximizing the value of capital investments. Bridges require maintenance and major interventions throughout their life to provide reliable public infrastructure.

Funding From: Municipal Sustainability Initiative (\$621 thousand) Canada Community-Building Fund (\$42,281 thousand) Lifecycle Maintenance & Upgrade Reserve (\$1,197 thousand) Pay-As-You-Go (\$15,751 thousand)

Contributing Services: None

Operating Impact: None

Activity 432270: Traffic Signal Lifecycle

Lifecycle improvements include replacement of aging steel, deteriorated concrete bases, underground ducting guide sign panels and audible signals. Improvements to signalized intersections are prioritized annually to improve safety, accessibility and efficiency.

Funding From: Canada Community-Building Fund (\$13,614 thousand) Pay-As-You-Go (\$6,386 thousand)

Contributing Services: None

Operating Impact: None

Activity 433197: Railway Crossings

Transport Canada has passed new grade crossing guidelines that must be implemented by Road authorities and Rail authorities. Railways complete the repairs and then invoice The City to fulfill these legal obligations.

Funding From: Municipal Sustainability Initiative (\$3,634 thousand) Pay-As-You-Go (\$316 thousand)

Contributing Services: None

Operating Impact: None

Activity 481357: Mobility Facilities and Depots

This program provides funding to complete improvements and lifecycle replacement of facilities to deliver core operational services. It is a priority to ensure infrastructure is upgraded to meet environmental regulations and needs for effective service delivery to citizens.

Funding From: Municipal Sustainability Initiative (\$972 thousand) Pay-As-You-Go (\$3,888 thousand)

Contributing Services: None

Operating Impact: None

Activity 432240: New Traffic Signals

Program funds construction of new traffic signals at unsignalized locations if they meet national guidelines for signalization. Benefits of signalization are to improve efficiency and safety for motorists, pedestrians, cyclists, and Calgary Transit.

Funding From: Canada Community-Building Fund (\$6,588 thousand) Pay-As-You-Go (\$4,212 thousand)

Contributing Services: None

Operating Impact: None

Activity 432517: Next Generation Mobility

Investment will improve transit service, goods movement, and corridor optimization and will support the reliability of the transportation system. The result will be a direct benefit to motorists in Calgary through travel time savings and reduced congestion.

Funding From: Municipal Sustainability Initiative (\$600 thousand) Canada Community-Building Fund (\$600 thousand) Pay-As-You-Go (\$4,800 thousand)

Contributing Services: None

Operating Impact: None

Activity 464170: Major Road Reconstruction

Includes rehabilitation and upgrades to existing roadways and intersections at highest priority areas. Reconstruction will improve ride-quality, significantly reduce maintenance costs and reduce the potential of a major structural failure.

Funding From: Canada Community-Building Fund (\$16,500 thousand) Pay-As-You-Go (\$5,113 thousand)

Contributing Services: None

Operating Impact: None

Activity: 432290: Technology Upgrades

The City requires updated technology to better manage assets, maintain functionality and fully utilize our capital assets. Leveraging new technology and equipment will allow operational areas to modernize services.

Funding From: Pay-As-You-Go (\$3,000 thousand)

Contributing Services: None

Operating Impact: None

Activity: 481356: Signal Communications

Program supports The City to coordinate with other agencies and mobilize crews during major emergencies and fund system software and maintenance. The Mobility Operations Centre uses many technologies and systems to provide accurate information for safe travel in Calgary.

Funding From: Canada Community-Building Fund (\$4,320 thousand) Pay-As-You-Go (\$1,680 thousand)

Contributing Services: None

Operating Impact: None

Activity: 481351: Sound Wall Lifecycle

Funds lifecycle repairs at highest severity sound wall locations along major roadways. These walls provide a safety barrier for motorists, pedestrians, cyclists and reduce road noise to nearby homes.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$6,000 thousand)

Contributing Services: None

Operating Impact: None

Activity: 432411: Ditch Reconstruction

Program funds ditch maintenance and reconstruction to minimize environmental impacts and to meet legal obligations. These improvements are vital to reducing environmental impacts and drainage issues.

Funding From: Pay-As-You-Go (\$800 thousand)

Contributing Services: None

Operating Impact: None

Activity: 481359: Mobility Infrastructure

Program funds the lifecycle replacement of key infrastructure such as large guide signs, network signage and signal controllers/heads. Existing programs do not fund the replacement of this key infrastructure and investment will minimize long-term operating costs.

Funding From: Lifecycle Maintenance & Upgrade Reserve (\$6,000 thousand)

Contributing Services: None

Operating Impact: None

Activity: 433095: Various Street Improvements

Program provides for design and construction of various small to medium road, transit, active modes improvements in all areas of Calgary. Program allows The City to be able to respond to emerging issues and address high priority concerns as they arise.

Funding From: Pay-As-You-Go (\$1,400 thousand)

Contributing Services: None

Operating Impact: None

Activity: 432300: Plants Capital

Plant/Crusher Operations are a financially self-sustaining operation that provide aggregates and asphalt/concrete for City operations/private sector. This revenue generating asset is integral to provide resiliency for material supplies and for landfill operations.

Funding From: Capital Reserves (\$5,053 thousand)

Contributing Services: None

Operating Impact: None

Program(s)

Activity 432514: Safety Improvements

This program will enable the delivery of actions identified in the Calgary Safer Mobility Plan. This program will create opportunities to cost-effectively improve traffic safety in Calgary.

Funding From: Canada Community-Building Fund (\$11,382 thousand) Pay-As-You-Go (\$8,618 thousand)

Contributing Services: None

Operating Impact: None

Activity 432390: Slope Stabilization

When slope stability concerns pose risks to public safety, The City will assess the slope and determine the most appropriate course of action. Addressing slope failures in a timely manner is key to mitigate potential property damage and ensuring public safety.

Funding From: Pay-As-You-Go (\$381 thousand) Reserve for Future Capital (\$1,219 thousand)

Contributing Services: None

Operating Impact: None

Activity 433160: Subdivision Construction

Program leverages cost/construction efficiencies by having developers build roadways/sidewalks and paying the City's share of development charges. Program supports Council Priority to improve roadway/pedestrian facilities in conjunction with adjacent private developments on a city-wide basis.

Funding From: Municipal Sustainability Initiative (\$2,800 thousand)

Contributing Services: None

Operating Impact: None

Activity 422201: Development Infrastructure

Program allows for construction of key missing links and related development infrastructure in newly developed areas. Services results will be met by constructing infrastructure beyond the obligations of adjacent developments.

Funding From: Pay-As-You-Go (\$2,800 thousand)

Contributing Services: None

Operating Impact: None

Activity 481355: Operational Improvements

Program implements low-cost measures that maximize the efficiency and safety performance of the existing transportation network for all users. Program takes holistic approach when developing and implementing safety and operational improvement projects balancing the needs for all modes.

Funding From: Pay-As-You-Go (\$4,000 thousand)

Contributing Services: None

Operating Impact: None

Projects(s)

Activity 481407: 144 Ave/Nose Creek

Phase 1 of project was underground utilities, earthworks, sound wall and future works. Phase 2 will be single span bridge over West Nose Creek. To enable future development in NW Calgary.

Funding From: Municipal Sustainability Initiative (\$2,588 thousand) Canada Community-Building Fund (\$3,097 thousand) Pay-As-You-Go (\$18,325 thousand)

Contributing Services: None

Operating Impact: None
