



Road Resurfacing Audit Report

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Executive Summary

Background

The City of Brampton oversees 3,830 lane kilometres¹ of arterial, collector, and local roads. Road resurfacing is a vital maintenance component, with a 2021-2024 budget allocation of \$75.7 million, reviewed annually by Council.

Capital Works, part of Public Works and Engineering, oversees the annual road resurfacing project. It is a joint effort between all three areas of Capital Works. Technical Support Services analyzes road conditions every four years, with the latest assessment conducted in 2022 informing the City’s pavement management system. Engineering oversees the tendering process, while Construction manages project execution, including inspections and contractor payments.

Audit Objectives

The audit focused on ensuring road resurfacing activities comply with Provincial standards, internal Standard Operating Procedures (SOPs), and contract terms, while verifying fairness in the bidding process and effective project planning. It also assessed whether material testing, work measurements, and contractor payments were completed properly. Additionally, the audit reviewed the timely handling of 311 service requests and completion of vendor performance evaluations.

What We Found

Internal Audit’s review of Capital Works noted the following strengths:

- good project coordination and integration effort with City departments and agencies
- skilled professionals and strong oversight of the resurfacing process
- use of technology to support effective planning and monitoring
- proactive communication with residents which builds community trust.

We also identified the following areas of improvement:

A. Improve On-site Road Condition Assessment

¹ Lane kilometres is a linear measurement of the length of a road, accounting for each single lane.

City process requires staff to conduct on-site road condition assessments for every road on the preliminary resurfacing list. From 2021 to 2023, while on-site assessments may have been conducted, the lack of supporting documentation makes it challenging to verify their completion. In 2024, of the 54 roads approved for resurfacing, we only found evidence of on-site road condition assessments for 37. This lack of documentation limits the City's ability to fully validate the necessity of each road scheduled to be resurfaced, which could reduce the effectiveness of the road selection process.

B. Strengthen Practices for Material Testing

A review of the test results confirmed that concrete and asphalt tests conducted in 2023 met the required standards. However, there were missing test reports for certain days of concrete and asphalt activities, inadequate sampling intervals, and compaction tests exceeding required distances. While tests are being done, there is currently no formal process in place to reconcile asphalt and concrete activity with the corresponding material test results. This increases the risk of substandard materials not being detected, potentially impacting pavement quality and longevity.

C. Strengthen Contractor Insurance Verification During Warranty Periods

City Policy mandates that any on-site contractor provide a valid *Certificate of Insurance*. Our review of insurance coverage found that certificates of insurance are in place throughout the construction phase of the resurfacing project, however, insurance is not being verified during the two-year warranty period. Not obtaining a *Certificate of Insurance* during the warranty period does not ensure the contractor has sufficient coverage and results in the City facing additional exposure if an accident were to occur. It should be noted that in all likelihood the contractor had insurance, however the Certificate of Insurance was not obtained by Staff.

D. Implement Post-Warranty Vendor Evaluations

City Policy outlines the vendor evaluations required for projects over 12 months which are interim, final and, if applicable, post-warranty. Our review of vendor evaluations found that interim and final vendor evaluations were completed, however, post-warranty evaluations were not. Not completing these evaluations may reduce the City's insight into the quality of vendors' post-project work, potentially impacting future project planning and vendor selection.

E. Enhance Tracking of Uncompleted Roads Deferred to Future Projects

Our review of roads on the approved resurfacing list from previous years noted that staff informally check up on the status of roads that were postponed, however there is no central document to track these uncompleted roads. This lack of centralized tracking could lead to delays in the timely resurfacing of roads in poor condition.

F. Standardize Process for Managing Service Requests

In general, service requests are being addressed and necessary action is being taken to resolve issues. However, we noted there is no standardized process, no defined response time targets, and limited access to CityWorks², the Capital Works service request tracking software, by some employees. This could increase the risk that requests are not actioned timely, which can impact customer service.

What We Recommend

The report contains six recommendations to formalize processes, enhance controls and strengthen oversight:

1. Formalize the Process for On-site Road Condition Assessments
2. Strengthen Practices for Material Testing
3. Standardize Insurance Verification for Contractor During Warranty
4. Conduct Post-Warranty Period Vendor Evaluations
5. Implement Centralized Tracking for Uncompleted Roads
6. Standardize the Process to Manage Service Requests

Conclusion

This audit identified key areas for improvement in the City's road resurfacing practices, including the on-site road condition assessment process, material testing practice, contractor insurance verification and vendor evaluations during warranty periods, project tracking, and service request management. Implementing the six recommendations in this report will promote transparency, reinforce quality control, and ensure responsible resource use, all of which are essential for maintaining the City's infrastructure and delivering high-quality services to residents.

