

The Mobility Status Report is prepared annually and lays out a series of key metrics that highlights how the transportation system is performing and provides context for service delivery. It also gives a snapshot of what is happening within the transportation system over the course of this past year from a system and user perspective.

## Mobility supports safe, reliable, and efficient transportation services.

Measure	2020	2021	2022
<b>Walking &amp; Wheeling</b>			
Length of sidewalks (km)	5,900	5,990	6,005
Number of pedestrian bridges	191	193	171*
Number of painted crosswalks	10,600	10,950	11,190
Length of Cycling Network	1,570	1,600	1600*
Active Daily Mode Split	22%	N/A	N/A
<b>Transit</b>			
C-Train Operating km	5.1 million	4.9 million	5.2 million
Bus Operating km	48 million	48 million	48.6 million
Transit Operating Hours	2.4 million	2.3 million	2.3 million
Number of Transit Vehicles	1,065	1,083	1083
Transit Daily Mode Split	3%	N/A	NA
<b>Autos</b>			
Length of roadways (lane-km)	16,300	16,500	17,100
Vehicle Bridges	189	193	207
Auto Daily Mode Split	75%	N/A	N/A

\*The datasets for pedestrian bridges and the cycling networks have been undergoing consolidation with other layers. This means the changes seen in these two metrics is largely a result of data cleaning and the removal of duplicate records. This effect should be minimized in the future.

The City of Calgary continues to invest in transportation infrastructure that gives Calgarians a choice in how they travel about the city. This includes investments in additional sidewalks, pathways, transit services, roads and bridges.

## Post-Pandemic Travel Recovery Continues

Transit ridership continues to recover after the impacts of the pandemic as ridership and revenues continue to increase. While customers continue to have safety concerns onboard buses and CTrains, their perceptions on safety and security at CTrain stations has begun to improve. Calgary Transit continues to invest in multi-disciplinary safety improvements to address remaining security concerns.

Transit Measure	2019	2020	2021	2022	2023 (YTD)
Total Transit Ridership	106.5 million	50 million	31.3 million	57 million	97 million
Annual Revenue	\$185 million	\$93 million	\$83 million	\$126 million	\$113 million

Traffic volumes have increased since 2022, but this is likely a result of new population growth rather than pandemic recovery. Travel patterns, particularly related to working from home, have changed. Prior to the pandemic only about 25% of workers worked from home more than 4 days per week. Now that has increased to just over 60% of workers.

Vehicle 2-Way Average Weekday Volumes	2019	2020	2021	2022	2023 (YTD)
5 Avenue Flyover (1 Way)	41,024	30,714	30,050	34,827	33,646
Louise Bridge	74,819	61,254	62,629	65,439	67,483
Glenmore TR Causeway	9,242	6,514	6,785	8,108	8,457
McKnight BV west of Deerfoot TR	25,113	21,586	22,584	23,189	22,395

Parkade occupancy continues to increase as activity about the city continues to return to normal. Parkade occupancy and revenue continue to increase as more people use parking facilities.

Parking Measure	2021	2022	2023 (YTD)
Parkade Occupancy	48%	74%	82%
Parkade Transactions	463,232	632,080	740,054
EV Charging Stations	32	N/A	61
Tickets Issued	332,093	345,593	310,514
Total Revenue	\$59 million	\$67 million	\$55 million

## We continue to innovate to improve the services we provide to Calgarians.

We are continuously reviewing how we provide service and building on experiences and technology from other parts of Canada and across the world. The needs of Calgarians change over time. Efficiencies found in other areas of service lead to new programs that better serve Calgarians.

### Automating Vehicle Count Station Data Retrieval

This year, all of the permanent vehicle count stations were upgraded to enable automatic data retrieval. Prior to this upgrade, staff needed to go to each location and connect direction with the counter too download the data. This process would take a few days every month. Now, the data is retrieved remotely via cellphone modems by the vendor. Data is now retrieved weekly rather than monthly and is formatted to reduce processing time before loading data to the traffic counts database.

### Mobile App for Compaction Testing

In 2023, a mobile app was created for the Compaction Test Team to replace their paper form in the field. Data collected from the mobile app is used to auto-generate the Quality Assurance Field Report which is sent to contractors. Prior to the introduction of this application, works inspectors could manually create 5-6 reports per day. With this application all the reports can be generate at one within a few minutes.

