REQUEST FOR PROPOSAL

ADVANCED TRAFFIC SIGNAL CONTROLLER SYSTEMS

RFP # 2023-092
Public Purchase BID #178447

Prepared by:
Paradigm Traffic Systems

November 1, 2023

TXShare
Your Public Sector Solutions Center

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Your Public Sector Solutions Center

REQUEST FOR PROPOSALS
For
Advanced Traffic Signal Controller Systems
RFP # 2023-092

Sealed proposals will be accepted until **2:00 PM CT, Monday, November 6, 2023** and then publicly opened and read aloud thereafter.

Paradigm Traffic Systems, Inc.
Legal Name of Proposing Firm

Ryan Zenzen — Contact Person
President — Title

817-831-9406 — Telephone Number
estimating@paradigmtraffic.com — E-Mail Address

2201 E. Division Street — Street Address of Principal Place of Business
Arlington, TX — City/State
76011 — Zip

P.O. Box 5508 — Complete Mailing Address
Arlington, TX — City/State
76005 — Zip

Acknowledgment of Addenda: #1_____ #2 _____ #3 _____ #4 _____ #5 _____

By signing below, you hereby certify that the information contained in this proposal and any attachments is true and correct, and may be viewed as an accurate representation of proposed services to be provided by this organization. You agree that failure to submit all requested information may result in rejection of your company's proposal as non-responsive. You certify that no employee, board member, or agent of the North Central Texas Council of Governments has assisted in the preparation of this proposal. You acknowledge that you have read and understand the requirements and provisions of this solicitation and that the organization will comply with the regulations and other applicable local, state, and federal regulations and directives in the implementation of this contract. And furthermore that I certify that I am legally authorized to sign this offer and to submit it to the North Central Texas Council of Governments, on behalf of said offeror by authority of its governing body.

Authorized Signature

Tab A: Cover Sheet

Paradigm Traffic Systems is proposing for the use by TX Share Agencies a pricing list on goods and services for Traffic Signal Controller Systems Software, Hardware, and not anticipated traffic products and services, otherwise available to the agencies TX Share RFP #2032-092 also listed as Public Purchase Bid Number 178447.

Paradigm Traffic's understanding is that government agencies that are members of the NCTCOG will be able to utilize the TX Share Program. These agencies will be able to purchase from this interlocal agreement all traffic equipment, service and support available on the submitted price listing for a term of 24 months with possible annual renewals. We will be responsible for delivering high-quality solutions and professional level traffic technical services to the 3 categories listed in this Request for Proposal.

The summary of qualifications for Paradigm Traffic for such an agreement are extensive. We have been a leader in the Texas traffic industry and ITS equipment market supply business since 1994. Over those decades, we have served TxDOT, city and county local agencies, and traffic consultants in different capacities. Our Team at Paradigm Traffic Systems has over +450 years of traffic industry experience. We currently provide traffic equipment and technical service assistance through interlocal agreements with partners such as the BuyBoard, HGAC, and multiple city contracts. We proudly are working with our partners at Innovix ITS, LLC to provide more S.B.E. / MWBE participation opportunities in the traffic industry.

Paradigm Traffic also understands that NCTCOG is not an agent of partner to or representative of the outside agencies participating in TX Share. NCTCOG is not obligated or liable for any actions of debts from this interlocal agreement.

Paradigm Traffic believes these factors make us a valued partner with TX Share participants.

Tab B: Executive Summary

Paradigm Traffic Systems are proposing for Category 1, the Econolite EOS controller software. Category 2 pricing list includes the hardware for the Econolite Cobalt and 2070 controller units, with a choice of Econolite or Henke options on signal cabinets. Category 3 affords a TX Share agency the ability to purchase an expanded variety of traffic equipment and services beyond the controller software, controller, and cabinet, but related to the previous category items.

The specifications (5.8 to 5.26.16) and Appendices A and B for NTCIP protocol requirements will have items noted with exceptions and as clearly stated as possible in the Tab D Technical Proposal section. Paradigm Traffic has good intent to provide the agencies with an option to meet their specifications as closely as possible. A strong majority of the RFP requirements are a workable solution.

The specification for the software seems to imply a Paradigm Traffic competitor's specification is being suggested. Our intention is not to provide controller software or any hardware that the TX Share agency purchasing the product could not utilize.

Tab C: Key Personnel for Paradigm Traffic Systems

Keith Higgins, Field Services Manager North Texas, khiggins@paradigmtraffic.com , (817) 247-6023

Keith is the North Texas Field Services Manager with +30 years of demonstrated success in traffic. Keith has great experience and success in traffic equipment installations and management of multiple projects for various local and state agencies throughout Texas. For this proposal, Keith's main focus will be coordination between Paradigm Traffic System's traffic technicians and any technical support needed in the field by the TX Share agency. His years of problem solving, troubleshooting, and knowledge of the controller software and hardware will be valuable for all TX Share members.

Patrick Murray, Business Development Manager, pmurray@paradigmtraffic.com , (817) 791-0147

Pat has served the Traffic and Transportation industry since 1992. He formerly held the position of North Texas Account Manager at Paradigm Traffic until 2022. He was with 3M Traffic Control Materials Group for 15 years, before joining the Paradigm Team in 2008. Product sales and support, along with excellent Customer Service, Pat brings critical value to the NCTCOG TX Share members.

Johnson "Koko" Udoka, North Texas Account Representative, judoka@paradigmtraffic.com , (817) 583-1513

Johnson has 5 years' experience with Paradigm Traffic. In those 5 years he has served as part of the estimating team, project manager, and currently north Texas Account Rep. Koko has 8 years of government agency experience with the City of Euless. At Euless Koko was a Traffic Supervisor for 3 years. Koko has a proven track record of managing traffic operations, ensuring public safety, and implementing effective traffic control strategies. Skilled in team leadership and data analysis, Koko is a Director within the Southwest Section of the International Municipal Signal Associations.

Keith Fox, Office Manager, Keithf@paradigmtraffic.com , (817) 831-9406

Keith has been in the traffic industry for 17 years. In those years he has worked in several positions from front desk staff, warehouse and inventory positions, and currently is Office Manager. Keith will be the key contact for all other admin aspects of the RFP except estimating items.

Robert Kelly, Chief Estimator, Rkelly@paradigmtraffic.com (817) 831-9406

Robert has been with Paradigm Traffic for 13 years in multiple positions. He currently is the Chief Estimator and has held this position for 5 years. Robert handles all the managing of his estimating team. He personally handles the admin work on all large TxDOT and local agency RFP, RFQ and special contracts for Paradigm Traffic in North Texas. He will facilitate this RFP

agreement for submission. Robert is the key contact for Tx Share agencies to contact for quotes and any contractual questions.

Cecil Ann Oates Gonzalez, Innovix ITS, LLC., President, admin@innovixits.com , (832) 770-1964

Innovix ITS is our SBE / MWBE partner that we can work with on product purchases with MWBE requirements. They are based in the Houston area. We proudly support this effort.

Tab D: Technical Proposal

This portion of the RFP will provide, to the best of our ability, details for the TX Share agency and NCTCOG staff to determine a best solution for this request. We have most of the Scope of Work items in Excel with comments.

This RFP section also asks for certain "Descriptions" 1-8 which will be described below:

Item 1 Description of the services: This is in the attached Excel spreadsheets with any exceptions listed clearly for the selection committee to properly and knowledgeably consider before award.

Item 2 Description of the process for responding to an order for product: The TX Share agency will be able to obtain a quote for their needed product or service from the provided price list, so they will have an accurate cost. This quotation will be issued by Paradigm Traffic Estimating Group, mainly Robert Kelly our Chief Estimator. Upon the agency's acceptance of the final quote, the agency will issue a Purchase Order back to said Estimating Department at Paradigm. Paradigm Traffic will process the order through our front office personnel.

Item 3 Description of process for delivering orders to respective clients: Product purchased will be shipped to our 2201 East Division Street, Arlington, Texas, 76011 address, received, and will be prepared to ship out or picked up our warehouse staff. Shipping or pick-up will be determined by the purchasing agency to best meet their needs. Delivery is usually by local truck shipping companies on pallets to the agency's determined location. Any service or software purchase orders issued will be coordinated through Kieth Higgins, our Field Services Manager in the Arlington office.

Item 4 Description of customer satisfaction services: On a product level, our field technical team will assess any concerns with product or services on initial contact to Kieth Higgins. Product may be brought back to our shop for more testing and if repair of product is necessary, we will provide that information back to the agency. Various products have different warranty periods. If the product is under warranty, then the RMA steps will all be handled by Paradigm Traffic. The agency will get notified when product is received back in. If product is out of warranty, then the agency will determine if they would like to purchase new or pay for repair.

Item 5 Description of invoicing process: After product is received and shipped from the Paradigm Traffic warehouse, and/or service has been completed, an invoice will be issued to the agency for issuance of payment. Agency have terms of net 30 days for payment. Any questions concerning this process will be handled by Keith Fox, Office Manager, at (817) 831-9406. Paradigm Traffic, upon payment by purchasing agency, will issue a 2% of total purchase check to NCTCOG's TX Share Program. Reporting can be agreed upon between Paradigm Traffic and TX Share staff for any clarification.

Item 6 Assumptions made in responding to requirements: Paradigm Traffic is assuming that the Tx Share agencies will complete due diligence on product and service evaluation before purchase. Paradigm will assist entities in evaluations of product listing.

Item 7 Any exceptions to the requirements: We have listed any exceptions to the RFP requirements and have tried to clearly state why.

Item 8 Any Special Features or Services from Paradigm Traffic Systems: Paradigm Traffic Systems is an easily accessible, local business to the TX Share agencies. This will afford them the opportunity for possible emergency assistance and product purchase for expedited turn around time. Local traffic technicians and support staff here in Arlington, Texas, provide a unique opportunity. We pride ourselves in customer service at all stages of the purchasing process.

NCTCOG has requested we list the contact person for the following phases of the RFP:

1) Bid Process – Robert Kelly and Pat Murray. Contact information is under Key Personnel.
2) Contracting Process – Robert Kelly, Ryan Zenzen, and Pat Murray. Ryan is President of Paradigm Traffic, and his email is rzenzen@paradigmtraffic.com and cell (713)208-3926.
3) Contract Administrator – Orders can be issued to Robert Kelly.

SPECIFICATIONS

5.8 Compatibility with Traffic Signal Controller Hardware

The selected software shall be fully functional on a wide variety of ATC hardware, regardless of manufacturer. Proposers should recognize that over the course of the life of the software, the ATC could be provided by multiple vendors. It shall be the responsibility of the selected vendor to provide detailed hardware requirements for proper functionality of the local controller software, including but not limited to, minimum processor speed, memory and cache requirements, on-board storage requirements, and supported display screen configurations.

5.8 - *Meets*

5.9 Commercially Available Off-The-Shelf Software

TXShare expects that commercially available Off-The-Shelf (COTS) software will meet a vast majority, if not all, of the requirements contained in this specification. Minor software enhancements will be allowed to existing COTS software packages to meet all requirements. Any required software enhancements to comply with this specification must be identified and detailed in the responder's submittal. To be considered as COTS software, the proposed software should be currently available and operating in the field at a minimum of 200 intersections.

5.9 - *Exceptions to specifications will be listed. Any required enhancements by purchaser will be considered on a case by case basis.*

5.10 Cabinet Types

5.10.1 The Software must be configurable to operate in the following cabinet types:

(1) Caltrans Model 332
(2) Advanced Transportation Controller Cabinet (based on ATC Cabinet Standard ATC5301 v02.02)
(3) NEMA TS 1
(4) NEMA TS 2

5.10 - *Meets*

5.11 Software License

5.11.2 The software licensing agreements shall indicate:

(1) Perpetual use of the software.
(2) The conditions in which the software applications may be used and any restrictions regarding the use of the software.
(3) The maintenance and support period for the software applications including software updates and upgrades.
(4) The cost of the rights for a TX Share Participating Entity to use the software.
(5) TX Share Participating Entity's rights to obtain access to source code generated through the development of any custom functionality.
(6) Any warranty terms as well as any liabilities relating to the TXShare Entity's use of software.

5.11 - *Meets with Exceptions*

5.11.2 (1) - *EOS Software on a Cobalt chassis is perpetual use. EOS Software on 2070 chassis will need to be renewed for upgrades every six (6) years.*

5.11.2 (5) - *Paradigm will retain all rights to the source code.*

5.12 Product Life

The selected local controller software product shall have a minimum product life of 10 years. During the life of the product, the provider shall maintain and upgrade the product to prevent the software from becoming obsolete, provide technical support, and maintain security against existing and future external threats as defined in the licensing agreement.

5.12 - *Meets*

5.13 Warranty

5.13.1 Warranty Period

The selected provider shall warrant that the software will perform in accordance with this specification for a period of ten (10) years from the initial delivery and acceptance of the software by a TXShare Participating Entity. During the initial warranty period, the selected provider will, at no cost to the TXShare Participating Entity, rectify any faults in the software identified by the TXShare Participating Entity and communicated to the selected vendor, provide software upgrades, and conduct initial and major version update training.

5.14 Failure to Maintain and Support

Should the vendor discontinue support and/or fail to maintain the selected software system during the product life, the TXShare Participating Entity may elect to implement either of the following remedies:

5.14.1 Alternative Vendor-Supplied Software

Replace the originally supplied software with a vendor-supplied alternate system that meets or exceeds the requirements defined in this specification. Under this remedy, the vendor shall be required to demonstrate that the new software meets all requirements by repeating the acceptance tests. If the TXShare Participating Entity selects this option, the vendor shall be responsible for all costs incurred by the TXShare Participating Entity to replace the software.

