Committee of the Whole Report

Report Number:	**FL2021-002**
Meeting Date:	February 9, 2021
Title:	**Fleet Standardization**
Description:	Review and clarification of Fleet Standardization as an important cost saving measure for the City
Author and Title:	Todd Bryant, Manager of Fleet and Transit

Recommendation(s):

That Report FL2021-002, **Fleet Standardization**, be received**.**

Department Head: _____

Financial/Legal/HR/Other:_____

Chief Administrative Officer:_____

Background:

At the Council Meeting of February 18, 2020, Council adopted the following resolution:

CR 2020-056

Moved by: Doug Elmslie

Seconded by: Pat Dunn

That staff be directed to present a cost benefit analysis report to Council prior to the next budget cycle detailing the impacts of standardization and specifications for fleet acquisitions.

This report addresses that direction.

Rationale:

Purchase price is just one of many factors to consider when procuring fleet for the City. Need, use, lifecycle, maintenance and disposal are also some of the many considerations that are addressed by Staff. Once the need and usage are established, maintenance of equipment needs to be determined to achieve an acceptable lifecycle. Standardization of equipment allows the City to reduce the overall cost of operating, maintaining, parts and inventory, safety, training and ultimately purchasing the goods and service required while addressing departmental need, use, maintenance and disposal of equipment. For this report, plow trucks will be considered in example, but the rationale can be applied to other equipment types.

Standardization

The Cambridge dictionary defines standardization as "the process of making things of the same type all have the same basic features". This definition can be further expanded to standardization being the process of developing, promoting and mandating standards-based and compatible technologies and processes within a given industry. The City has detailed standards for plow trucks for many years. This mandates the quality and consistency of onboard technologies and ensure their compatibility, operation, maintenance and safety with the goals and objectives of each operating department.

Vehicles and equipment are assigned to the various departments to be used to achieve their operational obligations. Operating departments manage the use of their assigned equipment in a manner that maximizes the benefit of having the asset within the fleet. Each department participates in the standardization process through detailing the need and use of each piece of equipment. Additions to the fleet are accompanied with a detailed business case approved by the department's director prior to being brought before Council for budget approval.

In 2016 Council implemented Policy CP2016-012, which is the Non Emergency Fleet Policy which directs the creation of standard specifications wherever possible. A Management Directive (MD2016-016) supporting Council's Policy was also implemented and is reviewed annually by Staff. The Fleet Management Directive (Appendix A) states "The Fleet Services Division will develop standardized specifications for all vehicles and equipment where possible. The goal of having standardized specifications will be to acquire assets with similar needs in respect of parts inventory. This standardizing of equipment will be directed at saving costs on training, inventory and repair time to equipment. To ensure compatibility with an existing products or equipment, a minimum set of specifications will be developed for all common fleet assets. Additional standard specifications for common fleet assets will be developed in conjunction with user groups. It is recognized that specific operational and unique requirements exist for some fleet assets and the Fleet Services Division will work with the operating departments and the Purchasing Department to meet those specific needs."

Operation

With standardized equipment, Operations staff are familiar with any unit that they are assigned, know how and where the controls are and are familiar with the basic maintenance of this equipment.

As an example, the controls for Plows are complex and require periodic maintenance and training. These controls are placed in the same locations on all trucks with the same functionality. Through detailed specifications of Plow Trucks, Operators are capable of moving between depots and equipment as needed as each Plow is similar. Staff are regularly called out at 4am to service routes. The similarity of equipment allows for circle checks to be completed in a timely manner to get to their routes to clear snow and meet maintenance standards.

Another example is that all our plow trucks specify that brake stroke indicators to be placed on all axles. These brake stroke indicators allow operators to visually inspect if brakes are in or out of adjustment. During winter operations these indicators save the operator from going under the truck to mark and measure brake stroke, which can be time consuming and difficult depending on weather conditions. Such operation can cause safety concerns. Operators are all trained on where these indicators are, what their function is and how to read them. This assists the Operator in recognizing maintenance requirements, minimizes time examination and assists lifecycle goals. The consistency offered through standardization breeds stability and familiarity for Operations staff.

Fleet Staff consult the departmental Staff involved in the equipment usage and maintenance during the specification process. This involvement is an integral part of creating safe, cooperative and customer focused work environment. Frontline input is desired as they are the ones "doing the work" and need to input into what type of equipment is used and what it is used for. Staff also has input and working knowledge of proper maintenance practices for repair. This involvement creates understanding between all employees and promotes a safe a consistent work space for all employees.

