



City of Phoenix

INVITATION FOR BID

IFB 63-2319

DYNAMIC, VARIABLE, AND BLANK OUT MESSAGE
SIGNS FOR MULTI-MODAL TRANSPORTATION
MESSAGES

City of Phoenix

Street Transportation

200 West Washington Street

5th Floor

Phoenix, AZ

85003

RELEASE DATE: June 29, 2023

DEADLINE FOR QUESTIONS: July 24, 2023

RESPONSE DEADLINE: August 11, 2023, 5:00 pm

Invitation For Bid #IFB 63-2319

Title: Dynamic, Variable, and Blank Out Message Signs For Multi-Modal Transportation Messages

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Dynamic, Variable, and Blank Out Message Signs For Multi-
Modal Transportation Messages

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Attachments:

- A - Submittals - Warranty rev 2-2023
- B - Submittals - Offer Page rev 3-2023
- C - Submittals - References rev 2-2023
- D - Submittals - 24 Hour Emergency Contact rev 2-2023.
- E - Submittals - Conflict of Interest and Transparency rev 2-2023
- F - Submittals - Costs and Payments rev 2-2023
- G - Submittals - Debarment & Exclusion rev 2-2023
- H - Submittals - Delivery rev 2-2023
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1. INTRODUCTION

1.1. Summary

The City of Phoenix Street Transportation Department invites sealed offers for the purchase of Dynamic, Variable, and Blank Out Message Signage for multi-modal transportation messages for a five-year period commencing on or about November 1, 2023. The contract will include one five-year option to extend the contract.

1.2. Background

The signs will be used for various operational, informational, and emergency purposes for the traveling public, with the majority to be used at light rail and heavy rail transit intersections, reverse lane operations, and other intersections where traveling restrictions are required.

1.3. Contact Information

Kathryn Small

Contracts Specialist II

200 West Washington Street

Phoenix, AZ 85003

Email: kathryn.small@phoenix.gov

Phone: [\(602\) 256-5692](tel:(602)256-5692)

Department:

Street Transportation

1.4. Timeline

Schedule of Events

The City reserves the right to change dates, times, and locations, as necessary. The City does not always hold a Pre-Offer Conference or Site Visit.

To request a reasonable accommodation or alternative format for any public meeting, please contact the Procurement Officer (Kathryn Small) at (602) 256-5692/Voice or 711/TTY, or kathryn.small@phoenix.gov, no later than two (2) weeks prior to the meeting.

Solicitation Issue Date	June 29, 2023
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<p>Pre-Offer Conference (Non-Mandatory)</p>	<p>July 17, 2023, 10:00am WebEx Meeting: Join from the meeting link: https://cityofphoenix.webex.com/cityofphoenix/j.php?MTID=m4f46b640733a93eca467547597872f11</p> <p>Join by meeting number Meeting number (access code): 2631 529 3891 Meeting password: 4gmD3Wwbg6B</p> <p>Tap to join from a mobile device (attendees only) +1-415-655-0001,,26315293891## US Toll</p> <p>Join by phone +1-415-655-0001 US Toll Global call-in numbers</p>
<p>Site Visit</p>	<p>N/A</p>
<p>Written Inquiries Due Date</p>	<p>July 24, 2023, 5:00pm</p>
<p>Offer Due Date</p>	<p>August 11, 2023, 5:00pm</p>

2. INSTRUCTIONS

2.1. Description – Statement of Need

The City of Phoenix invites sealed offers for Dynamic, Variable, and Blank Out Message Signs for multi-modal transportation messages for a (5) five year contract term, with a one (1) five year option to extend, commencing on or about November 1, 2023, in accordance with the specifications and provisions contained herein or the “Effective Date” which is upon award by City Council, conditioned upon signature and recording by the City Clerk’s department, as required by the Phoenix City Code, whichever is later.

These Signs will be used for various operational, informational, and emergency purposes for the traveling public, with the majority to be used at light rail and heavy rail transit intersections, reverse lane operations, and other intersections where traveling restrictions are required.

This solicitation is available through Arizona Relay Service 7-1-1. Please call TTY 800-367-8939 for assistance.

Notwithstanding the foregoing, this Agreement will terminate upon the earliest occurrence: by reaching the end of the term including any extensions exercised, or termination pursuant to the provisions of this Agreement.

