



**INFRASTRUCTURE DEPARTMENT
MEMORANDUM**

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TO: MAYOR A. NUTTALL AND MEMBERS OF COUNCIL

FROM: G. KING, P.ENG., PMP, PROJECT CONTROLS MANAGER, EXT. 4532

WARD: ALL

NOTED: S. DIEMERT, P. ENG., DIRECTOR OF INFRASTRUCTURE

B. ARANIYASUNDARAN, P. ENG., PMP, GENERAL MANAGER OF INFRASTRUCTURE AND GROWTH MANAGEMENT

M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

RE: DESIGN AND CONSTRUCTION BRANCH – 2023 HIGHLIGHTS

DATE: FEBRUARY 28, 2024

The purpose of this Memorandum is to provide members of Council with Design and Construction Branch's (DCB) accomplishments in 2023 and to provide further information to the presentation that occurred on November 29, 2023, to the Infrastructure and Community Investment Committee.

2023 HIGHLIGHTS

Twenty-six (26) construction projects were tendered, with twenty-four (24) awarded within budget. DCB completed twenty-four (24) construction projects, and continued progress on the others being completed over multiple years. Three (3) of the completed projects that exemplify significant benefit to the City of Barrie (City) are highlighted below.

Dunlop Street Interchange Trunk Sanitary Relocation

To accommodate the Dunlop Street bridge replacement by the Ministry of Transportation (MTO), the City needed to relocate sanitary sewers in the Cedar Pointe Drive area. This project required the closure of Cedar Point Drive and Dunlop Street West and, Cedar Pointe Drive and Edgehill Drive intersections.

A Cost Sharing Agreement between the MTO and the City was successfully negotiated for the sanitary sewer relocation. The MTO and City reviewed life cycle aspects to determine how much funding would be provided. The outcome of this analysis resulted in \$7,826,458 of the \$13,468,069 (58% of the total project) being paid by the MTO.

The project contractor worked 24-hour shifts in the Fall season, shortening expected disruptions to the businesses in the construction area by five (5) months and avoided winter construction work. On December 22, 2023, the intersection of Cedar Pointe Drive and Edgehill reopened to traffic, completing it on budget and ahead of schedule. Some final restoration, asphalt resurfacing, and landscape work will be completed in the spring and the MTO is expected to begin bridge replacement in late 2024/early 2025.

Rodney Street Sidewalk, Collingwood Street to Blake Street

Construction of the new Rodney Street sidewalk connection, from Blake Street to the stairs at Collingwood Street, was substantially completed in 2023. This is one year ahead of schedule and the project was also completed under budget. This project featured in-house City staff for the design, and the contract administration/inspection.



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Approximately seventy-five percent (75%) of the Linear Infrastructure Project team's work is completed by in-house staff. An enhanced level of stakeholder satisfaction has been established with in-house projects, which was reaffirmed in this project's feedback survey, with 100% of the 17 participating respondents identifying "satisfied" or "somewhat satisfied" during the construction phase experience. Feedback surveys are sent to project stakeholders (City staff, utility companies, and environmental agencies) so project communication can be monitored.

Wastewater Treatment Facility (WwTF) Alum Upgrade

The alum dosing equipment project, completed in conjunction with the Wastewater Operations Branch (WOB), improved dosing control. Alum is used in wastewater treatment to consolidate the solids, resulting in cleaner water that is easier to treat. This multi-point alum dosing equipment resulted in enhanced dosing control resulting in, lower overall alum usage without negatively affecting wastewater quality.

Project construction was completed on schedule, and within budget. As a result of this project, the WOB saved \$75,000 of alum purchases in 2023 which helped absorb the unprecedented increase in chemical costs.

Other Notable Projects

Other projects completed by DCB in 2023 are listed below:

- Annual Asphalt Resurfacing Program, Sanitary Sewer Relining Program, Cathodic Protection Program, and Asphalt Pavement Crack Sealing application
- Barrie Marina Sediment Removal (3 phases: culvert, marina, and channel)
- Big Bay Point Road Improvements, from Bayview Drive to Huronia Road
- Big Bay Point Road, Painswick Bridge Rehabilitation
- Big Bay Point Road Resurfacing, from The Queensway to 20th Sideroad
- Blake Street Road Resurfacing, from Puget Street to Penetanguishene Road
- Brock Park Neighbourhood Reconstruction (Phase I: Robert Street, Frederick Street, John Street, and Innisfil Street)
- City Hall and Eastview Arena Parking Lots Renewal
- Curb and Sidewalk Maintenance Replacements
- Grove Street East Watermain Replacement (Phase 2: Nelson Street to Johnson Street)
- Gunn Street Reconstruction (Phase II), from Davidson Street to St Vincent Street
- Sophia Creek Storm Pond Expansion
- Sunnidale Road New Transmission Watermain, from Letitia Street to Wellington Street
- Tiffin Street Watermain and Road Resurfacing, from Ferndale Drive South to Anne Street South
- Tollendal Mill Road, Lovers Creek New Bridge
- Water Service and Backflow Prevention Upgrades in City parks
- Water Pressure Reducing Valve replacements
- Watermain Relining program on Cundles Road

DCB spent \$85 million on infrastructure projects or, 64% of the budgeted \$133 million in the City's Capital Budget. The team applies sophisticated processes to estimate and control costs and budgets. This was exemplified in 2023 with 92% of projects and programs tendered within budget. Construction extras and associated change orders result in additional costs to initial contract pricing. DCB strives to complete contracts within 5% of the initial cost and achieved an average of 3.9% in 2023 which met our performance goal.

In conclusion, the DCB team is delivering capital projects while working to successfully Leave a Positive Legacy to support Infrastructure Investments and Responsible Governance.