Thank You to Management and Staff

We thank the management and staff of Capital Works for their cooperation and assistance during this audit.

² CityWorks includes several applications and tools to help public works and utility organizations better manage their assets and work orders.

Distribution List

Standard Recipients

Members of Audit Committee

CAO

Members of Council

Members of Leadership Team

KPMG LLP, Chartered Accountants (Statutory Auditor)

- Maria Khoushnood, Partner, Private Enterprise

Additional Recipients

Capital Works

-Director, Capital Works

Background

The City maintains approximately 3,830 lane kilometres of roads.

Maintaining the condition of City roads is critical to ensure the safe and efficient flow of traffic by pedestrians, cyclists, public transit and drivers. The City of Brampton maintains about 3,830 lane kilometres of arterial, collector, and local roads. A critical component of maintaining roads is road resurfacing.

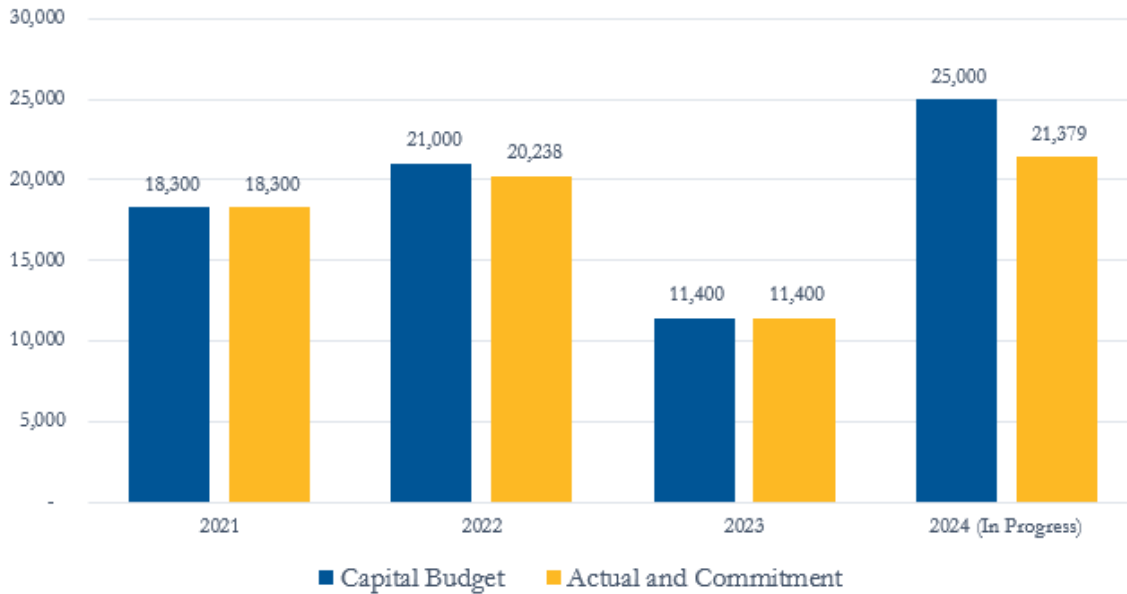
The City allocated \$75.7 million for road resurfacing from 2021 to 2024.

Road resurfacing involves scraping a predetermined depth of asphalt from the road surface and applying a new one. The road resurfacing program includes the reconstruction and rehabilitation of roadways as well as related sewer repairs, replacement of damaged curbs and sidewalk repairs. For 2021-2024, the capital expenditure budget for resurfacing was approximately \$75.7 million, reviewed annually by Council.

The annual road resurfacing project is overseen by Capital Works, which is part of Public Works and Engineering. The coordination and completion of the project is a joint effort between all three areas of Capital Works: Technical Support Services, Engineering and Construction. The Capital Works Division employs 17 staff in Technical Support Services, 17 in Engineering and 13 in Construction.

Figure 1 depicts the annual budget versus actual spending and commitment for road resurfacing from 2021 to 2024.

**Figure 1 Budget vs. Actual and Commitment
(Amounts in \$000)**



Technical Support Services analyze ongoing road conditions and prioritize resurfacing needs through regular assessments.

