Moblity Status Report
2022

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.

We provide safe, reliable, and efficient transportation services

Measure	2020	2021
Walking & Wheeling		
Length of sidewalks (km)	5,900	5,990
Number of pedestrian bridges	191	193
Number of painted crosswalks	10,600	10,950
Length of Cycling Network	1,570	1,600
Active Daily Mode Split*	22%	N/A*
Transit		
C-Train Operating km	5.1 million	4.9 million
Bus Operating km	48 million	48 million
Transit Operating Hours	2.4 million	2.3 million
Number of Transit Vehicles	1,065	1,083
Transit Daily Mode Split	3%	N/A
Autos		
Length of roadways (lane-km)	16,300	16,500
Vehicle Bridges	189	193
Auto Daily Mode Split	75%	N/A
Length of roadways (lane-km)	16,300	16,500

***Mode split data for 2021 will be available in Q1 2023.

Calgary has continued to grow over the past couple years, despite the impacts of the pandemic. More people need to move about the city and Mobility and Transit have continued to invest in services to give Calgarians choice in how they move around Calgary. Investments in walking and wheeling infrastructure such as sidewalks, pedestrian bridges, and bike lanes have continued with more expected in the coming years. Calgary Transit continues to be impacted by the on-going effects from the pandemic. However, services levels have been maintained for the past two years to ensure the transit remains a consistent and reliable mode of transportation. New infrastructure is needed to support our growing city. This can include new roads and sidewalks in communities as well as interchanges, pedestrian bridges.

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Travel continues to increase as the city recovers from the pandemic

Transit ridership has continued to recover as more people return to work and school across the city. Transit is also working to improve customer safety through partnerships with Calgary Police Service, Transit Safety, Community Services, and 9-1-1. This will improve response time, increase station surveillance, and increase transit patrols.

Transit Measure	2019	2021	2022 YTD
Annual Bus Ridership (Millions)	73	27	38
Annual C-Train Ridership (Millions)	92	35	55
Annual Revenue	$185	$83	$112

Traffic volumes across the city have returned to normal volumes as all public health restrictions were lifted in 2022. Travel recovery to the downtown core has been slower than other parts of the city. Traffic volumes have returned to normal, but transit travel to the core remains low suggesting a shift in travel mode when travelling downtown. Traffic on the 5 Avenue Flyover has recovered after bridge reconstruction work was completed.

Vehicle 2-Way Monthly Volumes (1000 vehicles)	Sep 2019	Sep 2021	Sep 2022
5 Avenue Flyover (1 Way)	1,170	855	1,060
Louise Bridge	504	417	475
Glenmore TR Causeway	4,178	3,946	3,917
McKnight BV west of Deerfoot TR	1,448	1,346	1,370

Active modes have increased across the Peace Bridge. This is likely related to people returning to work, school, and other activities after the pandemic restrictions were lifted. The adaptive road program remained in operation throughout 2022 and there are four locations currently open.

Pedestrian and Bicycle 2-Way Monthly Volumes (1000 people)	Aug 2019	Aug 2021	Aug 2022
Peace Bridge	485	248	350
South Glenmore	50	59	58

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

Route Ahead Update

In 2022, an update to RouteAhead proposed a shift to focus on investment in frequency of service over coverage that will make travel easier. Service increases will enable transit to become a preferred travel mode, in alignment with the goals of the Municipal Development Plan.

Transit users will be able to “show up and go” to transit with less reliance on schedules. This will increase in transportation flexibility that can allow them to participate more fully in their communities. It will also include community specific initiative to improve connections to transit stops and stations.
This draft is expected to be made available to the public before returning to Council for final approval by Q2 2023.

Electric Bus Strategy

Calgary Transit has developed a Zero-Emission Bus Implementation Strategy that looks to replace over 250 diesel buses that are at the end of their life with zero-emission battery electric buses. These buses will provide clean, quiet, and comfortable rides for Calgarians with less pollution, noise, and lower operating costs.

This plan aligns with the Calgary Climate Strategy and other greenhouse gas emission reduction initiatives. This strategy is expected to reduce greenhouse gas emissions by 400,000 tonnes by 2040.
The strategy is expected to return to Council for final approve in Q4 2022.

My Fare App Enhancements

In 2022, the My Fare Transit app was enhanced making the app more accessible and easier to use. Some of the new features include the improvements to fare payment, route planning and micro-mobility choices. Low-income, uPass, and senior passes have been incorporated into the My Fare App with the intention to make payment for these passes available through the app in 2023.

Traffic Signal Adaptive Control Pilot

Traffic Signal Adaptive Control is a centrally deployed server/software suite that collects vehicle volume from a corridor and optimizes the traffic signal timings to match the current needs. This allows signals to be more responsive to fluctuating traffic demands while maintaining coordinated flow.

The City of Calgary is piloting TransCore's Adaptive Control Decision Support System (ACDSS) plug-in module for our existing TransSuite Advanced Transportation Management System on the Macleod Trail South corridor between Mission Road and Glenmore Trail.

- Installation of wireless vehicle detection "pucks" on approaches to 6 major intersections, to collect accurate traffic volume at these intersections.
- System will automatically accommodate normal and peak directional flows as well as event, holiday, collision, detour changes to normal flow.
- Expect traffic congestion reduction of 10% or greater.

Parking Information System

In partnership with Calgary Parking (CP), the City of Calgary is working on a pilot project to provide citizens and tourists with parking information that will guide them quickly and efficiently to the nearest CP parking lot. This system will utilize existing Electronic Message boards (DMS signs) installed on +15 bridges and side-mounted structures. The project would involve a phased approach, starting with integrating CP parkades on the east side of downtown.

