



Biannual Infrastructure Insights Report

Q3 2024

Table of contents

| | |
|--|----|
| Land Acknowledgement | 3 |
| Message from the General Manager | 4 |
| Infrastructure Project Highlights | 5 |
| 144 Avenue N.W. West Nose Creek Bridge | 5 |
| Sunnyside flood barrier | 7 |
| Mission Bridge rehabilitation..... | 9 |
| 4 Avenue Flyover rehabilitation..... | 11 |
| Constellation Industrial Park..... | 12 |
| Navigating Challenges | 13 |
| Bears paw South Feeder Main break and preventative maintenance | 13 |
| Asset condition and overall infrastructure gap | 16 |
| Capital cost escalation..... | 17 |
| Calgary’s labour market outlook | 19 |
| Delivering great service and value for Calgarians | 20 |
| Community and Business Relations | 20 |
| City of Calgary Capital Projects Map | 22 |
| Mission Bridge Design Cycle..... | 23 |
| Rightsizing infrastructure update | 24 |
| Appendix..... | 25 |
| Status of projects featured on the Capital Projects Map | 25 |



Land Acknowledgement

The city of Calgary, where the Bow and Elbow Rivers meet, was historically a place of confluence where the sharing of resources, ideas and opportunities naturally came together. Long before Scottish settlers named it Calgary, the original Indigenous Nations of this area had their own names for the land. In the Blackfoot language, it is called Moh-kins-tsis. The Îethka Nakoda Wîcastabi First Nations refer this place as Wicispa Oyade and the people of the Tsuut'ina nation call it Guts-ists-l. The Métis call the Calgary area Otos-kwunee.

We would like to take this opportunity to appreciate and acknowledge that we live, work, and play on the ancestral and traditional territory of the Blackfoot Confederacy, made up of the Siksika, Piikani, Amskaapipiikani and Kainai First Nations; the Îethka Nakoda Wîcastabi First Nations, comprised of the Chiniki, Bearspaw, and Goodstoney First Nations; and the Tsuut'ina First Nation. The city of Calgary is also homeland to the historic Northwest Métis and to the Otipemisiwak Métis Government, Métis Nation Battle River Territory (Nose Hill Métis District 5 and Elbow Métis District 6). We acknowledge all Indigenous people who have made Calgary their home.

The City of Calgary has a vital role in the stewardship of the land on which we plan, develop and deliver services for Calgarians today and for future generations to come. The projects highlighted in this report are just a few examples of how the foothills, valleys and waterways of this region continue to influence how we build our infrastructure. We are designing and building our communities around Indigenous landmarks such as the Nose Creek and the confluence of the Bow and Elbow Rivers, and we're continuing on our journey to acknowledge and pay respect to the ancestral and historical significance of the land on which we are building and living.

Through this journey, we will continue our commitment to be shared stewards of the land, striving towards environmental sustainability and embracing practices that ensure a bright, resilient future for generations to come.



Message from the General Manager

I am pleased to report to City Council and Calgarians on behalf of the Infrastructure Services team and our partners regarding our priorities, accomplishments and how we navigate and mitigate the internal and external pressures that impact our work. One example is the catastrophic failure of the Bearspaw South Feeder Main in June 2024, which impacted local residents and business owners, as well as Calgarians and regional customers who receive their potable water supply from Calgary. As part of our response, we shifted the primary focus of our Utilities Delivery and Capital Priorities and Investment teams to collaboratively work with Water Services to repair, assess and undertake urgent preventative maintenance. Our collective efforts including water conservation by Calgarians, businesses, regional customers and visitors supported the return to regular water service in as timely a manner as possible. Thank you to everyone who made this possible.

This construction season has included several large projects in our established communities and downtown. We will continue to connect with Calgarians and businesses to understand and work towards minimizing the impacts and improving the overall experience of construction as best we can while delivering the projects required to meet the changing needs of Calgary, one of the fastest growing cities in the country. This includes piloting and adopting new, innovative, and customer-focused approaches to construction.

This report highlights infrastructure projects that create a more accessible and resilient city: ranging from major transportation corridors, to the improvement of existing and aging infrastructure such as bridges, to the addition of new flood barriers which improve our environmental resilience.

The City's continued investment in community projects demonstrates an ongoing commitment to improve Calgary's infrastructure, add value for Calgarians and communities and support the achievement of The City's and Council's shared strategic agenda.

The outcomes of this work help build economic, social and climate resilience and further Calgary's global positioning and reputation as one of the most livable cities in the world.

Michael Thompson P.Eng., MBA
General Manager, Infrastructure Services



IP2024-0977
Attachment 1

Infrastructure Project Highlights

1

144 Avenue N.W. West Nose Creek Bridge

Bridging new communities with an improved transportation network.

Budget: \$6 million (Part of the \$61.2 million budget for 144 Avenue N.W. Improvements - Sage Hill Drive to 24 Street N.W.)

Project Status: Construction underway. Substantially completed in Fall 2024.

Project Background:

The City is constructing a bridge to connect 144 Avenue N.W. over West Nose Creek. The project supports the fast-growing development of communities adjacent to 144 Avenue N.W.

This project was undertaken following the completion of The City's Functional Planning Study for 144 Avenue N.W. The study considered the general design and location of a road between Symons Valley Road N.W. and 24 Street N.W. (Panorama Road N.W.), including the West Nose Creek crossing and the eventual realignment of Symons Valley Road onto Mountain View Road.

We are prioritizing the need to improve the transportation network in the area. There is also a strong future need to facilitate east-west transit connectivity between adjacent communities.

Project Scope:

- Improve the transportation network in the area.
- Facilitate east-west transit connectivity between adjacent communities.
- Expand the multi-use pathway system, further linking community members to Calgary's Always Available for All Ages and Abilities (5A) network.

Outcomes for Calgarians:

Accelerating community growth and home building in Sage Hill, Glacier Ridge, Moraine, Carrington, and Livingston, by providing transportation infrastructure improvements in the area.

DID YOU KNOW?

It is anticipated that the communities in the 144 Avenue N.W. vicinity will see growth of approximately 7,000 single and semi-detached homes and over 7,000 multi-residential homes over the next five years.