Technical Support Services provide ongoing road condition analysis. Every four years, a consultant performs a Road Condition Assessment which analyzes pavement conditions for all City-owned roads and provides an overall condition index (OCI) for each road. This information is uploaded to dTMS Business Analytics, the City’s pavement management system. The dTMS system utilizes base OCI scores, road age, unique use and pavement upgrade history to formulate deterioration curves and prioritize resurfacing needs. A preliminary list is generated and provided to Engineering for verification and coordination with the Region of Peel and the Public Utilities Coordination Committee (PUCC). Engineering physically observes the condition of the roads on the preliminary list and provides the results to Technical Support Services, who compiles the final program list. Prior to 2024, the physical review of the preliminary list was performed by Construction. The last Road Condition Assessment was conducted in 2022, with the next scheduled for 2026.

Engineering coordinates with City departments and the Region of Peel to integrate design specifications into road resurfacing, assist in the tendering process, and compile bid documents.

Engineering coordinates with various City departments and the Region of Peel to integrate design specifications into road resurfacing and works with Purchasing to complete the tendering process. Once the final list of roads to be resurfaced is determined by Technical Support Services and the *Request to Begin Procurement* report is approved by Council, Engineering compiles the bid document based on estimated labour hours and material quantities. The vendor is selected through a public tendering process. Once Procurement awards the contract and issues the purchase order, Engineering hands over all documents to Construction. Prior to 2024, tendering was performed by Construction, however, due to the City's growth and the need for increased coordination with other departments, the tendering process was assigned to Engineering.

Construction manages road resurfacing projects by conducting site inspections, coordinating material testing, processing payments, addressing resident complaints, and evaluating vendor performance.

Construction manages the implementation of Road Resurfacing Projects, which includes conducting pre-work meetings, progress meetings, project close-out meetings, performing on-site inspections, coordinating material testing, managing payments to contractors and other vendors, monitoring progress and changes to the Road Resurfacing Project and evaluating the vendor's performance. Construction also distributes construction notices to affected residents and addresses service requests made through 311.

The following describes the key activities and processes involved in road resurfacing projects.

Contract Administration

The formal contract between the City and the road resurfacing contractor outlines all procedural and administrative requirements throughout the road resurfacing project. It addresses matters such as insurance, warranties and holdbacks, customer service, payment certificates, *Certificate of Substantial Performance*, *Certificate of Completion*, construction liens, subcontractors and contractor performance evaluations. Documents related to road resurfacing are stored in ProjectWise, Capital Works' project management system.

Site Inspections

Road resurfacing progress is inspected daily. The City utilizes both internal and external inspectors to conduct on-site inspections and fill out the *Inspectors Daily Report* which captures such information as start/finish time of resurfacing activity, contract personnel on site, equipment used, weather conditions, job progress etc. Inspections are used to proactively identify and resolve any issues that could lead to project delays. Any issues relating to quality or craftsmanship are recorded on the deficiency list and discussed at the bi-weekly meetings between Capital Works and the contractor. In previous years, the inspection function has been partially outsourced, however in 2024, due to a higher volume of resurfacing work, all inspection activity will be outsourced.

Material Testing

All material testing is performed by a third-party licensed Canadian Council of Independent Laboratories (CCIL)³-certified Material Testing Consultant. The City currently has two vendors selected via lowest bid tendering process for material testing and geotechnical investigation services for Construction projects. Construction provides a schedule of asphalt and cement activity to the material testers to ensure they are on site when the material is delivered. All samples must be obtained from the chute of the truck at the time of pouring. The results are processed at the lab and submitted to City management for review and action throughout the project. Material composition is required to comply with *Ontario Provincial Standard Specifications* for each category. Trial batches are tested at the beginning of the contract to ensure that specifications are met prior to the start of resurfacing.

Payment Certificates

Payments for road resurfacing are made to the contractor based on actual work performed. The payment process involves generating a *Payment Certificate* (PC) based on unit rates and actual quantities. The *Quantities back-up sheet for Payment Certificates* form shows actual quantities installed and is used to support each payment certificate. Contractors submit detailed invoices, including WSIB certificates and statutory declarations. Progress payments are processed by the 25th of each month and must be paid within 28 days. The system tracks payment status to ensure timely processing.

³ Canadian Council of Independent Laboratories (CCIL) is the national organization representing independent, certified testing laboratories across Canada.

Notice of Construction and Resident Complaints

At least two weeks prior to commencing road resurfacing work, a notice of construction is physically delivered to each house on the street. The notice outlines the nature of the road work to be done, a timeline of events, a construction map and contact information. Complaints regarding road resurfacing are made through service requests which can be made by telephone (311), City of Brampton Smart Mobile 311 APP, City website or in person. Service Brampton receives the request and assigns it to the respective road resurfacing inspector to be actioned. All service requests are managed as work orders in CityWorks, Capital Works' asset management system since March of 2022. From March 1, 2022 to June 30, 2024 there were 889 service requests in the category of "Capital Construction and Road Resurfacing".