### **Artificial Intelligence (AI) for Pavement Condition Assessment**

One of the emerging applications of AI is pavement condition assessment, which is the process of evaluating the quality and performance of road surfaces. Pavement condition assessment is important for ensuring road safety, optimizing maintenance strategies, and reducing environmental impacts. AI can help pavement condition assessment by providing fast, accurate, and consistent analysis of 360-degree pavement images and data, using techniques such as computer vision, machine learning, and deep learning. AI can also help to identify and classify pavement defects, such as cracks, potholes, rutting, and bleeding, and to predict the future condition and deterioration of pavements. AI can thus enhance the efficiency and effectiveness of pavement asset management systems and support better decision making.

### **100% Recycled Asphalt Pavement (RAP) Mixes:**

Recycled asphalt pavement (RAP) stockpiles are a challenge for many cities. 100% RAP mixes can be used for different purposes and save natural resources and money while creating durable and green roads. 100% RAP is a cold mix asphalt made of RAP and/or new aggregates. It is suitable for low or medium traffic roads in rural or secondary areas. The City will test 100% RAP on Townsend St NE, a low volume road, with a finalized RAP mix and design. The expected environmental benefits are a 40%-50% reduction in GHG and a 30% reduction in budget.

### **Warm Mix Asphalt (WMA)**

Warm mix asphalt (WMA) is produced at the plant with temperatures that are about 20%~ 30% lower than conventional hot mix asphalt. This reduces GHG emissions and energy use in asphalt mix production. WMA also benefits paving operations by extending the paving season, enhancing asphalt compaction, increasing hauling distance, and improving working conditions by lowering exposure to fuel emissions, fumes, and odors. The City has applied about 32,000 tons of WMA this year mainly on major roadways.

### **MMA for School Zone Crosswalks**

MMA is a durable road marking product. Mobility purchased 6 machines that have the technology to spray the MMA to mark crosswalks, rather than being installed by hand. The increased durability of this product means crosswalks are visible even after the winter which offers increased safety and visibility to pedestrians. In some cases, this product can last 2-3 seasons, where standard paint needs to be refreshed every year. Mobility plans to use this product downtown, business improvement areas, and school zones where there is a higher volume of pedestrian traffic.

### **Bus Electrification Project**

In 2023, Calgary Transit secured funding and financing to kick-start its transition to zero-emission buses with a bus electrification project. The bus electrification project aims to deploy up to 259 40-foot battery electric buses by 2026 as we replace our older diesel fleet. This project is a good first step in Calgary Transit's transition journey, as it will shift about one quarter of its fleet to zero-emission buses. Calgary Transit is moving to a fleet of zero-emission buses to support The City's corporate-emission reduction goals in the Calgary Climate Strategy- Pathways to 2050. Calgary Transit is using phased approach to acquire zero-emission buses, transform operations, prepare our workforce, and build needed infrastructure, such as charging stations.

## Calgary Transit Safety Improvements

In June 2023, Council approved \$8.7 million in one-time operating funding for peace officers and community outreach workers, enhanced cleaning, infrastructure improvements and partner patrols. Council also directed Administration to report back to Council in 2023 Q3 with a comprehensive multi-disciplinary transit safety strategy outlining the roles, responsibilities, and resources required for an integrated customer and safety service delivery model. The increased resourcing and safety improvements have improved perceptions of safety on and around the transit system.

Additionally, Calgary Transit has recently upgraded the lighting on all CTrain platforms from Downtown West/Kerby to City Hall, to improve visibility for customers and security staff. This important upgrade is one of many measures that Calgary Transit is implementing to fulfill its commitment to customer safety. Enhanced lighting allows security cameras to capture clearer footage of platform activity and enables greater visibility across and within platforms which, is essential to investigating situations and dispatching emergency personnel as quickly as possible.

## Wayfinding and customer communications during disruptions and closures

In 2023, Calgary Transit updated the design and how information is displayed on the signage used during CTrain service disruptions. This includes:

- Changes to how signs are deployed to increase efficiency in deployment, consistency in messaging and brand recognition.
- A digital component was introduced, where customers can scan the unique QR code on each sign and be linked directly to a Google map showing shuttle stop locations and instructions for each direction of travel.
- Integrating Calgary Transit Ambassadors into service disruption communication by providing them with service disruptions information and QR codes to link directly to information for that route.
- Project has reduced the number of reports regarding confusion during CTrain service disruptions.
- Improved stop cards that replace paper signs with coroplast cards with key details about the stop closure in a format that won't be as easily compromised.

## We are on track in providing services that are important to Calgarians.

We are committed to achieving our performance targets for issues that are important to Calgarians.

