



City of Markham

Fleet Operations Audit March 14, 2025



March 14, 2025

Mayor and Members of Council,

Pursuant to MNP LLP's ("MNP") appointment to provide Auditor General Services, I am pleased to present the Fleet Operations Audit report ("report") of the Auditor General for the City of Markham ("City"). To ensure the results of our review are balanced, we have provided in this report a summary of identified strengths, as well as observations and recommendations for improvement.

The audit work was substantially completed on October 30, 2024. The report was discussed with the City's Management, who have reviewed the report and provided their responses within. This report is provided to you for information and approval of the City's proposed action plans.

Based on the results of the audit, MNP found that there is a strong leadership structure and meeting cadence, established operational reporting that guides day-to-day management of activities, and the implementation of a new Enterprise Asset Management system that will provide the opportunity for management to leverage more fleet data. The City also has foundational information and analysis for the development of a low-carbon municipal fleet strategy. There are however a number of opportunities for improvement to enhance the efficiency and effectiveness of fleet operations.

MNP has identified continued improvement areas, including obtaining clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department for optimal performance; conducting a review of financial reporting with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected; augmenting strategy and business plans to incorporate more robust priorities, goals, objectives, corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting; continuing to develop, identify and assess the data captured by various systems used by Fleet Operations and determine ways this data can be used to optimize performance; and enhancing certain templates and reports to assist with efficient and effective review and monitoring of Fleet Operations.

The report will be posted on the City's website and made available to the public after tabling to Council.

Sincerely,

Geoff Rodrigues, CPA, CA, CIA, CRMA, ORMP Auditor General, City of Markham





CONTENTS

Background1
Objective1
Scope1
Risks2
Approach3
Audit Team
Strengths
Summary of Observations And Recommendations5
Recommendations
Acknowledgement
Appendix A – Detailed Observations and Recommendations8



BACKGROUND

The City of Markham ("City") is a municipality with a population of approximately 369,000 residents, offering various services to its residents, including support programs, infrastructure, recreation, and cultural facilities. Markham strives to improve its transparency, efficiency, and effectiveness for the benefit of its residents.

The City's Operations Department – Fleet Division (referred to as "Fleet Operations" within this report), supports cross-functional operations within the City with a fleet of vehicles and equipment, currently operating 283 licensed vehicles and 717 non-licensed equipment across 15 divisions. These fleet assets have a life expectancy of five to ten years.

Fleet Operations functions include fleet tracking and monitoring, asset maintenance, vehicle remarketing, asset acquisition, and safety and compliance. Fleet Operations makes use of various fleet management tools to assist in the optimization of fleet lifecycle costs, facilitate a safe operating environment and support Markham's sustainability goals. Most recently, the City has implemented an Enterprise Asset Management system (called "Lucity") which Fleet Operations is able to utilize to manage its asset inventory, assess the condition of assets, and log, track and determine maintenance needs, and record fuel usage.

The City undertook this audit in order to evaluate the efficacy of fleet management, and identify potential opportunities for improvement to return enhanced value to the City.

OBJECTIVE

To assess the effective and efficient management and operation of the departmental vehicle and equipment fleet throughout its life cycle. Specifically, this audit assessed whether:

- 1. Fleet Operations services and functions are well governed and managed;
- 2. Fleet Operations expenditures (and recoveries) are made with due regard for economy and efficiency, providing good value for the City's taxpayers; and,
- 3. Appropriate procedures are in place to measure and report on the effectiveness of Fleet Operations services and functions.

SCOPE

The scope of this audit focused on:

- 1. **Governance and Structure Review** including governance structure, organization structure (e.g., centralization of the fleet management function), management structure, performance/results management and decision-making, reporting and monitoring, and policy existence.
- 2. **Financial and Operational Results of Fleet Operations** including key performance indicators and analysis of common standard performance measures for Fleet Operations and including the quality of and access to relevant data.
- 3. **Business Case Review** including those developed for innovation initiatives, capital replacement and acquisition vs. rental decisions. Review will include business case structure, data, evaluation and decision criteria (objective and subjective), efficacy of calculations and analysis, review and approval protocols, and justification narrative.



Elements of Fleet Operations that are out of scope for this audit include detailed assessment of inventory, utilization of property, standard operating procedures, policy content, staffing assessments/compensation, insurance and licensing/regulatory.

RISKS

Given the stated objective, the following inherent risks¹ (i.e., potential risks) were identified and were considered which are typical for an audit of this nature.