Construction also conducts vendor performance evaluations to assess contractor quality and compliance with project standards. Under the *Vendor Performance Evaluation SOP*, vendors rated "Below Standard" or "Poor" may be suspended from future City projects for one or three years, respectively. Suspended vendors can appeal by submitting a written dispute with supporting evidence to the City. In 2023, the road resurfacing contractor received an unsatisfactory evaluation. The contractor appealed the suspension and submitted a bid for 2024. This appeal prompted a review by senior management and procurement, which ultimately delayed the 2024 bidding and tendering process.

The Road Resurfacing audit is part of the approved 2024 audit plan. The last full-scope audit of road resurfacing was completed in 2017.

Road Resurfacing Program Strengths

Based on Internal Audit's review of processes, reports and sample testing, we noted the following strengths relating to Resurfacing Projects:

- **Interdepartmental Collaboration:** Capital Works effectively coordinates with various City departments and external agencies, ensuring smooth integration of project requirements.
- **Experienced Team:** The presence of skilled professionals across Technical Support Services, Engineering and Construction enables comprehensive management and oversight of the resurfacing process.
- **Robust Management Software Systems:** The use of dTIMS for infrastructure asset management and ProjectWise for project management aids in effective planning, documentation and monitoring of road resurfacing projects.
- **Community Engagement:** Proactively distributing construction notices and addressing resident complaints strengthens the connection with the community.

Detailed Audit Findings

A. Improve On-site Road Condition Assessment

Priority Rating

P2

Background Every four years, an assessment is done by an outside consultant to determine the condition of City roads. The consultant utilizes automatic vehicles equipped with downward-facing cameras to capture road conditions, including various types of deficiencies such as cracking, distortion and potholes. The collected road condition data is uploaded to dTIMS, the City's Pavement Management System software. The system uses the source data from the consultant along with existing road attributes such as age, traffic volume and repair history to generate an Overall Condition Index (OCI) score for each road.

Each year, before the list of roads to be resurfaced is finalized, the short-listed roads are physically inspected by Capital Works staff during an on-site condition assessment to ensure they are in need of resurfacing. The roads are given a ranking of 1 – 5 with 5 being the worst condition.

Criteria The on-site condition assessment should be completed every year prior to submitting the preliminary road rehabilitation list to Council for approval. All preliminary list roads should undergo an on-site condition assessment using a standardized form to capture essential information.

Condition Our review of the on-site condition assessment process found the following:

- From 2021 to 2023, while on-site assessments may have been conducted, the lack of supporting documentation makes it challenging to verify their completion
- In 2024, 17 of the 54 primary roads on the approved list were not included in the on-site condition assessment document
- Key information is missing from the document such as date of inspection and name of the inspector
- There is no legend defining what each of the five condition categories mean making it difficult to determine the rationale behind the rankings

For 2024, the resurfacing budget is \$25.8 million for 54 roads meaning, on average each road resurfaced is a \$470K investment. With such a large investment for each road, it is critical that the documentation to support the physical on-site assessment portion of the pre-assessment is completed properly every year to ensure that all roads included on the resurfacing list are in poor condition and resurfacing is warranted.

Staff should ensure the document to support this activity is completed every year and is updated to include key information such as the inspector and inspection date and any relevant notes. A legend should also be established to define what each of the five rankings means in order to provide a clearer picture of the road condition and maintain consistency for future assessments.

Cause Based on discussion with Staff, the on-site assessments are being completed every year, however the absence of a standard operating procedure to provide guidance on how to properly complete on-site condition assessments as well as not having a standardized form to capture key condition assessment information has contributed to current process gaps.

Impact Not properly documenting on-site condition assessments does not provide assurance that all roads on the preliminary resurfacing list have been physically inspected to confirm that the roads in the poorest condition are prioritized for resurfacing.

Recommendation:

1. Implement Standardized Process for On-site Condition Assessment

The *Director, Capital Works* should establish a standardized process for on-site condition assessments, incorporating defined ranking criteria and comprehensive documentation to ensure transparency and informed decision-making when confirming streets for resurfacing.

B: Strengthen Practice for Material Testing

Priority Rating

P2

Background The two main materials used in the resurfacing process are concrete and asphalt. Concrete is used for curbs and sidewalks, and asphalt is used for road paving.

All material testing is performed by certified third-party laboratories and the City currently uses two vendors for material testing. Samples must be obtained on site during asphalt and concrete activity. The results are processed at the lab and submitted to City staff for review and action throughout the project. Asphalt and concrete activities are recorded by inspectors in the inspector's daily report.

