



Staff Report

Operations Department

Report To: Committee of the Whole
Meeting Date: March 23, 2021
Report Number: CSOPS.21.024
Subject: Capital Project Costs
Prepared by: Shawn Carey, Director of Operations

A. Recommendations

THAT Council receive Staff Report CSOPS.21.024, entitled "Capital Project Costs" for their information.

B. Overview

Based on recent project bid submissions staff are experiencing escalating costs associated with both engineering design and construction related work for capital projects. This staff report provides a summary of the factors that are contributing to this increase and how it will affect project budgets for future and ongoing capital projects.

C. Background

For several years, Town staff have relied on using benchmark costs to estimate and predict the time and material costs for various engineering design and construction services. Benchmarking is a process by which the estimated cost of a project is compared to other similar projects. This process helps create baseline costs which can then be used to build the various components of a capital budget (e.g. unit price per metre of watermain or storm sewer). The Town's benchmark costs have been refined as staff gained better data by compiling pricing from compliant bids on capital projects and each year updated information is used when available. Town staff have been successful with the application of benchmark costs and most standard projects were coming in on budget.

Over the past 10 years construction costs have not substantially changed (when including adjustments for CPI). However, since 2017, the Town has not had many relevant, standard construction projects and as a result, the benchmark costs did not change much based on incoming data.

D. Analysis

Since the onset of COVID 19, staff have experienced significant cost increases based on several recent bid responses to Town capital projects. The items below summarize what staff believe are the cause of the recent escalation in project costs.

Increasing Construction Costs

For the majority of the Town's capital projects, staff's initial construction estimates are within 5-10% of the consulting engineer's estimate after they have completed final design. However, recent bids on construction tenders have seen significant increases upwards of 30-40%. In a recent construction tender, compliant bids were within 0.3% of each other which is indicative that the bidding was competitive and balanced. However, although the compliant bids were within 0.3% of each other on the same project they were both roughly 34% higher than both the Town and engineering consultants' pre-tender estimate. The Town's unit prices used for estimating were similar to that of the consultant's suggesting that construction costs are increasing.

On-Site & Excess Soil Management

In January 2021, the Ministry of Environment, Conservation & Parks, enacted the new On-Site & Excess Soil Management regulation (O. Reg. 406/19) under the *Environmental Protection Act*. The purpose of this new regulation is generally to ensure that excavated soils are treated as a resource and are beneficially re-used wherever possible. This regulation has a number of new requirements for projects that produce excess soil. A number of capital projects that require soil excavation will now be required to develop a soil sampling plan that includes soil quality sampling and characterization, laboratory analysis and data-tracking and management of excess soil. These new requirements will have increased costs in order to comply with the regulation and the *Environmental Protection Act*. A number of capital projects that are currently underway have already impacted both engineering and construction budgets (e.g. Pressure Zone 4C, Price's Subdivision Wastewater Servicing Extension, Arthur Street Parking Lot, etc.).

Staff in conjunction with engineering consultants, have completed an informal survey of the industry suppliers and contractors to better understand the explanation for the higher pricing. The following are key points that could explain the increase costing:

- Supply and demand issues, raw material pricing and reduced production due to COVID-19 has directly or indirectly resulted in a 30% increase in plastics and metals pricing (watermain, valves and fittings) and 10-15% increase in aggregate pricing;
- Some contractors are reporting that labour costs are increasing by as much as 25-30% and this may in part be due to increases in union boundaries being recently revised; and,
- Local Contractors are currently very busy due to development and previously secured municipal projects and have the capacity to select and bid on projects that are least risk and most profitable.

Another possible factor is the Town published budget and the impact that a significantly lower budget has on the willingness of contractors to invest in a bid submission. The current benchmark pricing used by the Town, although a valid approach during periods of stable bidding conditions, is looking at past bids rather than forward at the current market conditions. In this case, the pandemic combined with the expansion of the construction labour area of influence of the GTA has resulted in a large increase in labour and material costs.

It is our opinion that local bidders workload combined with the significant increase in labour and materials pricing in the market is the primary driver in the increased cost. Furthermore, due to the pent-up demand in the market, large infrastructure projects in urban areas and changes in the demographics resulting from the pandemic (i.e. remote work) will keep these prices high for the foreseeable future and it is not anticipated that the labour costs will abate.

Next Steps

The following summarizes the next steps staff will take given the discussion above:

1. Staff will be bringing forward reports to Council for each capital project where there are known budget shortfalls including a detailed overview for consideration;
2. Staff will be revising the current benchmark costs using updated data based on recent incoming engineering proposals and construction bid submissions to create a new baseline for budget estimates;
3. All 2022 capital project budgets will be reassessed; and,
4. Through the 2022 budget staff will re-budget previously approved projects as necessary.

E. Strategic Priorities

1. Communications and Engagement

We will enhance communications and engagement between Town Staff, Town residents and stakeholders.

2. Organizational Excellence

We will continually seek out ways to improve the internal organization of Town Staff and the management of Town assets.

3. Community

We will protect and enhance the community feel and the character of the Town, while ensuring the responsible use of resources and restoration of nature.

4. Quality of Life

We will foster a high quality of life for full-time and part-time residents of all ages and stages, while welcoming visitors.

F. Environmental Impacts

N/A

G. Financial Impact

As staff bring forward the reports for each project requiring a budget increase an analysis will be done on the funding source(s) for that project to ensure they are sufficient. By re-budgeting previously approved projects in 2022 this will allow staff and Council to prioritize funding resources and give consideration to adjusting annual transfers to the various reserve fund.

H. In Consultation With

Sam Dinsmore, Deputy Treasurer/Manager of Budgets & Accounting

Kevin Verkindt, Senior Infrastructure Capital Project Coordinator

Michael Campbell, Construction Coordinator

Mike Humphries, Engineering Design Technologist

Allison Kershaw, Manager of Water & Wastewater Services

I. Public Engagement

The topic of this Staff Report has not been subject to a Public Meeting and/or a Public Information Centre as neither a Public Meeting nor a Public Information Centre are required. Comments regarding this report should be submitted to Shawn Carey, directorops@thebluemountains.ca.

J. Attached

None.

Respectfully submitted,

Shawn Carey
Director of Operations

For more information, please contact:
Shawn Carey
directorops@thebluemountains.ca
519-599-3131 extension 260