- Fleet services and functions may not be well governed and/or managed resulting in inefficiencies or ineffectiveness in decision-making, reporting and monitoring, and policy development.
- Decentralization of the governance structure and/or organization structure may not align for effective or efficient management of the fleet operations and management function.
- Fleet expenditures are made without due regard for economy and efficiency and may are provide value for money.
- Uneconomic allocation of funds dedicated to procuring and maintaining fleet assets (total cost of ownership) may result in higher costs than necessary and budget overruns.
- Standard performance measures, targets or key performance indicators may not be set, tracked or monitored or trend analysis conducted to assist with assessing fleet performance or for continuous improvement.
- Limited access to relevant and/or quality data or the tools/systems required in order to conduct trend analysis, assess performance or make informed operational and managerial decisions.
- Procedures or processes may not be in place to assist in the measurement and reporting on the effectiveness of Fleet services and functions.
- Standard processes and procedures may not be in place, or quality data not available, to enable the effective and efficient use of business cases, calculations, and other similar analyses when conducting assessments of new initiatives, capital replacements, and other business decisions.

¹ The risk derived from the environment without the mitigating effects of internal controls - **Institute of Internal Auditors**. For clarity, this is a list of typical potential risks that were identified at the outset of the audit.



Approach

In accordance with MNP's audit methodology, the high-level work plan included the following phases:

1. Planning Phase

- Define objectives and scope.Confirm project duration and
- schedule.
- Assign team members and develop team structure.
- Describe deliverables.
- Create Audit Planning Memo and distribute to stakeholders.

2. Execution Phase (Information Gathering & Analysis)

- Review policies, processes, procedures, reporting, and other relevant data and documentation.
- Conduct interviews / discussions.
- Conduct evaluation, assessment and analytics.

3. Improvement & Reporting Phase

- Identify gaps and impovement opporutnities.
- Prepare draft report with findings and
- recommendations.
- Validate and present findings and recommendations to management.
- Issue final report.

AUDIT TEAM

The audit was carried out by the following MNP team:

Geoff Rodrigues, Auditor General	Provided expertise in assessment methodology, directed the MNP team in all stages of the audit, and ensured that firm and professional quality assurance standards were maintained.
Veronica Bila, Engagement Delivery Partner	Oversaw all aspects of the engagement and reviewed results.
Jason Hails, Subject Matter Expert	Provided expert knowledge on fleet management, governance, and business case analysis.

STRENGTHS

In conducting the audit, MNP noted the following strengths with respect to the City's fleet management practices and activities:

Governance and Management Structure	Fleet Operations has a strong leadership structure with personnel at the Manager, Senior Manager and Director, Operations hierarchy levels. The meeting cadence is also strong, allowing for appropriate levels of review and approval among various staff and levels of management, up to the Commissioner, Community Services and the Chief Administrative Officer. The leadership structure in place and meeting cadence observed allows for effective management review, feedback and decision-making through Fleet Operations budgeting and day-to-day functions.
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Operational Reporting	Fleet Operations maintains a set of financial and operational reporting that guides budget variance monitoring and day-to-day management activities. There are also other reports that are generated and reviewed for Fleet Operations management. All of these reports provide useful inputs for day-to- day management and ultimately for analysis and decision-making purposes to evaluate the composition of the fleet itself, efficient stockroom inventory levels, work order management, and vendor management.
Ability to Start to Access Systems and Data	Although Lucity is a relatively new system utilized by Fleet Operations, this Enterprise Asset Management system offers Fleet Operations with the opportunity to start to leverage data, develop performance measures and monitor performance over time.
Business Cases for New Fleet Purchases	Fleet Operations conducts evaluative exercises and maintains standard administrative procedures to assess options and justify fleet purchases and procurement of vehicles, equipment and related services. While the City has general policies that govern asset replacements, Fleet Operations takes a prudent approach by evaluating, through a business case, the specific asset that may be subject to replacement by determining an optimal course of action by balancing maintenance costs, remaining life and salvage value against the cost of replacement. The framework for business case evaluation is evident, with strong policies, developed templates and robust review and approval procedures.
Foundation for the Development of a Low-Carbon Municipal Fleet Strategy	In July 2023, the City engaged Dunsky Energy + Climate Advisors ("Dunsky") to produce a "Low-Carbon Municipal Fleet Strategy". The scope of Dunsky's report, delivered at the end of September 2024, was to "recommend a comprehensive municipal low-carbon fleet strategy that is effective, realistic, and informative, while meeting all federal and municipal emission targets in the next few decades". The Dunsky report is a thoughtful and comprehensive report and provides the foundational information and low-carbon considerations for the City to develop and implement its own Municipal Fleet Strategy. We understand that the report and the City's strategy and plan will be presented to Council in the upcoming months.