Whenever concrete is poured, samples are tested onsite to determine the air content, temperature and slump of the concrete. An additional 3 samples of concrete are sent to the lab for strength testing. The samples are tested for strength at 7 and 28 days.

Whenever asphalt is laid, a sample is tested on site to determine if the temperature is within the acceptable range. While the pavement is setting, a nuclear density gauge is used to perform a Compaction Test, which ensures air voids are minimized, and the asphalt is densely compacted. A sample of asphalt is also sent to the lab, and a Full Marshall test, which ensures the asphalt content and pavement mix design meet the standards, is performed.

Criteria The Ontario Provincial Standard Specifications (OPSS) establish minimum standards for concrete and asphalt testing to ensure material quality and pavement durability. OPSS specifies that:

- **Asphalt Full Marshall:** Asphalt samples must be tested for quality at least every 500 tonnes to confirm compliance with compositional and performance standards.
- **Asphalt Compaction:** Compaction tests must be conducted randomly at least every 100 metres per lane or 150 square metres to ensure adequate pavement density.

Completing material testing within the required testing intervals provides assurance that materials used for resurfacing meet quality standards and will maximize the life of a road.

Condition In 2023, 62 concrete tests, 53 asphalt full Marshall tests, and 182 asphalt compaction tests were conducted. A review of the test results from the lab confirmed that all concrete and asphalt tests met the required standards.

20 inspector's daily reports were reviewed, and the noted concrete and asphalt activity was traced to the respective material testing reports. While tests are being done, our review noted the following:

- There were 7 days with concrete activity but no corresponding Concrete Test Report.
- There were 3 days with asphalt activity but no corresponding Asphalt Full Marshall Report.
- There were 4 days with asphalt activity but no corresponding Asphalt Compaction Report.
- On 3 days, asphalt samples did not meet the required sampling frequency of one test every 500 tonnes. On these days, the average testing interval was 849 tonnes.

A review of 107 compaction tests from 2023 noted the following:

- 12 tests did not meet the OPSS required frequency of every 100 linear metres or 150 square metres. The testing intervals for these 12 road segments ranged from 160 to 316 linear metres.

The daily inspection reports indicated that material testers were on site but did not specify from which testing vendor.

It remains unclear whether the missing material testing samples were submitted to the lab but not tested, tested but not reported or reported but never sent to City staff.

Cause Based on discussion with Staff, Construction relies on the material tester's professional expertise to conduct testing and is only contacted by the vendor if there is an issue. In cases where no issues are reported, Construction does not routinely monitor material testing.

Impact Not meeting minimum testing frequency may lead to substandard materials not being detected.

Recommendation:

2. Monitor Testing Completion and Frequency for Material Quality Control

The *Director, Capital Works*, should monitor the material testing process to ensure adequate coverage and adherence to testing standards for road resurfacing projects.

C: Strengthen Contractor Insurance Verification During Warranty Periods

Priority Rating

P2

- Background* After all resurfacing work is complete, a certificate of “Substantial Completion” is issued to the contractor, which commences a warranty period of two years.
- Criteria* As per City Policy, any contractor performing work on-site must provide a valid *Certificate of Insurance* (COI). The capital works policy also states that the contractor must provide a COI every 12 months until the warranty holdback payment is released to the general contractor.
- Condition* A review of Commercial General Liability (CGL) insurance documentation for the 2020, 2021 and 2022 resurfacing projects found that deficiency work was performed in 2023 during the warranty periods without having proper evidence of insurance. It should be noted that in all likelihood the contractor had insurance, however the Certificate of Insurance was not obtained by Staff.
- Cause* Based on discussion with Staff, certificates of insurance are obtained by the Contract Administrator and monitored by the Risk & Insurance unit. Not all staff was aware of the requirement to obtain evidence of insurance coverage from general contractors during the warranty period.
- Impact* Not obtaining a *Certificate of Insurance* during the warranty period leaves the City without assurance that the contractor has sufficient coverage, thereby exposing the City to liability risk.

Recommendation:

3. Standardize Insurance Verification for Contractor During Warranty

The Director of Capital Works, in consultation with the Manager, Risk & Insurance, should implement a systematic process for obtaining and verifying Certificates of Insurance from general contractors during the warranty period to ensure compliance and reduce liability risks.

Background The City of Brampton’s resurfacing projects include a warranty period of 2 years during which contractors are responsible for addressing deficiencies. Throughout road resurfacing projects, vendor evaluations are completed to ensure all work-related issues are being addressed and the quality of work meets the City’s standards.

