

City of Ottawa

2023 Education Series

Bruce Kenny

Manager, Municipal Design & Construction



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Infrastructure and Water Services Dept

The new Infrastructure and Water Services Department is the hub for **all City infrastructure lifecycle renewal and replacement**, oversight and construction and asset management.

The department also manages the City's water services, which includes:

- Drinking water
- Wastewater
- Municipal drainage
- Laboratory services
- Stormwater management
- Exceptional water quality



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Infrastructure and Water Services Dept

Our Mission:

We are stewards of the City's current and future infrastructure and provide the vital water services our community relies on every day.



Our Mandate:

To build a better Ottawa for all to enjoy, today and into the future.



IWSD Leadership Team

Led by **Tammy Rose**, General Manager of Infrastructure and Water Services Department, the IWSD Leadership consists of:

Susan Johns (Director, Asset Management Services)

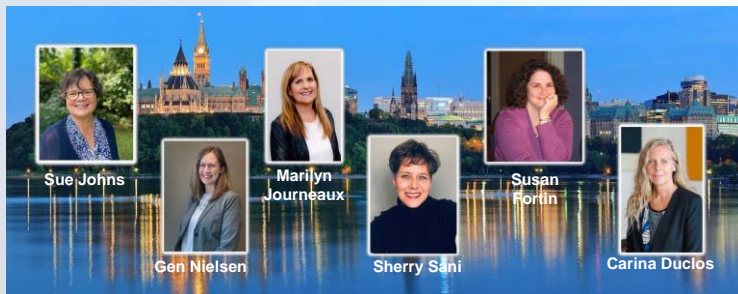
Marilyn Journeaux (Director, Linear Water and Customer Services)

Sue Fortin (A/Manager, Strategic Projects)

Gen Nielsen (Director, Water Facilities and Treatment Services)

Sherry Sani (Manager, Business and Technical Support Services)

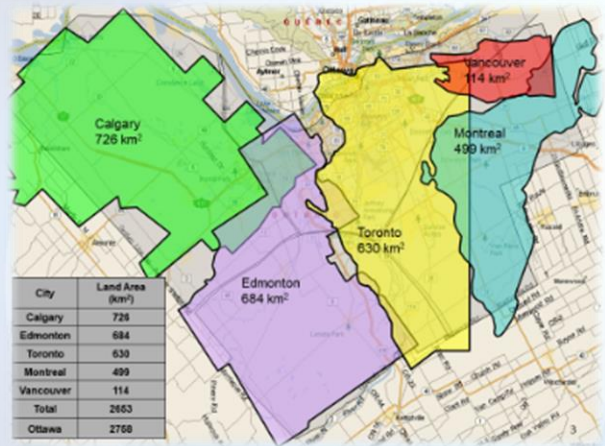
Carina Duclos (Director, Infrastructure Services)



City Assets Ownership

The City owns and maintains almost **\$70 billion** in infrastructure:

- 6,000+ km of roads
- 6,000+ culverts
- 500+ bridge structures
- 3,000+ watermains
- 6,000+ wastewater and stormwater pipes
- 1,000+ parks
- 900+ facilities



2022 Capital Budget Highlights



Stimulus Funding

Federal and Provincial stimulus funding programs have become available to help offset the economic impacts of COVID-19. Since 2021, the City has received funding approval for:

- ICIP COVID-19 Stream
- ICIP Public Transit Infrastructure Stream
- ICIP Long-Term Care Stream
- ICIP Community Culture and Recreation Stream
- Active Transportation Fund
- Green and Inclusive Community Buildings
- Canada Community Revitalization Fund
- Sewage Overflow Monitoring and Reporting Grant
- Strategic Priorities Infrastructure Fund

Other applications: Green Municipal Fund's Study: Energy Recovery or District Energy, Flood Hazard Identification & Mapping Program (FHIMP), Natural Infrastructure Fund, Enabling Accessibility Fund, Advancing Accessibility Standards



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Quality Management

Delivering quality is a shared responsibility.

To ensure quality of construction, the City:

- Continuously reviews design and construction standards
- Undertakes inspections and testing
- Works collaboratively with industry partners
- Applies Vendor Performance Management (VPM)
- Developing and implementing iQMS

iQMS: Infrastructure Quality Management System

iQMS will provide a framework for our services by following:

Plan - Do - Check - Act.



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Key Challenges

Inflation
 Strikes
 Climate change
 Skilled trades and worker shortage
 Excess Soils and other Regulations
 Supply Chain
 Unstable Market

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What Makes a Project Successful?

Definition of a successful project

- A project that **has achieved the** project objectives related to:
 - Scope
 - Budget
 - Timelines
 - Quality
- Where the **project stakeholders, consultants and contractors are satisfied** with how they were engaged and with the way the project was delivered
- Where the project was delivered with an understanding of why the project was required and the intended benefits



What is a project?

It's a temporary endeavor undertaken to create a unique product, service or result.