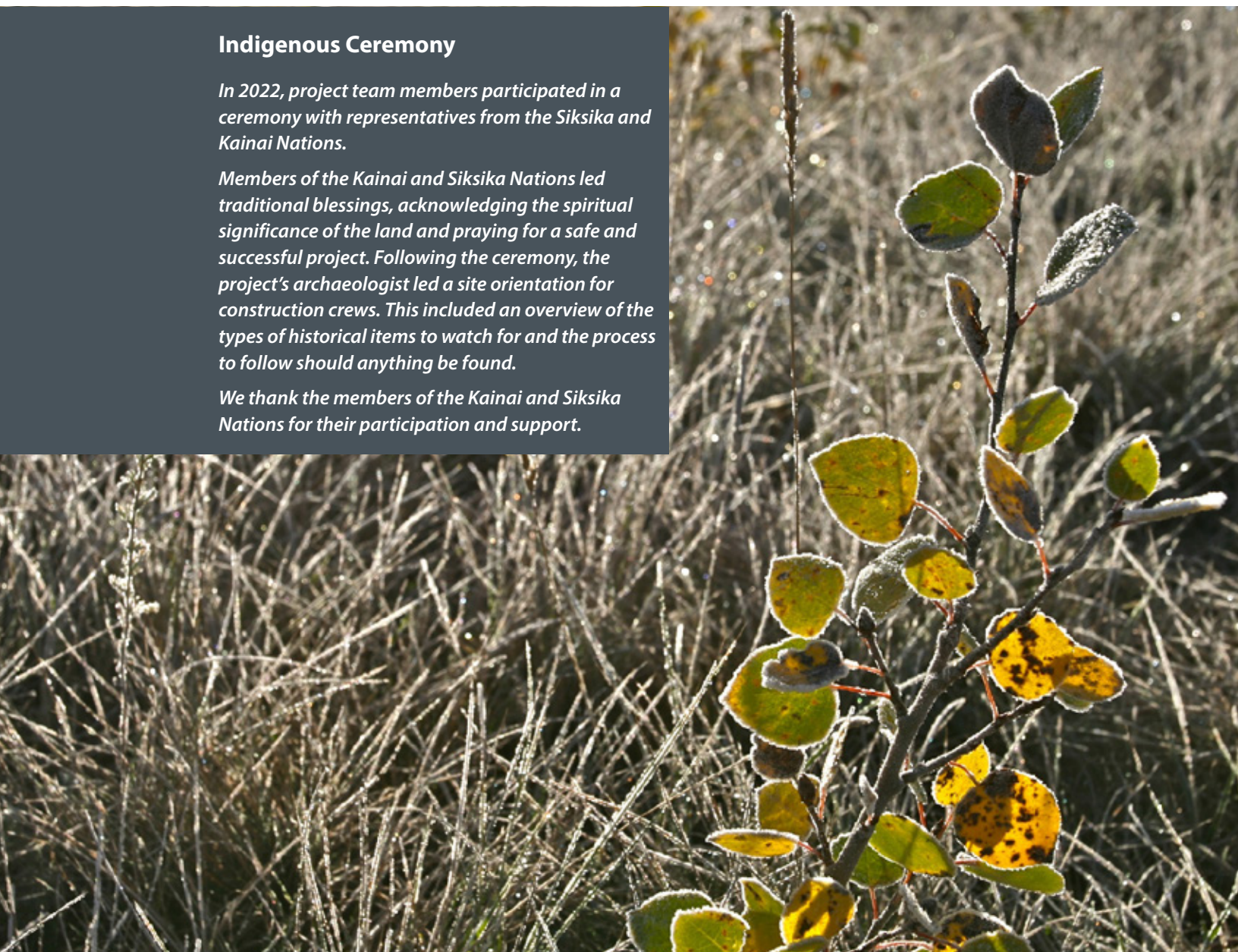
Upon completion, 144 Avenue N.W. will be the only continuous east-west connection north of Stoney Trail.

Indigenous Ceremony

In 2022, project team members participated in a ceremony with representatives from the Siksika and Kainai Nations.

Members of the Kainai and Siksika Nations led traditional blessings, acknowledging the spiritual significance of the land and praying for a safe and successful project. Following the ceremony, the project's archaeologist led a site orientation for construction crews. This included an overview of the types of historical items to watch for and the process to follow should anything be found.

We thank the members of the Kainai and Siksika Nations for their participation and support.





2

Infrastructure Project Highlights

Sunnyside flood barrier

Increasing flood resiliency and creating spaces that enhance connection along the Memorial Parkway Corridor.

Budget: \$50 million

Project Status: Construction underway. Anticipated completion in Spring 2026.

Project Background: We are building a 1:100 level flood barrier. This will help us manage flood water and avoid the type of damage we saw from the 2013 flood, while providing the building blocks for future climate resiliency.

Project Scope:

- The barrier will be approximately 2.4 kilometers long and will run along Memorial Drive N.W. from 14 Street N.W. to west of Centre St.
- The flood barrier will include a combination of permanent concrete flood walls, sheet walls and temporary movable flood walls.
- Sheet walls are permanent metal walls that are designed to hold back flood water. They are embedded below ground, three to six meters deep, to provide structural stability.
- The movable walls are being developed for specific locations of the flood barrier where they can be added and removed as needed along Memorial Drive N.W. These walls can be put in place during flood season to provide additional protection from river flooding to the community and then removed when the community is not at risk.
- Construction will take place in a phased approach to minimize the impacts to vehicle traffic and disruptions to pathway users along Memorial Drive N.W. as well as to mitigate effects to businesses and residents in the community.

Outcomes for Calgarians:

The barrier is located along one of Calgary's most cherished corridors. This space must be protected and where possible, enhanced. When designing and constructing the flood barrier, we have a chance to build upon improvements to this area over the last 10 years and to continue enhancing the public spaces surrounding Memorial Drive N.W. from 14 Street to west of Centre Street while adding critical flood protection.

