



## **AGENDA MEMORANDUM**

Action Item for the City Council Meeting of September 23, 2025

**DATE:** September 23, 2025

**TO:** Peter Zanoni, City Manager

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### **Purchase of NoTraffic Mobility Platform: Hardware and AI Detection Modules**

#### **CAPTION:**

Motion authorizing the purchase of the NoTraffic mobility platform for 77 intersections from Texas Highway Products, Ltd., of Round Rock, through the BuyBoard purchasing cooperative, in the amount of \$1,801,985.00 for software licenses, hardware, and components to enhance traffic signal operations to improve signal timing, safety, mobility, and begin synchronization along designated corridors to be completed in two phases (61 intersections and 16 intersections, respectively) for the Public Works Department, with FY 2025 funding of \$1,432,215.00 from G.O. Bond 2018 and Street CIP and FY 2026 funding of \$369,770.00 from the Streets Fund, subject to approval of the annual budget.

#### **SUMMARY:**

This is a motion to approve funding for the purchase of the NoTraffic mobility platform that includes hardware and AI detection modules in support of the City's Traffic Management Center (TMC) goals of improving traffic signal operations at 77 intersections.

#### **BACKGROUND AND FINDINGS:**

The Public Works Department is responsible for management of the City's Traffic Management Center (TMC). It serves as a centralized location to coordinate, monitor, and oversee the City's traffic signals transportation network to optimize performance. The TMC uses Intelligent Transportation Systems (ITS), which includes hardware and software, to

remotely enhance safety and efficiency of traffic operations. This includes remote monitoring, data collection, live traffic surveillance, incident response, receiving and monitoring alerts, and adjustment of operations in real time.

Traffic detection systems are essential in managing traffic operations. They provide critical information used for performance measures, data collection and data analytics. These detection systems are either in-roadway systems (e.g. inductive loops) embedded in the pavement or over-roadway systems (e.g. video, radar) mounted on a pole. Existing systems installed in the City are over-roadway systems using video, radar, or hybrid (video + radar) systems for traffic detection.

The Public Works Department currently maintains 259 signalized locations (251- signalized intersections and 8-midblock pedestrian crossings). Detection hardware is required at 252 of the 259 locations. The goal is to provide improvements at all 252 locations whether they are beyond their life cycle or currently nonexistent. Currently, radars only exist at 225 of the 252 locations.

The typical life cycle or warranty period for a radar sensor is five (5) years. Of the 225 locations where radars exist, 168 have met and exceeded their service life (75% of intersections). In most cases they are five to ten years beyond desired life cycle. Sensors beyond their life cycle will eventually lose functionality. Additionally, the cabinet interface device used to communicate to the outdated radar sensors are now discontinued. Once either fail, the ability to detect vehicles at an intersection will be lost which will impact signal operations by increasing delays and the ability to synchronize signals along a corridor. Staff would also have to resort to manual collection and observations to resolve and address operations.

In FY2024 Public Works began a plan to replace outdated detection systems Citywide. City Council approved a package to purchase radars for 25 intersections and software to enhance mobility and begin synchronization along signalized corridors. These radars were installed and signal coordination was performed along segments of Staples Street, Saratoga Boulevard, and Rodd Field Road. Travel time has been improved with reductions of up to 2 minutes in AM travel time and 3 minutes in PM travel time.

By the end of FY 2025 a total of 44 intersections will be upgraded with new detection systems through in-house or Bond project initiatives. An additional 13 intersections are planned for upgrades as part of future projects by the City or TXDOT over the next few years. The purchase of the NoTraffic mobility platform for 77 intersections, in addition to current and future upgrades, will enhance 134 of the 252 locations (53% of the network). Future funding will be required to address the remaining 118 intersections that are beyond the life cycle or contain no detection (47% of the network). This number may be reduced if any of the remaining 118 intersections are considered unwarranted requiring removal of the traffic signal.

The radars associated with the NoTraffic mobility platform are hybrid sensors. They were piloted by Public Works at seven (7) intersections along Shoreline Boulevard, Park Road 22, Staples Street and London Pirate Road before considering this more robust purchase. They detect vehicles up to 720 feet in all weather conditions. These devices are also equipped with AI object detection, collect vehicle classification, provide live video, real-time alerts, turning movement counts and signal performance measures. The NoTraffic platform also provides 24/7 management, system alerts, and remote troubleshooting. These functionalities will allow the ability to enhance operations and aid in signal coordination. These systems have met all security and safety requirements of the IT Department.

### **PROCUREMENT DETAIL:**

The procurement is through the BuyBoard Cooperative. Contracts awarded through the BuyBoard Cooperative have been competitively procured in compliance with local and state procurement requirements.

### **ALTERNATIVES:**

An alternative is to not approve the purchase. City staff would have to rely on manual data collection and observations to resolve calls to resolve operational, mobility, and safety concerns at intersections due to non-functioning radar equipment.

### **FISCAL IMPACT:**

Expenditures will total \$1,432,215.00 for FY25 to provide for equipment with funding available in the Street Fund, with future years budgeted through the annual budgeting process.

### **Funding Detail (Phase 1):**

Fund:	3530- Street CIP
Department:	33 - Streets
Organization/Activity:	89
Project # (CIP Only):	<b>23045- Traffic Signals &amp; Infrastructure Installation</b>
Account:	550720 - Equipment Purchase CIP
Amount:	\$820,215

Fund:	3556- ST2020 Bond 2018 P1
Department:	33 - Streets
Organization/Activity:	89
Project # (CIP Only):	<b>18048 – TxDOT Participation/Traffic Co</b>
Account:	550720 - Equipment Purchase CIP
Amount:	\$612,000

### **Funding Detail (Phase 2):**

Fund:	1041- Streets Fund
Department:	33 - Streets
Organization/Activity:	12310 - Traffic Engineering
Project # (CIP Only):	<b>N/A</b>
Account:	530215 - Maintenance & Repairs Contracted
Amount:	\$369,770

### **RECOMMENDATION:**

Staff recommends approval of this motion as presented.

### **LIST OF SUPPORTING DOCUMENTS:**

Quote  
Presentation