Project Management Institute

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Accessibility

- The City is a leader in developing accessible environments for all, embracing the principles of 'universal design'
- Approximately \$2.5 million per year is dedicated specifically for the barrier removal program
- Accessibility Design Standards (ADS) are maintained during construction which ensures the provision of a safe and accessible path of travel for all users through and/or around the construction site



Work in Progress

Projects in the municipal road/water/sewer/bridge queue:

- Currently have approximately 105 projects within Design and Construction Municipal in design stage... representing 850+M in upcoming asset investment
- When you take out the highlighted projects that leaves about 100 design projects with a corresponding 400+M asset investment
- projects in late stages with an outstanding spend of 50M on 200+M
- projects in earlier stages with an outstanding spend of 200M on 400+M
- Worry about getting it all done ... and less about whether it will happen



Past Year Highlights

Montreal Road Renewal

\$65.4M investment

- From North River Road to St. Laurent Boulevard
- Renewal of underground infrastructure
- Sidewalks and segregated cycle tracks
- Hydro burial
- Landscaping and streetscaping
- Resurfacing of the Vanier Parkway
- Construction began in 2019 with two-way traffic reopening in October 2022
- Remaining work to be completed in 2023



Strandherd Drive Widening

\$113M investment

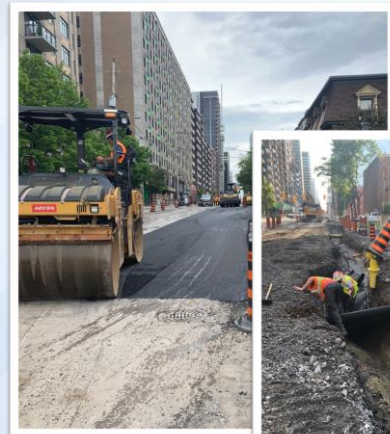
- Widening of Strandherd Drive from two to four lanes between Maravista Drive and Jockvale Road
- Grade separation at VIA rail tracks (vehicular overpass)
- New watermains and sanitary and storm sewers infrastructure
- Kennedy-Burnett Stormwater Management Facility retrofit is being constructed simultaneously (additional \$15.8M)
- All lanes were opened to traffic in December 2022
- Final work will be completed in 2023 including landscaping and top lift asphalt



Albert, Queen, Slater and Bronson Renewal

\$47.1M investment

- Replacement of existing underground infrastructure and road rehabilitation
- Combined sewer separation
- Reconfiguration and reconstruction of the right-of-way including new sidewalks, cycling facilities
- Construction began in 2021 with target completion of late 2024
- Close coordination with the construction of Ādisōke



Chief William Commanda Bridge

\$23.9M investment

- Multi-Use Pathway and Rehabilitation Project
- Project includes rehabilitation of the bridge structure, construction of a new multi-use pathway
- Will connect cycling infrastructure in Ottawa and Gatineau
- Construction began in 2021 with substantial completion in late 2023
- Final landscaping work in summer 2024.



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Ādisōke Library: Background & Collaboration

\$198M investment

- 216,000 square feet and largest social infrastructure investment in the City's history
- Co-designed with the public and Indigenous communities through the most comprehensive engagement on a building in Canada (7,000+ participants)
- Catalyst for economic growth and new development in the LeBreton Flats area
- Planned to open in 2026



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Ādisōke Library: Progress

- Installation of the second of two tower cranes and caisson work complete
- Installation of site services underway
- Concrete and steel work support levels 1 and 2 of the parking will then commence
- Milestone event to celebrate setting of foundation was held in June 2022
- For more details on this project please contact Tara Blasioli at tara.blasioli@ottawa.ca



Carlington Heights Pumping Station

Carlington Heights Pumping Station Expansion

- To improve reliability of water supply to approximately one third of the City's central distribution system
- To provide additional capacity needed to accommodate future urban growth
- Includes new building complete with all new mechanical and electrical equipment
- Construction to start early 2023
- Approved budget to date is \$16M



Understanding the Future Funding and Projects

How do budgets inform the industry on annual construction program ?

- Not easily correlated
- City funding approaches do result in an ebb and flow of the actual construction tendering
- Even when delayed... we have track record of not falling behind
- Many different colours of money
 - Transportation tax based
 - Growth based
 - Sewer and Water Rate based
- Council approved annual budgets fully determine tendering ability
- Typically January budget ...Election year budget pushes to March



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Understanding the Future Funding and Projects

Industry often expresses concern that funding will be impacted and work flow will slow

- The City is managing a \$70B asset and determines capital budgets through
 - Evidence based system to determine the right investment for the right asset at the right time
 - And is informed by a comprehensive asset management system, official plan, transportation master plan and long range financial plans
- There is every indication that the City will continue with consistent annual funding envelopes that will translate to relatively consistent annual construction volume.



