

## Transit Fare Box Non-Competitive Purchase

Presented To:	Community and Emergency Services Committee
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Type:	Managers' Reports
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Recommended by:	General Manager of Community Development

### Report Summary

This report provides a recommendation for a non-competitive purchase of sixty (60) fareboxes and associated technology. With approved funding through the Investing in Canada Infrastructure Program (ICIP), the municipal portion of the project, which is 26.67% is fully funded, and further reduced by cost avoidance and savings.

### Resolution

THAT the City of Greater Sudbury approves a non-competitive purchase agreement with Garival for the purchase of sixty fareboxes and necessary components and technology as outlined in the report entitled "Transit Fare Box Non-Competitive Purchase" from the General Manager of Community Development, presented at the Community and Emergency Services Committee meeting on July 8, 2024.

### Relationship to the Strategic Plan, Health Impact Assessment and Climate Action Plans

This report describes work recommended to implement the Transit Action Plan and continue efforts to expand ridership through innovative and responsive system improvements, which is an initiative specifically identified in Council's Strategic Plan as one of the actions to support the Asset Management and Service Excellence objective, and specifically goal 1.5 "Demonstrate Innovation and Cost Effective Service Delivery".

Within the Low-Carbon Transportation Strategy Sector of the Community Energy & Emissions Plan, this report aligns with Goal 7, to enhance transit services to enhance transit mode share to 25% by 2050.

### Financial Implications

The budget to purchase fareboxes and associated technology is support by funding through Investing in Canada Infrastructure Program (ICIP) Public Transit Stream. Within this project, the City of Greater Sudbury has budgeted \$4,987,500 for a number of Transit Technology Projects.

The total project cost for this Transit Farebox Project is \$2,164,500; 73.33% of project costs is supported by Federal and Provincial governments; the remaining 26.67% municipal portion of \$577,272 is funded and

balanced, supported by Provincial Gas Tax allocation.

## Background

The Transit Action Plan (TAP) was presented to Council on February 12, 2019; in addition to immediate route structure changes implemented in August 2019, resolution CC2019-45 directed staff to conduct the planning required to undertake the supporting infrastructure improvements and service level changes presented in the Future Expansion Options. Within the list of opportunities for transit system improvements is the introduction of smart card technology for fare payment. Where the pandemic negatively impacted available resources for necessary planning activities to proceed, the project was delayed until 2023.

Following the approval of the TAP, the City of Greater Sudbury applied for funding support through the Public Transit Stream of the Investing in Canada Infrastructure Program (ICIP). Across five approved projects of i) Bus Replacement, ii) Shelter Upgrade and Implementation of Various Technological Improvements, iii) Traffic Signal Priority, iv) Major Mobility Hub Design and Construction and v) Bus Rapid Transit Corridor Design and Construction, the Investing in Canada Infrastructure Program (ICIP) provides federal and provincial funds over an eight-year period, ending March 31, 2028. With 27 per cent of the costs covered by the municipality and use of Provincial Gas Tax Funding, there is almost \$100 million being invested in local public transit infrastructure.

With approved funding through ICIP Public Transit Stream, the City of Greater Sudbury has budgeted \$4,987,500 for the Shelter Upgrade and Transit Technology Projects. Within the ICIP approved project plan, which anticipates the implementation of various technological improvements that will improve rider experience and overall ease of access to transit services, GOVA transit will be upgrading their farebox system to increase, and improve, payment options for customers. As noted below, a total of 73.33% of project costs are supported by Federal and Provincial governments. The remaining municipal portion is funded and balanced, supported by Provincial Gas Tax allocation.