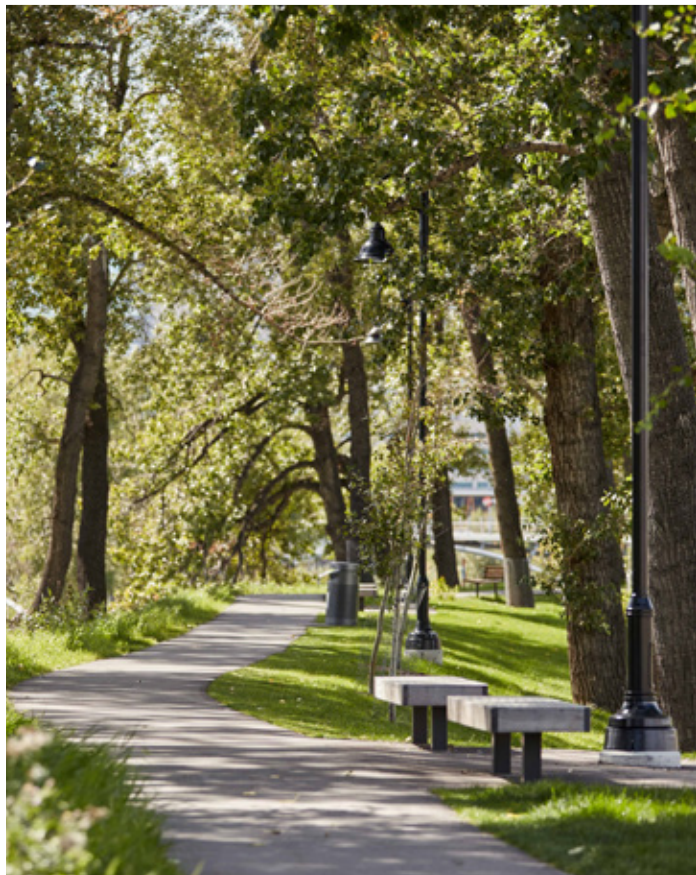
A refreshed vision for the area will include more unique spaces that bring us together to connect with each other, our history, and nature, including:

- A focus on improving how people move around the area, whether it is by foot, bus, bike, or car for safer and easier passage.
- Providing more and safer access points for people to get to the river.
- Introducing new ways to enhance the vibrancy of the natural environment while preserving as many trees as possible. This includes the Memorial poplar trees to remember our fallen soldiers.

DID YOU KNOW?

As many of the original Memorial trees are nearing the end of their lifecycle, The City is spearheading the regeneration and revitalization of Memorial Drive. This plan will concentrate on improving the aesthetic value of the landscape by introducing a variety of new tree species, while protecting the existing legacy and continuing the historic, environmental, and cultural integrity of Memorial Drive.

Approximately 337 tree removals are required as part of the project. Twenty-two of those trees were removed in spring 2024 with the remainder to be removed in 2025. In advance of the enabling works and main construction, our team took inventory, surveyed and completed health assessments of each tree on site. We plan to replant 280 new trees, new flowers and shrubs.





3

Infrastructure Project Highlights

Mission Bridge rehabilitation

Historic bridge resilience improves mobility for pedestrians, cyclists, and motorists.

Budget: \$17.8 million

Status: Construction is underway. Expected to be completed in Winter 2025.

Project background: Mission Bridge is a vital connection for walking, driving and wheeling in the Mission District. The bridge was built in 1886 and was the first bridge spanning the Elbow River; it opened to traffic in 1915, making it one of Calgary's oldest bridges.

This three-lane bridge connects the communities of Roxboro and Rideau to the Mission District. We are restoring Mission Bridge to extend its lifespan, while also improving pedestrian and traffic flows to keep Calgarians moving and safe.

Project scope:

- General concrete repairs and construction of a multi-use pathway on the east and west sides of the bridge.
- Life-cycling of signals at the north intersection of the bridge.
- Redesign of the three traffic lanes and an overall improvement of the connections at the north and south ends of the bridge.
- Repairs to the retaining wall and sidewalk located northwest of the bridge following the Elbow River.

Outcomes for Calgarians:

- Improved traffic flow for motorists and a new pathway for pedestrians and cyclists.
- Enhanced lighting to improve visibility and accessibility.
- Improved safety for active mode users with new modes of transportation by building multi-use pathways on the east and west sides of the bridge.
- Improved traffic signals at the north end of the bridge.

DID YOU KNOW?

Mission Bridge has survived several floods. During the 2013 flood, it was fully submerged in water from the Elbow River.



135 years of connections across the Elbow River

Mission Bridge was made of wood when it was originally built in 1886 and was located a few blocks south of its current location. It only lasted about 10 years before it needed to be rebuilt using steel trusses. Mission Bridge was replaced again in 1915 using concrete, making it one of the oldest concrete bridges still standing in Alberta today.



DID YOU KNOW?

Approximately 29,000 vehicles travel across the 4 Avenue Flyover every day.

4

Infrastructure Project Highlights

4 Avenue Flyover rehabilitation

Keeping Calgarians moving by extending the life of a critical link in our transportation network.

Budget: \$12.5 million

Project Status: Construction is underway. Anticipated to be completed in Fall 2025.

Project Background: The 4 Avenue Flyover was built in 1982 and spans 430-meters crossing over the Bow River, making it the longest bridge structure in Calgary. The flyover requires major repairs and improvements after 42 years of daily service for motorists entering Downtown Calgary. The City is investing \$12.5 million to ensure the bridge continues to be functional, reliable, and in good condition for commuter use for decades to come.

Project scope:

- Rebuilding existing concrete barriers, adding improved signage and enhanced lighting.
- Replacing existing concrete paving overlay with a polymer modified asphalt (PMA) overlay.
- Replacing existing expansion joints, and other general concrete repairs across the structure.

Outcomes for Calgarians:

- Improving the condition of the flyover, including the addition of streetlights.
- Extending the service life of the flyover.
- Improving one critical link in the transportation network to help with Calgary’s continued growth in the coming years.



5

Infrastructure Project Highlights

Constellation Industrial Park

Industrial land sales help fund affordable housing.

Location: Spans 600 acres north of Glenmore Trail S.E., east of 52 Street S.E., west of the Ring Road, and south of Peigan Trail S.E.

Project Status: Phase 1A sales of industrial land for development launched in April with eight of 12 parcels already under contract. Due to high demand, we have accelerated phase 1B from 2025 to Fall 2024, combining to more than 25 acres of industrial land. The development is phased with remaining releases planned between 2026 and 2029.

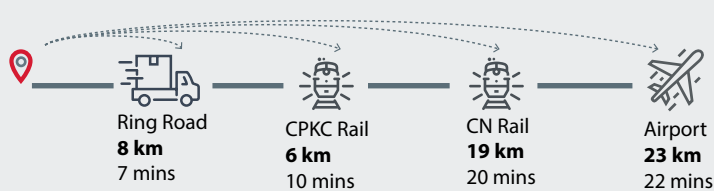
Project Background: Constellation Industrial Park is a major initiative of The City of Calgary's Industrial Land Development Program, part of the broader Industrial Land Strategy. The program aims to foster economic growth, employment opportunities, and community benefits by developing industrial lands for sale to end users and developers looking for shovel-ready and immediate development.