Conducting vendor evaluations at the end of the warranty period allows the City to assess the quality of any post-project remedial work and to consider vendor performance in future contracting decisions. While interim evaluations are conducted during project execution, a final evaluation after the warranty period is essential for a complete assessment of contractor performance.

Criteria As per Procurements Vendor Evaluation SOP, for contracts lasting over 12 months at least three vendor evaluations must be completed, including two interims during the course of the project and one final evaluation when work has been substantially completed. The policy also states that if there is a warranty period, an additional evaluation must be completed at the expiration of the warranty period.

Condition Our review of vendor evaluations for the 2019-2020 resurfacing projects, found that the required interim and final evaluations were completed, however, vendor evaluations were not completed for the warranty period (2021-2023).

Cause Based on discussion with Staff, current Capital Works SOP’s do not include the requirement to complete vendor evaluations at the end of the warranty period.

Impact Omitting a vendor evaluation after the warranty period prevents a formal assessment of the quality of remedial or repair work, increasing the risk that subpar warranty performance may be overlooked in future contract awards.

Recommendation:

4. Conduct Post-warranty Vendor Evaluations

The Director, Capital Works should ensure that vendor evaluations are conducted at the end of the warranty period for road resurfacing projects and clearly communicate this requirement to the general contractor to enhance accountability and promote quality work throughout the entire project.

E: Enhance Tracking of Uncompleted Roads Deferred to Future Projects

Priority Rating

P3

- Background* Each year, a comprehensive analysis is performed through the dTIMS system to determine the condition of each road. The roads that are in most need of repair are included on the primary list. There is also a provisional list which contains roads that are not included in the budget amount but are in poor condition and will be resurfaced if there is enough time, resources and budget remaining after roads on the primary list are completed. The preliminary road rehabilitation list that is sent to Council each year for approval includes both primary and provisional roads. Any roads not completed should be added to the next years resurfacing project.
- Criteria* At the end of each resurfacing project, the status of each road on the approved list, either completed, or uncompleted should be provided to Technical Support Services for future planning. A document tracking all previously approved roads that remain uncomplete should be in place and contain relevant information about the deferral and future resurfacing plans for the road.
- Condition* Our review of roads on the approved road list from 2021 to 2024 noted that a number of roads were deferred to future years including the following:
- 1 uncompleted road from the 2021 project was deferred to the 2024 preliminary list
 - 5 uncompleted roads from the 2022 West project were deferred to the 2024 preliminary list and 2 roads are on the 2025 preliminary list
 - 6 uncompleted roads from the 2022 East project were deferred to the 2024 preliminary list, 1 road is on the 2025 preliminary list and 1 road (provisional) is on the 2027 preliminary list

- 6 uncompleted roads from the 2023 project were deferred to the 2024 preliminary list, 3 roads were deferred to 2025 and 1 road has not been assigned to a future list.

The primary reason for deferring certain roads is due to construction activities by the Region of Peel. While staff were able to provide explanations for some of the deferrals upon review, there is currently no document tracking uncomplete roads from previous projects or the reasons for these delays.

Cause Based on discussion with staff, they are aware of all previously uncompleted roads and the status of these roads is determined prior to selecting roads to be resurfaced, however, there is not a process in place to formally track the ongoing status of uncompleted roads.

Impact The lack of a central document tracking uncompleted roads from prior resurfacing projects could lead to delays in the timely resurfacing of roads in poor condition.

Recommendation:

5. Implement Centralized Tracking for Uncompleted Roads

The Director, Capital Works, should establish a central tracking document to monitor uncompleted roads including the reason for deferral and expected resurfacing timelines, to improve transparency and accountability.

F: Enhance Process for Managing Service Requests

Priority Rating

P3

Background Complaints regarding road resurfacing are made through service requests which can be made by telephone (311), City of Brampton Smart Mobile 311 Application, City website or in person. Service Brampton receives the request and assigns it to the respective area in Capital Works to be actioned. All service requests are managed as work orders in CityWorks, Capital Works’ asset management system.

Criteria The process to action and monitor service requests should be guided by a formal SOP. The SOP should outline all relevant areas including guidance on target response time, use of service request status’ such as “Assigned” “In Progress” etc. referring requests to other departments, required notes and reviews of open service requests.

Condition There have been 232 service requests relating to road resurfacing since 2022. Our review of the process found that in general, service requests are being addressed and necessary action is being taken to resolve resident concerns. However, the following was also noted:

- There is no SOP for service requests
- There is no defined target time for responding to service requests
- Not all staff have access to CityWorks and must rely on Clerks to close requests and run open service request reports
- Three service requests with the status of “Assigned” have been open for over 200 days
- Process to close service requests is not consistent. For requests requiring future work, some are closed once the caller has been notified of future work plans while other requests are not closed until work is actually complete.