<b>Investing in Canada Infrastructure Program- ICIP-SUD-02</b>		
<b>Funding Source</b>	<b>Total Funding Amount</b>	<b>Portion</b>
Federal	\$1,995,000	40%
Provincial	\$1,662,333.74	33.33%
Municipal	\$1,330,166.26	26.67%
Total	\$4,987,500	

### Electronic Farebox/Smart Card Technology

As part of a Long-Term Investment Plan, the TAP recommended the implementation of smart card technology. As noted in the TAP, benefits of using smart cards are summarized as follows:

- Eliminating the need to print and distribute tickets, passes and transfers, thereby reducing fare collection costs
- Reduces incidents of fare evasion
- Reduced boarding times
- Tracking of smart card use through embedded serial numbers (improved data)
- Flexibility in fare pricing
- Ease of implementing fare changes

While acknowledging the ongoing reliance on coin and bank notes for payment by customers, coupled with the opportunity to improve transit fare technology and fare payment options, Transit is leveraging Investing in Canada Infrastructure Program (ICIP) funding opportunities to improve the farebox system across the entire fleet, thus positively impacting rider experience and new customer engagement.

The farebox system on each bus is responsible for collecting payment from the riders, issuing tickets/receipts following payment, and storing ridership data based on inputs (bus passes, time of day information etc.). The

current farebox system is at the end of its useful life, lacks modern payment methods, requires extensive maintenance, and is no longer supported by the vendor Genfare (GFI) at a service-level capacity.

The City of Greater Sudbury has used the current fareboxes for approximately 15 years. Manufactured by Genfare, with Canadian distribution by GFI, the Odyssey Farebox accepts cash (bank note and coin) and ride card (cardboard magnetic strip) payment on all conventional buses. In addition to fare collection and reporting, fareboxes are connected to, and compatible with, a vault collection system, a garage data system, an on-board Automatic Vehicle Location (AVL) system, destination sign and stop call out systems. Each unit hosts an Operator Control Unit (OCU) that allows Bus Operators to sign in/out of work assignments, control destination signs and ensure proper data collection for ridership.

The Odyssey farebox is at end of life, considered obsolete and no longer manufactured by GFI. With improvements in transit and open payment technology, the model has been replaced by one that adds fare payment options of smart card, open loop tap and pay, smart phone payment, while still maintaining coin and bank note validation. Where increased payment options will provide for more efficient loading of buses (supports OTP) and significant increase for rider experience, farebox system upgrades will also improve the transfer process, moving from magnetic cardboard/paper to a printed QR code. Moving to a QR code transfer removes any requirement to insert the transfer into the farebox, thus significantly improves rider experience and ensures the proper collection of ridership data.

In consideration for capital costs to enhance the farebox system, remaining with the current farebox vendor will provide opportunities for cost avoidance, with costs otherwise incurred in a variety of areas with another farebox vendor. As illustrated in Figure 1, cost savings and avoidance will be achieved through receipt of credits for retired fareboxes, avoiding replacement of two (2) currency vaults (and necessary facility modification), and maintaining the current garage/depot data system and associated building infrastructure. Further, implementation costs are reduced through avoidance of fees related to staff training on a new system, when considering the function and design are very similar to the current farebox system and there will be continued integration with CAD/AVL/Destination Sign/Call Out systems. Most critical is that, while increased payment options are provided with the recommended upgraded system, there is integration between current and new fareboxes, which provide ability for customers to transition seamlessly to a new system. Specifically, for a time period defined by Transit, customers will be able to use previously purchased passes/ride cards with the new fareboxes, thus providing a seamless transition for customers.

As listed in the below charts, without forecasting cost savings related to the minimal impact a transition will have on customers, the recommendation for a single source purchase will provide for an immediate ROI to the City of Greater Sudbury, through an estimated 22% cost avoidance. With a net cost of approximately \$1,678,250, after receiving the Provincial and Federal ICIP funding, the municipal portion of this project is approximately \$447,589.

Alternatives to a farebox replacement were considered, toward proceeding solely with the implementation of a smart card/payment technology system. In consideration for costs of installing a reader only system, and leaving outdated farebox for separate replacement to support bank note/coin collection, the overall cost of approximately \$770,000 was not considered a viable option, when considering requirements to replace fare collection systems. Further, anticipating two separate fare collection systems, the collection and maintenance of ridership data was raised as an issue that could impact the quality of ridership data. Alternative to the installation of a physical system, staff considering the implementation of only mobile technology. With similar issues as a new system, this was also not recommended when considering a user fee of 10% of all digital transit payments.