Outcomes for Calgarians: Constellation Industrial Park stands as a cornerstone of The City's commitment to strategic industrial development, embodying the principles of economic growth, community enhancement, and sustainable urban planning. By leveraging its prime location, comprehensive infrastructure, and strategic zoning, Constellation Industrial Park not only facilitates economic resilience and job creation, but also contributes significantly to Calgary's non-residential tax base and affordable housing initiatives. As Phase 1 progresses ahead of schedule and demand remains robust, Constellation Industrial Park is emerging as a premier industrial park poised to drive Calgary's economic vitality well into the future.

Five per cent of industrial land sales fund affordable housing within the city, which is essential for attracting and maintaining a diverse workforce.

Key features:

Distance from Constellation industrial park



Our highways

Trucks can reach markets of 16 million people in western Canada and the Pacific Northwest in a day



Calgary International Airport

Transporting 75% of Alberta's air cargo shipments.



Alberta's transport system



Bringing over 122 billion of province-wide products to international markets each year.

Educated Labour Force

Calgary has the highest level of educational attainment and labour force productivity of major Canadian cities.



Navigating Challenges

1

Bearspaw South Feeder Main break and preventative maintenance

On the evening of June 5, 2024, one of Calgary's largest water mains, in the area of Bowness and Montgomery, experienced a catastrophic failure. The break was on the Bearspaw South Feeder Main, a critical transmission line that carries 60 per cent of the water from the Bearspaw Water Treatment Plant into Calgary's water distribution network.

The initial break and five additional "hot spots" required emergency repairs. To complete the necessary repairs a coordinated approach was required, looking to industry partners for support and the efficient mobilization of their teams. It was this coordinated approach, in addition to the sacrifice of all Calgarians through water conservation efforts, that ensured the feeder main and the additional hot spots were restored, and regular water service was returned to Calgarians sooner than expected.

Once the feeder main was returned to service, a device called PipeDiver was used to inspect parts of the feeder main, which could not be inspected during the initial repair. This further inspection revealed 21 additional locations requiring urgent preventative repairs.

The urgent preventative repair of the 21 additional locations was completed ahead of schedule and the teams worked to minimize the impact to residents and businesses during the repair work, which was carried out 24 hours a day, 7 days a week.



The unprecedented work required for repair of the Bearspaw South Feeder Main impacted regularly scheduled projects across the city during the summer of 2024. Project impacts are continuing to be identified and understood as we diverted City resources, as well as consultants and contractors working on other City projects, to focus their efforts on the Bearspaw South Feeder Main repair work. Confidential Attachment 3 of the Biannual Infrastructure Insights Report – Q3 2024 (IP2024-0977) details the preliminary list of scheduled 2024 projects likely to be impacted based on information available as of August 25, 2024.

Calgarians sacrificed a great deal throughout the summer as repairs were completed. Communities were directly impacted by water restrictions, construction and traffic delays. Businesses were also heavily impacted and demonstrated incredible grace and resilience throughout the repairs and the negative impacts they presented.

We would like to thank all Calgarians for their understanding and support throughout the emergency response and subsequent planned repairs.

Planning for water resilience to support a growing region

We are building a city that provides Calgarians with equitable access to the services they value most, including reliable water service. Improving system redundancy and resilience is a priority for Infrastructure Services and our colleagues across The City. A series of phased infrastructure projects and investments have been planned and, in some cases, were underway prior to the Bearspaw South Feeder Main break. These projects include:

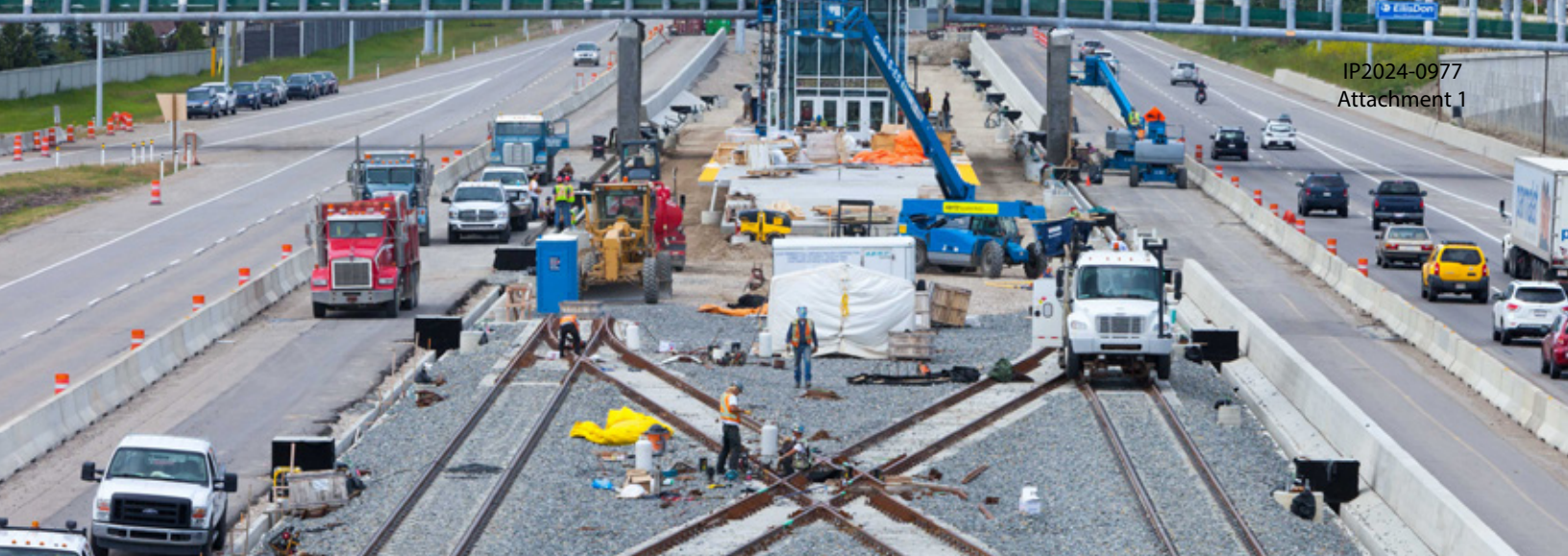
- Design and construction of the North Calgary Water Servicing project. This includes a series of feeder mains, pump stations and reservoir infrastructure projects needed to provide necessary redundancy and capacity to serve additional growth in the north zones, including Airdrie. This infrastructure is planned to be fully in service by the end of 2028.
- Design and construction of a new underground reservoir as part of the pipe system located at Glenmore Water Treatment Plant. This reservoir, previously planned to be in service by the end of 2030, will be accelerated to be in service by the end of 2028/2029.
- The South Calgary Water Servicing project, a new feeder main to move water to south Calgary from the Bearspaw Water Treatment Plant is in early development. This project will provide redundancy to the south zone in Calgary; defined as portions of the city south of 17 Avenue S.E. and east of 14 Street S.W. The south zone also includes the regional customers Chestermere and Strathmore. Construction on this project is anticipated to end in December 2030.