Some of the old open service requests were reviewed with Staff who confirmed that the necessary action to resolve the request had been completed, but the request was not closed in CityWorks.

Cause Based on discussion with Staff, the absence of a standard operating procedure as well as limited access to the CityWorks system, has contributed to process gaps in managing service requests.

Impact An inconsistent process to manage service requests could increase the risk that requests are not actioned timely which can impact customer service.

Recommendation:

6. Establish a Standardized Process to Manage Service Requests

The Director, Capital Works, should establish a standardized process for managing service requests to ensure requests are addressed timely and consistently while maintaining quality service delivery to residents.

Conclusion

The audit identifies key areas for improvement to strengthen the management and oversight of the City's road resurfacing program. Implementing targeted recommendations will enhance compliance with City policies, increase transparency, and protect public funds. Our analysis uncovered gaps in planning processes, material testing practices, contractor insurance verification, vendor evaluations, project tracking, and service request management. These gaps hinder the program's ability to maintain accurate records, manage risks, and ensure accountability.

Addressing these issues will improve program transparency, reinforce quality control in road resurfacing, and support responsible resource management—crucial to sustaining City infrastructure and delivering high-quality services to residents.

Audit Objectives, Scope and Methodology

Objective	This audit aimed to review processes, procedures and controls related to road resurfacing activities to ensure they were adequately designed and operating effectively.
Scope	<p>The audit scope covered road resurfacing activity from January 1, 2021 to June 30, 2024. All active resurfacing projects in 2024 were in scope. In this engagement, Internal Audit assessed the key processes relating to road resurfacing projects, including:</p> <ul style="list-style-type: none">• road resurfacing activities comply with Provincial standards and standard operating procedures• analysis of road conditions is performed annually, considers all relevant data and is properly completed• competitive bidding process for prospective contractors is effective, transparent, and in line with policies• estimated bid quantities are reasonably close to actual quantities and significant discrepancies are investigated• road resurfacing activities are in compliance with the terms and conditions of the contract• all required documents are provided by the Contractor including liability insurance and contract securities• road resurfacing site inspections are properly coordinated, completed and documented• material testing for concrete and asphalt is properly coordinated, analyzed and monitored• contractor payments are properly supported, approved and paid in accordance with the contract• notice of Construction is distributed timely to all affected residents and contains relevant information• service requests (#311) relating to road resurfacing are properly assigned, prioritized and actioned• vendor performance evaluations are completed annually and in line with standard operating procedures.
Methodology	<p>Our audit methodology included the following:</p> <ul style="list-style-type: none">• reviewing policies and standard operating procedures governing road resurfacing activity

- interviewing staff in various divisions involved in road resurfacing activity
- conducting site visits to observe compliance with standards requirements and assess project progress
- using sample testing and data analytics to assess material testing frequency and ensure compliance with standards
- researching and assessing best practices and standards from other municipalities

Appendix 1: Management's Response to the Audit Report

Recommendation 1: Implement Standardized Process for On-site Condition Assessment

The Director, Capital Works, should establish a standardized process for on-site condition assessments, incorporating defined ranking criteria and comprehensive documentation requirements to ensure transparency and informed decision-making when confirming streets for resurfacing.

Management Response: Agree Disagree

Comments/Action Plan

Capital Works will enhance the current SOP (Contract Administration Procedures) by detailing the process for selecting streets for the Road Resurfacing Program. This update will include an appendix with the required forms for conducting on-site condition assessments. Training will be provided to any new staff as part of the onboarding.

Timeline: Q3, 2025

Recommendation 2: Monitor Testing Completion and Frequency for Material Quality Control

The Director, Capital Works, should monitor the material testing process to ensure adequate coverage and adherence to testing standards for road resurfacing projects.

Management Response: Agree Disagree

Comments/Action Plan

Capital Works shall follow the Material Testing Consultants frequency chart to monitor the sufficiency of tests and, receipt of Material testing results related to Concrete and Asphalt. Staff will ensure the results of all Material tests have been received and meet the quality standards.