5.14.2 Acquire and Install New Local Controller Software

The TXShare Participating Entity shall have the right to select, acquire, and install local controller software provided by another Vendor that meets or exceeds the TXShare Participating Entity's requirements defined in this specification. If the TXShare Participating Entity selects this option, the existing vendor shall be responsible for all costs to the TXShare Participating Entity to purchase, install, and test the new software as well as cost incurred in training staff to operate and maintain the new system.

5.15 Industry Standard Nomenclature

All names, labels, data elements, and other descriptions within the software shall be defined in English using industry standard, easily understood nomenclature. All nonstandard nomenclature shall be approved by the TXShare Participating Entity. Hexadecimal numbers are not permitted.

5.16 Security

5.16.1 Passwords

The software shall be configurable to enable/deny access to the controller through user passwords. User access and passwords shall be definable by the software administrator.

(1) Security levels shall include view only, access to change timing parameters only, access to change controller unit configuration, and access to on-board software administration functions.

(2) As security levels increase, the user will be able to access and change more features in the software and each level shall include access to all lower levels.

5.13 - *Meets with Exceptions*

5.13.1 - *EOS Software on a Cobalt chassis is perpetual use. EOS Software on 2070 chassis will need to be renewed for upgrades every six (6) years.*

5.14 - *Meets with Exceptions*

5.14.1 - *Paradigm suggests TXShare participating entity pre-test all software being considered BEFORE purchasing. Econolite has no plans for discontinuing EOS Software. Paradigm would not be responsible for purchasing competitors products. Paradigm will ensure technical support to remedy any concerns.*

5.14.2 - *Pre-testing of software is critical*
Paradigm suggests TXShare participating entity pre-test all software being considered BEFORE purchasing. Econolite has no plans for discontinuing EOS Software. Paradigm would not be responsible for purchasing competitors products. Paradigm will ensure technical support to remedy any concerns.

5.15 - *Meets*

5.16 - *Meets*

(3) The software shall log the user ID, date, and time of log-in and log-out and any changes the user made.
(4) The software shall automatically log out the last user after a user specified amount of time has passed where there was no front panel activity or activity from a remote connection.

5.17 Accessibility

5.17.1 Accessibility Options

All controller objects and functions shall be accessible for configuration, editing, and saving through any of the following means:

(1) Direct keyboard entry on the local controller front panel
(2) Authorized remote device connected directly to the Ethernet port on the local controller front panel.
(3) Supported web browsers via the Local Controller's built-in web server.
(4) Central Traffic Management System

5.17.2 Exceptions

Exceptions to this requirement include the following objects which should be configurable via the controller front panel only:

(1) IP Address and local controller network configuration
(2) Unit or Station ID Number

5.17.3 Web Browsers

The software shall support accessibility to all software objects and functions.
through any current or future versions of Google Chrome, Safari, Microsoft Edge, and Firefox throughout the duration of the product life as described above.

(1) Access using a Web Browser shall comply with the security requirement defined in Section3.10 of this specification.

(2) The Software shall support web browser access and all functionality through any of the following devices:
    (1) Computer
    (2) Smartphone
    (3) Tablet
(3) All status objects shall be refreshed by the web browser automatically. The refresh shall have a latency of less than 2/10 of a second after a value change occurs.
(4) The software shall be accessible from a web browser on any device without the need for additional software or browser plugins (i.e., Flash, Java, or Silverlight).

5.18 User Manuals

5.18.1 Updates

The Vendor shall maintain user manuals updated to the latest released software version. The TXShare Participating Entity shall receive electronic notification when an updated user manual is published.

5.18.2 Format

User manuals shall be provided in electronic format, downloadable from a vendor provided web page.

5.17 - *Meets*

5.18 - *Meets*

5.18.3 Local Controller User manuals and/or help screens shall be resident in the controller and accessible through the controller front panel.	
5.19 Software Upgrades	**5.19** - *Meets with Exceptions*
5.19.1 Notification (1) The TXShare Participating Entity shall be automatically notified by the vendor when software upgrades are available. (2) The automatic notice should include a link to a vendor's web page with release notes, including a detailed description of all changes to the software and any bug fixes included in the update.	**5.19.1** - *Meets*
5.19.2 Remote Software Downloads (1) The software shall allow users to download upgrades to the local controller software from a remote location (i.e., central management system or remote device) without requiring the traffic signal to be placed in flashing operation.	**5.19.2** - *Meets*
5.19.3 Flash Memory (1) The upgraded software shall reside in flash memory in the local controller unit and not automatically replace the existing software in the controller unit.	**5.19.3** - *EOS Software updates automatically & does not reside in flash memory.*
5.19.4 Implementation Options (1) Once downloaded, the user shall have the ability to activate the software at the beginning of the next signal cycle, upon next reboot, or schedule the time and date when the software will be activated. (2) If the software upgrade is considered minor, the user shall be able to remotely replace the existing software while the controller is still operating and shall not require a controller restart. (3) If the software upgrade is considered major, a controller restart may be required to replace the existing software. (4) Any scheduled upgrades shall not take place before their scheduled time and date (if any) due to either a controller reboot or in the event of a power failure. (5) The software provider shall submit their definition of minor and major upgrades for City approval.	**5.19.4** - *Exceptions* **5.19.4 (1)** - *EOS Software updates automatically & does notreside in flash memory.* **5.19.4 (2)** - *We consider all software updates major & require controller reboot.* **5.19.4 (3)** - *Meets* **5.19.4 (4)** - *EOS Software updates automatically & does not reside in flash memory.* **5.19.4 (5)** - *We consider all software updates major & require controller reboot.*
5.19.5 Installation verification (1) The controller software download utility software shall verify that the upgraded software was successfully downloaded to the controller unit without errors.	**5.19.5** - *Meets*

5.20 Management Information Base (MIB)

5.20.1 Documentation
(1) Software documentation shall include all NTCIP standard MIBs and extensions, developer-specific MIBs, and all SNMP/STMP data elements.

5.20.2 Re-distribution and Re-use rights
(1) The Vendor shall not place any limitations on the re-distribution and re-use of the MIB. The TXShare Participating Entity shall be able to re-distribute and/or re-use the MIBs as required to provide the required functionality defined in this specification.

5.20.3 MIB extensions
(1) All MIB extensions shall be clearly defined. Primarily, all extensions shall be accomplished by the following methods:
(a) Extending the capabilities of existing standard features.
(b) Defining new data elements or features under a developer-specific MIB extension.
(2) To the extent possible, the replacement of a partially complete feature with a complete custom feature shall be avoided.

5.20.4 Changes to the MIB
(1) An up-to-date electronic copy of the MIB shall be provided to the TXShare Participating Entity whenever changes are made due to changes to the standard, new software features, or bug fixes.

5.21 Virtual Controller Application
The Vendor shall provide a windows-based virtual controller application,

5.21.1 Appearance
(1) The virtual controller application shall duplicate the appearance and functionality of the web-based user interface.

5.21.2 Database Programming
(1) Users shall be able to create and/or edit controller databases in the virtual controller application.

5.21.3 Import/Export
(1) Users shall be able to import/export controller databases to/from the virtual controller application.

5.21.4 Software Upgrades
(1) Users shall be able to upload new versions of the software to the Virtual controller application or download an updated virtual controller application from the vendor's website. The vendor shall make updated versions of the virtual controller software available within 60 days of the release of the new local controller software.

5.20 - *Meets*
5.21 - *Meets*

5.22 Training

5.22.1 Initial Training

Following the initial delivery of the software, the selected Vendor shall provide a minimum of sixty (60) hours of initial training on the software. Training will be tailored to the specific audience and their roles in operating and/or maintaining the software. The Training audiences will include traffic operations engineers, traffic management center staff, and public works maintenance staff. Training may be provided through formal in-person sessions, online meeting platforms (i.e., Zoom, Teams), or through prerecorded video (i.e., YouTube). A minimum of 40 hours of training shall be provided in the in-person format.

5.22.2 Annual Training

Throughout the product life, the selected vendor shall annually provide an additional eight (8) hours of training for City personnel. Annual training may include, at a minimum, any of the following types of training.

(1) Training of new personnel
(2) Training specific to new software features
(3) Training specific to operational changes introduced in software upgrades.
(4) General refresher training.

5.22.3 Training Goals and Objectives

Each training session shall have established goals and objectives for the session.

5.22.4 Training Materials

The vendor shall provide electronic copies of all training materials required to facilitate effective and efficient training sessions.

5.22.5 Training Effectiveness

At the end of each training session, the vendor shall measure the effectiveness of the training session against the session's stated goals and objectives. The vendor shall identify the process that will be implemented to measure training effectiveness. Typical ways to measure training effectiveness could include post-training quizzes, one-to-one discussions with participants, surveys, and/or participant case studies.

5.22 - *Meets*

FUNCTIONAL REQUIREMENTS

5.23 NTCIP 1202 v03

5.23.1 Compliance

(1) The Software shall be compliant with NTCIP 1202 v03 as defined and extended in this specification, including all functional requirements marked as required in the Protocol Requirements List (PRL). Note: NTCIP 1202 v03 includes normative references (as presented in Section 1.2.1 of the 1202 standard) which are referenced in the standard and, in total, constitute the complete provisions of the standard.

5.23.2 Requirements Traceability Matrix (RTM)

(1) The RTM provided in Annex A of the NTCIP 1202 v03 Standard is included in this specification by reference.

5.23.3 NTCIP 1202 v03 Project Specific Protocol Requirements List

(1) Section 3 of NTCIP 1202 v03 defines the Functional Requirements based on user needs identified in Section 2 of the standard. Each user's need is mapped to one or more requirements in the Protocol Requirements List (PRL). The TXShare Participating Entity has selected the requirements defined in the PRL that meet their needs. These are identified in a TXShare Project Specific PRL attached as Appendix A to this Specification.

5.23.4 Future Upgrades

(1) If not currently available, The TXShare Participating Entity will allow functional requirements presented in the following sections of the PRL to be delivered as a future software upgrade, provided the upgrade is provided within two years of the initial software delivery.

5.24 NTCIP 1211 v02

TXShare Participating Entities are implementing a pilot project to provide Transit Signal Priority (TSP) for buses along specific routes in their respective locales. The Centralized TSP System will collect data from buses and, if certain criteria are met, generate a TSP request that is transmitted to the TXShare Participating Entity's traffic management system for action.

The Centralized TSP system is based on NTCIP 1211 v02. NTCIP 1211 defines the management information base for signal control and prioritization (SCP) systems. It defines individual parameters that represent the configuration, status, and control information that is unique to SCP.

Within the standard, NCTIP 1211 defines the following three critical SCP components:

- Priority Request Generator (PRG)
- Priority Request Server (PRS)
- Coordinator (CO)

5.23 - *Exceptions taken for Appendix A.*
The majority of exceptions of requirement are only missed in lacking support for the NTCIP
1202 MIB object. The functionality is already in our software and is covered by a proprietary
MIB object.

****Please see supplemental Document "Exceptions for Appendix A"*

5.24 - *Meets*

NTCIP 1211 defines the primary functions of these components as follows:
Priority Request Generator (PRG)
• To produce an estimate of the arrival time at the intersection
• To produce an estimate of the time for departure from the intersection.
• To send a request for signal priority to the Priority Request Server.
• To send and receive the status of a priority request from the PRS. Priority Request Server (PRS)
• To receive priority requests from the PRG
• To send the status of priority requests back to the PRG.
• To prioritize multiple priority requests
• To exchange service requests with the coordinator.
• To exchange status information with the coordinator. Coordinator
• To receive service requests from the PRS
• To transmit status information back to the PRS
• To implement the requested priority strategy
Based on the architecture of the Centralized TSP System, the PRS and CO will be located in the local controller.

5.24.1 Compliance

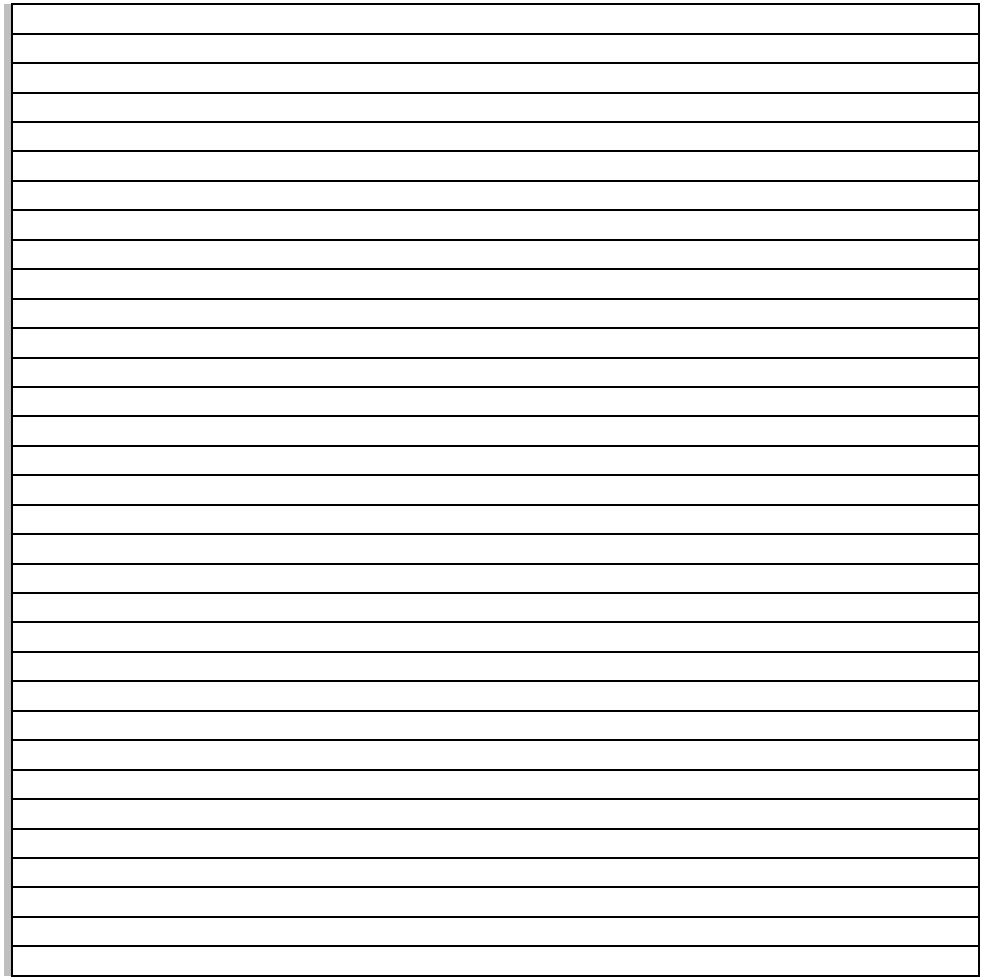
(1) The software shall be compliant to NTCIP 1211 v02 for all functional requirements, dialogs, and objects defined in the Standard for the Priority Request Server (PRS) and the coordinator (CO).