The City continues to take a multi-faceted approach to managing the risk of deteriorating critical infrastructure in our water system. This response will include both near and long-term improvements to the condition of our infrastructure, as well as ensuring redundancy in our system for critical infrastructure.

- The near-term actions that will be taken to improve the condition of all the city's feeder mains includes a data-driven, risk-based method to guide condition assessment, starting with those feeder mains with the highest risk profile (based on material type, age, soil type, system redundancy and criticality to service).

- The long-term actions will include rehabilitating high-risk infrastructure to reduce the risk of service disruption.
- Administration is contributing to the Professional Practices Review, led by Association of Professional Engineers and Geoscientists of Alberta (APEGA), of the Bearspaw South Feeder Main. We look forward to receiving the recommendations from this review and incorporating them into our normal business operations as we strive for continuous improvement.





2

Navigating Challenges

Asset condition and overall infrastructure gap

Managing the infrastructure gap to provide future generations with reliable infrastructure.

The City owns and manages a portfolio of over \$100 billion in assets used to deliver services to Calgarians including roads, bridges, buildings, parks, recreation facilities, information technology, machinery, and equipment. Infrastructure assets are also required to treat wastewater and provide emergency services, potable water, and public transit services.

The infrastructure gap is the difference between the ongoing investment in assets required to meet service levels, including preventative maintenance, and the financial resources presently available to address those needs. The 2022 Corporate Asset Management Plan identified an infrastructure gap of more than \$7 billion, with seven per cent of City assets (on average) in poor/very poor condition.

infrastructure, exploring new ownership models for best providing municipal services.

The City continues to closely monitor assets identified as being in poor or very poor condition and act as needed to ensure reliable service delivery and public safety. For instance, the current assessed condition of Calgary’s road network (approximately 17,000 lane kilometers) is 38 per cent good, 36 per cent fair, and 26 per cent poor. At the current annual investment of \$40 million, the road network will continue to degrade. Modelling shows that poor condition roadways are expected to increase at a rate of 2.2 per cent annually (from fair condition); good condition roads will also fall at a rate of one per cent per year. To address these trends, work has been completed to establish a recommended level of service for roadways.

Calgary continues to be one of the fastest growing cities in Canada and the demand for services and infrastructure assets is growing. The current trend indicates an increasing infrastructure gap, compounded by aging infrastructure and inflation.

An update to the Infrastructure Status Report (ISR) is scheduled for early Q1 2025, providing the current status of municipal infrastructure and an updated estimate of the infrastructure gap. The Corporate Asset Management Plan (CAMP) that follows will highlight additional investments in infrastructure needed to maintain current and future service levels.

To mitigate the risk associated with the infrastructure gap, The City continues to reprioritize its limited funding to support critical infrastructure investment, as needed. The City is also identifying and assessing opportunities to increase the value we get from



3

Navigating Challenges

Capital cost escalation

Mitigating capital cost escalation impacts to deliver infrastructure for Calgarians.

A variety of capital projects are experiencing cost escalations. In November 2023, Council approved \$147 million for the Capital Cost Escalation Fund. This fund provides a flexible strategy to respond to cost escalations at the portfolio level and deliver Council approved investments in a timely and cost-effective manner. Without this funding, more projects may face significant delays, de-scoping, or cancellation. To date, recipient projects include:

- **Additional Light Rail Vehicle (LRV) Procurement (\$62 million)**
Enables Calgary Transit to acquire nine of the new LRVs intended to replace the U2s. This will reduce service level risks that could impact the efficiency and capacity of Calgary's public transit system.
- **MNP Community & Sport Centre Expansion Aquatics Project (\$13 million)**
Helps in closing the Leisure Expansion Aquatics Project (LEAP) funding gap by enabling the project to proceed with construction in 2024.
- **Calgary Soccer Center Redevelopment and Upgrade (\$4 million)**
Allows The City to meet the high demand from Calgarians for recreational opportunities in this equity-seeking community. The funding enables the project to proceed with construction in Spring 2024 with completion in Q2 2025.
- **Glenmore Twin Arena at Glenmore Athletic Park (\$35 million)**
Two new convertible ice rinks replacing the two aging and demolished arenas in the area. The funding enables the project to proceed with construction.

- **Mount Pleasant Affordable Housing (\$2 million)**

16-unit modular residential construction project in the community of Mount Pleasant. Over 20 per cent of the units will be accessible-ready to meet funding requirements.

- **Rundle Affordable Housing (\$4 million)**

Creates 135 affordable homes (rental housing) for Calgarians and supports Council's climate resiliency goal by incorporating energy efficiency and climate resilience in the design and construction of the homes.

- **Mission Bridge Rehabilitation Project (\$2 million)**

This includes concrete repairs, a complete redesign of the bridge cross-section with the addition of multi-use pathways and an overall mobility improvement for pedestrians, cyclists, and motorists.

Funding has been earmarked for additional affordable housing, a mixed-use fire station and future library. Final approval is given when projects are ready to go to tender. As a result, a new request that prioritizes highly could supplant one that is earmarked for funding but not yet ready.

Services continue to request relief from the Capital Cost Escalation Fund. Administration is proposing an additional \$15.8 million of contributions to the fund at Mid-Cycle Adjustments. However, with over \$400 million worth of requests to the fund, not all requests can be funded. The City continues to look for alternate sources of funding to successfully deliver all capital investments.