SUMMARY OF OBSERVATIONS AND RECOMMENDATIONS

To enable the City to set priorities in their action plans, we have reported our observations in one of three categories, "Low", "Medium" or "High" based on our assessment of the significance (i.e., impact and likelihood of occurrence) of each observation, as follows:

Rating	Description			
Low	The observation is not critical but should be addressed in the longer term to improve economy, efficiency or effectiveness of the function (i.e., 6 to 12 months).			
Medium	The observation represents a weakness in economy, efficiency or effectiveness, which could have or is having an adverse effect on the ability to achieve service or performance objectives. The observation requires management action within the short-to-intermediate term (i.e., 3 to 6 months).			
High	The observation represents a weakness in economy, efficiency of effectiveness, which could have or is having a major adverse effect on the ability to achieve service or performance objectives. The observation requires immediate management action (i.e., 0 to 3 months).			

A high-level summary of our observations and recommendations can be found in the table provided below with detailed observations and recommendations found in **Appendix A**.

Def	Cummun Observations and Descentions	Priority		
Ref	Summary Observations and Recommendations	н	м	L
1	Fleet Operations and the Fire Department			
	During the audit, it was noted that there is a current lack of clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department (referred to as Fire Fleet in this observation). There are different sets of perceived requirements between the two units and outstanding questions about the optimal degree to which Fire should operate independently versus adhering to a more centralized Fleet Operations structure. Central to the lack of clarity is the application of centralized Fleet Operations' policies and procedures to Fire Fleet operations, and the level of collaboration to facilitate efficient and effective fleet operation services.			
	A centralized fleet operations structure and governance model should be maintained, however, the roles, responsibilities and approval processes between Fire Fleet and Fleet Operations should be reviewed and clarified for optimal performance. This should include policies and processes, consideration of a simple service level agreement, and enhanced collaboration.			



Def	Summary Observations and Recommendations		Priority			
Ref	Summary Observations and Recommendations	н	М	L		
2	Financial Reporting - Cost Allocations and Credits					
	During the audit, we identified that the Fleet Operations monthly internal financial report does not represent a full costing of Fleet Operations, as it does not include all costs and credits for Fleet Operations functions.					
	Conduct a review of the Fleet Operations' monthly internal financial report with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected.					
3	Fleet Operations' Strategy, Business Plans, Goals and Performance Measures					
	While business planning is conducted at the Fleet Operations level with support from the Operations Department, strategic planning is conducted only at the Operations Department level, with no strategic or detailed plans, goals and performance measures at the sub-division (i.e., Fleet Operations) level.					
	A Fleet Operations strategy and business plan should be augmented within the Operations Departmental Business Plan, incorporating the priorities, goals and objectives of the City and the Operations Department, as well as corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting, working within and following the City's standard planning processes and timelines. In developing the Fleet Operations strategic and business plans, existing documents could be built-upon by adding specific Fleet Operations strategy, plans, goals, and performance measures.					
4	Data and Performance Measure Reporting					
	Standard City practice includes management reporting on an annual basis of the performance measures set in the Operations Departmental Business Plan, however, there are no active reports throughout the fiscal year that provide regular monitoring, tracking or reporting against other performance measures or key performance indicators (KPIs).					
	Continue to assess the data captured by the various systems used by the City and determine ways this data can be further developed, analyzed, and incorporated for optimized performance, as well as presented regularly to senior leadership and Council. The data and reports developed should integrate into the performance measures that are set as per Fleet Operations strategic and business plans.					
5	Capital Budget Contingency					
	While the City uses the contingency limit as a conditioning exercise to encourage a focus on the impact of budgeting and project overruns, it appears that the contingency allowance threshold of \$250,000 was put in place many years ago and may not be adequate for the size and scale of the City's portfolio. If this limit is too low, the City may not achieve the right balance of project control (through discussion/review when					



Summary Observations and Recommendations limits are exceeded) and administrative efficiency, whereby projects are permitted to proceed without the need for incremental review. While the specific threshold limit of the Contingency amount is not an overly restrictive constraint given overrun accounting and the replenishment process, a detailed root cause analysis of project overruns should be conducted, and where overruns are deemed excessive, the City should implement solutions to improve accuracy and accountability for the capital budgeting and project management processes. Solutions	Н	Μ	L
proceed without the need for incremental review. While the specific threshold limit of the Contingency amount is not an overly restrictive constraint given overrun accounting and the replenishment process, a detailed root cause analysis of project overruns should be conducted, and where overruns are deemed excessive, the City should implement solutions to improve accuracy and accountability for the capital budgeting and project management processes. Solutions			
could include the application of contingencies for specific categories of capital, incremental training, and revised review procedures. Consider also developing a more appropriate contingency level based on accepted industry thresholds to help streamline project review and decision-making.			
Business Case Financial Analysis Templates Upon review of the financial analysis template that accompanies business cases, and the completion of two different business cases (i.e., Vehicle Electrification and Rent vs Buy of Seasonal Vehicles), we noted that the template and analysis, which uses Excel, was conducted on an ad-hoc basis, with no clear instructions or explanations of embedded methodology or calculation inputs or results, rendering the financial analysis difficult to understand. Financial analysis templates should be developed and implemented in MS Excel for Departments to use for common (and unique when needed) procurements and expenditures.			
Reporting Improvement Opportunities During review of certain management reports, we noted that improvement opportunities could be made to enhance certain reports' frequency and their contents			
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RECOMMENDATIONS

The Auditor General recommends that:

- 1. The Fleet Operations Audit Report be received; and,
- 2. That staff be authorized and directed to do all things necessary to give effect to this resolution.