5.24.2 Existing Software Functionality

(1) The PRS and CO shall utilize existing software functionality for time synchronization, event logging, device identify and configuration.

5.24.3 Requirements Traceability Matrix

(1) The Requirements Traceability Matrix provided in Annex A of the NTCIP 1211 v02 is included in this specification by reference.



5.25 NTCIP 1211 v02 Project Specific Protocol Requirements List

Section 3 of NTCIP 1211 v02 defines the Functional Requirements based on user needs identified in Section 2 of the standard. Each user's need is mapped to one or more requirements in the Protocol Requirements List (PRL). Conformance to each functional requirement is identified as Mandatory, Optional, Conditional, Not Applicable, or Excluded as defined in Table 1 of Section 3.3.1.1. The TXShare Participating Entity has selected the requirements defined in the PRL that meet their needs. These are identified in a TXShare Specific PRL attached as Appendix B and incorporated into this Specification.

5.25.1 Compliance

(1) To be considered complaint to this NTCIP 1211 v02 and this specification, the software shall include all requirements marked as "Yes" (i.e., required) in the NTIP 1211 v02 PRL.

5.25 - *Meets*

5.26 Extensions to NTCIP 1202 v03

5.26.1 Background

(1) The NTCIP 1202 v03 Standard does not define every traffic signal control feature, only addressing features in wide use. | TXShare Participating Entities have identified additional user needs and functional requirements for the local controller software. This section provides the following information:

(a) Defines new functional requirements not included in NTCIP 1202 v03.

(b) Defines additional functional requirements for user needs identified in NTCIP 1202 v03.

5.26 - *Meets with Exceptions*

5.26.2 General Information

(1) Users shall be able to enter the following general Intersection Information into the software.

(a) Intersection ID Number

(b) Major Street Name

(c) Minor Street Name

(2) Users shall be able to view the current active software version from either the controller front panel display or through the web interface.

5.26.3 Labels

(1) The software shall allow users to enter, at a minimum, alpha-numeric labels for the following:

(a) Vehicle Phases

(b) Pedestrian Phases

(c) Overlaps

(d) Timing Plan Sets

(e) Preempts

(2) All labels shall be a minimum of six characters in length.

5.26.3 (1) - *Meets IF controller is GUI capable*

5.26.4 Peer-to-Peer Communication

(1) The local controller software shall support peer to peer communication between local intersection controllers exclusive of a central management system and along the most direct and reliable path allowable by the communication topology.

(2) The local controller software shall support transmission and reception of multiple peer messages simultaneously.

(3) The local controller software shall be able to transmit peer to peer messages to a minimum of five (5) intersections in all directions from the intersection transmitting the messages.

(4) The local controller software shall be able to receive peer to peer messages from a minimum of five (5) intersections in all directions from the intersections receiving the message.

(5) A peer message shall be generated and transmitted based on a user defined controller action, event, input, or output occurring at the transmitting intersection.

(a) The user shall be able to select any local controller input, output, or event to initiate a peer-to-peer message.

(b) Up to five (5) controller actions/events may be grouped together to generate a peer message.

(6) Receipt of a peer message at an intersection shall result in the initiation of a user defined action/event at the receiving intersection.

(a) The user shall be able to select any internal control action/event available in the software.

(b) Receipt of a peer message can result in the initiation of up to five (5) user defined controller actions/events.

5.26.5 Programmable Logic Gates and Statements

(1) The software shall support a minimum of sixty-four logic statements.

(2) The software shall support the following Boolean logic gates:

(a) OR – if either function is true, the logic channel will be true.

(b) AND – if both functions are true, the logic channel will be true.

(c) NOT- if the first function is NOT true, the logic channel will be true the second function is not used for this command.

(d) XOR- if either function is true the channel is true; if both are true the channel will be false.

(e) NOR – If either function is true, the logic channel will be false.

(f) NAND – if both functions are true, the logic channel will be false.

(g) ORNOT2 – if the first function is true OR the second function is not true, the logic channel will be true.

(h) ANDNOT2 – if the first function is true AND the second function is not true, the logic channel will be true.

5.26.4 - *Meets*

5.26.5 - *Meets with Exceptions*

5.26.5 (2)(g) - *We do not have these logic options*

5.26.5 (2)(h) - *We do not have these logic options*

(3) The software shall support the following Logic commands:

(a) LATCH – once the first function is true, the logic channel will be true until the second function is true.

(b) DELAY AND/OR EXTEND – once the function is true, the logic channel shall not be true until the amount of time in seconds defined by the user has elapsed. After the function changes from true to false, the logic channel shall remain true until the amount of time in seconds defined by the user has elapsed.

(i) The range of the delay time shall be from 0 to 255 seconds and defined separately.

(ii) The range of the extended time shall be from 0 to 255 seconds and defined separately.

(4) The software shall provide the ability to program the following outputs in logic statements:

(a) Phase green
(b) Phase yellow
(c) Phase red
(d) Phase omit.
(e) Overlap green.
(f) Overlap yellow.
(g) Overlap red.
(h) Walk
(i) Pedestrian clear
(j) Don't walk.
(k) Overlap walk.
(l) Overlap pedestrian clear.
(m) Overlap don't walk.
(n) Phase on
(o) Phase next
(p) Phase check
(q) Phase hold
(r) Virtual phase green
(s) Virtual phase yellow
(t) Virtual phase red
(u) LRV green
(v) LRV yellow
(w) LRV red
(x) Force off.
(y) Preempt on
(z) Preempt entry one.

(aa) Preempt entry two.
(bb) Preempt dwell.
(cc) Preempt off.
(dd) Flash
(ee) Free
(ff) Special Function
(gg) Active plan
(hh) Special output/time of day

5.26.5 (3)(a) - *We do not h* ave latch command

5.26.5 (3)(b)(i) - *We have a range of 25.5*

5.26.5 (3)(b)(ii) - *We have a range of 25.5*

5.26.5 (4)(r) - *Virtual Phase has yet to be defined under NTCIP 1202 V3*

5.26.5 (4)(s) - *Virtual Phase has yet to be defined under NTCIP 1202 V3*

5.26.5 (4)(t) - *Virtual Phase has yet to be defined under NTCIP 1202 V3*

5.26.5 (4)(z) - *Preempt Entry has yet to be defined under NTCIP 1202 V3*

5.26.5 (4)(aa) - *Preempt Entry has yet to be defined under NTCIP 1202 V3*

(5) The software shall provide the ability include the following inputs in logic statements:

- (a) Vehicle detector
- (b) Pedestrian detector/call
- (c) Overlap detector.
- (d) Overlap pedestrian detector.
- (e) System detector
- (f) Queue detector
- (g) LRV detector
- (h) Terminate detector.
- (i) Vehicle omit.
- (j) Pedestrian omit.
- (k) Overlap omit.
- (l) Overlap pedestrian omit.
- (m) LRV Omit
- (n) Phase hold
- (o) Overlap hold.
- (p) Walk hold.
- (q) Overlap walk hold.
- (r) Preempt train input.
- (s) Preempt emergency vehicle input.
- (t) Flash sense
- (u) Manual control enable.
- (v) Manual control advance
- (w) Stop time.
- (x) Minimum recall
- (y) External start
- (z) Walk rest modifier.
    - (aa) External coordination enable
    - (bb) Plan select enable.
    - (cc) External Time set.
    - (dd) Door open
    - (ee) Force off.
    - (ff) Red rest
    - (gg) Max inhibit.
    - (hh) Max 2
    - (ii) Max 3
    - (jj) Pedestrian recycle.
    - (kk) External plan select.
    - (ll) Master sync input
    - (mm)Free select input.
    - (nn) MMU flash
    - (oo) Local flash
    - (pp) Automatic flash
    - (qq) Gate down

(6) The software shall support a minimum of sixty-four user definable logic statements.

(7) The software shall not limit the number of items that can be linked together in logical statements.

5.26.5 (5)(h) - *Terminate detector has yet to be defined under NTCIP 1202 V3*

(a) The software shall process the logic commands every 0.1 seconds.

5.26.6 Monitor Conflict Monitor/MMU

(1) The Software shall be able to report the status of the Cabinet's Conflict Monitor/MMU.

(2) The Software shall be capable of retrieving the Cabinet's Conflict Monitor/MMU logs.

5.26.7 Diagnostics

(1) The software shall include a diagnostic routine that conducts verification checks on edits and/or downloaded traffic signal controller databases.

(2) The verification routine shall automatically run prior to when either of the following criteria exist:

(a) A traffic signal controller database is downloaded from a remote management station or when copied from an approved external source.

(b) Before edits to a database are saved.

(c) Timing changes via the front panel result in a verification failure

(3) Any discrepancies identified during the verification check shall be clearly identified and displayed to the user.

(a) A description of the discrepancy shall also be displayed.

(4) The verification routines shall include, at a minimum, the following checks:

(a) Out of range parameters

(b) Overlap/phase is activated but yellow and red time below minimums.

(c) Pedestrian overlap/phase activated but no detector input assigned.

(d) Vehicle overlap/phase activated but no recall or detector input assigned.

(e) Walk rest is called for, but the pedestrian minimum is violated. (f) The offset is greater than the cycle length.

(g) Coordinated plan phase times do not add up to cycle length unless cycle length is set to zero.

(h) Plan has coordination numbers, and transition parameters are not defined, unless cycle length is set to zero.

(i) Coordination plan calls for phases with "0" minimum green and/or gap time.

(j) Coordination plan calls for phases that are not in the overlap table referenced by the coordination plan.

5.26.8 Remote Commands: Definition of remote commands (remote devices directly to the controller's web interface and/or from the Central system.

(1) Users shall be able to remotely change between TOD / FREEOP / Remote Flash / Remote Manual Command / Central System Command.

5.26.6 - *Meets*

5.26.7 - *Meets*

5.26.8 - *Meets*

(2) Users shall be able to remotely place a detector call and preempt inputs in real-time by checkbox (or similar implementation method) from a real-time status window.

5.26.9 Manage Phase Configuration (NTCIP 1202 – User ID 2.5.2.1.2
(1) Users shall be able to configure phases for conditional inclusion in a sequence without requiring a programmed split.
(2) Minimum and maximum green times shall be programmable by phase for each TOD plan.
(3) Users shall be able to select start-up and programed flash entrance/exit phases/phase status/sequence.
(4) The software shall provide a rapid transition between TOD plans and at any point when the coordinator is interrupted/preempted while running a coordinated TOD plan.
(5) The Software shall support a minimum of twenty-five barrier groups.

5.26.10 Manage Coordination Configuration (NTCIP 1202 – User ID 2.5.2.1.3)
(1) Coordinated phases shall be assignable for each ring and barrier (i.e., Dual Coordination)
(2) The user shall be able to assign phases in different rings and/or barriers as coordinated / reference phases in different TOD plans.

5.26.11 Manage Overlap Configurations (NTCIP 1202 – User ID 2.5.2.1.8)
(1) In addition to the overlap types identified in NTCIP 1202, the software shall include a configuration template for a Left Turn – Arlington Display overlap.
(2) The software shall support a minimum of sixteen overlap included phases.
(3) The software shall support a minimum of eight (8) modifier phases for all overlap types requiring such.
(4) Users shall be able to configure the overlap clearance times to be driven by either of the following options:
(a) Overlap Timing
(b) Parent Phase Timing

(5) Users shall be able to enable/disable flashing yellow arrow overlaps by time-of-day plan.
(6) Users shall be able to able to configure flashing yellow right-turn overlaps to omit green or flashing yellow state(s) based on conflicting Walk and/or Flashing Don't Walk. The following options shall be available.
(a) Conflicting Pedestrian Walk – Red or FYA
(b) Conflicting Pedestrian Flashing Don't Walk – Red or FYA
(c) Conflicting Pedestrian Don't Walk – FYA or Green Arrow
(7) Users shall be able to separate delay values for leading and lagging flashing yellow arrow sequences.
(8) The software shall support separate delay values for leading and lagging flashing yellow arrow sequences.