Advance Design to Shovel Ready Fund

The Advance Design to Shovel Ready Program enables the acceleration of early capital investment deliverables to facilitate better decision-making, grant applications and future prioritization. Funding will be provided for feasibility studies, master plans, concept planning, and detailed designs. Projects are selected using the Executive Leadership Team-approved corporate capital prioritization criteria. The program will focus on funding a total of \$50 million in 2023-2026 for capital investments. The entire \$50 million has been allocated, with the bulk of the spending anticipated to come in 2025. Thus far, approximately \$1.9 million has been spent. The following projects have been funded through this program:

- 52 Street Bus Rapid Transit (\$2 million)
- Arts Commons Transformation Phase 2 (\$3.7 million)
- Belvedere Civic Centre (\$0.8 million)
- Bi-directional Signalized Interlocking (\$0.2 million)
- Block 40 Future Use (\$0.8 million)
- Blue Line Light Rail Transit Extension (\$5.6 million)
- Contemporary Calgary Entrance Pavilion (\$0.8 million)
- Country Hills Boulevard Northeast Widening (\$1 million)
- Deep South Operations Workplace Centre Optimization Study (\$0.5 million)
- Forest Lawn Centre Development (\$0.5 million)
- Greyhound Future Use (\$0.8 million)
- Hidden Valley Fire station #36 (\$0.2 million)
- Horizontal Lines Program (\$0.2 million)
- Inglewood Mixed Use Fire Station Project Redirection (\$2 million)
- Manchester Centre Block Redevelopment (Operations Workplace Centre) (\$0.8 million)
- MAX Purple (\$1 million)
- Medicine Hill Pedestrian Bridge (\$1.3 million)
- North Hill Redevelopment Re-start (\$0.5 million)
- Nose Creek Vapor Management System Expansion (\$0.4 million)
- Red Line Extension (\$0.7 million)
- Red Line Maintenance and Storage Facility and Anderson Garage Lathe (\$1.7 million)
- Shaganappi Club House (\$0.5 million)
- Shaganappi Trail Bus Rapid Transit (\$0.5 million)
- Shepard Snow Storage Site (\$2.5 million)
- Southland Leisure Centre Modernization (\$0.5 million)
- Spyhill Soil Vapour Expansion (\$0.1 million)
- Stephen Avenue (\$5.8 million)
- Symons Valley Transit Centre and Associated Bus Rapid Transit (\$1 million)
- Telus Spark Keep Calgary Curious (\$3.1 million)
- Thornhill Aquatic & Recreation Centre (\$0.5 million)
- Tomkins Park Washroom (\$0.2 million)
- Tuxedo Park School Future Use (\$0.4 million)
- Victoria Park Decommissioning and Update to Blackfoot Bus Maintenance Facility (\$2 million)
- Village Square Leisure Centre Green and Accessible Retrofit Project (\$7.3 million)





4

Navigating Challenges

Calgary's labour market outlook

Calgary's construction labour shortage expected to persist.

The [Calgary Economic Region Labour Market Outlook \(2024-2033\)](#) reports that job vacancies in the region are expected to grow by approximately 479,000 over the next 10 years. Calgary's construction industry is particularly impacted by this trend. According to the Market Outlook, there will be close to 30,000 openings in the industry over the forecasted period. About a third of these vacancies will be due to the need to replace an aging workforce, while the rest will be due to the rapid growth Calgary is experiencing, as we move closer to reaching a population of two million.

While the construction industry workforce in Alberta has seen significant growth in recent years, it is matched by the corresponding growth in the number of vacancies, which remains elevated when compared to the total for all industries in the province. The Calgary Construction Association reported in January 2024 that nearly one in four of all job vacancies in Calgary are in construction trades and management jobs.

The vacancy rate for the construction industry in the first quarter of 2024 is estimated to be 5.3 per cent while the combined vacancy rate for all industries in Alberta is 3.4 per cent.

The ongoing trend of skilled labour shortages in the Canadian construction industry continues to impact The City's ability to deliver capital infrastructure for Calgarians and close the infrastructure gap. Labour shortages impact construction project timelines, amplifies cost escalation, and hinders the delivery of needed infrastructure for Calgarians.

The City continues to be intentional and proactive about mitigating the risk posed by the labour market. We are sequencing projects to create more consistent opportunities for consultants and contractors and are maintaining a dialogue with industry to help mitigate labour challenges.

Delivering great service and value for Calgarians

Community and Business Relations

Customer Focused Initiatives.

The City is investing in critical infrastructure to build vibrant and resilient communities. These infrastructure investments are essential for creating inclusive, accessible, and connected communities in our growing city.

While a necessity, construction related to infrastructure projects can be disruptive. We aim to minimize disruptions and use a customer-focused approach to manage and mitigate impacts of city-led construction projects.

The City has been expanding these initiatives and piloting new approaches to support businesses, residents and area users leading up to and during construction on a variety of projects across the city.



Main Streets Business Support Grant pilot

We are piloting a new initiative that empowers businesses to implement strategies that offset construction impacts and encourage patronage during construction.

Location: Bridgeland and Marda Loop

Budget: Estimate \$1.2 million

Status: As of August 31, 2024:

- Grant application period is open from June 20, 2024, until October 31, 2024.
- 209 businesses have received the Main Streets Business Support Grant (61 in Marda Loop, 148 in Bridgeland).
- Just over \$1 million in grant monies have been provided directly to businesses.
- Approximately 85 per cent of the grants anticipated for the two pilot Main Street project areas have been issued.

Project background:

On March 19, 2024, Council directed Administration to implement the Business Support Grant pilot for the Bridgeland and Marda Loop Main Streets. The grant launched on June 20, 2024.

The Main Streets Business Support Grant pilot is one of several business-friendly initiatives being piloted in 2024, and is just one piece of the puzzle in supporting businesses leading up to and during the delivery of planned capital projects.

Project goals:

This pilot program aims to support eligible businesses impacted by planned construction of Main Streets projects in Marda Loop and Bridgeland in 2024, by providing a one-time grant of \$5,000.

The grant pilot encourages business-led solutions to address impacts, empowering business owners to use the funds in ways that best support their operations and customers during construction. This allows businesses to develop solutions based on their unique circumstances.

The pilot will serve as a tool for The City to learn from and evaluate the effectiveness of providing this type of construction financial support and inform a recommendation on potentially formalizing a business support grant for Main Streets infrastructure projects in the future.

With over two-thirds of the anticipated grants approved, the focus is shifting from grant delivery to evaluating the pilot program in preparation for the report back to Council in Q1 2025. This evaluation process will seek feedback from the business community, both within and outside the grant pilot area.

Riley area construction projects coordination

The City is coordinating across project teams to mitigate the impacts of overlapping construction projects.

Location: Riley area communities (Hillhurst, Hounsfield Heights-Briar Hill, Sunnyside and West Hillhurst).

Status: Ongoing, with major construction impacts anticipated into 2025.