ACKNOWLEDGEMENT

We would like to express our appreciation for the collaboration and efforts made by City personnel, as their contributions assisted in ensuring a successful audit engagement. City staff provided the Auditor General with unrestricted access to all activities, records, systems, and staff necessary to conduct this review freely and objectively.

#	Observation	Rating	Recommendation	Management Response
1	 Fleet Operations and the Fire Department During the audit, it was noted that there is a current lack of clarity with regards to roles and responsibilities between Fleet Operations and the fleet function within the Fire Department (referred to as Fire Fleet in this observation). There are different sets of perceived requirements between the two units and outstanding questions about the optimal degree to which Fire should operate independently versus adhering to a more centralized Fleet Operations structure. Central to the lack of clarity is the application of centralized Fleet Operations' policies and procedures to Fire Fleet operations, and the level of collaboration to facilitate efficient and effective fleet operation services. For example: The Fire Department maintains a separate budget from Fleet Operations, however, the Fleet Operations' internal financial reports include fire fleet costs for almost all line items but excluding Oil & Lubricants (account #4310), Vehicle Parts (account #4320) and External Vehicle Maintenance (account #5420). This separation of budgets and co-mingling of some financial cost reporting can cause confusion on accountability for budget variances and cost overruns and lack of clarity on responsibilities. Fire Fleet purchases are made both independently and sometimes with support from Fleet Operations. This could cause inconsistent application of policies and processes (i.e., procurement policies, approvals, business cases for new purchases, etc.). In addition, capital expenditure approval requirements among Fire and Fleet staff/leadership have been noted to cause confusion and subsequent questioning of the appropriateness of the approval authority. 	Medium	 A centralized fleet operations structure and governance model should be maintained, however, the roles, responsibilities and approval processes between Fire Fleet and Fleet Operations should be reviewed and clarified for optimal performance. This should include the following areas: Policies and Processes: Review and complete a rationalization of policies, processes and procedures that govern Fleet Operations and determine application to Fire Fleet functions. Document which policies apply to Fire Fleet, and what are allowable exceptions based on Fire Fleet's unique needs. To avoid decision-making conflicts, ensure consistency, and for right-sized applicability, review and refine procurement, business case, decision-making policies, and spending authorities based on an appropriate balance of the needs of each the Fire Fleet and Fleet Operations. Rationalization and clarification of staff roles and responsibilities for all Fleet Operations and Fire Fleet staff that work together (i.e., who does what, when and why). Validation and potential adjustment to budgeting and reporting structures that overlap Fire Fleet and Fleet Operations, Procurement and Finance to best provide budget and cost accountability between the 	City staff agree that the centralized fleet operations structure and governance model should be maintained. Where resources permit, we will review and document the roles, responsibilities, and approval processes as part of ongoing continuous improvement efforts. Policies and Processes: The Corporate Fleet policies were last updated in 2022 with Fire Services included in the policy working group and subsequently signed off. The current policies and processes are applied across the City and currently allow exceptions for specific stakeholders, provided they remain in compliance. All policies and processes are subject to regular reviews, during which stakeholder feedback will be considered for further customization. Service Level Agreement: Fleet Operations will seek opportunities to establish a Service Level Agreement with Fire Services including clarification on roles and responsibilities for all Fleet Operations and Fire Fleet Staff.
	impact the overall effective and efficient management of fleet		two units.	