2.2. City's Vendor Self-Registration and Notification

Vendors must be registered in the City’s procurePHX Self-Registration System at <https://www.phoenix.gov/procure> to respond to solicitations and access procurement information. The City may, at its sole discretion, reject any offer from an Offeror who has not registered.

2.3. Preparation of Offer

All forms provided in Submittal Section must be completed and submitted with the Offer. The signed and completed Conflict of Interest and Transparency form must be included or your Offer may be deemed non-responsive.

It is permissible to copy Submittal forms if necessary. Erasures, interlineations, or other modifications of the Offer must be initialed in original ink by the authorized person signing the Offer. No offer will be altered, amended or withdrawn after the specified offer due date and time. The City is not responsible for Offeror’s errors or omissions.

All time periods stated as a number of days will be calendar days.

It is the responsibility of all Offerors to examine the entire solicitation and seek clarification of any requirement that may not be clear and to check all responses for accuracy before submitting an offer. Negligence in preparing an offer confers no right of withdrawal after due date and time. Offerors are strongly encouraged to:

- A. Consider applicable laws and/or economic conditions that may affect cost, progress, performance, or furnishing of the products or services.
- B. Study and carefully correlate Offeror’s knowledge and observations with the solicitation and other related data.

- C. Promptly notify the City of all conflicts, errors, ambiguities, or discrepancies that Offeror has discovered in or between the solicitation and other related documents.
- D. The City does not reimburse the cost of developing, presenting or providing any response to this solicitation. Offers submitted for consideration should be prepared simply and economically, providing adequate information in a straightforward and concise manner. The Offeror is responsible for all costs incurred in responding to this solicitation. All materials and documents submitted in response to this solicitation become the property of the City and will not be returned.
- E. Offerors are reminded that the specifications stated in the solicitation are the minimum level required and that offers submitted must be for products or services that meet or exceed the minimum level of all features specifically listed in this solicitation. Offers offering less than any minimum specifications or criteria specified are not responsive and should not be submitted.
- F. Offer responses submitted for products considered by the seller to be acceptable alternates to the brand names or manufacturer's catalog references specified herein must be submitted with technical literature and/or detailed product brochures for the City's use to evaluate the products offered. Offers submitted without this product information may be considered as non-responsive and rejected. The City will be the sole judge as to the acceptability of alternate products offered.
- G. Prices will be submitted on a per unit basis by line item, when applicable. In the event of a disparity between the unit price and extended price, the unit price will prevail unless obviously in error.

2.4. Fixed Offer Price Period

All offers shall be firm and fixed for a period of 180 calendar days from the solicitation opening date.

2.5. Obtaining a Copy of the Solicitation and Addenda

Interested Offerors may download the complete solicitation and addenda from <https://solicitations.phoenix.gov/>. Any interested Offerors without internet access may obtain this solicitation by calling the Procurement Officer or picking up a copy during regular business hours at the City of Phoenix, Street Transportation Department, 200 W Washington Street, 5th Floor, Phoenix, AZ. It is the Offeror's responsibility to check the website, read the entire solicitation, and verify all required information is submitted with their Offer.

2.6. Exceptions

Offeror must not take any exceptions to any terms, conditions or material requirements of this solicitation. Offers submitted with exceptions may be deemed non-responsive and disqualified from further consideration in the City's sole discretion. Offerors must conform to all the requirements specified in the solicitation. The City encourages Offerors to send inquiries to the Procurement Officer rather than including exceptions in their Offer.

2.7. Inquiries

All questions that arise relating to this solicitation should be directed via email to the Procurement Officer and must be received by the due date indicated in the Schedule of Events. The City will not consider questions received after the deadline.

No informal contact initiated by Offerors on the proposed service will be allowed with members of City's staff from date of distribution of this solicitation until after city council awards the contract. All questions concerning or issues related to this solicitation must be presented in writing.

The Procurement Officer will answer written inquiries in an addendum and publish any addendums on the Procurement Website.

2.8. Addenda

The City of Phoenix will not be responsible for any oral instructions made by any employees or officers of the City of Phoenix regarding this solicitation. Any changes will be in the form of an addendum. The Offeror must acknowledge receipt of any/all addenda by signing and returning the document with the Offer submittal.

2.9. Business in Arizona

The City will not enter contracts with Offerors (or any company(ies)) not granted authority to transact business, or not in good standing, in the state of Arizona by the Arizona Corporation Commission, unless the Offeror asserts a statutory exception prior to entering a contract with the City.