Project background:

The City is investing in infrastructure and public spaces to improve the Riley area, combining flood mitigation with vibrant public spaces and infrastructure upgrades. Multiple major projects will occur concurrently impacting visitors, commuters, residents, and businesses. The Community and Business Relations team is leading coordination efforts to minimize cumulative impacts and establish relationships with impacted parties.

Projects included:

- The Sunnyside Flood Barrier
- Upper Plateau Separation
- Gladstone Connect
- Mobility Improvements: 2 Avenue/7 Avenue N.W.
- Public Realm Improvements: 3 Avenue N.W.
- Sunnyside LRT Station Crossing Arm Upgrades

Immersing the community in project details:

These improvements follow years of community engagement. As we now transition to implementation, we are immersing area users in project details, outlining what is to come.

Community and Business Relations is piloting an immersive, 360 degree virtual reality experience for the Sunnyside Flood Barrier project that allows Calgarians to be fully engaged in the project. Signage along the Bow River Pathway prompts users to scan a QR code, unveiling a 360-degree view of the future flood barrier, allowing Calgarians to see past the current construction and experience what will be. These signs also provide information on flood prevention and Calgary's climate-ready home guide, helping Calgarians learn what they can do to be prepared.

Finding unique solutions:

We recognize the impact of concurrent construction projects and are testing innovative solutions to mitigate these effects.

In May, several residents in Hillhurst lost access to all on-street parking due to construction. To help residents prepare and offset these impacts, our Community and Business Relations team hosted a "Construction Ready Cleanup", to allow residents to clear their garages and laneway parking spaces before the parking impacts occurred.

Responding to the community:

We are committed to working with the community as we deliver these projects, this includes responding to concerns quickly and effectively.



Recently, the Sunnyside Hillhurst Community Association raised concerns about potential shortcutting in the community due to construction on Memorial Drive N.W. In response, we designed signage to deter shortcutters, using eye-catching language. We also collaborated with the Community Association on the final design to ensure concerns were addressed.

City of Calgary Capital Projects Map

An interactive map for Calgarians to learn more about Calgary’s capital projects.

In alignment with the strategic priority of Council to modernize government, the Capital Projects Map provides Calgarians with a tool to learn more about The City’s infrastructure projects. This interactive map offers comprehensive insights into select, ongoing infrastructure capital projects in an open and transparent way for Calgarians.

The Capital Projects Map identifies the location of projects and includes project descriptions, schedules, budgets and statuses. An initial version was launched in May, 2024 on calgary.ca/capitalprojectsmap with a limited number of Infrastructure Services projects. An October update increased the number of projects identified on the Capital Projects Map.

A detailed list of the projects featured on the Capital Projects Map and their status is included in the appendix.

The project team is soliciting feedback on the project webpage with plans to incorporate user input to improve the overall experience.

Quarterly project updates and additions to the Capital Project map are planned, as well as improvements to the map over time. The goal is to enable the sharing of information on capital projects in Calgary spanning across services. Once the majority of capital projects are added to the map, the project team will mark the achievement with a formal public communications campaign.



Mission Bridge Design Cycle

Improving the customer experience during construction.

Residents and businesses frequently express frustration over the impact of construction on their daily lives. We are trying innovative ways to proactively address these challenges through a Calgarian-centric approach that complements work already undertaken by the project team.

The Mission Bridge Rehabilitation project team has partnered with The City's Innovation Lab to improve Calgarians' experiences during construction. To understand the challenges directly from those impacted by the Mission Bridge construction project, we went into the community to observe how impacted commuters move through the area and spoke with residents in the surrounding communities. We listened to their concerns, feedback and ideas so they could inform potential solutions.

Solutions to their challenges are currently being tested through prototypes to gather direct feedback from Calgarians. A few examples include:

- A construction site concierge: to observe the construction site from a Calgarian's perspective, identify issues and report to the project team for solutions.
- A point of interest window: where curious Calgarians can safely learn about the details of ongoing construction projects in their community.
- *Spot the local wildlife* scavenger hunt for rafters: a QR code at both ends of the bridge is available to track engagement.

Another five engagement prototypes are under development to address the discovered concerns. Learnings from the Mission Bridge construction project will be captured to create scalable approaches to improving Calgarians' experiences with construction across the city.





Rightsizing infrastructure update

The Planning and Development Services and Infrastructure Services departments work collaboratively to apply rightsizing principles to the planning and design of municipal infrastructure aligning with an updated city-building vision. Work is underway on a new City Building Program that includes refining the Municipal Development Plan and Calgary Transportation Plan, modifying policies and design standards for our street network, and integrating climate and resiliency goals.

We continue to leverage analytical tools including the Regional Transportation Model and seek opportunities to holistically consider infrastructure needs contributing to the optimization of infrastructure planning. The Southeast Calgary Transportation Network Study is underway and is intended to assess the mobility network holistically (Active modes, Transit, Goods Movement, High Occupancy Vehicles, and Single Occupancy Vehicles) against projected growth. This will aid The City in aligning mobility infrastructure upgrades with growth potential.

Service strategies like RouteAhead (Transit Strategy), the Always Available for All Ages and Abilities (5A) Network Plan and Step Forward (Pedestrian Strategy) provide further guidance on the design of infrastructure that Calgarians value and need. For example, the ongoing functional planning study for the Bow Trail/Sarcee Trail intersection places a greater focus on active modes of transportation while aiming to reduce the overall interchange footprint and refine the configuration. Concept options are being informed by technical considerations, area constraints, and feedback from the public and interested parties.

Another example is the improvements to 14 Street S.W., south of Anderson Road. This project should reach substantive completion in October 2024 and will include a new pathway to promote active transportation modes, a post and cable fence and a safety barrier to enhance driver and pedestrian safety, and planned landscaping to align with our climate goals.