APPENDIX A – DETAILED OBSERVATIONS AND RECOMMENDATIONS

#	Observation	Rating	Recommendation	Management Response
	operations, especially any efficiencies that can be gained through a centralized fleet model, as well as consistency in policy, procedures and processes, and financial accountability.		 Service Level Agreement: Where practical, consider the establishment of a simple service level agreement (SLA) between Fleet Operations and Fire Fleet, where Fire Fleet is an internal client of Fleet Operations. The SLA should include performance expectations and accountabilities for each group. Formalize a simple process to manage and monitor SLA for performance and potential fine-tuning of scope and performance measures. Collaboration: Enhance collaborative and open Communication channels between the groups to foster collaboration and efficiency. Augment the current monthly Fleet/Fire meetings with agenda items (at least temporarily) that address progress of the above implementation initiatives. 	Collaboration: Fleet Operations will maintain ongoing collaboration with Fire Services moving forward and will seek improvement opportunities to foster collaboration and accountability.
2	 Financial Reporting - Cost Allocations and Credits During the audit, we identified that the Fleet Operations monthly internal financial report does not represent a full costing of Fleet Operations, as it does not include all costs and credits for Fleet Operations functions. Anomalies are noted as follows: The Water Department pays for its own fuel, while Fleet Operations incurs and reports the fuel expense for all other departments in its monthly financial report. Fire Fleet fuel is not always incurred by Fleet Operations, as sometimes the Fire Fleet will refuel at stations external to the City. As mentioned in Observation #1 above, certain Fire Fleet costs are included in the Fleet Operations monthly financial report, whereas others are not. 	Medium	Conduct a review of the Fleet Operations' monthly internal financial report with the view to ensure that all costs, credits and allocations of all Fleet-attributable functions are appropriately reflected. This will allow Fleet Operations to standardize reporting that better reflects Fleet Operations' functions and enable performance comparisons/benchmarking to other Fleet management entities.	City staff recognize the importance of regularly reviewing and analyzing financial information. As part of ongoing continuous improvement efforts, we will consider any necessary updates to tools and templates to ensure that adequate and relevant information is captured.

#	Observation	Rating	Recommendation	Management Response
	 Charger Operating & Maintenance costs from the Civ not included in the Fleet Operations monthly financia while other Charger costs are. The Fleet Operations monthly financial report is not a insurance costs related to the fleet it manages. By not allocating all costs and credits for Fleet functions, to not have a true picture or full costing of all Fleet Operatio which may impact decision-making, as well as not knowin extent of expenditures, variances to budgets, and other fi implications. 	Il report, Illocated he City will ns costs g the full		
3	Implications. Fleet Operations' Strategy, Business Plans, Goals and Performance Measures While business planning is conducted at the Fleet Operations level with support from the Operations Department, strategic planning is conducted only at the Operations Department level, with no strategic or detailed plans, goals and performance measures at the sub-division (i.e., Fleet Operations) level. Upon review of the 2024 Operations Departmental Business Plan, we noted the following: • The 2024 plan includes a cascading set of goals, objectives, actions and performance measures as follows: Goals/Objectives/Actions/ Measures Goals 4 4 5 5 6 5 6 5 6 6 6 6 6 6 1 		A Fleet Operations strategy and business plan should be augmented within the Operations Departmental Business Plan, incorporating the priorities, goals and objectives of the City and the Operations Department, as well as corresponding actions and performance measures of Fleet Operations for regular monitoring and reporting, working within and following the City's standard planning processes and timelines. In developing the Fleet Operations strategic and business plans, existing documents (i.e., the Operations Departmental Business Plan) could be built-upon by adding an appendix with specific Fleet Operations strategy, plans, goals, and performance measures, and considering the following items listed below:	City staff acknowledge the benefits for an expanded strategy, business plan, and performance measures for Fleet Operations. As part of ongoing continuous improvement efforts, we will evaluate the best available information and integrate it into the Departmental Business Plan to provide clear goals and objectives. Strategic Planning: Although Fleet Operations does not have a distinct strategic plan, the key principles underpinning fleet operations, including replacement, and redeployment of
	Strategic Objectives13Departmental Objectives12Departmental Action47Performance Measures22Fleet Operations is only noted in a limited fashioDepartmental business plan. The discreet refereeFleet Operations in the 2024 Operations Plan are	nces to	 Strategic Planning: Incorporate a multi-year approach in alignment with broader City plans and articulate clear medium to longer term strategy and objectives for Fleet Operations. 	fleet vehicles are covered under our Corporate Fleet Management & Maintenance Policy. Furthermore, any decisions with financial implications are supported by a multi-year approach (Lifecycle Planning) and ongoing conditional assessment.