2.10. Licenses

If required by law for the operation of the business or work related to this Offer, Offeror must possess all valid certifications and/or licenses as required by federal, state or local laws at the time of submittal.

2.11. Certifications

By signature in the Offer section of the Offer and Acceptance page(s), Offeror certifies:

- The submission of the Offer did not involve collusion or other anti-competitive practices.
- The Offeror must not discriminate against any employee, or applicant for employment in violation of Federal or State Law.
- The Offeror has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant in connection with the submitted Offer.

2.12. Submission of Offer

Offers must be in possession of the Department on or prior to the exact time and date indicated in the Schedule of Events. Late offers will not be considered. The prevailing clock will be the City Department's clock.

Offers must be submitted in one of the following ways:

1. Offeror's Name
2. Offeror's Address (as shown on the Certification Page)
3. Solicitation Number
4. Solicitation Title
5. Offer Opening Date
6. Due to file size limitations for electronic transmission (for sending or receiving), Offers sent by email may need to be sent in parts with multiple emails. It is the responsibility of the Offeror to ensure that the Offer (including all parts if sent in multiple emails) is timely and to confirm that there are no technical reasons that any offer submitted electronically may be delayed. The date and time on the email(s) as received/stamped by the City's inbox will provide proof of submission and verification whether the Offer was received on or prior to the exact time and date indicated in the Schedule of Events.
7. Any original documents (such as bonds, guaranties, powers of attorney), if required by the solicitation, must be separately delivered to and received by the City on or prior to the exact time and date indicated in the Schedule of Events, with a clear indication of the Offer for which it is attributed.

2.13. Withdrawal of Offer

At any time prior to the solicitation due date and time, an Offeror (or designated representative) may withdraw the Offer by submitting a request in writing and signed by a duly authorized representative. If Offeror withdraws the Offer electronically by email to the Procurement Officer, the request to withdraw must be in the form of a letter attached to the email that includes either an image of the duly authorized representative's signature or an electronic signature from a verifiable source, such as Adobe Sign, DocuSign or a similar verifiable software program.

2.14. Offer Results

Offers will be opened on the offer due date, time and location indicated in the Schedule of Events, at which time the name of each Offeror, and the prices may be read. Offers and other information received in response to the solicitation will be shown only to authorized City personnel having a legitimate interest in them or persons assisting the City in the evaluation. Offers are not available for public inspection until after the City has posted the award recommendation on the City's website.

The City will post a preliminary offer tabulation on the City's website, <https://solicitations.phoenix.gov/Awards> within five calendar days of the offer opening. The City will post the information on the preliminary tabulation as it was read during the offer opening. The City makes no guarantee as to the accuracy of any information on the preliminary tabulation. Once the City has evaluated the offers, the City will post an award recommendation on the website. By signing and submitting its Offer, each Offeror agrees that this posting of the award recommendation to the City's website effectively serves as the Offeror's receipt of that

notice of award recommendation. The City has no obligation to provide any further notification to unsuccessful Offerors.

2.15. Pre-Award Qualifications

Offeror must have been in operation a minimum of 5 (5) years. The Offeror's normal business activity during the past five (5) years will have been for providing the goods or services in this solicitation.

Upon notification of an intent to award, the Offeror will have ten calendar days to submit a complete certificate of insurance in the minimum amounts and the coverages as required in the Insurance Requirements of this agreement. Insurance requirements are non-negotiable.

2.16. Award of Contract

Unless otherwise indicated, award(s) will be made to the most responsive, responsible Offeror(s) who are regularly established in the service, or providing the goods, contained in this solicitation and who have demonstrated the ability to perform in an acceptable manner.

- A. Factors that may be considered by the City include:
 1. Technical capability of the Offeror to accomplish the scope of work required in the Solicitation. This may include performance history on past and current government or industrial contracts; and,
 2. Demonstrated availability of the necessary manpower (both supervisory and operational personnel) and necessary equipment to accomplish the scope of work in the Solicitation; and,
 3. Safety record; and,
 4. Offeror history of complaints and termination for convenience or cause.
- B. Notwithstanding any other provision of this solicitation, the City reserves the right to: (1) waive any immaterial defect or informality; or (2) reject any or all offers or portions thereof; or (3) reissue a solicitation.
- C. A response to a solicitation is an offer to contract with the City based upon the terms, conditions, and specifications contained in the City's solicitation. Offers do not become contracts until they are executed by the Chief Procurement Officer or Department Director. A contract has its inception in the award, eliminating a formal signing of a separate contract. For that reason, all of the terms, conditions and specifications of the procurement contract are contained in the solicitation, and in any addendum or contract amendment.