Appendix

Status of projects featured on the Capital Projects Map

| Service line | Project | Budget ('000) | Budget Status | Schedule Status | Scope Status |
|--------------------------------|--|---------------|---------------|-----------------|--------------|
| City Planning & Policy | Revitalize 8 Street S.W. | 38,400 | Green | Yellow | Green |
| Economic Development & Tourism | Calgary Event Centre Block (Scotia Place) | 1,233,300 | Green | Green | Green |
| Facilities | Forest Lawn Civic Centre | 1,585 | Green | Green | Green |
| Facilities | Varsity Multi-Service Redevelopment | 53,500 | Green | Green | Green |
| Fire & Emergency Response | Cornerstone Multi-Service Development | 16,000 | Green | Green | Green |
| Public Transit | North Central Bus Rapid Transit | 22,500 | Green | Green | Green |
| Public Transit | South Central Bus Maintenance and Storage Facility Feasibility Study | 2,000 | Green | Green | Green |
| Recreation Opportunities | Glenmore Twin Arena | 85,600 | Yellow | Green | Green |
| Recreation Opportunities | Calgary Soccer Centre (CSC) dome & artificial turf field upgrade | 28,000 | Green | Green | Green |
| Sidewalks & Pathways | Repaving with 5A Improvements | 7,000 | Green | Green | Green |
| Sidewalks & Pathways | Marda Loop Main Street | 46,500 | Green | Yellow | Green |
| Sidewalks & Pathways | Bridgeland Main Streets | 27,000 | Green | Green | Green |
| Sidewalks & Pathways | 16 Avenue N.W. at 29 Street N.W. Pedestrian Overpass | 15,000 | Green | Green | Green |
| Sidewalks & Pathways | Jaipur Multiuse Bridge | 11,450 | Green | Green | Green |
| Sidewalks & Pathways | Kensington / Sunnyside Mobility Improvements Project | 6,000 | Green | Green | Green |
| Sidewalks & Pathways | Bridgeland Active Modes Improvements | 3,200 | Green | Green | Green |
| Sidewalks & Pathways | Ward 10 Connections | 750 | Green | Green | Green |
| Sidewalks & Pathways | Ward 5 N.E. Pathways and Bikeways Network Corridor Connections | 800 | Green | Green | Green |
| Sidewalks & Pathways | S.W. Neighbourhood Bikeway | 600 | Green | Green | Green |
| Sidewalks & Pathways | Ward 9 Connections | 600 | Green | Green | Green |
| Sidewalks & Pathways | 14 Street N.W. - Berkshire Blvd. N.W. to Country Hills Blvd. N.W. (Missing Link) | 7 | Green | Green | Green |
| Stormwater Management | UD Upper Plateau Separation | 46,600 | Green | Red | Green |
| Stormwater Management | Gladstone Connect | 27,200 | Green | Green | Green |
| Stormwater Management | Providence Storm Trunk | 20,600 | Green | Green | Green |
| Stormwater Management | Keystone Storm Trunk (144 Avenue N.W.) | 20,300 | Green | Green | Green |
| Stormwater Management | Storm Outfall B5 Oil & Grit Separator (OGS) - Upstream of new B5 Storm Diversion Trunk | 3,100 | Green | Green | Green |
| Streets | 4 Avenue Flyover rehabilitation | 12,500 | Green | Green | Green |
| Streets | 144 Avenue N.W. Improvements | 61,300 | Green | Green | Green |
| Streets | 14 Street S.W. Reconstruction (Anderson Road - Canyon Meadows Drive) | 9,000 | Green | Green | Green |
| Streets | 17 Avenue S.W. (2 Street to 14 Street) Sidewalk, Pavement and Streetscape Improvements | 8,200 | Green | Green | Green |

| Service line | Project | Budget ('000) | Budget Status | Schedule Status | Scope Status |
|-----------------------------------|---|---------------|---------------|-----------------|--------------|
| Streets | Crowchild over Glenmore Bridge Rehabilitation | 6,800 | Green | Green | Green |
| Streets | 14 Street Ramp to Westbound Glenmore Trail Bridge Overpass | 5,700 | Green | Green | Green |
| Urban & Community Systems | Eau Claire Plaza Redesign | 49,500 | Green | Green | Green |
| Waste & Recycling | Compost Facility Expansion | 89,600 | Green | Yellow | Green |
| Waste & Recycling | WR-EC-Phase 7 Cells 10-12S | 20,700 | Green | Green | Green |
| Waste & Recycling | Spyhill Waste Management Facility Cell 7 Construction and Overburden Excavation | 8,250 | Green | Green | Green |
| Waste & Recycling | East Calgary - Landfill Gas to Electricity Facility | 8,037 | Green | Green | Green |
| Waste & Recycling | Spyhill Landfill Gas Expansion Phase 2 Cells 15-20 | 2,693 | Green | Yellow | Green |
| Wastewater Collection & Treatment | Bonnybrook WWTP Plant D Expansion | 568,000 | Green | Green | Green |
| Wastewater Collection & Treatment | Fish Creek West Sanitary Trunk | 46,400 | Green | Green | Green |
| Wastewater Collection & Treatment | Inglewood Sanitary Trunk | 37,400 | Green | Green | Green |
| Wastewater Collection & Treatment | Nose Creek Sanitary Trunk Upgrade (Phase B Contract 4) | 36,600 | Green | Green | Green |
| Wastewater Collection & Treatment | Bonnybrook Dewatering Facility Centrifuge 4 for Standby Production | 8,870 | Green | Green | Green |
| Wastewater Collection & Treatment | Pine Creek Wastewater Treatment Plant Upgrades - Phase 1 | 7,419 | Green | Green | Green |
| Wastewater Collection & Treatment | Trans Canada Sanitary Trunk | 6,000 | Green | Green | Green |
| Wastewater Collection & Treatment | Deer Run Lift Station Upgrade | 2,360 | Green | Green | Green |
| Water Treatment & Supply | Starlight Pump Station - Phase 3 | 41,500 | Green | Green | Green |
| Water Treatment & Supply | Fluoridation Re-Introduction | 28,100 | Green | Green | Green |
| Water Treatment & Supply | 210 Avenue Pump Station | 19,800 | Green | Green | Green |
| Water Treatment & Supply | East Belvedere Water Feedermain | 16,100 | Green | Green | Green |
| Water Treatment & Supply | Glenmore Dechlorination System Upgrade | 4,991 | Yellow | Yellow | Green |
| Water Treatment & Supply | Gladstone Connect 4 Avenue Water Upgrades | 2,158 | Green | Green | Green |

NOTE: Table is current as of Sep 24, 2024

Legend:

| Budget Status | |
|---------------|---|
| Green | On budget |
| Yellow | Within 20% of approved budget |
| Red | Cost exceeds approved budget by more than 20% |

| Schedule Status | |
|-----------------|--|
| Green | On schedule |
| Yellow | Within 20% of approved schedule |
| Red | Schedule exceeds initial schedule by more than 20% |

This report provides Council and Calgarians with line of sight to some of the work that The City is doing to deliver and build a vibrant and resilient city for future generations. The outcomes of these investments help build economic, social and climate resilience within Calgary and further Calgary's global positioning and reputation as one of the most livable cities in the world.