	Observation		Rating	Recommendation	Management Response
o Goal	3 - Safe, Sustainable and	Complete Community –			Business Planning:
while	there is no narrative of o	ojectives or actions		Business Planning:	The City currently consolidates
specif	ically for Fleet Operation	, there are two		Either include detailed Fleet Operations	division business planning into th
-		to Fleet, as follows. We are		objectives and actions in the Operations	Departmental Business Plan with
		of these two performance		Departmental Business Plan to drive	alignment to the Corporate
meas	ures.			accountability and expected results or	Strategic Plan. Fleet Operations
				develop a discrete Fleet Operations Business	part of the Operations
Departmental Perf		2024 Long- LT 2022 Tournet term Target		Plan that aligns with the higher level	department, with business
Measures in Supp	off of Goal	2022 Z024 term Target Target Target Year		Operations plan.	planning managed within the sa
% of fleet utilizing h technology (light du	ty vehicles 16% 16% 16%	10% 15% 15% 2024			hierarchy. In the 2026 Operation
under 10,000 lb GV Licensed fleet avail	W)			Economy and Efficiency Objectives:	business plan update, City Staff
service rate in %)	95% 95% 95%	95% 95% 95% 2024		 Include economy and efficiency objectives 	will consider opportunities to
				for Fleet Operations in Operations business	enhance specific focus on Fleet
o Goal	4 - Stewardship of Mone	and Resources – Fleet		plans, with corresponding actions and	Operations.
		/objective/action, with one		performance measures. Incorporate SMART	
	rmance measure associat	-		principles into the performance measures	Economy and Efficiency
follov	vs. We are not aware of r	egular reporting of this		(specific, measurable, achievable, relevant,	Objectives:
perfo	rmance measure.			timely).	Fleet Operations will explore the
					potential of utilizing the Asset
	Departmenta	Departmental Action		Green Fleet/Vehicle Electrification Strategy and	Management System (EAM) to
Go	al Objective			Objectives:	develop performance measures
	ely manage Address impacts			 Include the City's strategy, objectives, 	and incorporate SMART principl
our asse	ts to growth on growth service	effective fleet life cycle s, strategies, including		actions and performance measures related	
(financia		optimal replacement		to vehicle electrification and green fleet	Green Fleet/Vehicle Electrificat
	nental & line.	interval review.		initiatives.	Strategy and Objectives:
	on taxpayer				Fleet Operations will continue i
investm	ent.			Performance Measures:	exploring market opportunities
				• Develop and implement a rationalized suite	Green Fleet initiatives in
Departmental Performance 2019 2020 2021 2022 2024 Long- LT Torret term Target				of Fleet Operations performance measures.	collaboration with the
Measures in Su	port of Goal	Target Target Year		Examples of common Fleet Operations	Sustainability and Asset
Average annual of per licensed unit		\$4,751 <\$6,000 <\$5,000 2024		performance measures that could be	Management Department and
10,000 lb GVW				developed as part of the City's strategic and	incorporate the future Council-
than unan r	view of the Draft 2025-2	27 Operations		business planning are:	approved City Green Fleet strate
	-	at the 2025-2027 plan, as		 Fleet Utilization 	deliverables into department
		ce measures, and only one		 Up/downtime 	business plans.
-		e measures, and only one		 Hours in service 	
erence to Fle	et Operations, as follows:			 Total cost per kilometer 	

o Total cost per kilometer

#	Observation			Rating	Recommendation	Management Response
Note 2029 appril Duri revie with reco cont man With mea Ope perf man to ic addi may repo and for f	5-2027 Operations De roved. Ing the audit, we also ews of Fleet Operation ew of each report, MN in this report) with po- mmendations for Fleet inuous improvement agement. Not having a Fleet Ope is specific and actionate sures, there may be a rations should prioriti formance, inefficient a agement. This could a lentify and accurately ition, not having clear lead to inefficiencies orting and monitoring reporting on perform	Departmental Objective Protect natural and built infrastructure and enhance their resilience. ucting this repo partmental Bus noted that Mar ns, dated 2015 a VP observed sim otentially benefiet of economy, eff rations strategic of economy, eff rations strategic ble goals, object a lack of clear di ize, resulting in and/or ineffective also lead to Flee report on their strategic and b or ineffective and policy deve ance measures	Departmental Action Participate in the development of a Green Fleet Strategy on City owned licensed vehicles. rt, the final version of the iness Plan had not yet been aggement conducted two and 2017 respectively. Upon nilar themes (as contained icial options and o pursue in its pursuit of ficiency and effectiveness in c plan, and business plan ives and performance rection in what Fleet less than optimal ve use of resources and time et Operations not being able value to the City. In usiness goals and objective ess in decision-making, elopment. Setting of, tracking will provide an opportunity d its performance over time		 Fuel cost per kilometer or fuel efficiency Emissions generated Total cost of ownership Preventative maintenance on-time completion rate Work order time to repair Utilization of mechanics Repair costs per vehicle Number of safety incidents Safety incident rate per kilometer Compliance with regulations (e.g. inspections, licensing, etc.) Fleet inventory turnover Customer satisfaction Among the measures selected, with Fleet servicing a number of Markham departments, MNP recommends that Fleet Operations implement a customer satisfaction metric based on internal customer surveys. Consider incorporating data that Fleet Operations already obtains from various existing reports into the development of key performance measures, such as EV costs, charger use and fueling reports. Fleet Operations should review the prior management-conducted review reports and re-assess the options and recommendations included therein (i.e., related to upgrades to systems, processes and the structure of Fleet Operations) which could be built into future strategic and business plans. 	 Performance Measures: Fleet Operations will continue to explore the opportunity to leverage the EAM System to develop and report on performance measures. Previous Fleet Operations Reviews: City staff will continue to take options and recommendations into consideration when establishing future strategy and business goals.