2.17. Solicitation Transparency Policy

Commencing on the date and time a solicitation is published, potential or actual Offerors or respondents (including their representatives) shall only discuss matters associated with the solicitation with the Mayor, any members of City Council, the City Manager, any Deputy City Manager, or any department director directly associated with the solicitation (including in each

case their assigned staff, except for the designated Procurement Officer) at a public meeting, posted under Arizona Statutes, until the resulting contract(s) are awarded to all offers or responses are rejected and the solicitation is cancelled without any announcement by the Procurement Officer of the City's intent to reissue the same or similar solicitation.

As long as the solicitation is not discussed, Offerors may continue to conduct business with the City and discuss business that is unrelated to the solicitation with the City staff. Offerors may not discuss the solicitation with any City employees or evaluation panel members.

Offerors may discuss their proposal or the solicitation with the Mayor or one or more members of the Phoenix City Council, provided such meetings are scheduled through the Procurement Officer, and are posted as open meetings with the City Clerk at least 24 hours prior to the scheduled meetings. The City Clerk will be responsible for posting the meetings. The posted notice shall identify the participants and the subject matter, as well as invite the public to participate.

With respect to the selection of the successful Offerors, the City Manager and/or City Manager's Office will continue the past practice of exerting no undue influence on the process. In all solicitations of bids and proposals, any direction on the selection from the City Manager and/or City Manager's Office and Department Head (or representative) to the proposal review panel or selecting authority must be provided in writing to all prospective Offerors.

This policy is intended to create a level playing field for all Offerors, assure that contracts are awarded in public, and protect the integrity of the selection process. OFFERORS THAT VIOLATE THIS POLICY SHALL BE DISQUALIFIED. After official Notice is received by the City for disqualification, the Offeror may follow the Protest process, unless the Solicitation is cancelled without notice of intent to re-issue.

"To discuss" means any contact by the Offeror, regardless of whether the City responds to the contact. Offerors that violate this policy will be disqualified until the resulting contract(s) are awarded, or all offers or responses are rejected and the solicitation is cancelled without any announcement by the Procurement Officer of the City's intent to reissue the same or a similar solicitation. The City interprets the policy as continuing through a cancellation of a solicitation until Council award of the contract, as long as the City cancels with a statement that the City will rebid the solicitation.

2.18. Protest Process

Offeror may protest the contents of a solicitation no later than seven days before the solicitation deadline when the protest is based on an apparent alleged mistake, impropriety or defect in the solicitation. Protests filed regarding the solicitation may be addressed by an amendment to the solicitation or denied by the City. If denied, the opening and award will proceed unless the City determines that it is in the City's best interests to set new deadlines, amend the solicitation, cancel or re-bid.

Therefore, unless otherwise notified by a formal amendment, the Protester must adhere to all solicitation dates and deadlines, including timely filing of an offer, regardless of filing a protest.

Offeror may protest an adverse determination issued by the City regarding responsibility and responsiveness, within seven days of the date the Offeror was notified of the adverse determination.

Offeror may protest an award recommendation if the Offeror can establish that it had a substantial chance of being awarded the contract and will be harmed by the recommended award. The City will post recommendations on the City's website to award the contract(s) to an Offeror(s). Offeror must submit award protests within seven days after the posting of the award recommendation, with exceptions only for good cause shown, within the City's full and final discretion.

All protests will be in writing, filed with the Procurement Officer identified in the solicitation and include the following:

- Identification of the solicitation number;
- The name, address and telephone number of the protester;
- A detailed statement describing the legal and factual grounds for the protest, including copies of relevant documents;
- The form of relief requested; and
- The signature of the protester or its authorized representative.

The Procurement Officer will render a written decision within a reasonable period after the protest is filed. The City will not request City Council authorization to award the contract until the protest process is complete. All protests and appeals must be submitted in accordance with the City's Procurement Code, (Phoenix City Code, Ch. 43) and any protests or appeals not submitted within the time requirements will not be considered. Protests must be filed with the Procurement Officer.