5.26.9 - *Meets with Exceptions*

5.26.9 (5) - *We support 16 barrier groups*

5.26.10 - *Meets*

5.26.11 - *Meets with Exceptions*
5.26.11 (1) - *Is available using extended logic statement*

(a) A lagging flashing yellow arrow sequence shall be configurable for any of the following:
(i) Include the All-Red State
(ii) Skip the All-Red State (no red-revert)

(9) The flashing yellow arrow delay shall be user configurable to suppress the delay upon the start of the opposing through phase.
(10) The software shall support the flashing yellow arrow delay/suppression by detector for the entire duration of the opposing phase split or maximum green.
(11) Pedestrian overlaps with walk/flashing don't walk times shall operate independently from parent phase pedestrian timing.
(12) Pedestrian overlaps shall operate independently from parent phase order as programmed for that overlap (i.e., parent phases 1,2,3 operate the same as parent phases 3,2,1)
(13) Users shall be able to program trailing green/green clearance times in one-tenth (1/10) second intervals.
(14) Users shall be able to program omits or suppression conditions by phase sequence/phase next.

5.26.12 Manage Preempt Configurations (NTCIP 1202 - User ID 2.5.2.1.9)
(1) The software shall be able to accept preempt requests from either local controller contact closures, remote management station, or central management or centralized vehicle preemption system.
(2) The user shall be able to configure overlap settings for each preempt.
(3) In addition to the exit phase strategies identified in NTCIP 1202 v03, the software shall support the following exit phase strategies:
(a) Free
(b) User-defined exit sequence
(c) Longest unserved movement
(d) Skipped movement(s)
(e) Exit into coordination.

(4) Users shall be able to define minimum and maximum green times per phase for each preempt.
(5) Users shall be able to define specific sequences for preemption entry based on active phase condition when a preemption call is received.
(6) Phases shall honor detection input throughout preemption and during preempt exit.
(7) Preempt exit mode programmable by TOD. May be accomplished through either preemption configuration or via user logic programming.

5.26.13 Manage Timing Pattern Scheduler (NTCIP 1202 – User ID 2.5.2.1.10)
(1) The scheduler shall support a minimum of 40 day plans, with a minimum of sixty-four events per day plan.
(2) The scheduler shall support a minimum of three auxiliary functions and 16 special functions.

5.26.12 - *Meets*

5.26.13 - *Meets with Exceptions*

5.26.13 (1) - *We support 16 day plans*

5.26.14 Manage Detector Configuration (NTCIP 1202 – User ID 2.5.3.1) (1) The pedestrian detector failure behavior shall be user selectable to either “Fail On” or ‘Fail Off.” (a) Users shall be able to select by individual detector and/or detector set. (2) Detectors shall be able to call phases or overlaps. (a) An overlap call shall call all parent phases for that overlap. (3) The software shall allow users to assign more than one call/extend phase per detector. (4) The software shall allow users to call/extend phases by overlap.	**5.26.14** - *Meets with Exceptions* **5.26.14 (1)** - *Our Peds always "Fail On"* **5.26.14 (2)(a)** - *Our detectors do no call overlaps*
5.26.15 Monitor Detector Status (NTCIP 1202 – User ID 2.5.3.2) (1) In addition to the number of 128 vehicle detectors identified in NTCIP 1202, The software shall support an additional 320 priority and preempt detectors)	**5.26.15 (1)** - *EOS uses one (1) preempt detector per planfor a total of 16 & also has 16 SCP Detectors*
5.26.16 Manage Split Configuration (NTCIP 1202 – User ID 2.5.2.1.5) (1) The software shall allow oversized pedestrian splits to be accommodated through a “stop in walk” method where the controller adds time to the background cycle length or by “reallocating time” from other phases by modifying split times within a user-definable number of cycles to maintain coordination without requiring a coordination transition.	**5.26.16** - *DO NOT Meet*

EXEPTIONS TO APPENDIX A

NCTCOG NTCIP 1202 PRL – Objects not supported in Econolite EOS - Evaluated against EOS version 03.02.24

***NOTE* The majority of exceptions of requirement are only missed in lacking support for the NTCIP 1202 MIB Object. The functionality is already in our software and is covered by a proprietary MIB Object.**

Functional Requirements not yet compliant with 1202v03B:

2.5.1.2 – Manage Communications

- 3.5.1.2.1.1 Does Not Meet
- 3.5.1.2.1.2 Does Not Meet
- 3.5.1.2.1.3 Does Not Meet
- 3.5.1.2.1.4 Does Not Meet
- 3.5.1.2.1.5 Does Not Meet
- 3.5.1.2.2.1 Does Not Meet
- 3.5.1.2.3.4 Does Not Meet
- 3.5.1.2.3.5 Does Not Meet
- 3.5.1.2.3.6 Does Not Meet
- 3.5.1.2.4.1 Does Not Meet
- 3.5.1.2.4.2 Does Not Meet

2.5.1.3 – Manage Cabinet Environment

- 3.5.1.3.1 Does Not Meet
- 3.5.1.3.2 Does Not Meet
- 3.5.1.3.3 Does Not Meet
- 3.5.1.3.4 Does Not Meet
- 3.5.1.3.5 Does Not Meet
- 3.5.1.3.6 Does Not Meet
- 3.5.1.3.7 Does Not Meet
- 3.5.1.3.8 Does Not Meet
- 3.5.1.3.9 Does Not Meet

2.5.1.4 – Monitor Power

- 3.5.1.4.1 Does Not Meet
- 3.5.1.4.2 Does Not Meet
- 3.5.1.4.3 Does Not Meet
- 3.5.1.4.4 Does Not Meet
- 3.5.1.4.5 Does Not Meet

2.5.1.5 – Retrieve Operational Performance Data

- 3.5.1.5.1.1 Does Not Meet
- 3.5.1.5.1.2 Does Not Meet
- 3.5.1.5.1.3 Does Not Meet
- 3.5.1.5.1.4 Does Not Meet
- 3.5.1.5.2.1 Does Not Meet
- 3.5.1.5.2.2 Does Not Meet
- 3.5.1.5.3.1 Does Not Meet
- 3.5.1.5.3.2 Does Not Meet
- 3.5.1.5.3.3 Does Not Meet
- 3.5.1.5.3.4 Does Not Meet
- 3.5.1.5.4.1 Does Not Meet
- 3.5.1.5.4.2 Does Not Meet
- 3.5.1.5.4.3 Does Not Meet
- 3.5.1.5.4.4 Does Not Meet
- 3.5.1.5.4.5 Does Not Meet

2.6.4 – Log User Access

- 3.5.1.6.1 Does Not Meet
- 3.5.1.6.2 Does Not Meet
- 3.5.1.6.3 Does Not Meet
- 3.5.1.6.4 Does Not Meet

2.5.2.1.1 – Manage Controller Startup Functions

- 3.5.2.1.1.1.1 Does Not Meet
- 3.5.2.1.1.2 Does Not Meet
- 3.5.2.1.1.3 Does Not Meet
- 3.5.2.1.1.4 Does Not Meet
- 3.5.2.1.1.5 Does Not Meet

2.5.2.1.1.1 – Manage Action Scheduler

- 3.5.2.1.10.1.2 Does Not Meet

2.5.2.1.1.2 – Manage I/O Mapping

- 3.5.2.1.11.1.1 Does Not Meet
- 3.5.2.1.11.1.2.1 Does Not Meet
- 3.5.2.1.11.1.2.2.1 Does Not Meet
- 3.5.2.1.11.1.2.2.2 Does Not Meet
- 3.5.2.1.11.1.2.2.3 Does Not Meet
- 3.5.2.1.11.1.2.3.1 Does Not Meet

- 3.5.2.1.11.1.2.3.2 Does Not Meet
- 3.5.2.1.11.1.2.3.3 Does Not Meet
- 3.5.2.1.11.2.1 Does Not Meet
- 3.5.2.1.11.2.2 Does Not Meet
- 3.5.2.1.11.2.3 Does Not Meet
- 3.5.2.1.11.2.4 Does Not Meet
- 3.5.2.1.11.2.5 Does Not Meet
- 3.5.2.1.11.2.6 Does Not Meet
- 3.5.2.1.11.2.7 Does Not Meet
- 3.5.2.1.11.2.8 Does Not Meet
- 3.5.2.1.11.2.9.1 Does Not Meet
- 3.5.2.1.11.2.9.10 Does Not Meet
- 3.5.2.1.11.2.9.2 Does Not Meet
- 3.5.2.1.11.2.9.3 Does Not Meet
- 3.5.2.1.11.2.9.4 Does Not Meet
- 3.5.2.1.11.2.9.5 Does Not Meet
- 3.5.2.1.11.2.9.6 Does Not Meet
- 3.5.2.1.11.2.9.7 Does Not Meet
- 3.5.2.1.11.2.9.8 Does Not Meet
- 3.5.2.1.11.2.9.9 Does Not Meet

2.5.2.1.1.3 – Manage Intra-Cabinet Communications Configuration

- 3.5.2.1.12.1 Does Not Meet

2.5.2.1.1.4 – Manage ADA Support

- 3.5.2.1.13.1.1 Does Not Meet
- 3.5.2.1.13.1.3 Does Not Meet

2.4.3 – Provide Block Data

- 3.5.2.1.14.1.1.11 Does Not Meet
- 3.5.2.1.14.1.1.12 Does Not Meet
- 3.5.2.1.14.1.1.13 Does Not Meet
- 3.5.2.1.14.1.1.14 Does Not Meet
- 3.5.2.1.14.1.1.15 Does Not Meet
- 3.5.2.1.14.1.1.16 Does Not Meet
- 3.5.2.1.14.1.1.17 Does Not Meet
- 3.5.2.1.14.1.1.18 Does Not Meet
- 3.5.2.1.14.1.1.19 Does Not Meet
- 3.5.2.1.14.1.1.20 Does Not Meet
- 3.5.2.1.14.1.1.21 Does Not Meet
- 3.5.2.1.14.1.1.22 Does Not Meet

- 3.5.2.1.14.1.1.23 Does Not Meet
- 3.5.2.1.14.1.1.24 Does Not Meet
- 3.5.2.1.14.1.1.25 Does Not Meet
- 3.5.2.1.14.1.1.27 Does Not Meet
- 3.5.2.1.14.1.1.28 Does Not Meet
- 3.5.2.1.14.1.1.29 Does Not Meet
- 3.5.2.1.14.1.1.31 Does Not Meet
- 3.5.2.1.14.1.1.32 Does Not Meet
- 3.5.2.1.14.1.1.33 Does Not Meet
- 3.5.2.1.14.1.1.34 Does Not Meet
- 3.5.2.1.14.1.1.35 Does Not Meet
- 3.5.2.1.14.1.1.36 Does Not Meet
- 3.5.2.1.14.1.1.37 Does Not Meet
- 3.5.2.1.14.1.1.38 Does Not Meet
- 3.5.2.1.14.1.1.39 Does Not Meet
- 3.5.2.1.14.1.1.4 Does Not Meet
- 3.5.2.1.14.1.1.40 Does Not Meet
- 3.5.2.1.14.1.1.41 Does Not Meet
- 3.5.2.1.14.1.1.42 Does Not Meet
- 3.5.2.1.14.1.1.44 Does Not Meet
- 3.5.2.1.14.1.1.46 Does Not Meet
- 3.5.2.1.14.1.1.48 Does Not Meet
- 3.5.2.1.14.1.1.49 Does Not Meet
- 3.5.2.1.14.1.1.5 Does Not Meet
- 3.5.2.1.14.1.1.50 Does Not Meet
- 3.5.2.1.14.1.1.53 Does Not Meet
- 3.5.2.1.14.1.1.6 Does Not Meet
- 3.5.2.1.14.1.1.8 Does Not Meet
- 3.5.2.1.14.1.1.9 Does Not Meet
- 3.5.2.1.14.2.3.3 Does Not Meet
- 3.5.2.1.14.2.3.4 Does Not Meet

2.5.2.1.2 – Manage Phase Configurations

- 3.5.2.1.2.1.36 Does Not Meet
- 3.5.2.1.2.1.37 Does Not Meet
- 3.5.2.1.2.1.40 Does Not Meet
- 3.5.2.1.2.1.41 Does Not Meet
- 3.5.2.1.2.1.44 Does Not Meet
- 3.5.2.1.2.1.45 Does Not Meet
- 3.5.2.1.2.1.46 Does Not Meet
- 3.5.2.1.2.1.47 Does Not Meet
- 3.5.2.1.2.1.48 Does Not Meet
- 3.5.2.1.2.1.49 Does Not Meet

- 3.5.2.1.2.1.5 Does Not Meet
- 3.5.2.1.2.1.50 Does Not Meet
- 3.5.2.1.2.1.51 Does Not Meet
- 3.5.2.1.2.1.52 Does Not Meet
- 3.5.2.1.2.1.57 Does Not Meet
- 3.5.2.1.2.1.65 Does Not Meet
- 3.5.2.1.2.1.71 Does Not Meet
- 3.5.2.1.2.1.79 Does Not Meet
- 3.5.2.1.2.1.81 Does Not Meet
- 3.5.2.1.2.1.83 Does Not Meet
- 3.5.2.1.2.1.85 Does Not Meet
- 3.5.2.1.2.1.86 Does Not Meet
- 3.5.2.1.2.1.87 Does Not Meet
- 3.5.2.1.2.1.88 Does Not Meet
- 3.5.2.1.2.1.89 Does Not Meet