Currently, 9 DMS signs in the downtown area display critical incident information (such as minor & major accidents, detour/ road closures, and emergencies like amber alerts) from the City's Mobility Operations Centre. When the signs are not used to display this critical information, they will display real-time parking availability and direct citizens to the closest parking spots at CP parkades.

Various studies indicate that, on average, 30% of vehicles search for parking in the downtown congested traffic grid. This project is anticipated to reduce congestion, traffic collisions, and vehicle emissions by providing clear and reliable directions to available parking.

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Mobility Operations Centre Dashboard

The Mobility Operations Centre (MOC) Dashboard presents data collected by The City of Calgary since 2016 on traffic incidents, scheduled road closures (detours), Mobility emergency service requests and traffic signal timing service requests, incident and detour data is featured for the two Provincial highways within the city limits, Deerfoot and Stoney Trail. Current year equipment uptimes for Pan-Tilt-Zoom traffic cameras, Dynamic Message Signs (DMS) and traffic signals are summarized and displayed. The ArcGIS map displays live data such as incidents and detours, historical past 2-week incident data and City assets such as traffic signals, cameras, and DMS.

A.I. Traffic Counting Project

MOC currently has around 160 Pan-Tilt-Zoom (PTZ) cameras covering most of the high-speed, high-traffic-volume corridors. Due to the unique character of the PTZ cameras, we can zoom in on any traffic signal adjacent to the PTZ cameras. MOC is working with Corporate Analytics and Innovation group and has developed a software that can conduct traffic counting tasks by utilizing those PTZ cameras. At the same time, the software can also take a video recording from any portable camera and then provide a turning movement count at any intersection. The software performs not only vehicle counts but also pedestrian and bikes counts. This project will significantly reduce traffic counting costs and improve data turnover time. In 2022, MOC successfully piloted traffic counts using a PTZ camera at 1 location. This year we are expanding it to 20 PTZ locations.

Traffic Monitoring Drone Program

Drone technology has been significantly improved and widely used in various industries in recent years. However, using a drone to perform traffic management tasks under the current Transport Canada Canadian Aviation Regulations is challenging, especially when flying drones in an urban environment. Mobility Operations Centre (MOC) has come up with an innovative way to use Micro-Drones (sub 250g) to perform various traffic management tasks with minimal risks.

MOC currently has around 160 Pan-Tilt-Zoom (PTZ) cameras installed. These cover most of the high-speed and high-traffic volume corridors. However, most of the collector and residential roadways are not covered. At the same time, there are blind spots for the PTZ cameras where their views can be obstructed by structures and other infrastructure. It is a huge benefit to bring the live video feed from a drone back to the MOC during traffic events. Signal engineers can see the traffic impact on the surrounding areas and make signal timing changes to ease congestion.

Besides managing traffic incidents, the MOC also successfully performed various projects using Micro-Drones, such as corridor signal timing optimization, infrastructure installation planning, special event management and signal timing improvement, major emergencies and disaster support, parking studies, streetlighting inspections, and pedestrian counts.

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. It is likely that maintenance requests are lower than 2021, but Snow and Ice Control will likely be higher by the end of 2022.

Measure	2021	2022 (YTD)
Service Requests (# of requests)		
Roadway maintenance	3146	2294
Pothole maintenance	3378	2620
Snow and ice control*	6870	4360
Overdue Services Requests (% Overdue)		
Roadway maintenance	9.8%	7.6%
Pothole maintenance	10.6%	5.1%
Snow and ice control	0.9%	1.0%

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	Target
% Pavement in good or very good condition	42%	42%	60%
% Bridges in good or very good condition	91%	91%	N/A

Pavement quality was expected to decline through the 2019-2022 budget cycle. For the next cycle, addition investment in road maintenance has been improved and it expected that these numbers should remain consistent.

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
Distance (km) between failure- Bus	8,624	9,865
Distance (km) between failure – LRV	92,991	77,362
Calgary Transit Access – Ontime Drop Off	96%	95%

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

Transportation 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

The number of collisions has increased from 2020, this due to the increases in travel volumes as public health restrictions were eased compared with 2020.

Pedestrian and cyclists continue to be the most vulnerable in traffic collision. Almost 80% of collisions that involve a pedestrian will result in a casualty.

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Measure	2020	2021	2022*
Casualty** collisions per 100,000 population	132	167	186
Pedestrian casualty collisions per 100,000 population	18	19	30
% Of all collisions that included a ped/cyclist	1.5%	1.7%	1.9%
% Of casualty collisions that included a ped/cyclist	20%	18%	23%
% Of pedestrian collisions that included a casualty	82%	79%	86%

*Data is preliminary for 2022 and will be finalized mid-2023.
** 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.

Satisfaction scores for snow and ice control as well as the sidewalk and pathway system increased in 2022. This is likely a result of increased investment in these services in 2022.

Measure	2020	2021	2022
Most Important Issue – Traffic	23%	33%	28%
Most Important Issue – Transit	12%	12%	17%
Satisfaction with Snow and Ice Control	72%	68%	74%
Sidewalk and Pathway Satisfaction	80%	79%	81%

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
Accessible Pedestrian Signals	388	436
Wheelchair ramp retrofits	305	541
Total Calgary Transit Access Trips	0.53 million	0.24 million
Existing pathway within 5A network (km)**	904	1872

*2022 data is not available as services are ongoing.
**Existing infrastructure may not meet 5A standards and will upgraded based on need and resource optimization.