

City of Mississauga  
**Internal Audit Report**

---

TRANSPORTATION & WORKS DEPARTMENT  
INFRASTRUCTURE PLANNING & ENGINEERING SERVICES DIVISION  
CAPITAL WORKS DELIVERY SECTION  
THIRD-PARTY CONTRACT ADMINISTRATION AUDIT

April 16, 2024

City Manager's Department  
Internal Audit Division

# TABLE OF CONTENTS

Distribution List

Report on Transportation & Works Department, Infrastructure Planning & Engineering Services Division, Capital Works Delivery Section – Third-Party Contract Administration Audit

Appendix A – Summary of Recommendations

**TRANSPORTATION & WORKS DEPARTMENT  
INFRASTRUCTURE PLANNING & ENGINEERING  
SERVICES DIVISION  
CAPITAL WORKS DELIVERY SECTION  
THIRD-PARTY CONTRACT ADMINISTRATION AUDIT**

Distribution Lists

Standard Recipients:

Members of Audit Committee

Members of Council

City Manager

Members of LT

City Solicitor

Director, Finance & Treasurer

KPMG LLP, Chartered Accountants (External Auditor)

Additional Recipients:

Transportation & Works Department

- Director, Infrastructure Planning & Engineering Services
- Manager, Capital Works Delivery
- Business Advisor

**Transportation & Works Department  
Infrastructure Planning & Engineering Services Division  
Capital Works Delivery Section  
Third-Party Contract Administration Audit**

---

## **BACKGROUND**

Capital Works Delivery is a section under the Infrastructure Planning & Engineering Services Division of the Transportation & Works Department. It is responsible for the design, construction and rehabilitation of Mississauga roadways and bridges, watercourses, storm detention ponds and other storm water drainage infrastructure.

Some of the annual projects of the Capital Works Delivery section include:

- Road rehabilitation
- Sidewalk, walkway, and multi-use trail construction/repair
- Intersection improvement
- Creek/river/pond rehabilitation and erosion protection works
- Bridge and grade separation construction and rehabilitation works
- Noise wall construction and rehabilitation

In 2023, the Capital Works Delivery team resurfaced 15 residential streets and 7 major/industrial streets for a total of 14.5 km; the team also constructed 3.7 km of new multi-use trails/cycle tracks and 5.05 km of new sidewalks. Furthermore, during the same year, three Creek Erosion Control projects, one Flood Storage Facility project, one new Pumping Station project, and three Bridge Rehabilitation projects were completed.

For large scale projects, or those requiring specific expertise (e.g. storm water), the City hires an external consultant to perform planning studies and design development, and in most cases the same consultant is retained to perform the contract administration work. In 2022/23 approximately 13 projects were outsourced, amounting to over \$ 47 million.

The last Capital Works Delivery audit was conducted in 2022, and it focused on project management of construction projects. All management action plans from this audit have been remediated.

## **SCOPE**

This audit focused on the contract administration of large-scale construction projects performed by third-party consultants during the construction phase of capital projects. The audit examined compliance with terms and conditions of the contract in alignment with the Ontario Provincial Standards (OPSS). These included, but were not limited to, managing scope (e.g. additional work, change orders, change in material quantity or quality, etc.), schedule (e.g. time extensions), cost, claims, and record-keeping. The scope included projects that were substantially completed in 2022 and 2023.

## **Out of Scope**

This audit excluded the following:

- Pre-construction activities (i.e. budget requests, selection of consultants, scope of work, design)
- Post-construction activities (warranty period and close-out)
- Payment of vendor invoices

## **OBJECTIVES**

The audit was performed in accordance with the International Standards for the Professional Practice of Internal Auditing. The purpose of the audit was to ensure that:

- A. Third-party contract administration work provides value for money,
- B. Controls are in place and effective in mitigating misconduct (i.e. fraud and theft),
- C. Third-party contract administration practices are aligned with those of the internal contract administration and with industry best practices, and
- D. Third-party contract administrators are adhering to the terms of their contractual agreements (e.g. rates).

## **SUMMARY OF OBSERVATIONS**

The third-party contract administration (TPCA) services provided by external consultants are performed based on contractual agreements that include reasonable details about the obligations of the consultants for monitoring the contractors and protecting City interests. Furthermore, consultants are required to acknowledge and understand related City by-laws and policies, and are required to declare any conflict of interest.