2.19. Public Record

All Offers submitted in response to this solicitation will become the property of the City and become a matter of public record available for review pursuant to Arizona State law. If an Offeror believes that a specific section of its Offer response is confidential, the Offeror will isolate the pages marked confidential in a specific and clearly labeled section of its Offer response. An Offeror may request specific information contained within its Offer is treated by the Procurement Officer as confidential provided the Offeror clearly labels the information "confidential." To the extent necessary for the evaluation process, information marked as "confidential" will not be treated as confidential. Once the procurement file becomes available for public inspection, the Procurement Officer will not make any information identified by the Offerors as "confidential" available to the public unless necessary to support the evaluation process or if specifically requested in accordance with applicable public records law. When a public records request for such information is received, the Procurement Officer will notify the Offeror in writing of any request to view any portion of its Offer marked "confidential." The Offeror will have the time set forth in the notice to obtain a court order enjoining such disclosure. If the Offeror does not provide the Procurement Officer with a court order enjoining release of the information during the designated time, the Procurement Officer will make the information requested available for inspection.

2.20. Late Offers

Late Offers must be rejected, except for good cause. If a late Offer is submitted, the Department will document the date and time of the submittal of the late Offer, keep the Offer and notify the Offeror that its Offer was disqualified for being late.

2.21. Right to Disqualify

The City reserves the right to disqualify any Offeror who fails to provide information or data requested or who provides materially inaccurate or misleading information or data. The City further reserves the right to disqualify any Offeror on the basis of any real or apparent conflict of interest that is disclosed by the Offer submitted or any other data or information available to the City. This disqualification is at the sole discretion of the City. By submission of a solicitation response, the Offeror waives any right to object now or at any future time, before any agency or body including, but not limited to, the City Council of the City or any court as to the exercise by the City of such right to disqualify or as to any disqualification by reason of real or apparent conflict of interest determined by the City. The City reserves the right to replace the disqualified Offeror.

2.22. Contract Award

In accordance with the City of Phoenix Code, Chapter 43, Section 43-12, Competitive Sealed Bidding, award(s) shall be made to the lowest responsible and responsive offeror(s) whose offer conforms in all material respects to the requirements set forth in this solicitation. The City reserves the right to award a contract by individual line items, by group, all or none, or any other combination most advantageous to the City. The City reserves the right to multiple award.

2.23. Determining Responsiveness and Responsibility

Offers will be reviewed for documentation of any required minimum qualifications, and completeness and compliance with the solicitation requirements. The City reserves sole discretion to determine responsiveness and responsibility.

Responsiveness: Nonresponsive Offers will not be considered in the evaluation process. The solicitation states criteria that determine responsiveness, and the solicitation includes terms and conditions that if included or excluded from Offers will render an Offer nonresponsive.

Responsibility: To obtain true economy, the City must conduct solicitations to minimize the possibility of a subsequent default by the Offeror, late deliveries, or other unsatisfactory performance that may result in additional administrative costs. It is important that the Offeror be a responsible Offeror. Responsibility includes the Offeror's integrity, skill, capacity, experience, and facilities for conducting the work to be performed.

2.24. Equal Low Offer

Contract award will be made by putting the names of the tied Offerors in a cup for a blind drawing limited to those bidders with tied Offers. If time permits, the Offerors involved will be given an opportunity to attend the drawing. The drawing will be witnessed by at least three persons, and the contract file will contain the names and addresses of the witnesses.