2.5.2.1.3 – Manage Coordination Configurations

- 3.5.2.1.3.10.4 Does Not Meet
- 3.5.2.1.3.2.4 Does Not Meet
- 3.5.2.1.3.3.4 Does Not Meet
- 3.5.2.1.3.5.1 Does Not Meet
- 3.5.2.1.3.5.2 Does Not Meet
- 3.5.2.1.3.5.3 Does Not Meet
- 3.5.2.1.3.5.4 Does Not Meet
- 3.5.2.1.3.5.5 Does Not Meet
- 3.5.2.1.3.5.6 Does Not Meet
- 3.5.2.1.3.6.1 Does Not Meet
- 3.5.2.1.3.6.2 Does Not Meet
- 3.5.2.1.3.6.3 Does Not Meet
- 3.5.2.1.3.6.4 Does Not Meet
- 3.5.2.1.3.6.5 Does Not Meet
- 3.5.2.1.3.6.6 Does Not Meet
- 3.5.2.1.3.7 Does Not Meet
- 3.5.2.1.3.8 Does Not Meet
- 3.5.2.1.3.9 Does Not Meet

2.5.2.1.4 – Manage Timing Patterns

- 3.5.2.1.4.1.3 Does Not Meet
- 3.5.2.1.4.1.4 Does Not Meet
- 3.5.2.1.4.1.5 Does Not Meet

2.5.2.1.5 – Manage Split Configurations

- 3.5.2.1.5.1.2.9 Does Not Meet

2.5.2.1.7 – Manage Channel Configurations

- 3.5.2.1.7.1.1 Does Not Meet
- 3.5.2.1.7.1.2.4 Does Not Meet
- 3.5.2.1.7.1.2.9 Does Not Meet
- 3.5.2.1.7.1.3.1 Does Not Meet
- 3.5.2.1.7.1.3.2 Does Not Meet
- 3.5.2.1.7.1.3.3 Does Not Meet
- 3.5.2.1.8.1.1.1 Does Not Meet

2.5.2.1.8 – Manage Overlap Configurations

- 3.5.2.1.8.1.4 Does Not Meet
- 3.5.2.1.8.1.8 Does Not Meet
- 3.5.2.1.8.1.9 Does Not Meet

2.5.2.1.9 – Manage Preempt Configurations

- 3.5.2.1.9.1.1 Does Not Meet
- 3.5.2.1.9.1.14 Does Not Meet
- 3.5.2.1.9.1.16.1 Does Not Meet
- 3.5.2.1.9.1.16.2 Does Not Meet
- 3.5.2.1.9.1.16.3 Does Not Meet
- 3.5.2.1.9.1.16.4 Does Not Meet
- 3.5.2.1.9.1.17 Does Not Meet
- 3.5.2.1.9.1.18 Does Not Meet
- 3.5.2.1.9.1.20 Does Not Meet
- 3.5.2.1.9.1.26 Does Not Meet
- 3.5.2.1.9.1.27.2 Does Not Meet
- 3.5.2.1.9.1.31 Does Not Meet
- 3.5.2.1.9.1.9 Does Not Meet

2.5.2.2.1 – Determine Controller Health

- 3.5.2.2.1.1.26 Does Not Meet
- 3.5.2.2.1.1.27 Does Not Meet
- 3.5.2.2.1.1.28 Does Not Meet
- 3.5.2.2.1.1.29 Does Not Meet
- 3.5.2.2.1.1.30 Does Not Meet
- 3.5.2.2.1.1.31 Does Not Meet
- 3.5.2.2.1.1.32 Does Not Meet

- 3.5.2.2.1.1.33 Does Not Meet
- 3.5.2.2.1.1.34 Does Not Meet
- 3.5.2.2.1.1.35 Does Not Meet
- 3.5.2.2.1.1.36 Does Not Meet
- 3.5.2.2.1.1.37 Does Not Meet
- 3.5.2.2.1.1.38 Does Not Meet
- 3.5.2.2.1.2 Does Not Meet

2.5.2.2.12 – Monitor Intra-Cabinet Communications Configuration

- 3.5.2.2.11.1 Does Not Meet
- 3.5.2.2.11.3 Does Not Meet

2.5.2.2.2.4 -Monitor Current Cycle

- 3.5.2.2.2.10.4 Does Not Meet

2.5.2.2.8 – Monitor Preempt Input State

- 3.5.2.2.8.1 Does Not Meet
- 3.5.2.2.8.2 Does Not Meet

2.5.2.2.9 – Monitor Preempt State

- 3.5.2.2.8.4 Does Not Meet

2.5.2.3.1 – Control ASC-wide General Operations

- 3.5.2.3.1.7 Does Not Meet

2.5.2.3.5 – Control Ring Operations

- 3.5.2.3.5.4 Does Not Meet

2.5.2.3.8 – Active Action Plan

- 3.5.2.3.8 Does Not Meet

2.5.2.3.9 – Remote Manual Controller

- 3.5.2.3.9.1 Does Not Meet
- 3.5.2.3.9.2 Does Not Meet
- 3.5.2.3.9.3 Does Not Meet

2.5.3.1 – Manage Detector Configuration

- 3.5.3.1.1.1.21 Does Not Meet
- 3.5.3.1.1.1.22 Does Not Meet
- 3.5.3.1.1.1.23 Does Not Meet
- 3.5.3.1.1.1.24 Does Not Meet
- 3.5.3.1.1.1.25 Does Not Meet
- 3.5.3.1.1.1.3 Does Not Meet
- 3.5.3.1.1.1.4 Does Not Meet
- 3.5.3.1.1.1.5 Does Not Meet
- 3.5.3.1.1.2.5 Does Not Meet
- 3.5.3.1.1.2.6 Does Not Meet
- 3.5.3.1.1.2.7 Does Not Meet

2.5.3.2 – Monitor Detector Status

- 3.5.3.2.2.1 Does Not Meet
- 3.5.3.2.2.2 Does Not Meet
- 3.5.3.2.2.3 Does Not Meet

2.5.3.4 – Control Detectors

- 3.5.3.4.2 Does Not Meet
- 3.5.3.4.3 Does Not Meet
- 3.5.3.4.4 Does Not Meet
- 3.5.3.5.1.1.2 Does Not Meet

2.5.3.5 – Manage Detector Data

- 3.5.3.5.2.1.7 Does Not Meet
- 3.5.3.5.2.1.8 Does Not Meet
- 3.5.3.6.1.1 Does Not Meet
- 3.5.3.6.2.1 Does Not Meet
- 3.5.3.6.2.2 Does Not Meet
- 3.5.3.6.2.3 Does Not Meet
- 3.5.3.6.2.4 Does Not Meet
- 3.5.3.6.2.5 Does Not Meet
- 3.5.3.6.2.6 Does Not Meet
- 3.5.3.6.2.7 Does Not Meet
- 3.5.3.6.2.8 Does Not Meet

2.5.4.1.1 -Manage RSU Interface

- 3.5.4.1.1.1 Does Not Meet
- 3.5.4.1.1.2 Does Not Meet
- 3.5.4.1.1.3 Does Not Meet

2.5.4.1.2 – Manage RSU Interface Watchdog

- 3.5.4.1.2.1 Does Not Meet
- 3.5.4.1.2.2 Does Not Meet

2.5.4.1.3 – Manage Signal Phase & Timing Data

- 3.5.4.1.3.1 Does Not Meet
- 3.5.4.1.3.10 Does Not Meet
- 3.5.4.1.3.7.1 Does Not Meet

2.5.4.1.4 – Exchange Connected Devices Data for Operational Performance Data

- 3.5.4.3.3.1.1 Does Not Meet

2.5.5.1 – Backward Capability with NTCIP 1202 v01

- 3.5.5.1 Does Not Meet

2.5.1.1 Retrieve Device Identity

- H.1.1.2.2 Does Not Meet

2.5.2.1.10 – Manage Timing Pattern Scheduler

- H.1.1.5.2 Does Not Meet
- H.1.1.5.3 Does Not Meet
- H.1.1.5.3.1 Does Not Meet
- H.1.1.7.1 Does Not Meet

2.5.1.6 – Manage Auxiliary External Inputs/Outputs

- H.1.1.6.1 Does Not Meet
- H.1.1.6.2 Does Not Meet
- H.1.1.6.3 Does Not Meet
- H.1.2.1 Does Not Meet
- H.1.4.1 Does Not Meet

2.6.4 – Log User Access

- H.1.3.1.1 Does Not Meet
- H.1.3.1.10 Does Not Meet

2.4.4 – Provide for Long Data Local Storage & Retrieval

- H.1.3.1.11 Does Not Meet
- H.1.3.1.12 Does Not Meet
- H.1.3.1.13 Does Not Meet
- H.1.3.1.14 Does Not Meet
- H.1.3.1.15 Does Not Meet
- H.1.3.1.2 Does Not Meet
- H.1.3.1.3 Does Not Meet
- H.1.3.1.4 Does Not Meet
- H.1.3.1.5 Does Not Meet
- H.1.3.1.6 Does Not Meet
- H.1.3.1.7 Does Not Meet
- H.1.3.1.8 Does Not Meet
- H.1.3.1.9 Does Not Meet

2.4.5 – Provide for Database Management

- H.1.4.2.2 Does Not Meet

Tab E: Key Third-Party References

1) Cameron Williams, P.E. City of Tyler / Cell (903) 258-4296 / cawilliams@tylertexas.com / 511 W. Locust, Tyler, TX. 75702

Tyler has nearly 135 intersections with EOS software deployed on Econolite Cobalt Rackmount and Cobalt Shelf Mount controllers.

2) Will Cummings, P.E. City of Lubbock / (806) 775-2136 / wcummings@mylubbock.us / 1314 Ave. K, Lubbock, TX. 79411

The city of Lubbock utilizes EOS software on 2070 controller platform and deploying on +120 signalized intersections.

3) Dave Tickell, Ops. Mgr. League City / Work (281) 554-1083/ David.tickell@leaguecitytx.gov/ 1535 Dickinson Ave. League City, TX. 77573

City of League City has EOS deployed on all 60 Cobalt controllers.

4) Kialee Gbosi, TXDOT Houston / (346) 306-8050 / kialee.gbosi@txdot.gov / 7600 Washington Ave. Houston, TX. 77251

Currently deployed EOS software on 600 controllers with 1300 total controllers in project.

5) David Boski, PE City of Mansfield / (817) 276-4208 / David.boski@mansfield-tx.gov / 1200 E. Broad Street, Mansfield, TX. 76063

The city of Mansfield has all 60 intersections running Cobalt controllers with EOS software.

6) Juan Gutierrez, Asst. PW Dir. Town of Addison / (214) 687-2629 / jgutierrez@addisontx.gov/ 16801 Westgrove Dr. Addison, TX. 75001

Town of Addison is beginning deployment of EOS on all 38 intersections.

RFP#2023-092 TXShare

Part Code	*Distributor*	*Description*	*QTY*	*UOM*	*Current TXShare*
PRODUCT CATEGORY #1					
EOSL	PARADIGM TRAFFIC	EOS Controller Software License	1	EA	$1,300.00
PRODUCT CATEGORY #2					
2070 Controller	PARADIGM TRAFFIC	2070C / 2070E Controller	1	EA	$5,334.00
COBSM 1100	PARADIGM TRAFFIC	Cobalt 1100 Shelf Mount	1	EA	$3,700.00
COBGSM 2100	PARADIGM TRAFFIC	Cobalt G Shelf Mount	1	EA	$5,200.00
COBCSM 2101	PARADIGM TRAFFIC	Cobalt C Shelf Mount	1	EA	$3,900.00
COBCRM	PARADIGM TRAFFIC	Cobalt C-Series Rackmount	1	EA	$5,775.00
COBGRM	PARADIGM TRAFFIC	Cobalt G-Series Rackmount	1	EA	$6,450.00
333S Hybrid Cabinet w/ Controller and Plug Ins	PARADIGM TRAFFIC	333S ATCC Cabinet Assembly w/o Controller and with Plug Ins (City of League City)	1	EA	$34,702.50
ATC 340 Cabinet	PARADIGM TRAFFIC	ITS 340 Cabinet	1	EA	$36,225.00
ATCC model 332 Cabinet No Controller 16/24	PARADIGM TRAFFIC	ATC model 332 Cabinet No Controller	1	EA	$31,500.00
ATCC model 332 Cabinet w/ Controller 16/24	PARADIGM TRAFFIC	ATC model 332 Cabinet w/ Controller	1	EA	$36,750.00
ATCC model 332 Cabinet No Controller 32/48	PARADIGM TRAFFIC	ATC model 332 Cabinet No Controller	1	EA	$34,650.00
ATCC model 332 Cabinet w/ Controller 32/48	PARADIGM TRAFFIC	ATC model 332 Cabinet w/ Controller	1	EA	$39,900.00
PRODUCT CATEGORY #3					
24 HR - AC, Flasher Cabinet Full Assembly	PARADIGM TRAFFIC	Complete AC Flasher Cabinet Assy	1	EA	$4,950.00
24 HR - DC, Solar Flasher Cabinet and components	PARADIGM TRAFFIC	Complete DC Flasher Cabinet Assy	1	EA	$5,900.00
AN22Y33BATT44ERY Level 1	PARADIGM TRAFFIC	Battery	1	EA	$525.00
AN22Y33BATT44ERY Level 2	PARADIGM TRAFFIC	Battery	1	EA	$2,100.00
AN22Y33BATT44ERY Level 3	PARADIGM TRAFFIC	Battery	1	EA	$5,250.00
BATTERY TESTER KIT	PARADIGM TRAFFIC	Battery Tester Kit w/Tester, Probes, Case	1	EA	$9,450.00
Uninterruptible Power Supply	PARADIGM TRAFFIC	UPS System	1	EA	$12,600.00
Uninterruptible Power Supply Miscellaneous Component	PARADIGM TRAFFIC	UPS System Components	1	EA	$3,675.00