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Understanding Funding Trends

- Continued strong investments in our most critical infrastructure
 - Water plants and backbone water system
 - Ropec will see significant investments in next 5 to 10 years
 - Growth projects will continue to support the urban development demands for commuters and transit
- Downtown areas have high needs due to age of assets which drives full reconstruction to modern city standards
- Continued shift in focus towards pedestrians, cyclists and transit users
- More traffic calming elements to support 30 Km neighborhoods
- Emphasis on accessibility and the most vulnerable user



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Upcoming Projects

Example of Projects in 2023 include:

- Corkery Community Centre Expansion
- Richmond Sewage Pumping Station capacity upgrade
- Richmond Forcemain Twinning
- Woodroffe Park Fieldhouse replacement
- Salt dome replacements
- Bundled programs > sidewalk, sewer repair, small culverts etc...
- Sewer lining
- Continued strong investment in Road Rehabilitation and Preservation



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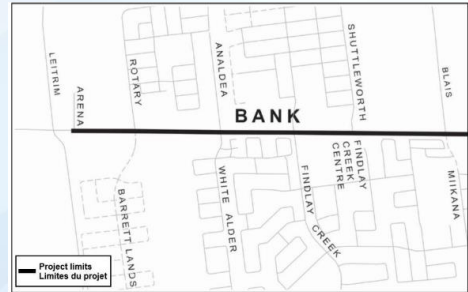
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Bank Street Leirtrim to Blais

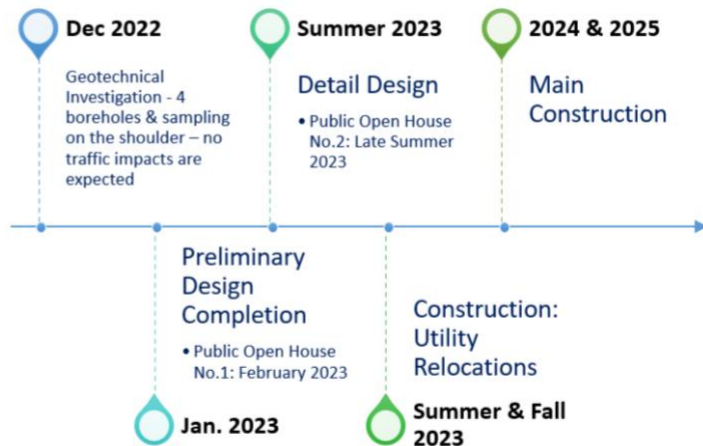
Under Design 50M future investment

Construction of a 2km widening of Bank Street from 2 to 4 lanes, including a raised median and modifications to signalized intersections that will have protected intersection features.

The project will also include approximately 4km of sidewalks, cycle tracks and grass boulevards and 0.6 km of paved shoulders.



Approximate Timelines:



Airport Parkway

Under Design > 65M future investment

- Widening of the Airport Parkway from two to four lanes between Brookfield Road and Hunt Club Road
- Construction of a new southbound off-ramp at Walkley Road
- New multi-use pathway along the west side of the Parkway
- Modifications to Walkley Road, between Airport Parkway and McCarthy Road
- Construction pending budget approvals
- Anticipated 2 years construction



Greenbank Road and Southwest Transitway Project

Under Design 250M future investment

- New 4-lane arterial roadway with 2-lane segregated median Bus Rapid Transit
- Facilities for pedestrians and cyclists along the corridor.
- New 6 lane bridge over the Jock River,
- New Park and Ride facility
- New watermains and sewer

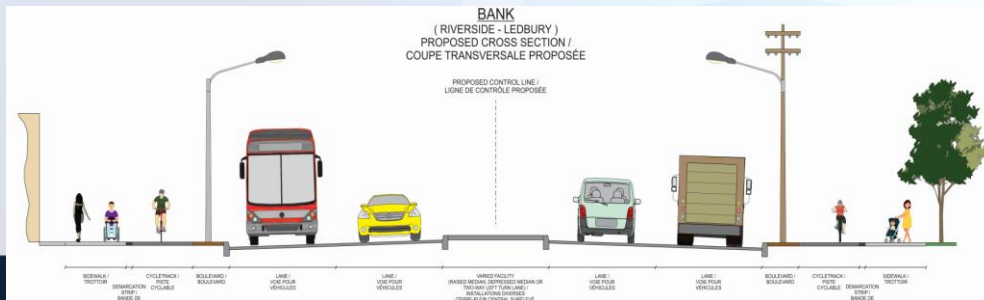


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Bank Street Revitalization Project

Under Design 85M future investment

- Reconstruction of Bank Street from the Rideau River to Ledbury
- Complete revitalization with cycling facilities, much improved pedestrian walkways and new protected intersections
- Advance contract in 2023 with follow up contracts subject to budget approvals



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Additional Take Aways

- The City invests well over ½+ billion a year in our Capital Program
- We serve the public in a very public way
- The City takes our stewardship of its infrastructure and the environment seriously and we are looking for construction and engineering firms who share our commitment to the City's infrastructure and its resident

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