3. SCOPE OF WORK

3.1. General Requirements for Dynamic, Variable, And Blank Out Message Signs:

- A. The work under this contract consists of furnishing, Dynamic / Variable Message Signs (DMS), Single (Static) Message Blank Out Signs (SBOS), Full Matrix Blank Out Sign (FMX), equipment including cases, displays, and sign controller unit (SCU).
- B. This specification sets forth the minimum requirements for use within the City of Phoenix, Arizona.
- C. All Sign Enclosures shall be designed for Traffic Signal & Street Light Pole infrastructure mounting capabilities
- D. Contractor shall provide and deliver all of the components and parts required to provide a complete unit, including the sign case, the display matrix, ventilation, electronics, photo sensors, etc.
- E. Provide any technology upgrades throughout the life of the contract.
- F. All of the signs procured under this contract shall meet the National Transportation Communications for Intelligent Transportation System (ITS) Protocol (NTCIP) - compliant National Electrical Manufacturers Association (NEMA) Standards 1203 <https://www.ntcip.org/file/2018/11/NTCIP1203v03f.pdf>, As well as MUTCD compliant for Dry Contact operation at 120Vac or 24Vdc line levels.
- G. With a minimum of Eight (8) dry contact inputs.
- H. The physical environment for the operation of the DMS will be harsh and subject to temperature ranges of 20° F to + 165° F. Signs procured under this contract shall be suitable for deployment in Phoenix Arizona.
- I. The ventilation system shall provide flow through or a thermostatically controlled fan to ensure operating temperature range is maintained within the sign case.
- J. The thermostatically controlled fan shall be adjustable between 55-160° F.
- K. The sign case shall prevent dust from entering the sign.
- L. Each display module shall be easily removable and replaceable without special tools.
- M. The Contractor shall provide one fully supplied DMS for inspection and testing 60 days prior to delivery of the first order for each sign type.
- N. The DMS assembly shall be constructed by a company that is International Organization for Standardization (ISO) 9001 or ISO 9002 registered (<https://www.iso.org/iso-9001-quality-management.html>). At the City's discretion, the ISO requirements may be waived for companies with comparable quality control programs. ISO certificates or evidence of a comparable quality control program shall be furnished with the bid documents.

- O. Except when otherwise stated, all electronic equipment installed in the field shall meet the minimum requirements of NEMA Standard Publications No. TS-1, Section 2, Environmental Standards and Test Procedures [https://www.nema.org/docs/default-source/standards-document-library/nema-ts-1-1989-\(r1994-r2000-r2005-r2020\)-scope63c987f7-37f6-41c6-a800-623cf021f8d7.pdf?sfvrsn=f3a08dcc_3](https://www.nema.org/docs/default-source/standards-document-library/nema-ts-1-1989-(r1994-r2000-r2005-r2020)-scope63c987f7-37f6-41c6-a800-623cf021f8d7.pdf?sfvrsn=f3a08dcc_3), including, but not limited to:
 - 1. Power Interruption;
 - 2. Temperature and Humidity;
 - 3. Transients, Power Service and Input Terminals;
 - 4. Non destruct Transient Immunity;
 - 5. Vibration; and
 - 6. Shock.
- P. All equipment exposed to the environment shall be NEMA 3R rated or better, corrosion resistant and designed to withstand 80 mph winds with a 30% gust factor, and withstand the effects of sand, dust, and hose-directed water per the hose test described in the latest edition of the NEMA Standards Publication 250 (<https://www.nema.org/docs/default-source/standards-document-library/nema-250-2014-contents-and-scope.pdf>). All connections shall be watertight.

3.2. Small and Full-Size Dynamic Message Sign (DMS) Requirements:

- A. Provide a NEMA-3 DMS enclosure and all mounting hardware needed to securely mount the DMS case to the structure designated by City of Phoenix. The DMS assembly shall be fully maintainable from the front face of the DMS case.
- B. Provide a DMS case that meets the following minimum requirements:
- C. FINISH: All DMS cases shall be unfinished aluminum.
- D. HOUSING: The sign case shall be manufactured using 100% extruded aluminum. Sheet aluminum shall be a minimum of 0.126-inch thick. Aluminum members shall be seamless with continuous welds in the corner and shall be 6063-T6, 5052-T3, or of 6061-T6 aluminum or approved equal.
- E. VENTILATION: Signs procured under this contract shall be suitable for deployment in Phoenix Arizona. The ventilation system shall provide flow through and/or a thermostatically controlled fan to ensure operating temperature range is maintained within the sign case. If provided, the thermostatically controlled fan shall be adjustable between 55-160 degrees Fahrenheit. The sign case shall prevent dust from entering the sign.
- F. FRONT FACE: The front of the sign case shall be covered with a front face consisting of an impact resistant, non-glare, polycarbonate with an ultra-violet (UV) inhibitor to protect

the pixels from fading and to reduce yellowing of the sign face. The face of the display shall be easily opened from the front, hinged from the top, and shall be assisted and held into position by gas springs or approved equal. A latching system shall be provided for the front face that can be opened by hand and the latching mechanism remains attached to the door.