Analytics System	PARADIGM TRAFFIC	Analytics System	1	EA	$78,750.00
Applicator	PARADIGM TRAFFIC	Applicator	1	EA	$761.25
ATCC Key Burner	PARADIGM TRAFFIC	ATCC Key Burner	1	EA	$1,260.00
ATC Rack Mount Controller	PARADIGM TRAFFIC	ATC Rack Mount Controller	1	EA	$5,250.00
Cable Level 1	PARADIGM TRAFFIC	Cable	1	FT	$2.10
Cable Level 2	PARADIGM TRAFFIC	Cable	1	FT	$5.25
Cable Level 3	PARADIGM TRAFFIC	Cable	1	FT	$15.75
Cellular Modem Device	PARADIGM TRAFFIC	Cellular Modem Device	1	EA	$5,000.00
Cellular Modem Connectivity	PARADIGM TRAFFIC	Modem Connectivity	1	YR	$2,100.00
COMPUTER Level 1	PARADIGM TRAFFIC	Computer Component	1	EA	$525.00
COMPUTER Level 2	PARADIGM TRAFFIC	Computer Component	1	EA	$5,250.00
COMPUTER Level 3	PARADIGM TRAFFIC	Computer Component	1	EA	$21,000.00
DATA KEY 8MB	PARADIGM TRAFFIC	Data Key/Jump Drive 8MB	1	EA	$126.00
DSRC Radio	PARADIGM TRAFFIC	5.9GHZ radio for V2V	1	EA	$5,985.00
Traffic Electrical Subcontracting	PARADIGM TRAFFIC	Traffic Electrical Subcontracting	1	HR	$500.00
Level 1 Ethernet Switch	PARADIGM TRAFFIC	Level 1 Ethernet Switch	1	EA	$1,155.00
Level 2 Ethernet Switch	PARADIGM TRAFFIC	Level 2 Ethernet Switch	1	EA	$1,732.50
Level 3 Ethernet Switch	PARADIGM TRAFFIC	Level 3 Ethernet Switch	1	EA	$3,675.00
Level 4 Ethernet Switch	PARADIGM TRAFFIC	Level 4 Ethernet Switch	1	EA	$8,400.00
Level 5 Ethernet Switch	PARADIGM TRAFFIC	Level 5 Ethernet Switch	1	EA	$29,400.00
Level 6 Ethernet Switch	PARADIGM TRAFFIC	Level 6 Ethernet Switch	1	EA	$57,750.00
Level 1 Miscellaneous Traffic Component	PARADIGM TRAFFIC	Miscellaneous Traffic Component	1	EA	$105.00
Level 2 Miscellaneous Traffic Component	PARADIGM TRAFFIC	Miscellaneous Traffic Component	1	EA	$367.50
Level 3 Miscellaneous Traffic Component	PARADIGM TRAFFIC	Miscellaneous Traffic Component	1	EA	$1,050.00
Level 4 Miscellaneous Traffic Component	PARADIGM TRAFFIC	Miscellaneous Traffic Component	1	EA	$6,300.00
Level 5 Miscellaneous Traffic Component	PARADIGM TRAFFIC	Miscellaneous Traffic Component	1	EA	$10,500.00
LED Component	PARADIGM TRAFFIC	LED Component	1	EA	$1,200.00
MISCANYCAB	PARADIGM TRAFFIC	Miscellaneous Cabinet Equipment	1	EA	$42,000.00
MISCSOL25	PARADIGM TRAFFIC	Miscellaneous Solar Equipment	1	EA	$5,250.00
MONITOR	PARADIGM TRAFFIC	Wall Mount Monitor	1	EA	$3,675.00
Nema Traffic Signal Cabinet Assembly	PARADIGM TRAFFIC	Nema Traffic Signal Cabinet Assembly	1	EA	$22,050.00
ON-SITE TRAINING	PARADIGM TRAFFIC	Training on-site	1	HR	$350.00
Powder Coating	PARADIGM TRAFFIC	Powder Coat	1	EA	$2,100.00
PTSI ATCC Cabinet No Controller	PARADIGM TRAFFIC	ATC Cabinet No Controller	1	EA	$36,750.00
PTSI ATCC Cabinet w/ Controller	PARADIGM TRAFFIC	ATC Cabinet w/ Controller	1	EA	$42,000.00
PTSI Cabinet Rehab	PARADIGM TRAFFIC	Cabinet Rehab	1	EA	$26,250.00
PTSI Pole Mount Cab	PARADIGM TRAFFIC	Pole Mount Cabinet	1	EA	$23,100.00
PTSI Ground Mount Cab	PARADIGM TRAFFIC	Ground Mount Cabinet	1	EA	$23,100.00

PTSI-340 NEMA-TS-1	PARADIGM TRAFFIC	University Park Cabinet with 4 doors to include; controller, plug-ins, MMU2, BBU System	1	EA	$36,750.00
PTSI-340NEMA TS1	PARADIGM TRAFFIC	TS1 Cabinet Assy	1	EA	$24,150.00
PTSI-Duncanville P44 Cabinet Assembly	PARADIGM TRAFFIC	PTSI-Duncanville P44 Cabinet Assembly Double Door, No Controller, No Power Supply, No MMU, No Detectors, Only 2 BIU's	1	EA	$21,000.00
PTZ / CCTV CAMERA ASSEMBLY	PARADIGM TRAFFIC	PTZ / CCTV Camera	1	EA	$8,400.00
900 MHz to 5.8 GHz Radio	PARADIGM TRAFFIC	Radio	1	EA	$4,200.00
Radio Antenna	PARADIGM TRAFFIC	Radio Antenna	1	EA	$2,625.00
Radio Data Transciever	PARADIGM TRAFFIC	Radio Data Transciever	1	EA	$3,150.00
Radio Miscellaneous	PARADIGM TRAFFIC	Radio Miscellaneous	1	EA	$630.00
RRFB System	PARADIGM TRAFFIC	RRFB System	1	EA	$13,125.00
Screw in Anchor	PARADIGM TRAFFIC	Screw-In Anchor for Ped Poles	1	EA	$1,680.00
Signal Head, Complete, 3 Sec - No Hardware	PARADIGM TRAFFIC	3 Section Signal Head w/ Tunnel Visor, LED & Bkplt	1	EA	$750.75
Signal Head, Complete, 4 Sec - No Hardware	PARADIGM TRAFFIC	4 Section Signal Head w/ Tunnel Visor, LED & Bkplt	1	EA	$1,123.50
Signal Head, Complete, 5 Sec - No Hardware	PARADIGM TRAFFIC	5 Section Signal Head w/ Tunnel Visor, LED & Bkplt	1	EA	$1,543.50
Solar Panel - For SZF / RDSD FLSH BCN	PARADIGM TRAFFIC	Solar Panel	1	EA	$420.00
Solar Panel / Top of Pole Mount	PARADIGM TRAFFIC	Side of Pole Mount for Solar Panel	1	EA	$315.00
SYSTEM PROGRAMMER	PARADIGM TRAFFIC	System Programmer	1	EA	$5,250.00
TECH BUCKET	PARADIGM TRAFFIC	Certified Traffic Signal Technician with Bucket Truck	1	HR	$787.50
TECH CRTRLPROG	PARADIGM TRAFFIC	Traffic Signal Controllers programming and downloading	1	HR	$350.00
TECH FIELD SERVICES	PARADIGM TRAFFIC	Field Service Technician	1	HR	$315.00
TECH SYSTEM INTEGRATION	PARADIGM TRAFFIC	System Integration	1	HR	$315.00
TECH TMC TRAINING	PARADIGM TRAFFIC	Traffic Management Center Operator Training	1	HR	$315.00
TOWERCLIMB	PARADIGM TRAFFIC	Tower Climb with Equipment Installation	1	EA	$15,000.00
Traffic Controller	PARADIGM TRAFFIC	Traffic Controller	1	EA	$7,875.00
Video Monitor with Power Supply	PARADIGM TRAFFIC	Video Monitor with Power Supply	1	EA	$236.25
Side Fire Radar	PARADIGM TRAFFIC	Side Fire Radar	1	EA	$7,500.00
Traffic Detection System 1 Approach	PARADIGM TRAFFIC	Traffic Detection System 1 Approach	1	EA	$14,700.00
Traffic Detection System 2 Approach	PARADIGM TRAFFIC	Traffic Detection System 2 Approach	1	EA	$21,000.00
Traffic Detection System 3 Approach	PARADIGM TRAFFIC	Traffic Detection System 3 Approach	1	EA	$28,350.00
Traffic Detection System 4 Approach	PARADIGM TRAFFIC	Traffic Detection System 4 Approach	1	EA	$36,750.00
Traffic Detection System 5 Approach	PARADIGM TRAFFIC	Traffic Detection System 5 Approach	1	EA	$45,150.00
Traffic Detection System 6 Approach	PARADIGM TRAFFIC	Traffic Detection System 6 Approach	1	EA	$49,350.00

Traffic Detection System 7 Approach	PARADIGM TRAFFIC	Traffic Detection System 7 Approach	1	EA	$53,550.00
Traffic Detection System 8 Approach	PARADIGM TRAFFIC	Traffic Detection System 8 Approach	1	EA	$57,750.00
Traffic Detector	PARADIGM TRAFFIC	Traffic Detector	1	EA	$12,600.00
Traffic System Processor	PARADIGM TRAFFIC	Traffic System Processor	1	EA	$8,400.00
Advanced Traffic Management System	PARADIGM TRAFFIC	ATMS (25 Licenses)	1	EA	$105,000.00
Advanced Traffic Management System	PARADIGM TRAFFIC	ATMS (100 Licenses)	1	EA	$236,250.00
FTWSSFA	PARADIGM TRAFFIC	Ft Worth School Flasher- w/ clock, DFB, ped pole assy, screw-in anchor, and solar assembly	1	EA	$15,750.00
AI-500-020 Series	PARADIGM TRAFFIC	Street Light Monitoring Device	1	EA	$1,260.00
AI-500-030 Series	PARADIGM TRAFFIC	Low Power Monitoring - Includes C&S and 10 yr Connectivity	1	EA	$2,155.00
AI-500-050 Series	PARADIGM TRAFFIC	Remote Cellular Unit	1	EA	$950.00
AI-500-065	PARADIGM TRAFFIC	Vehicle Preemption Unit	1	EA	$7,000.00
AI-500-067	PARADIGM TRAFFIC	Test unit for VPU	1	EA	$380.00
AI-500-070 Series	PARADIGM TRAFFIC	AI-500-070 -Time Switch with Cell Modum	1	EA	$892.50
AI-500-085 Series	PARADIGM TRAFFIC	AI-500-085-02 - FMU, 4G Video, 4 port Ethernet Switch	1	EA	$2,467.50
AT-PT-07	PARADIGM TRAFFIC	Glance one time subscription, per device	1	EA	$593.25
AT-PT-08	PARADIGM TRAFFIC	Configuration charge, per device	1	EA	$49.35
School or RRFB Connectivity 5yr	PARADIGM TRAFFIC	School Beacon & RRFB Monitoring - 5yr plan	1	EA	$1,323.00
School or RRFB Connectivity 10yr	PARADIGM TRAFFIC	School Beacon & RRFB Monitoring - 10yr plan	1	EA	$1,953.00
FMU2 Connectivity without video passthrough 5yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 5yr plan	1	EA	$2,310.00
FMU2 Connectivity without video passthrough 10yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 10yr plan	1	EA	$3,570.00
FMU2 Connectivity with video passthrough 5yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 5yr plan	1	EA	$6,500.00
FMU2 Connectivity with video passthrough 10yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 10yr plan	1	EA	$9,000.00
Support Plan for devices w/ existing communitcations 5yr	PARADIGM TRAFFIC	School Beacon - 5yr plan (070)	1	EA	$661.50
Support Plan for devices w/ existing communitcations 10yr	PARADIGM TRAFFIC	School Beacon - 10yr plan (070)	1	EA	$974.40
Support Plan for devices w/ existing communitcations 5yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 5yr plan (085)	1	EA	$2,310.00
Support Plan for devices w/ existing communitcations 10yr	PARADIGM TRAFFIC	Preemption and Priority Systems Monitoring - 10yr plan (085)	1	EA	$3,559.50
ALICENSEAPP	PARADIGM TRAFFIC	FCC License Application per City License	1	EA	$3,860.00
AC or DC Panel	PARADIGM TRAFFIC	AC or DC Panel	1	EA	$414.75
High Water Detection Sys w/ RWIS	PARADIGM TRAFFIC	High Water Detection	1	EA	$47,250.00