Maintenance

Fleet Services maintains ten (10) Single axle and fifty-two (52) Tandem axle plows. 90-95% of this maintenance is performed between the two Fleet locations in Lindsay and Coboconk as it has been determined to be more cost effective than contracted services. For example, to contract out a standard WET service is $704.31 +HST. To do the same work in house is $292.06. A key part of maintenance activities is familiarity with repairs and diagnosing defects. Standardization reduces the time to diagnose, repair and get equipment roadworthy to perform its assigned operating tasks.

Fleet staff are regularly consulted for input in maintenance activities and approaches for improvement. This involvement incorporates proven methods to best perform tasks such as cleaning, lubrication, repairs, components' replacement, data collection, maintenance, design and more.

The Fleet Manager role is to support staff in the scheduling of maintenance, procurement and operations, ensuring seamless, efficient and professional delivery of all services. This is achieved though standardization of equipment and best maintenance practices. For City plow trucks, Fleet staff understand the maintenance

timelines and activities required for our current stock, have built in efficiencies to repair techniques as staff are knowledgeable of maintenance requirements. Staff can also easily transition between maintenance activities based on repair requirements as the repairs, locations and technology required for the repairs are similar.

Diagnosis of Plow trucks is an ongoing issue that gets more complex every day. New technology, sensors, systems and techniques for repair are a constant challenge for Staff. As new technology becomes available, manufacturers use this to update equipment. In 2019, Fleet amassed over $8,000 in computer program expenses to manage the diagnostics of just two brands of plows. To add additional brands would increase that cost and require additional laptop resources be availability to Staff.

Parts and Inventory

Both the Coboconk and Lindsay Fleet depots have very limited space for parts and inventory. There is approximately $550,000 in combined inventory for all equipment with about $250,000 dedicated to Plow Trucks for our existing fleet. Equipment repairs quickly rotate through this stock several times a year depending on what the maintenance activity is. As an example, to change just filters for a "WET" service requires up to 12 filter changes. Adding additional non-standard equipment to the City's fleet would require carrying additional parts inventory. This would trigger the need for additional warehouse space and add a significant cost to Fleet overhead. This additional stock could be valued up to $100,000 and have lower turn-over.

The Fleet Services division implements division budgets, provides analysis of budget development including the utilization and maximizing the parts asset portfolio. Standardization of Plow trucks allows a minimum amount of stock on hand to meet repair expectations and limit equipment out of service time.

Safety

The City's plows are single operator Plow Trucks. There is no "wing-man" or second set of eyes and hands to operate the controls. The Operators have a significant responsibility to perform their duties in a safe, efficient and timely manner. Standardization of brand, controls and functionality increase the level of safety and security of our Operators. This level of safety is detailed in our CVOR (Appendix B) rating that continues to be Satisfactory, Un-Audited by the Ministry of Transportation at 34.17%. When compared to other municipalities, this is quite good. By having a

standard brand and controls, Operators can focus on the rules of the road, the operation of their plow and provide a service to our residents in a safe and appropriate manner.

Leaders initiate daily, weekly and monthly tailgate talks around safety. Usually starting in the late fall, Supervisors focus is on safe winter operations, particularly revolving around snow removal. Safety, at all times, needs to be front of mind for all staff, operators, maintenance and support staff. Standardization of equipment, controls, and features allows Operators to concentrate on the road and winter maintenance activities.

Staff maintaining similar equipment allows technicians to properly repair equipment in a timely manner keeping our safety maintenance record and CVOR in good standing. These maintenance activities and Operation work in tandem to create a safe and functional working environment.

Training

Public Works Roads department provides testing and training regularly to staff. This driver training is provided over several days in the fall and throughout the year as required. Through standardization of equipment, training can then be standardized based on brand, location of safety equipment and controls.

This allows staff to develop Standard Operating Procedures (SOP's). SOP's are developed to offer consistency, safety and processes for equipment and staff to follow. Cleaning of Equipment and Vehicles SOP (Appendix C), Plow and Wing Blade Utilization SOP (Appendix D) and Tire Chain Installation and Removal SOP's (Appendix E) are just three of several examples of how standardization of equipment are of value. These SOP's detail the "how to" for these activities. They also have a secondary benefit of adding cost control. SOP's like Tire Chain installation and removal details safe practices for staff and the "how to's" of this practice. Tire chains that are purchased for equipment can then be utilized by all depots as they are the same, purchased at a volume discount, and training is then standardized on how to install and remove.

Purchasing

The City will endevour to standardize goods and services through a competitive process whenever possible and must be in compliance with legislation. The Procurement Division will work with the Department/Division, to determine the best procurement process for

standardization. This Purchasing Policy (Appendix G) will take precendence over any other Policy or Management Directive with regards to standardization.