3.3. DMS Display Requirements:

- A. The DMS display shall utilize full matrix, full color (RGB) light emitting diode (LED) technology to emulate both Text and Standard MUTCD Graphic symbols.
- B. The DMS shall provide full pixel monitoring.
- C. The spacing between pixels shall be the same horizontally and vertically, and the columns shall be perpendicular to the rows (i.e., no pitch or slant).
- D. Character sets shall match Commission on Illumination (CIE) or Federal Highway Administration (FHWA) human factors for real-time displays or approved substitute.
- E. Characters forming words shall be readable at a distance in feet of at least 50 times the character height in inches, by persons with 20/20 vision, an eye height of 3.5-feet, under normal atmospheric conditions and under any lighting condition, day or night.
- F. Operating contrast values between six and 25 shall be demonstrated for each lighting condition. An example of the contrast calculation is as follows:
 - 1. Candela (on) – Candela (off)/Candela (off)
 - 2. Writing speed shall be 80 characters per second, minimum.
 - 3. The display shall be capable of producing Text and MUTCD graphics and an inverted display of black characters on yellow background.
- G. Pixels may be round or square. Round pixels shall have a nominal diameter or approximately 1 Inch. Square pixels shall have a nominal height and width of approximately 1 Inch.
 - 1. The LED displays employed in ITS applications shall use the highest-quality, latest generation AllnGap (aluminum, Indium gallium phosphide) technology to maximize visibility.
 - 2. Display Drive Current shall operate at 30 milliamps
 - 3. The pixel shall have a minimum (Focused) 15 degree viewing angle (30 degree on either side of the central axis that is perpendicular to the display), with an amber color and a wavelength of 590 nanometers that is rated for a minimum of 100,000 hours Mean Time Between Failures (MTBF). Amber LED shall be at a nominal minimum luminous intensity of 1900 milli- candela at 20ma.

4. LED pixels shall provide a 20 mm per Sq Ft grid to display the required message. Excessive pixel grid coarseness shall not be permitted.
 5. The LEDs shall be individually mounted directly to a printed circuit board and shall be easily replaceable and individually removable using conventional electronics repair methods.
- H. The DMS sign display shall be composed of a minimum of 20 display modules that can be easily removed for maintenance, replacement, or cleaning.
- I. An automatic light intensity adjustment system will progressively adjust the brightness of the display by sensing the ambient light. No stepped brightness changes shall be observed under any condition. The dimming system shall support at least four different brightness levels than can be configured from both the DMS server/workstation software and diagnostic software on the notebook computer.
- J. If the automatic light intensity fails, the sign shall remain in the normal brightness mode.

3.4. Sign Controller Unit (SCU) Requirements:

- A. The SCU shall respond to the following minimum functions:
1. Respond to all commands and inquiries supported by the DMS server software
 2. Control all sign functions
 3. Store messages
 4. Monitor sign status
 5. Display pre-programmed or customized messages
 6. Provide failure detection for the sign pixels
 7. Provide the temperature within the sign case and within the cabinet.
- B. The SCU shall be located within a cabinet supplied by others. SCUs shall be designed to be shelf or rack mounted. All displays shall face the front of the cabinet. All connections shall be accessible without necessitating removal of the SCU from the shelf.
- C. The SCU shall have an internal time clock and shall have the ability to receive a single command, from a remote location, to display a message for a predetermined time period. Once this time period elapses the sign will blank out or revert to a default message without needing to receive any further commands.
- D. The SCU shall have the means to store a library of at least 256 pre-determined messages in non-volatile memory. Uploading of stored or custom messages shall be supported from a portable device interfaced directly to the SCU via a USB connection. Remote access capability shall be Ethernet-based IP addressable utilizing an RJ-45 connection.

- E. A local user interface, a notebook computer interface, and a remote computer interface shall be supported by the SCU. The interfaces shall be Communication Protocol RS-232.
- F. The local user interface shall provide the user with the means to select stored messages for display onto the DMS without the use of the notebook computer.
- G. The notebook computer interface shall enable a user to connect the notebook computer and run all facets of the diagnostic software, including entering and selecting messages.
- H. The remote computer interface shall enable a user to run all facets of the DMS from the DMS server/workstation software.

