




CITY OF HAMILTON
OFFICE OF THE CITY AUDITOR

TO:	Chair and Members Audit, Finance and Administration Committee
COMMITTEE DATE:	August 11, 2022
SUBJECT/REPORT NO:	Roads Value for Money Audit - Roads Quality Assurance Supplementary Audit Report (AUD21006(a)) (City Wide)
WARD(S) AFFECTED:	City Wide
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SUBMITTED BY:	Charles Brown CPA, CA City Auditor Office of the City Auditor
SIGNATURE:	

RECOMMENDATION

- (a) That Report AUD21006(a) and Appendix "A" to Report AUD21006(a), respecting the Roads Value for Money Audit - Roads Quality Assurance Supplementary Audit Report be received;
- (b) That the Management Responses, as detailed in Appendix "B" to Report AUD21006(a) be approved; and
- (c) That the General Manager of Public Works be directed to implement the Management Responses (attached as Appendix "B" to Report AUD21006(a) and report back to the Audit, Finance and Administration Committee by August 2023 on the nature and status of actions taken in response to the audit report.

EXECUTIVE SUMMARY

As noted in our Roads Value for Money Audit Report that was issued in July 2021, with a replacement cost of over \$4B dollars, the City of Hamilton's investment in road assets

or pavement is one of its largest. Obtaining optimal value for money in that investment requires a successfully coordinated and effective set of activities. These include asset management, planning, condition tracking, quality assurance, design, management of utility cuts, maintenance, preservation management, procurement, contract administration and financial management.

This supplementary audit was focused on completing some additional, targeted work in the area of quality assurance. Five new recommendations have been made.

Areas that were previously addressed in the original Roads Value for Money Audit Report (AUD21005) were not revisited in this supplementary audit.

The construction of roads in new development neighbourhoods is overseen by the Growth Division in Planning and Economic Development until such time as these roads become operational. After that they become the responsibility of Transportation Operations and Maintenance Division. We did not include the activities of this Division in this audit report.

A value for money audit of Growth Division's oversight of road construction activities in new development neighbourhoods is in progress and the results will be shared when the audit has been completed.

Alternatives for Consideration – Not Applicable

FINANCIAL – STAFFING – LEGAL IMPLICATIONS

Financial: None.

Staffing: None.

Legal: None.

HISTORICAL BACKGROUND

The Office of the City Auditor Work Plan 2019 to 2022 (AUD19007) included the completion of a value for money audit in the area of Road Operations and Construction Programs. The results of this audit were shared via Report AUD21006 in July 2021.

Subsequent to the issuance of AUD21006, the Office of the City Auditor (OCA) received a confidential Fraud and Waste report that noted that there were some additional issues

that, if resolved, could add value to the City of Hamilton's road infrastructure projects. The OCA assessed the report and decided to investigate these topics further. This report summarizes the supplementary work performed in the area of Roads Quality Assurance.

POLICY IMPLICATIONS AND LEGISLATED REQUIREMENTS

None.

RELEVANT CONSULTATION

Appendix "B" to Report AUD21006(a) includes responses from management responsible for overseeing Roads within the City's Public Works Department. This includes the General Manager's Office, Chief Road Official, and the Engineering Services Division.

ANALYSIS AND RATIONALE FOR RECOMMENDATION

This was a limited scope supplementary audit, where two specific topics were explored. The overall objective of the audit was to assess the management of the City's road assets in order to identify opportunities for improved economy, efficiency and effectiveness for these two topics.

The topics explored in the OCA's supplementary work to the Roads Audit included:

1. Processes for comprehensive weight validation of construction materials and disposed excess contaminated native material where the contract payments are tied to the weights of such materials.
2. The process to test and validate if the asphalt friction course aggregates for high volume roads align with contract specifications and job mix formulas.

The Office of the City Auditor (OCA) interviewed staff, reviewed documents, and hired independent third-party experts in pavement design and management, contract administration, and contaminated soil to assist with more technical issues.

Appendix "A" to Report AUD21006(a) contains a formal Audit Report containing the audit observations. The OCA has made five recommendations (in addition to the 25 recommendations that were made the original Roads Value for Money Audit Report). These recommendations are made to improve value for money in service delivery, strengthen controls, and improve vendor management. These recommendations can be

found in Appendix “B” to Report AUD21006(a). Management agreed with all five recommendations. Management provided management responses for implementation, with completion anticipated by Q2 2024 for all items.

The more significant areas or themes arising from our supplementary audit include:

- Consideration of increasing the inspection levels by using a risk-based approach for weight validation processes or the use of all-inclusive lump sums and square meter payments.
- Evaluation of resources and oversight in place to ensure weight validation, inspection and payment processes are adequately resourced.
- Improvement of the quality and comprehensiveness of project documentation.
- Formally documenting quality assurance guidelines and standard operating procedures for premium asphalt aggregates, and the adoption of a risk-based approach.
- The need for an expanded quality assurance function during peak construction periods so that risks are adequately managed.

ALTERNATIVES FOR CONSIDERATION

Not applicable.

ALIGNMENT TO THE 2016 – 2025 STRATEGIC PLAN

Built Environment and Infrastructure

Hamilton is supported by state-of-the-art infrastructure, transportation options, buildings and public spaces that create a dynamic City.

Our People and Performance

Hamiltonians have a high level of trust and confidence in their City government.

APPENDICES AND SCHEDULES ATTACHED

Appendix “A” to Report AUD21006(a) – Roads Value for Money Audit - Roads Quality Assurance Supplementary Audit Report

Appendix "B" to Report AUD21006(a) – Recommendations and Management
Responses - Roads Quality Assurance Supplementary Audit