Timeline: Q2, 2025

Recommendation 3: Standardize Insurance Verification for Contractor During Warranty

The Director, Capital Works, in consultation with the Manager, Risk & Insurance, should implement a standard process for verifying Certificates of Insurance from general contractors during the warranty period to ensure compliance and reduce liability risks.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan Capital Works will update the bid document in collaboration with Insurance and Risk Management staff conducting a cost-benefit to assess the financial impacts prior to including it in the tender documents and also ensure a valid Certificate of Insurance is in place prior to any site visits. Timeline: Q2, 2025

Recommendation 4: Conduct Post-Warranty Period Vendor Evaluations

The Director, Capital Works, should ensure that vendor evaluations are conducted at the end of the warranty period for road resurfacing projects and clearly communicate this requirement to the general contractor to enhance accountability and promote quality work throughout the entire project.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree
Comments/Action Plan Capital Works will revise the existing SOP for Contract Administration Procedures to incorporate this change and update the project close-out checklist accordingly. Timeline: Q2, 2025

Recommendation 5: Implement Centralized Tracking for Uncompleted Roads

The Director, Capital Works, should establish a central tracking document to monitor uncompleted roads including the reason for deferral and expected resurfacing timelines, to improve transparency and accountability.

Management Response: <input checked="" type="checkbox"/> Agree <input type="checkbox"/> Disagree

Comments/Action Plan

Capital Works will incorporate a separate section within the existing SOP (Contract Administration Procedures) that includes tracking uncompleted resurfacing projects, documenting reasons for delays, and incorporating them into future rehabilitation programs. This update will include an appendix with the required forms for tracking uncompleted roads.

Timeline: Q3, 2025

Recommendation 6: Establish a Standardized Process to Manage Service Requests

The Director, Capital Works, should establish a standardized process for managing service requests to ensure requests are addressed timely and quality service delivery to residents is maintained.

Management Response: Agree Disagree

Comments/Action Plan

Capital Works will update the existing Service Request Guidelines and create a new SOP to define the roles and responsibilities of Capital Works staff in handling Service Requests for all Capital Projects. Training will be provided to any new staff as part of the onboarding.

Timeline: Q2, 2025

Appendix 2: Criteria for Assigning Ratings to Audit Findings

Priority Rating	Description
Priority 1 (P1)	<p>One or more of the following conditions exist that require immediate attention of the Senior Leadership Team. Corrective actions by senior Management must be implemented.</p> <ul style="list-style-type: none"> • Financial impact of both actual and potential losses is material • Management's actions, or lack thereof, have resulted in the compromise of a key process or control, which requires immediate significant efforts and/or resources (including time, financial commitments, etc.) to mitigate associated risks. Failure by Management to remedy such deficiencies on a timely basis will result in the City being exposed to immediate risk and/or financial loss • One more of the following conditions is true: i) management failed to identify key risks, ii) management failed to implement process and controls to mitigate key risks • Management's actions, or lack thereof, have resulted in a key initiative to be significantly impacted or delayed, and the financial support for such initiative will likely be compromised • Management failed to implement effective control environment or provide adequate oversight, resulting in a negative pervasive impact on the City or potential fraudulent acts by City staff • Fraud by Management or staff, as defined by the Corporate Fraud Prevention Policy (Policy 2.14)
Priority 2 (P2)	<p>One or more of the following conditions exist that require attention by senior Management. Corrective actions by Management should be implemented.</p> <ul style="list-style-type: none"> • Financial impact of both actual and potential losses is significant • Management's actions, or lack thereof, may result in a key process or control to be compromised, which requires considerable efforts and/or resources (including time, financial commitments etc.) to mitigate associated risks • Management correctly identified key risks and have implemented processes and controls to mitigate such risks, however, one or more of the following is true: i) the processes and controls are not appropriate or adequate in design, ii) the processes and controls are not operating effectively on a consistent basis • Management's actions, or lack thereof, have impacted or delayed a key initiative, and the funding for such initiative may be compromised • Management failed to provide effective control environment or oversight on a consistent basis, resulting in a negative impact on the respective division, or other departments • Management failed to comply with Council-approved policies, by-laws, regulatory requirements, etc., which may result in penalties • Management failed to identify or remedy key control deficiencies that may impact the effectiveness of anti-fraud programs

(Priority 3) P3

One or more of the following conditions exist that require attention by Management. Corrective actions by Management should be implemented.

- Financial impact of both actual and potential losses is insignificant
- A non-key process or control, if compromised, may require some efforts and/or resources (including time, financial commitments, etc.) to mitigate associated risks
- Processes and controls to mitigate risks are in place; however, opportunities exist to further enhance the effectiveness or efficiency of such processes and controls. Management oversight exists to ensure key processes and controls are operating effectively
- Minimal risk of non-compliance to Council-approved policies, by-laws, regulatory requirements, etc.
- Low impact to the City's strategic or key initiative
- Low impact to the City's operations