#	Observation	Rating	Recommendation	Management Response
	 Deservation Data and Performance Measure Reporting Standard City practice includes management reporting on an annual basis of the performance measures set in the Operations Departmental Business Plan, however, there are no active reports throughout the fiscal year that provide regular monitoring, tracking or reporting against other performance measures or key performance indicators (KPIs). We do note that the City has either recently implemented (or is in the process of implementing) a number of systems that are starting to gather data that will assist Fleet Operations in managing its business, including the following: An Enterprise Asset Management system ("Lucity") has been recently implemented, which includes the fleet database, and which is capable of geographic information system (GIS) technology integration for detailed mapping and special analysis of assets. Fleet Operations plans to implement integrated GIS with Lucity to enhance potential functionality in the areas of realtime tracking, geofencing, route optimization and compliance/reporting. An Automatic Vehicle Location ("AVL") system is in the process of being implemented. The AVL is planned to include a data layer that can be pulled into Lucity, which has Fleet Operations thinking about enhanced data and analysis capabilities for vehicle tracking. "MyTankInfo" which is a mobile-friendly dashboard that provides Fleet Operations with access to fuel level data, tank alarm information, and compliance reporting tools. Without clean and detailed data, Fleet Operations will not be able to set standard performance measures or targets, track or monitor KPIs, conduct trend analysis to assist with assessing fleet operations performance to make informed operational and managerial decisions, 	Low	 Recommendation Continue to assess the data captured by the various systems used by the City and determine ways this data can be further developed, analyzed, and incorporated for optimized performance, as well as presented regularly to senior leadership and Council. The data and reports developed should integrate into the performance measures that are set as per Fleet Operations strategic and business plans (refer to Recommendation #3 above). The following should also be considered: Once performance measures have been established, develop fit-for-purpose automated reports directly generated from the various systems so that data does not need to be manipulated into other formats (i.e., excel) which can increase the risk of error and inaccuracies. Data analysis, tracking, monitoring and reporting should be done on at least a quarterly basis, and in alignment with other monthly or quarterly reports. Performance measurement reporting should be refined by reviewing the comprehensive hierarchical portfolio of reports, focusing not just on variance and status reporting, but also allowing for management variance and status explanations that will help direct the ongoing strategy and performance of Fleet Operations. 	City staff acknowledge the need to assess and analyze the new and current data generated from the newly implemented EAM system. As part of ongoing continuous improvement efforts, we will evaluate the best available performance measures for Fleet Operations and integrate to the annual business plan reporting. Performance Measures: Fleet Operations will continue to explore the opportunity to leverage the EAM system in developing performance measures.

#	Observation	Rating	Recommendation	Management Response
	or continuously improve. Implementing data analysis activities will allow Fleet Operations to identify opportunities for improvement, and consequently develop and implement efficiency and effectiveness initiatives for improved service and performance.			
5	Capital Budget Contingency Capital Budget Contingency During the audit, it was noted that Fleet Operations included a \$250,000 contingency allowance in their 2024 fiscal year budget to be used for capital budget overruns. At the time of our audit fieldwork (October 2024), the allowance was overdrawn by over approximately \$2 million, with potential increase by the end of the year. With a capital budget reported in the Capital Status Departmental Review report of approximately \$25 million in 'open' projects, the budgeted contingency of \$250,000 represents 1% of total open capital projects, and the overdraw represents approximately 8% of open projects. The contingency is often fully subscribed, overages are recorded in capital overrun accounts, and the contingency is replenished twice per year through reserve funding. Based on our review, while the City uses the contingency limit as a conditioning exercise to encourage a focus on the impact of budgeting and project overruns, it appears that the contingency allowance threshold of \$250,000 was put in place many years ago, and may not be adequate for the size and scale of the City's portfolio. If this limit is too low, the City may not achieve the right balance of project control (through discussion/review when limits are exceeded) and administrative efficiency, whereby projects are permitted to proceed without the need for incremental review.	Low	While the specific threshold limit of the contingency amount is not an overly restrictive constraint given overrun accounting and the replenishment process, a detailed root cause analysis of project overruns should be conducted, and where overruns are deemed excessive, the City should implement solutions to improve accuracy and accountability for the capital budgeting and project management processes. Solutions could include the application of contingencies for specific categories of capital, incremental training, and revised review procedures. Consider also developing a more appropriate contingency level based on accepted industry thresholds to help streamline project review and decision-making.	City staff recognize the importance of developing cost estimates that are as accurate as possible, based on the best available information, and integrating this data into the budget process. Updated cost information is consistently considered and utilized to guide planning and budgeting for future projects. Where necessary and appropriate, City staff will incorporate contingencies based on standardized corporate guidelines. Additionally, mechanisms are in place throughout the year to secure additional funding, as needed, to support the timely and successful delivery of projects. The effectiveness of financial policies, processes, and procedures is continuously monitored and assessed, with any required improvements being considered as part of ongoing continuous improvement efforts.
6	Business Case Financial Analysis Templates Fleet Operations requests Departments to prepare and submit business cases, including financial analysis, to assess options and justify fleet purchases and procurement of vehicles, equipment and	Low	Financial analysis templates should be developed and implemented in MS Excel for Departments to use for common (and unique when needed) procurements and expenditures. These templates should provide:	Corporate templates designed to capture critical information and considerations for decision-making are utilized in key business processes, including the annual
	related services. Upon review of the financial analysis template that		 Purpose of the template 	processes, including the annual