Centracs Level 1 Server	PARADIGM TRAFFIC	Centracs Level 1 Server	1	EA	$15,000.00
Centracs Level 2 Server	PARADIGM TRAFFIC	Centracs Level 2 Server	1	EA	$30,000.00
Centracs SMA Basic	PARADIGM TRAFFIC	Centracs SMA Basic (25 License)	1	EA	$25,000.00
Centracs 25 Licenses	PARADIGM TRAFFIC	Centracs 25 Licenses	1	EA	$75,000.00
Centracs 50 Licenses	PARADIGM TRAFFIC	Centracs 50 Licenses	1	EA	$125,000.00
Centracs 100 Licenses	PARADIGM TRAFFIC	Centracs 100 Licenses	1	EA	$175,000.00
Centracs Advanced CCTV Module	PARADIGM TRAFFIC	CCTV Module - up to 50 cameras	1	EA	$60,000.00
Centracs BlueToad Module	PARADIGM TRAFFIC	Centracs BlueToad Module	1	EA	$33,000.00
Centracs C-2-C Module	PARADIGM TRAFFIC	Centracs C-2-C	1	EA	$60,500.00
Centracs Edaptive-10	PARADIGM TRAFFIC	10 License of Edaptive, Setup, Includes SPM 1yr	1	EA	$22,000.00
Centracs Edaptive-10-A	PARADIGM TRAFFIC	10 License Annual Service Fee	1	EA	$9,350.00
Centracs Edaptive-25	PARADIGM TRAFFIC	25 License of Edaptive, Setup, Includes SPM 1yr	1	EA	$42,350.00
Centracs Edaptive-25-A	PARADIGM TRAFFIC	25 License Annual Service Fee	1	EA	$23,100.00
Centracs Edaptive-50	PARADIGM TRAFFIC	50 License of Edaptive, Setup, Includes SPM 1yr	1	EA	$75,900.00
Centracs Edaptive-50-A	PARADIGM TRAFFIC	50 License Annual Service Fee	1	EA	$49,500.00
Centracs Edaptive-100	PARADIGM TRAFFIC	100 License of Edaptive, Setup, Includes SPM 1yr	1	EA	$143,000.00
Centracs Edaptive-100-A	PARADIGM TRAFFIC	100 License Annual Service Fee	1	EA	$90,200.00
Centracs Edaptive-200	PARADIGM TRAFFIC	200 License of Edaptive, Setup, Includes SPM 1yr	1	EA	$277,310.00
Centracs Edaptive-200-A	PARADIGM TRAFFIC	200 License Annual Service Fee	1	EA	$181,940.00
Centracs Local Edition 1 Module	PARADIGM TRAFFIC	Centracs L.E. 1 Module	1	EA	$5,500.00
Centracs MMS	PARADIGM TRAFFIC	Centracs MMS 100 or less intersections	1	EA	$60,500.00
Centracs MOE	PARADIGM TRAFFIC	Centracs MOE 1 Module	1	EA	$30,250.00
Centracs SPM-25	PARADIGM TRAFFIC	25 License of SPM, Service Setup, Intersection Setup 1yr.	1	EA	$31,900.00
Centracs SPM-25-A	PARADIGM TRAFFIC	25 License, Annual Service Fee	1	EA	$13,750.00
Centracs SPM-50	PARADIGM TRAFFIC	50 License of SPM, Service Setup, Intersection Setup 1yr.	1	EA	$55,000.00
Centracs SPM-50-A	PARADIGM TRAFFIC	50 License, Annual Service Fee	1	EA	$26,400.00
Centracs SPM-100	PARADIGM TRAFFIC	100 License of SPM, Service Setup, Intersection Setup 1yr.	1	EA	$101,200.00
Centracs SPM-100-A	PARADIGM TRAFFIC	100 License, Annual Service Fee	1	EA	$57,200.00
Centracs SPM-200	PARADIGM TRAFFIC	200 License of SPM, Service Setup, Intersection Setup 1yr.	1	EA	$192,500.00
Centracs SPM-200-A	PARADIGM TRAFFIC	200 License, Annual Service Fee	1	EA	$105,600.00
Centracs Mobility Essentials - 25	PARADIGM TRAFFIC	25 License of Essentials	1	EA	$8,000.00
Centracs Mobility Essentials - 50	PARADIGM TRAFFIC	50 License of Essentials	1	EA	$16,000.00
Centracs Mobility Essentials - 100	PARADIGM TRAFFIC	100 License of Essentials	1	EA	$32,000.00
Centracs Mobility Standard - 25	PARADIGM TRAFFIC	25 License of Standard	1	EA	$15,000.00
Centracs Mobility Standard - 50	PARADIGM TRAFFIC	50 License of Standard	1	EA	$30,000.00
Centracs Mobility Standard - 100	PARADIGM TRAFFIC	100 License of Standard	1	EA	$60,000.00
Centracs Add On	PARADIGM TRAFFIC	Centracs Add On	1	EA	$100,000.00
Centracs Mobility Timing	PARADIGM TRAFFIC	Centracs Mobility Timing - 25 Intersections	1	EA	$10,000.00

Centracs Mobility Edaptive	PARADIGM TRAFFIC	Centracs Mobility Edaptive - 25 Intersections	1	EA	$10,000.00
A700-1166-01 AVCM	PARADIGM TRAFFIC	Vision Comm Manager	1	EA	$4,567.50
A700-1172	PARADIGM TRAFFIC	AVISION Video Sensor	1	EA	$7,323.75
PELCO COMPONENT LEVEL 1	PARADIGM TRAFFIC	Micellaneous Hardware Component - Unspecified	1	EA	$183.75
PELCO COMPONENT LEVEL 2	PARADIGM TRAFFIC	Micellaneous Hardware Component - Unspecified	1	EA	$315.00
PELCO COMPONENT LEVEL 3	PARADIGM TRAFFIC	Micellaneous Hardware Component - Unspecified	1	EA	$630.00
PELCO COMPONENT LEVEL 4	PARADIGM TRAFFIC	Micellaneous Hardware Component - Unspecified	1	EA	$1,575.00
PELCO COMPONENT LEVEL 5	PARADIGM TRAFFIC	Micellaneous Hardware Component - Unspecified	1	EA	$3,150.00
Traffic Signal LED	PARADIGM TRAFFIC	8" LED	1	EA	$70.00
Traffic Signal LED	PARADIGM TRAFFIC	12" LED	1	EA	$85.00
LED - PEDESTRIAN COUNTDOWN	PARADIGM TRAFFIC	16"X18" LED Ped Incand Look man/hand	1	EA	$157.50
ILSN	PARADIGM TRAFFIC	INTERNAL ILLUMUNATED STREET NAME SIGN	1	EA	$3,700.00
STREETLIGHT LED	PARADIGM TRAFFIC	LED Cobrahead Roadway Lighting	1	EA	$800.00

ATTACHMENT I:
INSTRUCTIONS FOR PROPOSALS COMPLIANCE AND SUBMITTAL

Compliance with the Solicitation

Submissions must be in strict compliance with this solicitation. Failure to comply with all provisions of the solicitation may result in disqualification.

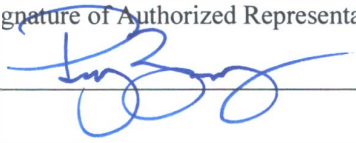
Acknowledgment of Insurance Requirements

By signing its submission, Offeror acknowledges that it has read and understands the insurance requirements for the submission. Offeror also understands that the evidence of required insurance may be requested to be submitted within ten (10) working days following notification of its offer being accepted; otherwise, NCTCOG may rescind its acceptance of the Offeror's proposals. The insurance requirements are outlined in Section 6.04.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:



Date: 11.1.23

ATTACHMENT II:
CERTIFICATIONS OF OFFEROR

I hereby certify that the information contained in this proposal and any attachments is true and correct and may be viewed as an accurate representation of proposed services to be provided by this organization. I certify that no employee, board member, or agent of the North Central Texas Council of Governments has assisted in the preparation of this proposal. I acknowledge that I have read and understand the requirements and provisions of the solicitation and that the organization will comply with the regulations and other applicable local, state, and federal regulations and directives in the implementation of this contract.

I also certify that I have read and understood all sections of this solicitation and will comply with all the terms and conditions as stated; and furthermore that I, Ryan Zenzen (typed or printed name) certify that I am the President (title) of the corporation, partnership, or sole proprietorship, or other eligible entity named as offeror and respondent herein and that I am legally authorized to sign this offer and to submit it to the North Central Texas Council of Governments, on behalf of said offeror by authority of its governing body.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:

Date: 11. 1. 23

ATTACHMENT III:
CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

This certification is required by the Federal Regulations Implementing Executive Order 12549, Debarment and Suspension, 45 CFR Part 93, Government-wide Debarment and Suspension, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668, 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned certifies, to the best of his or her knowledge and belief, that both it and its principals:

1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency;

2. Have not within a three-year period preceding this contract been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or Local) transaction or contract under a public transaction, violation of federal or State antitrust statues or commission of embezzlement, theft, forgery, bribery, falsification, or destruction of records, making false Proposals, or receiving stolen property;

3. Are not presently indicated for or otherwise criminally or civilly charged by a government entity with commission of any of the offense enumerated in Paragraph (2) of this certification; and,

4. Have not within a three-year period preceding this contract had one or more public transactions terminated for cause or default.

Where the prospective recipient of federal assistance funds is unable to certify to any of the qualifications in this certification, such prospective recipient shall attach an explanation to this certification form.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:

Date: 11.1.23

LOBBYING CERTIFICATION
FOR CONTRACTS, GRANTS, LOANS, AND COOPERATIVE AGREEMENTS

The undersigned certifies, to the best of his or her knowledge or belief, that:

1. No federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an officer or employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal loan, the entering into of any cooperative Contract, and the extension, continuation, renewal, amendment, or modification or any federal contract, grant, loan, or cooperative contract; and

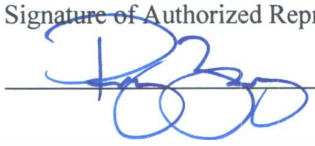
2. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, and or cooperative contract, the undersigned shall complete and submit Standard Form – LLL, "Disclosure Form to Report Lobbying", in accordance with the instructions.

3. The undersigned shall require that the language of this certification be included in the award documents for all sub-awards at all tiers and that all sub-recipients shall certify accordingly.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:



Date: 11.1.23

ATTACHMENT V:
DRUG-FREE WORKPLACE CERTIFICATION

The Paradigm Traffic Systems, Inc. (company name) will provide a Drug Free Work Place in compliance with the Drug Free Work Place Act of 1988. The unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited on the premises of the Paradigm Traffic Systems, Inc. (company name) or any of its facilities. Any employee who violates this prohibition will be subject to disciplinary action up to and including termination. All employees, as a condition of employment, will comply with this policy.

CERTIFICATION REGARDING DRUG-FREE WORKPLACE

This certification is required by the Federal Regulations Implementing Sections 5151-5160 of the Drug-Free Workplace Act, 41 U.S.C. 701, for the Department of Agriculture (7 CFR Part 3017), Department of Labor (29 CFR Part 98), Department of Education (34 CFR Parts 85, 668 and 682), Department of Health and Human Services (45 CFR Part 76).

The undersigned subcontractor certifies it will provide a drug-free workplace by:

Publishing a policy Proposal notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the workplace and specifying the consequences of any such action by an employee;

Establishing an ongoing drug-free awareness program to inform employees of the dangers of drug abuse in the workplace, the subcontractor's policy of maintaining a drug-free workplace, the availability of counseling, rehabilitation and employee assistance programs, and the penalties that may be imposed on employees for drug violations in the workplace;

Providing each employee with a copy of the subcontractor's policy Proposal;

Notifying the employees in the subcontractor's policy Proposal that as a condition of employment under this subcontract, employees shall abide by the terms of the policy Proposal and notifying the subcontractor in writing within five days after any conviction for a violation by the employee of a criminal drug abuse statue in the workplace;

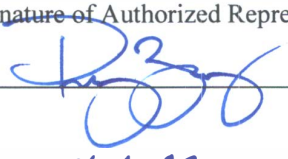
Notifying the Board within ten (10) days of the subcontractor's receipt of a notice of a conviction of any employee; and,

Taking appropriate personnel action against an employee convicted of violating a criminal drug statue or requires such employee to participate in a drug abuse assistance or rehabilitation program.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:



Date: 11.1.23

ATTACHMENT VI:
CERTIFICATION REGARDING DISCLOSURE OF CONFLICT OF INTEREST

The undersigned certifies that, to the best of his or her knowledge or belief, that:

"No employee of the contractor, no member of the contractor's governing board or body, and no person who exercises any functions or responsibilities in the review or approval of the undertaking or carrying out of this contract shall participate in any decision relating to this contract which affects his/her personal pecuniary interest.

Executives and employees of contractor shall be particularly aware of the varying degrees of influence that can be exerted by personal friends and associates and, in administering the contract, shall exercise due diligence to avoid situations which give rise to an assertion that favorable treatment is being granted to friends and associates. When it is in the public interest for the contractor to conduct business with a friend or associate of an executive or employee of the contractor, an elected official in the area or a member of the North Central Texas Council of Governments, a permanent record of the transaction shall be retained.

Any executive or employee of the contractor, an elected official in the area or a member of the NCTCOG, shall not solicit or accept money or any other consideration from a third person, for the performance of an act reimbursed in whole or part by contractor or Department. Supplies, tools, materials, equipment or services purchased with contract funds shall be used solely for purposes allowed under this contract. No member of the NCTCOG shall cast a vote on the provision of services by that member (or any organization which that member represents) or vote on any matter which would provide a direct or indirect financial benefit to the member or any business or organization which the member directly represents".

No officer, employee or paid consultant of the contractor is a member of the NCTCOG.

No officer, manager or paid consultant of the contractor is married to a member of the NCTCOG.

No member of NCTCOG directly owns, controls or has interest in the contractor.

The contractor has disclosed any interest, fact, or circumstance that does or may present a potential conflict of interest.