Results of tested project files showed that consultants were generally assuming the TPCA roles and responsibilities as expected, such as performing inspections, tests, weight and quantity measurements, developing progress payments and change orders, attending progress meetings, etc.

The project files we tested also demonstrated that Capital Works Project Managers who were responsible for overseeing the consultants' contract administration work during construction (CA PMs) maintained effective communication and coordination with consultants and contractors throughout the project.

The primary observations from this audit relate to improving the transition of capital projects from the detailed design phase to the construction phase, to strengthen the controls of the change order process and to validate the TPCA work of the consultant.

The audit observations and recommendations were provided to management. Appendix A provides the detailed recommendations and corresponding management comments that include the proposed action plans to address these recommendations.

The main audit observations and recommendations are outlined below.

## **Improve the transition of capital projects from the detailed design phase to the construction phase**

During this audit, the construction phases of sample projects were tested. It was noted that CA PMs had different levels of awareness about certain specifics that were determined in the previous detailed design phase, and that the handover process between the detailed design phase and the construction phase needed improvement.

In one tested case, the CA PM was involved at 60% and 90% progress of the detailed design phase which allowed an opportunity to provide advice, discuss risks, and recommend suggestions for improvement. This was not the case for another project where the CA PM did not have critical information about an operational activity that would occur during construction, resulting in several project changes and additional cost of \$89K to enable this activity.

Additionally, the CA PM did not have the original contractual agreement to effectively facilitate overseeing the consultant's services. Furthermore, in one of the projects, the responsibility of change order approvals was distributed among two project managers from different teams.

By adopting a holistic approach that promotes more effective communication and information sharing, adequate engagement, formal handover, and clarified responsibilities and accountabilities among project managers, the business may be able to decrease the implementation roadblocks and enhance the overall delivery of capital projects.

Management indicated that they are in the process of reviewing and formalizing the project transition process and that the relevant audit recommendations will be incorporated in this activity.

## **Strengthen the controls of the Change Order process**

Overall, the tested cases reflected that the same processes were applied for reviewing and validating change orders (COs). All COs included reasonable justifications, and were approved by the Manager, Capital Works Delivery. The approval process introduced segregation of duties since COs were issued by the consultant, verified by the CA PM and approved by the Manager, Capital Works Delivery.

The Contract Compliance Coordinator was copied on all COs to check them and identify concerns for discussion with the consultant and the CA PM, as needed.

A number of COs were reviewed during this audit, which resulted in some areas of concern and needed improvement, including the following:

- *Total value of a CO did not include the cost of all the work associated with the CO*  
In a tested CO, it was noted that the total value of the work associated with the CO was more than the documented value on the CO that was authorized by the Approving Manager. Portions of the CO were charged to line items in the original Schedule of Prices, and the remainder was charged to the contingency budget. However, upon discussing with the Approving Manager, it was evident that he was fully aware of the circumstances surrounding the change order and would have approved the full amount. For transparency, it is recommended that the full cost of the CO be documented and approved.

- *COs for additional work were being charged under line items of a different nature in the original Schedule of Prices*

In one of the tested cases, it was noted that five COs for additional work were charged to line items of the original Schedule of Prices of the project instead of the contingency budget. Most of the COs were charged to line items that were of a different nature. This approach does not align with The Ontario Provincial Standard (OPSS.MUNI 100), Supplemental General Conditions or the Contract Cost Management Procedure, which indicate that these types of COs should not be processed as variations to tender quantities, and that they should be charged as contingency items. The actual expenditures of work and material should be charged only under their respective line items in the Schedule of Prices.

By improving the controls of the change order process, the business can decrease risks and avoid challenges with monitoring and controlling of the Schedules of Prices and the contingency budgets of projects.

### **Verification of Third-Party Contract Administration work**

During the construction phase of the project, the inspectors of the third-party contract administrator (consultant) would be onsite to check the contractor's work using different types of inspection sheets, and collecting material and weight tickets. These inspection records are used to validate the consultant's work and to support the development of progress payments.

CA PMs indicated that they sometimes informally check inspection records during the project. Documentation is not retained, and enforcement of this practice is not mandated. Random formal "spot checks" would be beneficial while construction is underway as they provide reasonable assurance of the quality of the consultant's work and support in verifying line items that have high overruns/underruns. Currently, a Compliance Officer conducts an audit on capital projects that are substantially completed.