#	Observation			Rating	Recommendation	Management Response	
	 accompanies business cases, and the completion of two different business cases (i.e., Vehicle Electrification and Rent vs Buy of Seasonal Vehicles), we noted that the template and analysis, which uses Excel, was conducted on an ad-hoc basis, with no clear instructions or explanations of embedded methodology or calculation inputs or results, rendering the financial analysis difficult to understand. Without the standardization of processes and procedures in place, there may be a reduction in the effective and efficient use of business cases, calculations, and other similar analyses when conducting assessments of new initiatives, capital replacements, and other business decisions. Standard financial analysis templates, with guidance around inputs, assumptions, methods of analysis, decision criteria and expected financial results are useful to evaluate the economy of various fleet strategies, options, procurements and expenditures. 					 Instructions Guidance for: Inputs and assumptions Methods of analysis (individual and comparative) Decision criteria Form of presentation Interpretation of results 	budget process and procurement approvals. City staff recognize the importance of regularly reviewing these documents to ensure their continued effectiveness and will incorporate this assessment into ongoing continuous improvement efforts.
7	 Reporting Improvement Opportunities Fleet Operations maintains a set of financial and operational reporting that guides day-to-day management activities. The following table identifies certain of these reports, a brief description of their purpose and the reports' frequency: 				Low	 The following improvements should be made for continuous maturity of the Fleet Operations set of reports: 1. Fleet Financial Statement Consider including prior YTD Actuals in the report, including variance of actuals between current and prior year. 	City staff recognize the importance of regularly reviewing and analyzing financial information. As part of ongoing continuous improvement efforts, we will consider necessary updates to tools and templates to ensure that
	#	Report	Description	Frequency		Within this report (i.e., on another tab)	sufficient and relevant information
	1	Fleet Financial Statement	Expense variance report, budget-to-actual, month- to-date, year-to-date, and by object/account.	Monthly		 or as an appendix to the report, include management comments for: Variances that exceed a predetermined threshold. Any noteworthy comments that may inform the forecasting exercise. 	is captured.
	2	Fleet Forecast	Expense variance report and fiscal year forecast, with variance against year- to-date budget and	Once per year in Aug/Sept based on			
			forecast variance against fiscal year budget.	July Financial Statement		 2. Fleet Forecast Consider including one other instance of budget variance analysis and forecast at 	
	3 Capital Project Portfolio Review Portfolio and Project Quarterly Status – open, closed, Vertex Vertex Vertex			10 months to: • Validate year-end projection.			

#	Observation			Rating	Recommendation	Management Response	
	4	Capital Project Status Update	carried forward, budget- to-actual, and remaining projects. Status by project, budget- to-actual, remaining dollars and time, simplified status narrative and forecast closure date.	Twice per year		 Offer Management the opportunity to course correct inyear. Inform budget for the following fiscal year. 3., 4. Capital Project Status Update and Capital Status Department Review Enhance the frequency of the 	
	5	Capital Status Departmental Review	Similar report to Capital Project Status Update report above. This report includes instructions, and slightly more detailed status update narrative.	Quarterly		 completion of the Capital Project Status Update report to quarterly to boost accountability, project management and contingency management. Increase the level of detail within the status narrative for a more comprehensive understanding of 	
	6	Fleet Procurement Status Report	For each Procurement, description, general ledger code, asset identification, budget, actual cost, plan date, and management notes.	Monthly		 project status. Add information on project initiation date for variance assessment against completion or forecast completion. Consider combing these two capital status reports into one report. 	
	7	Markham Corporate Financial Report	Month and year-to-date variance report (dollars and FTEs) by high level Department/ Commission with Fleet Operations included within Community Services.	Monthly		 EV Operating Costs It would be useful to further disaggregate and identify the various types of EV costs to ensure that the City develops a baseline record of its EV fleet costs for use with further evaluation and business cases for the 	
			Operating costs by electric vehicle and plug-in hybrid electric vehicle. re reports, we noted that impr			expansion of the Green Fleet.	
(oppor	tunities could be ma	ade to enhance several report'	s frequency			

#	Observation	Rating	Recommendation	Management Response
	and/or contents to assist with efficient and effective review and monitoring of Fleet Operations.			