In alignment with Transfer Payment Agreement in place for ICIP funding, the City of Greater Sudbury submitted a Procurement Exemption Request for a non competitive purchase of fareboxes and necessary technology. Under the Investing in Canada Infrastructure Program, contracts must be awarded in a way that is fair, transparent, competitive and consistent with value-for-money principles, or in a manner otherwise acceptable to Canada, and if applicable, in accordance with international trade agreements. In a very limited number of circumstances, the Province and Canada may consider exemptions to the above. For the costs associated with the contract in question to be eligible, any exemptions must be granted before contract

award. On March 21, 2024, the City of Greater Sudbury received confirmation from the Minister of Housing, Infrastructure and Communities that the request for the City of Greater Sudbury to award a non-competitive contract, for a total value up to \$2,164,500, was granted.

### Information Technology Support

Given the cost and scope of this project, Information Technology will perform an extensive review to ensure compliance with existing architecture and feature related requirements. Information Technology assistance to Transit technology projects was previously approved by IT Governance; as the scope of this farebox sub-project proceeds further through testing and implementation, it will be brought back to IT Governance to ensure awareness and established monitoring.

### Conclusion

Directly aligning with key City of Greater Sudbury strategy listed within the Strategic Plan and Community Energy and Emissions Plan (CEEP), the upgrade of existing fareboxes with smart card technology, is a project that promotes the continued growth of transit in the community. With approved funding of ICIP, coupled with Federal and Provincial government approval for a non competitive procurement; with identified cost avoidances, the project is accountable to a funded capital budget and ensures value for money. Through the TAP, this project that has been reviewed with Council on a variety of occasions; it is noted that the project aligns with the goal of improving Transit in the City of Greater Sudbury. Where the recommendation is to upgrade a farebox system with the current vendor, the identified savings illustrate accountability to City of Greater Sudbury legislation and transparency that reflect Staff's commitment to public trust.

In receipt of support from Council, Transit staff will immediately launch project steps that will see procurement of fareboxes and associated technology, directly by a comprehensive communication and engagement plan that ensures appropriate education and onboarding of customers, to promote transition of customers toward increased use of smart card/payment fare payment. Project outputs will include successful launch of the technology, also monitoring for increased use of new fare payment technology, and reduced processing of coin/bank note fare payments.

**Figure 1.1 – Farebox Cost and Cost Avoidance Cost**

Description	Quantity	Unit Cost	Total
Fast Fare Farebox	60	\$24,680	\$1,480,800
Open Loop Smart Card Reader	60	\$2,750	\$165,000
Implementation Fee	1	\$225,000	\$225,000
Network Manager	1	\$119,000	\$119,000
Administrative Point of Sale Unit	1	\$19,800	\$19,800
Retail Point of Sale Unit	2	3200	\$6,400
Smart Cards	30,000	\$4.95	\$148,500
Total			\$2,164,500

### **Cost Avoidance/Savings**

Description	Quantity	Unit Cost	Total
Farebox Credit	60	(\$1,000.00)	(\$60,000)
Vault System Replacement and Capital	2	(\$80,000.00)	(\$160,000)
Transit Depot Data System	1	(\$110,000.00)	(\$110,000)
Coin Validator Exchange	1	(\$20,000.00)	(\$20,000)
Spare Part Credit	1	(\$5,000.00)	(\$5,000)

Employee Training	150	(\$75.00)	(\$11,250)
Reduced Farebox Maintenance	1	(\$120,000.00)	(\$120,000)
Reduced Impact on Customers			\$0
		Savings	(\$486,250)
		Net Cost	\$1,678,250

## Resources Cited

Greater Sudbury Transit Action Plan- Better Routes. Better Schedules. Better Service  
February 12, 2019

<https://pub-greatersudbury.escribemeetings.com/filestream.ashx?documentid=3959>