

**COMMITTEE OF THE WHOLE (2) – MARCH 18, 2025**

**STAFF COMMUNICATIONS**

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**Distributed March 14, 2025**

SC1. Memorandum from the Deputy City Manager,  
Public Works, dated March 14, 2025

**Subject**

Re: Intelligent Transportation Systems  
Single Source Procurement of an  
Advanced Traffic Management System

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**STAFF COMMUNICATION  
FOR INFORMATION ONLY**

**SC1.  
Staff Communication  
CW(2) – March 18, 2025**

**DATE:** March 14, 2025

**TO:** Mayor and Members of Council

**FROM:** Emilie Alderman, Deputy City Manager, Public Works

**RE:** **STAFF COMMUNICATION – CW (2) March 18, 2025**  
**Intelligent Transportation Systems Single Source Procurement of an**  
**Advanced Traffic Management System**  
**(Item 4, CW Report No. 41, October 17, 2023)**

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## **1. Purpose**

This communication provides the Mayor and Members of Council with an update regarding the final procurement cost of the Single Source Contract (SI24-396) with Econolite for the implementation of an Advanced Traffic Management System. Staff committed to communicate the contract price to Council once the agreements were negotiated and executed.

***A key priority identified under the MoveSmart Mobility Management Strategy is the development of an Intelligent Transportation System, including the implementation of an Advanced Traffic Management System***

The development of the City's Intelligent Transportation System is a component of the MoveSmart Mobility Management Strategy which supports the Mobility Management and Traffic Data Management programs. The Intelligent Transportation System aims to improve traffic management in Vaughan's urban areas by utilizing advanced digital tools and automation. The City's Intelligent Transportation System is intended to enhance safety, mobility, and responsiveness for all road users through the adoption of scalable technologies.

The Advanced Traffic Management System will serve as a centralized platform for traffic signal management. This will help to reduce traffic disruptions by allowing for remote and proactive monitoring of traffic signals to facilitate timely diagnosis, troubleshooting, and maintenance. The Advanced Traffic Management System will support signal timing optimization and can be interoperable with York Region. This interoperability is expected to enhance traffic flow, provide greater flexibility, and achieve more efficient mobility management across the City's transportation network.

The City currently operates approximately 100 traffic signals on municipal roads. As part of various capital projects, 45 per cent of these traffic signals have already been upgraded to Econolite controllers per York Region's specifications. This new initiative will upgrade the remaining 55 per cent of traffic signals and implement the City's first

Advanced Traffic Management System.

***Council directed the Deputy City Manager of Public Works and the Director of Procurement Services to negotiate, execute, and administer any resulting administrative acts and agreements required to support the implementation of an Advanced Traffic Management System in a form satisfactory to the City Solicitor***

The Single Source Procurement was approved by Council on October 17, 2023 ([Extract from Council Meeting Minutes of October 17, 2023](#)) and awarded to Econolite based on the following justification:

- Econolite's controllers, cabinets and software are already used by York Region and 70 per cent of municipalities in the Greater Toronto Area, offering proven scalability, innovation and reliability.
- The Econolite solution allows for seamless integration and data sharing with York Region's system while supporting the City's ongoing traffic signal modernization efforts.
- Econolite's products of controllers, equipment and software are supported by the same vendor, creating a complete customer-centric Advanced Traffic Management System service and platform that is scalable and proven to deliver innovative solutions to support the City's growth and future transportation needs.
- Arcadis IBI Group undertook a comprehensive consultation with vested stakeholders, including Emergency Services, York Region, York Region Transit, and York Net which resulted in broad support for the Econolite solution as it can further integrate with other technologies and enhance the City's current preemption system to ensure timely response of emergency vehicles in critical areas.

## **2. Analysis**

***The contracts for the Advanced Traffic Management System software, the associated hardware and the civil work for the traffic signal controller conversion were awarded below budget***

The scope of work included two key components:

- Part A: Hardware traffic signal cabinets and controller equipment upgrades
- Part B: Deployment and ongoing annual operating subscription services for the Advanced Traffic Management System software, including all supporting systems

The Single Source Procurement came in under budget as a result of effective negotiations and contract pricing comparisons with other municipal partners. As outlined in Table 1 and Table 2, both the capital and operating budgets were favourable by \$297,948.28 and \$139,126.95, respectively. This positive financial outcome allows the City to allocate the surplus funds towards enhancing and expanding the Advanced Traffic Management System solution and supports ongoing innovation in traffic management and mobility solutions.

**Table 1. Impact on Capital Budget RP-6768-18**

A	Available Budget	\$2,319,815.00
B	Expenses to Date	\$252,180.10
C	Commitments to Date <ul style="list-style-type: none"> <li>• Hardware (Econolite): Cabinet, controller, cellular modem, and antennas; Software (Econolite): Advanced Traffic Management System one-time fee</li> <li>• Advanced Traffic Management System Access Point Name creation (Bell)</li> <li>• Fieldwork for traffic signal upgrade (Beacon)*</li> <li>• HST + Admin Recovery for the entire project</li> </ul>	\$1,287,906.36 \$12,480.00 \$402,476.75 \$66,823.51
D	<b>Budget Remaining (A – B – C)</b>	<b>\$297,948.28</b>

**Table 2. Impact on 2025 Operating Budget 2310230.7331**

A	2025 Available Budget	\$527,465.00
B	Expenses to Date	\$0.00
C	Commitments to Date <ul style="list-style-type: none"> <li>• Traffic signal maintenance (Beacon)*</li> <li>• Advanced Traffic Management System annual subscription (Econolite)</li> <li>• Cellular data consumption (Bell)*</li> <li>• HST for the entire project</li> </ul>	\$310,939.51 \$50,682.00 \$20,000.00 \$6,716.54
D	<b>Budget Remaining (A – B – C)</b>	<b>\$139,126.95</b>

\*The Traffic Signal Controller Conversion Contract was awarded via a competitive procurement (T24-541)

\*\*Data usage may vary and this cost may fluctuate slightly

### 3. Conclusion

***Upgrades of all traffic signals across the City and the deployment, integration, and configuration of the Advanced Traffic Management System are expected to be completed by the end of Q4 2025***

Procurement of the City’s traffic signal upgrades, with support from the Office of the Chief Information Officer, Procurement Services, and Legal Services, is complete. The capital expenses are well within the approved budget and the remaining funds will be used to expedite and facilitate the expansion of scalable Advanced Traffic Management System solutions.

The City is now positioned to establish the foundation for a modern Traffic Signal Control System, which will enhance traffic flow, provide greater flexibility, and ensure efficient mobility management across Vaughan’s transportation network.

For more information, please contact:

Steven Fantin, Director, Transportation and Fleet Management Services, ext. 6141

**Approved by**

**Emilie  
Alderman**

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Alderman  
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Emilie Alderman  
Deputy City Manager Public Works