Cost Savings

Equipment standardization reduce costs. A Black Belt project in 2013 was completed on the utilization of Plow Trucks (Appendix H) that resulted in the maintenance savings of $224,222.98 and the cost avoidance of $1.8 million. Brenda Stonehouse made a presentation to Council on May 22, 2013 that outlined cost savings and cost avoidance that was a launching pad for standardization. Fleet staff met with Operators, Supervisors, Managers, Technicians and the Director to initialize this process and how stronger cost savings could be achieved.

During the budget process of 2016, and with 3+ years of standardization of Plows and the supporting data, Fleet Services was able to extend the lifecycle of plows from 8 years to 12 years. This resulted in the immediate capital savings of $1.4 million and the capital cost avoidance over the next 12 years of and additional $8.06 million. Fleet staff continue to meet with all stakeholders regularly to refine the standardization of all processes.

In 2018, the lifecycle of Graders and the Vacuum Truck were extended as the standards of new equipment had been previously implemented. The Graders lifecycle extended from 20 to 25 years. The immediate deferral in 2018 was $650,000. Over the next 20 years the cost avoidance will be an additional $975,000.

Policy

The Non-Emergency Fleet Policy (Appendix F) was approved by Council in 2016. The Fleet Management Directive details "*The City of Kawartha Lakes is committed to a consistent, clear and uniform process to purchase, operate and maintain its Fleet. The overall goal is to maintain City services, provide equipment for City staff activities where required and have procedures that facilitate is these activities. This policy, and the accompanying Management Directive and Standard Operating Procedures, outline the process to be followed and service standards for all employees that operate City equipment* ".

The Fleet Management Directive (FMD) is a result of the Fleet Policy. The FMD is a comprehensive document that describes how the Fleet will be achieve desired outcomes of life cycling, cost containment and overall operation. The scope of the FMD is to:

1. Be a service provider for fleet services, in a professional, independent, fair and equitable manner.

2. Supply all operating departments with vehicles and equipment that are safe, reliable, meet MTO safety standards and meet the needs specific to the department function.

3. Provide timely maintenance and repair services at cost effective rates competitive or better than those in the private sector. This concept is also based on the recovery of capital costs amortized over the useful and economic life of the equipment thereby permitting timely replacements when required.

4. Work closely with each department to ensure specifications for new vehicles and equipment meet all the needs for that department's area of responsibility, while ensuring cost effectiveness and responsible management of City financial resources.

5. Strive to continually meet and exceed the expectations of all City departments in the provision of Fleet Services.

6. Benchmark repair and maintenance costs regularly to determine the most economical method of providing the services needed. Outsourcing will be utilized when priorities cannot be met with internal service staff, when the service required is a specialty and beyond the ability of staff and when the outsourced service is determined to be the most cost effective alternative.

The process of standardization, writing specifications and ensuring cost effectiveness meets Council goals.

Other Alternatives Considered:

No other alternatives are considered at this time. Staff will continually review operations and make improvements to processes in order to balance operational need with fiscal responsibility.

Alignment to Strategic Priorities

Goal 1 Fiscally Responsible- Standardization is focused on being fiscally responsible in our core service delivery. Fleet Services continues to make informed decisions to ensure a sound financial future.

Goal 2 – Open and Transparent-Through standardization of equipment, we are committed to operating in an open, accessible and transparent manner. Annual performance measures ensure that operations stay on track and achieve strong performance results.

Goal 3 – Partner and Collaborate- Through standardization, we strengthen our relationships with external and internal organizations to collaborate on projects and services. We support innovation and look for opportunities to partner to advance our common goals. We work with all levels of government to maximize investments.

Goal 4 –Service Excellence- We serve our community with pride. We seek to understand and meet the needs of those we serve within our available resources. Through standardization, Fleet Services is committed to accessible, timely, knowledgeable, courteous and fair service

Financial/Operation Impacts:

Any change to Fleet policy will require analysis to cost and operational impacts. For example, adding non-standard equipment will require the addition of 900-1200 square feet of space for additional parts/inventory at $250-$350 per square foot, minimum of two weeks training for Truck and Coach Technicians on additional systems plus training for Operators. This may also require modifying shop space, safety protocols and added time for repairs.

Servicing Implications:

N/A

Consultations:

Fleet Supervisor

Purchasing Supervisor

Richmond Sustainability Initiatives

Attachments:

Appendix A 
MD2016-015
Non-Emergency Flee

Appendix B 
CVOR Rating.pdf

Appendix C 
SOP2018-006
Cleaning of Municip

Appendix D 
SOP2018-003 Plow
and Wing Blade Util

Appendix E 
SOP2018-005 Tire
Chain Install Remov

Appendix F 
Non-Emergency
Fleet Policy.docx

Appendix G CP2020-003 Purchasing Policy.dc

Appendix H Heavy Truck Utilization Brenda.p

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Department File: FL2021-002