Based on the contractual agreements, the inspection records remain with the consultant throughout the project and are also retained by the consultant for at least seven years after project completion. For projects that are managed in-house, inspection records are stored by the City and are retained for 15 years, according to the Records Retention Schedule By-law 0097-2017.

It may be prudent to request that the TPCA records be handed over to the City upon project completion. This provides more consistency among construction projects, compliance with the Records Retention Schedule By-law, and eliminates the risk of relying on third-party organizations to retain City documents.

### **CONCLUSION**

In general, the authority, role and responsibilities of the external consultant that manages the contract administration work is well-established within the contractual agreement, and the defined processes and practices ensure appropriate segregation of duties. However, this audit highlighted some aspects for improving the oversight of the TPCA projects by City CA PMs. This included enhancing the transition of capital projects from the detailed design phase to the construction phase, strengthening the controls of the change order process, and verifying and retaining the TPCA work of the consultant.

Management has agreed and committed to completing three (3) recommendations by the end of this year, two (2) recommendations by March of 2025, and six (6) by June of 2026.



---

Amy Truong, CPA, CMA, CIA  
Director, Internal Audit

Auditor: Samer el Barakeh, B.Eng., MPM, PMP, RMP  
Senior Internal Auditor



**Transportation & Works Department  
Infrastructure Planning & Engineering Services Division  
Capital Works Delivery Section  
Third-Party Contract Administration Audit  
Summary of Audit Recommendations**

Rec	Recommendation	Priority (H/M/L)	Comments/Status
1	<p>That the CA PMs be involved in the design stages of capital projects which may generate the following benefits:</p> <ul style="list-style-type: none"> <li>• Better consideration of the impact of design decisions on construction processes,</li> <li>• CA PMs becoming more aware about the specific design aspects of the projects, and</li> <li>• projects having less coordination issues and design deficiencies during construction.</li> </ul>	M	<p>Agree, we are having discussions to include this step in the upcoming SOP update.</p> <p>There is an ongoing review of the handover/transition of projects to CW which covers/will cover the recommendations through SOP's including roles and responsibilities, process flowcharts, scoping documents and a project document repository.</p> <p>To be completed by March 20, 2025.</p>
2	<p>That a handover process between the Detailed Design PM and the CA PM be clearly defined to improve efficiency and effectiveness of this handover, and to establish clear roles, responsibilities, and accountabilities (e.g. who is approving Change Orders during construction).</p>	M	<p>Agree, we learned about the partial opening a few months down the road, it was not in the contract documents.</p> <p>There is an ongoing review of the handover/transition of projects to CW which covers/will cover the recommendations through SOP's including roles &amp; responsibilities, process flowcharts, scoping documents and a project document repository.</p> <p>To be completed by March 20, 2025.</p>
3	<p>That the City's requirements for third-party progress payments be established, specifying the reporting format that facilitates tracking progress made during the reporting period, documents that need to be included, etc. Alternatively, update the existing Contract Cost Management Procedure to incorporate the Third-Party Contract Administration.</p>	M	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies, and templates to put them into effect.</p>

**Transportation & Works  
Infrastructure Planning and Engineering Services  
Capital Works Delivery  
Third-Party Contract Administration (TPCA) Audit  
Summary of Audit Recommendations**

			<p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>To be completed by June 25, 2026.</p>
4	<p>That a threshold be established for line items in the Schedule of Prices that are under/overrun (i.e. percentage and/or dollar value), whereby a justification is required to be documented and reviewed by the CA PM. Additionally, formalize the reporting process for these variations, and determine when additional approvals may be required.</p>	H	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>The consultant will review and update existing business practices and processes and may also recommend new ones as needed.</p> <p>To be completed by June 25, 2026.</p>
5	<p>That information about overruns and underruns of line-items be captured and analysed to identify trends across other capital projects, improve the estimation process, and as a control to detect other underlying issues.</p>	L	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p>

**Transportation & Works  
Infrastructure Planning and Engineering Services  
Capital Works Delivery  
Third-Party Contract Administration (TPCA) Audit  
Summary of Audit Recommendations**