### Responsive to service requests

Many maintenance activities are driven by service requests submitted by Calgarians. The number of pothole requests increased significantly since 2022. This aligns with road maintenance pothole repair statistics that indicate significantly more potholes were repaired in 2023.

Measure	2021	2022	2023 (YTD)
<b>Service Requests (# of requests)</b>			
Roadway maintenance	3146	3039	3589
Pothole maintenance	3378	2680	6680
Snow and ice control*	6870	5687	7067
<b>Overdue Services Requests (% Overdue)</b>			
Roadway maintenance	7.6%	12.2%	N/A
Pothole maintenance	5.1%	3.2%	N/A
Snow and ice control	1.0%	1.7%	2.5%

## Keeping our roads in good condition

We remain committed to maintaining our transportation system in a state of good repair. This includes both roads, sidewalks, and transit vehicles.

Performance Metric	2021	2022	2023	Target
% Pavement in good or very good condition	42%	41%	41%	60%
% Bridges in good or very good condition	91%	91%	N/A	N/A

Pavement quality declined from 2019-2022 due to a reduction in road maintenance budgets. Additional funds were approved through the 2023-2026 budget, and it is expected that these numbers will stabilize.

Our bridges are in good repair to ensure safe operations around the city.

## Ensuring our transit system is reliable.

Calgarians need to trust that the transportation system will get them where they need to go, when they need to go there.

Measure	2020	2021	2022
Distance (km) between failure- Bus	8,624	9,865	N/A
Distance (km) between failure – LRV	92,991	77,362	58,125
Calgary Transit Access – Ontime Drop Off	96%	95%	93%

The distance between failures for buses continues to improve as new vehicles are added to the fleet. Mean distance between failure for light rail vehicles is more variable and despite a decline in the year-to-date values, the metric is still meeting One Calgary targets. Calgary Transit Access remains high with most trips getting to their destination on time.

## We are delivering services that are safe and accessible.

Mobility is committed to delivering services that Calgarians need to go about their daily lives while supporting Calgary's economic recovery. This includes a strong commitment to safety, accessibility, and the satisfaction of our customers.

### Safety

Collisions continues to increase as the volumes of traffic in the city increases. Pedestrians and continue to be vulnerable in a traffic collision as over 80% of collisions including a pedestrian, involve a casualty.

Measure	2020	2021	2022	2023 (YTD)*
Total number of collisions	29,112	31,634	39,098	26,811
Casualty** collisions per 100,000 population	132	167	189	143
Pedestrian casualty collisions per 100,000 population	18	19	25	19
% Of all collisions that included a ped/cyclist	1.5%	1.7%	1.7%	1.9%
% Of casualty collisions that included a ped/cyclist	20%	18%	20%	14%
% Of pedestrian collisions that included a casualty	82%	79%	86%	86%

\* 2023 data is preliminary and will be finalized mid-2024.

\*\* Casualty collision includes injuries and fatalities.

## Citizen Satisfaction

Calgarians are generally satisfied with the transportation system and continue to rank traffic and transit as some of the most important issues facing the city. The 2023 Spring Survey of Calgarians suggests that traffic is increasing in importance to Calgarians. The percentage of respondents who indicated that traffic was the most important increases from 28% to 39%. The importance of Transit has remained stable.

Satisfaction scores for snow and ice control as well as the sidewalk and pathway system decreased in 2023. This may be related to increases in travel volumes, and changes in work or school patterns as more employers are expecting staff in the office some days per week.

Measure	2020	2021	2022	2023
Most Important Issue – Traffic	23%	33%	28%	39%
Most Important Issue – Transit	12%	12%	17%	18%
Satisfaction with Snow and Ice Control	72%	68%	70%	65%
Sidewalk and Pathway Satisfaction	80%	79%	81%	75%

## Accessibility

It is important for Calgarians to be able to move about the city regardless of their age or ability. Calgary Transit Access provides service for Calgarians that cannot use Calgary Transit due to a disability. Since adopted in 2019, the 5A network continues to expand to ensure that, over time, all Calgarians will be able to access the pathway system.

Measure	2021	2022	2023 (YTD)
Accessible Pedestrian Signals	388	441	N/A
Wheelchair ramp retrofits	305	541	N/A
Total Calgary Transit Access Trips	0.53 million	0.82 million	0.76 million
Existing pathway within 5A network (km)**	904	1872	1225*

\*The reduction in 5A network distance is a result of consolidation and removal of duplicate records from GIS layers.

\*\*Existing infrastructure may not meet 5A standards and will be upgraded based on need and resource optimization.