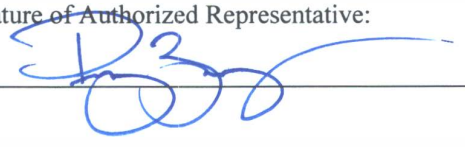
No member of the NCTCOG receives compensation from the contractor for lobbying activities as defined in Chapter 305 of the Texas Government Code.

Should the contractor fail to abide by the foregoing covenants and affirmations regarding conflict of interest, the contractor shall not be entitled to the recovery of any costs or expenses incurred in relation to the contract and shall immediately refund to the North Central Texas Council of Governments any fees or expenses that may have been paid under this contract and shall further be liable for any other costs incurred or damages sustained by the NCTCOG as it relates to this contract.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:



Date: 11.1.23

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

1 **Name of vendor who has a business relationship with local governmental entity.**

Paradigm Traffic Systems, Inc.

2 ☐ **Check this box if you are filing an update to a previously filed questionnaire.** (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 **Name of local government officer about whom the information is being disclosed.**

Not Applicable - None

Name of Officer

4 **Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.**

Not Applicable

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No Not Applicable

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No Not Applicable

5 **Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.**

Not Applicable

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

11.1.23

Date

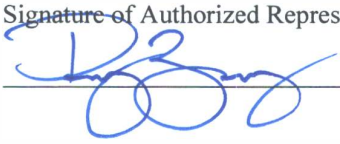
ATTACHMENT VII:
CERTIFICATION OF FAIR BUSINESS PRACTICES

That the submitter has not been found guilty of unfair business practices in a judicial or state agency administrative proceeding during the preceding year. The submitter further affirms that no officer of the submitter has served as an officer of any company found guilty of unfair business practices in a judicial or state agency administrative during the preceding year.

Name of Organization/Contractor(s):

Paradigm Traffic Systems, Inc.

Signature of Authorized Representative:



Date: 11. 1. 23

ATTACHMENT VIII:
CERTIFICATION OF GOOD STANDING
TEXAS CORPORATE FRANCHISE TAX CERTIFICATION

Pursuant to Article 2.45, Texas Business Corporation Act, state agencies may not contract with for profit corporations that are delinquent in making state franchise tax payments. The following certification that the corporation entering into this offer is current in its franchise taxes must be signed by the individual authorized on Form 2031, Corporate Board of Directors Resolution, to sign the contract for the corporation.

The undersigned authorized representative of the corporation making the offer herein certified that the following indicated Proposal is true and correct and that the undersigned understands that making a false Proposal is a material breach of contract and is grounds for contract cancellation.

Indicate the certification that applies to your corporation:

__X__ The Corporation is a for-profit corporation and certifies that it is not delinquent in its franchise tax payments to the State of Texas.

_____ The Corporation is a non-profit corporation or is otherwise not subject to payment of franchise taxes to the State of Texas.

Type of Business (if not corporation):

☐ Sole Proprietor

☐ Partnership

☐ Other

Pursuant to Article 2.45, Texas Business Corporation Act, the North Central Texas Council of Governments reserves the right to request information regarding state franchise tax payments.

Ryan Zenzen - President
(Printed/Typed Name and Title of Authorized Representative)

Signature

Date: 11. 1. 23

ATTACHMENT IX:
HISTORICALLY UNDERUTILIZED BUSINESSES, MINORITY OR WOMEN-OWNED OR DISADVANTAGED BUSINESS ENTERPRISES

Historically Underutilized Businesses (HUBs), minority or women-owned or disadvantaged businesses enterprises (M/W/DBE) are encouraged to participate in the solicitation process. Representatives from HUB companies should identify themselves and submit a copy of their certification.

NCTCOG recognizes the certifications of both the State of Texas Program and the North Central Texas Regional Certification Agency. Companies seeking information concerning HUB certification are urged to contact:

State of Texas HUB Program
Texas Comptroller of Public Accounts
Lyndon B. Johnson State Office Building
111 East 17th Street
Austin, Texas 78774 (512) 463-6958
http://www.window.state.tx.us/procurement/prog/hub/

Local businesses seeking M/W/DBE certification should contact:

North Central Texas Regional Certification Agency
624 Six Flags Drive, Suite 100
Arlington, TX 76011 (817) 640-0606
http://www.nctrca.org/certification.html

Submitter must include a copy of its minority certification documentation as part of this solicitation.
If your company is already certified, attach a copy of your certification to this form and return with your proposal.

Indicate all that apply:

__X__ Minority-Owned Business Enterprise

__X__ Women-Owned Business Enterprise

__X__ Disadvantaged Business Enterprise

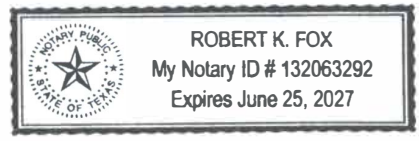
ATTEST TO Attachments of Certification:

Authorized Signature

Joaquin Segl — Typed Name

11-2-2023 — Date

Subscribed and sworn to before me this 2nd day of November (month), 2023 in Arlington (city), Tarrant (county), Texas (state).



SEAL

Notary Public in and for Tarrant (County),

State of Texas Commission expires: 6/25/2027

Minority Owned Business Certification

presented to

Company Innovix ITS, LLC.

Certification Number 804803225

Location Katy, Texas, 77494

Owner Cecil Ann Oates Gonzalez & Joaquin Segl

Issue Date April 12, 2023 Expiration Date April 26, 2024

Texas SBA® Business Certifications
Austin, Texas, USA
www.texassba.us

Jamie Demericas, President

ATTACHMENT X
NCTCOG FEDERAL AND STATE OF TEXAS REQUIRED PROCUREMENT PROVISIONS

The following provisions are mandated by Federal and/or State of Texas law. Failure to certify to the following will result in disqualification of consideration for contract. Entities or agencies that are not able to comply with the following will be ineligible for consideration of contract award.

PROHIBITED TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT CERTIFICATION

This Contract is subject to the Public Law 115-232, Section 889, and 2 Code of Federal Regulations (CFR) Part 200, including §200.216 and §200.471, for prohibition on certain telecommunications and video surveillance or equipment. Public Law 115-232, Section 889, identifies that restricted telecommunications and video surveillance equipment or services (e.g., phones, internet, video surveillance, cloud servers) include the following:

A) Telecommunications equipment that is produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliates of such entities).

B) Video surveillance and telecommunications equipment produced by Hytera Communications Corporations, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliates of such entities).

C) Telecommunications or video surveillance services used by such entities or using such equipment.

D) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, Director of the National Intelligence, or the Director of the Federal Bureau of Investigation reasonably believes to be an entity owned or controlled by the government of a covered foreign country.

The entity identified below, through its authorized representative, hereby certifies that no funds under this Contract will be obligated or expended to procure or obtain telecommunication or video surveillance services or equipment or systems that use covered telecommunications equipment or services as a substantial or essential component of any system, or as a critical technology as part of any system prohibited by 2 CFR §200.216 and §200.471, or applicable provisions in Public Law 115-232 Section 889.

☒ **The Contractor or Subrecipient hereby certifies that it does comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: Ryan Zenzen

NAME OF COMPANY: Paradigm Traffic Systems, Inc.

DATE: 11.1.23

-OR-

☐ **The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of 2 CFR §200.216 and §200.471, or applicable regulations in Public Law 115-232 Section 889.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

DATE: _____

DISCRIMINATION AGAINST FIREARMS ENTITIES OR FIREARMS TRADE ASSOCIATIONS

This contract is subject to the Texas Local Government Code chapter 2274, Subtitle F, Title 10, prohibiting contracts with companies who discriminate against firearm and ammunition industries.

TLGC chapter 2274, Subtitle F, Title 10, identifies that "discrimination against a firearm entity or firearm trade association" includes the following:

A) means, with respect to the entity or association, to:

I. refuse to engage in the trade of any goods or services with the entity or association based solely on its status as a firearm entity or firearm trade association; and

II. refrain from continuing an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association; or

III. terminate an existing business relationship with the entity or association based solely on its status as a firearm entity or firearm trade association.

B) An exception to this provision excludes the following:

I. contracts with a sole-source provider; or

II. the government entity does not receive bids from companies who can provide written verification.

The entity identified below, through its authorized representative, hereby certifies that they have no practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association; and that they will not discriminate during the term of the contract against a firearm entity or firearm trade association as prohibited by Chapter 2274, Subtitle F, Title 10 of the Texas Local Government Code.

☒ **The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 2274, Subtitle F, Title 10.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: Ryan Zenzen

NAME OF COMPANY: Paradigm Traffic Systems, Inc.

DATE: 11.1.23

-OR-

☐ **The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 2274, Subtitle F, Title 10.**

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

DATE: _____

BOYCOTTING OF CERTAIN ENERGY COMPANIES

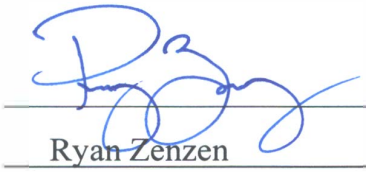
This contract is subject to the Texas Local Government Code chapter 809, Subtitle A, Title 8, prohibiting contracts with companies who boycott certain energy companies.

TLGC chapter Code chapter 809, Subtitle A, Title 8, identifies that "boycott energy company" means, without an ordinary business purpose, refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations with a company because the company:

I. engages in the exploration, production, utilization, transportation, sale, or manufacturing of fossil fuel-based energy and does not commit or pledge to meet environmental standards beyond applicable federal and state law; and
II. does business with a company described by paragraph (I).

The entity identified below, through its authorized representative, hereby certifies that they do not boycott energy companies, and that they will not boycott energy companies during the term of the contract as prohibited by Chapter 809, Subtitle A, Title 8 of the Texas Local Government Code.

☒ The Contractor or Subrecipient hereby certifies that it does comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON: 

NAME OF AUTHORIZED PERSON: Ryan Zenzen

NAME OF COMPANY: Paradigm Traffic Systems, Inc.

DATE: 11.1.23

-OR-

☐ The Contractor or Subrecipient hereby certifies that it cannot comply with the requirements of Chapter 809, Subtitle A, Title 8.

SIGNATURE OF AUTHORIZED PERSON: _____

NAME OF AUTHORIZED PERSON: _____

NAME OF COMPANY: _____

DATE: _____

APPENDIX D
Service Designation Forms

RFP 2023-092	Texas Service Area Designation or Identification		
Proposer Name:	Paradigm Traffic Systems, Inc.		
Notes:	**Indicate in the appropriate box whether you are proposing to service the entire State of Texas**		
	Will service the entire State of Texas	Will not service the entire State of Texas	
	YES		
	If you are not proposing to service the entire State of Texas, designate on the form below the regions that you are proposing to provide goods and/or services to. By designating a region or regions, you are certifying that you are willing and able to provide the proposed goods and services.		
Item	**Region**	**Metropolitan Statistical Areas**	**Designated Service Area**
1.	North Central Texas	16 counties in the Dallas-Fort Worth Metropolitan area	
2.	High Plains	Amarillo Lubbock	
3.	Northwest	Abilene Wichita Falls	
4.	Upper East	Longview Texarkana, TX-AR Metro Area Tyler	
5.	Southeast	Beaumont-Port Arthur	
6.	Gulf Coast	Houston-The Woodlands-Sugar Land	
7.	Central Texas	College Station-Bryan Killeen-Temple Waco	
8.	Capital Texas	Austin-Round Rock	
9.	Alamo	San Antonio-New Braunfels Victoria	
10.	South Texas	Brownsville-Harlingen Corpus Christi Laredo McAllen-Edinburg-Mission	
11.	West Texas	Midland Odessa San Angelo	
12.	Upper Rio Grande	El Paso	

RFP 2023-092	Nationwide Service Area Designation or Identification Form		
Proposer Name:	Paradigm Traffic Systems, Inc.		
Notes:	**Indicate in the appropriate box whether you are proposing to provide service to all Fifty (50) States.**		
	Will service all Fifty (50) States NO	Will not service Fifty (50) States X	
	If you are not proposing to service to all Fifty (50) States, then designate on the form below the States that you will provide service to. By designating a State or States, you are certifying that you are willing and able to provide the proposed goods and services in those States. **If you are only proposing to service a specific region, metropolitan statistical area (MSA), or city in a State, then indicate as such in the appropriate column box.**		

Item	State	Region/MSA/City	Designated as a Service Area
1.	Alabama		
2.	Alaska		
3.	Arizona		
4.	Arkansas		
5.	California		
6.	Colorado		
7.	Connecticut		
8.	Delaware		
9.	Florida		
10.	Georgia		
11.	Hawaii		
12.	Idaho		
13.	Illinois		
14.	Indiana		
15.	Iowa		
16.	Kansas		
17.	Kentucky		
18.	Louisiana		
19.	Maine		
20.	Maryland		
21.	Massachusetts		

22.	Michigan		
23.	Minnesota		
24.	Mississippi		
25.	Missouri		
26.	Montana		
27.	Nebraska		
28.	Nevada		
29.	New Hampshire		
30.	New Jersey		
31.	New Mexico		
32.	New York		
33.	North Carolina		
34.	North Dakota		
35.	Ohio		
36.	Oregon		
37.	Oklahoma		
38.	Pennsylvania		
39.	Rhode Island		
40.	South Carolina		
41.	South Dakota		
42.	Tennessee		
43.	Texas	Will be servicing the entire state.	X
44.	Utah		
45.	Vermont		
46.	Virginia		
47.	Washington		
48.	West Virginia		
49.	Wisconsin		
50.	Wyoming		