			<p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>To be completed by June 25, 2026.</p>
6	<p>That a guideline be developed to formalize the steps utilized for the management of third-party COs. For example:</p> <ul style="list-style-type: none"> <li>• Specify the information that should be included in the CO;</li> <li>• Determine approval levels of COs that are within the contingency budget (e.g. threshold for PM, Manager, Capital Works, Director, etc.);</li> <li>• Include directions that facilitate the application of recommendations 7 and 8, below.</li> </ul> <p>Alternatively, update the existing Contract Cost Management Procedure to incorporate the Third-Party Contract Administration.</p>	M	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>In the interim, the recommendations will be included in the change order checklist/process. Final guidelines will be included in the Field Services Manual.</p> <p>To be completed by June 25, 2026.</p>
7	<p>That change orders follow prescribed requirements, including, but not limited to:</p> <ul style="list-style-type: none"> <li>• The total value of the CO includes the cost of all the work associated with the CO. This value is approved by the Manager, Capital Works Delivery.</li> <li>• COs that are not solely related to quantities should be fully charged to the contingency budget of the project, and not under the line items of the original Schedule of Prices.</li> </ul>	H	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025.</p>

**Transportation & Works  
Infrastructure Planning and Engineering Services  
Capital Works Delivery  
Third-Party Contract Administration (TPCA) Audit  
Summary of Audit Recommendations**

			<p>Training will proceed thereafter and will be completed by June 2026.</p> <p>In the interim, the recommendations will be included in the change order checklist/process. Final guidelines will be included in the Field Services Manual.</p> <p>To be completed by December 20, 2024.</p>
8	That actual expenditures of work and material be charged only under their respective line items in the Schedule of Prices (e.g. actual amount of stone delivered should be charged under the respective stone line item in the Schedule of Prices).	H	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>In the interim, the recommendations will be included in the change order checklist/process. Final guidelines will be included in the Field Services Manual.</p> <p>To be completed by December 20, 2024.</p>
9	That the field service manual that will be developed includes guidelines, tools/job aids to support CA PMs, including but not limited to: <ul style="list-style-type: none"> <li>• Highlighting the difference in responsibilities of CA PMs between third-party contract administration and in-house contract administration.</li> </ul>	M	<p>Agree, we can determine a "cooling off" period.</p> <p>We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the</p>

**Transportation & Works  
Infrastructure Planning and Engineering Services  
Capital Works Delivery  
Third-Party Contract Administration (TPCA) Audit  
Summary of Audit Recommendations**

	<ul style="list-style-type: none"> <li>• Frequency of site visits, notes/observations of findings.</li> <li>• Level of verification required for progress payments (e.g. a minimum requirement for requesting supporting documents, inspection sheets, weight tickets, etc.).</li> <li>• How to handle variations between actual and estimated values for line items in the Schedule of Prices.</li> <li>• How to satisfy the requirement that "the Capital Project Manager will maintain checklists and schedules for vendor performance and contract compliance," as per Contract Cost Management Procedure.</li> <li>• Utilizing an "Issues Log" for tracking and communicating project issues.</li> <li>• Determine a "cooling off" period for staff members that have previously been employed by a consultant/contractor that is currently being hired by the City, before the said staff members can be involved in this work.</li> </ul>		<p>necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>To be completed by June 25, 2026.</p>
10	<p>That City staff perform random spot checks and request supporting documents to validate the work of the third-party contract administrators. The business can determine the scope and frequency of these spot checks based on priority and capacity to avoid project disruption.</p>	M	<p>Agree. We are currently in the process of procuring the services of a consultant to prepare the Field Services Manual (FSM) for PM's and Field Inspectors. These recommendations will be looked at by the consultant and we will develop the necessary processes, policies and templates to put them into effect.</p> <p>The consultant is expected to be on board by May 2024 and the project is targeted to conclude by December 2025. Training will proceed thereafter and will be completed by June 2026.</p> <p>To be completed by June 25, 2026.</p>

**Transportation & Works  
Infrastructure Planning and Engineering Services  
Capital Works Delivery  
Third-Party Contract Administration (TPCA) Audit  
Summary of Audit Recommendations**

11	That the business requests that the contract administration records (inspection sheets/material tickets etc.) be handed over to the City at the end of the project.	L	Agree. We can ask the consultant to provide all documents at the end of the project.  CW to update the contract documents to reflect this requirement.  To be completed by December 20, 2024.
----	---	---	---