3.5. DMS Software Requirements:

- A. The Contractor shall provide Windows 2000 based DMS workstation software (6 licenses), and Diagnostic software (4 licenses). All software shall be compatible with existing central software developed by 360 Surveillance (www.360surveillance.com) and used by City of Phoenix.
- B. DMS software shall be a server-client based software package that handles DMS control, status, and report requests from the multiple operator workstations that are interconnected to the DMS server via an Ethernet based Local Area Network (LAN).
- C. All software provided shall be compliant with the most recent NTCIP standards. If the DMS Contractor elects to utilize software on subsequent orders that incorporates revisions from the original accepted software, then the Contractor shall update all DMS software at all locations and shall insure the proper communications with all City owned DMS at no additional cost to the City.
- D. The DMS Contractor shall provide software upgrades at no additional cost to the City for the warranty period for all software provided under this contract. All modified software shall be provided with full description of modifications. Implementation of this software shall be at the discretion of the City.
- E. Workstation Software Capacity Requirements:
 - 1. Control up to 50 field DMSs.
 - 2. Ability to drive signs of different sizes from one to four lines of characters, as well as full matrix.
 - 3. Access by as many as 20 users who shall be identified by name, password, and access rights. The access rights shall be fully programmable for each user and shall entitle or deny access to each individual function. To gain access to the system, the user's name shall be recorded in the log file.

4. Creating, modifying, and storing (on hard disk) up to 10 libraries consisting of as many as 50 displays per library. A default library shall be loaded into memory when the program starts.
 5. Creating or modifying up to 10 response plans which activate a series of sequences. A sequence shall allow the user, on a sign by sign basis, to select a display to be started, blank the sign, or leave the sign as is. When a sequence may be started either manually from a workstation or automatically at a programmed time and day of the week over a one-week period. A sequence can be set up to start automatically at the specified day(s) of week and time for a set number of times, or indefinitely until the automatic sequence is turned off.
- F. Workstation Software Communications Requirements:
1. Support the use of at least 16 RS-232 communications ports.
 2. Fully programmable communications parameters, including:
 3. Data transmission rates of 1.2 kbps to 56 kbps; Stop bits (1 or 2); Data bits (5, 6, 7, or 8)
 4. Parity EVEN, ODD, NONE, MARK, or SPACE.
 5. Ability to communicate with the signs by fiber optics; cellular, leased, dial-up, or any combination thereof.
 6. Ability to view the data being exchanged on all communications ports.
- G. Ability to poll each connected sign at a programmable interval between one minute and 24 hours in one-minute increments.
- H. A minimum of two sets of complete and accurate cabinet drawings shall be supplied with each cabinet, including detector amplifier jumper schematic.
- I. Diagnostic Software Requirements: Provide diagnostic software to be installed on a notebook computer which is to be used for exercising and verifying the operation of all functions of the DMS assembly, when the DMS SCU is directly connected to a notebook interface via an RS-232 link.
- J. NTCIP Requirements:
1. The communications between the sign controller and the DMS server software shall comply with the NEMA National Transportation Communications for ITS Protocol (NTCIP) as detailed in NEMA Standards Publications TS 3.6-1997 https://www.nema.org/docs/default-source/standards-document-library/nema-ts-2-2016-contents-and-scope-pdf.pdf?sfvrsn=870c3c71_1
 2. All software provided under this contract shall have the same data definitions. The Contractor shall grant a license to the City for use of any proprietary software.

3. The manufacturer shall allow the use of any and all of this software and supporting documentation by any party authorized by the City for systems integration purpose at any time initially or in the future, regardless of what parties are involved in the systems integration effort.
4. The DMS Contractor shall obtain the NTCIP exerciser from the FHWA transportation laboratory.
5. The Contractor shall utilize the NTCIP exerciser to demonstrate that no proprietary protocols have been used, and that the DMS software is NTCIP compliant.

3.6. Dynamic Message Sign Cabinet Requirements:

DMS controller cabinet shall consist of a base-mounted cabinet installed at the location shown on the plans with foundation, mounting hardware, anchor bolts, and all attaching and ancillary hardware as required. The Contractor will submit design details of the cabinet including foundation design and anchor bolt design for approval by the City for the required structure.

General Requirements:

- A. A base-mounted DMS cabinet shall be provided for each DMS assembly.
- B. Cabinets shall be constructed of sheet aluminum a minimum of 0.24-inch thick or extruded aluminum 0.25-inch thick. The aluminum surfaces shall be anodized and shall conform to Military Specification Anodizing MIL-A-8625C (anodic coating for aluminum and aluminum alloys) for Type II, Class 1 Coating
<https://www.anodizing.org/page/military-spec-anodic-coatings>, except the outer housing surface coating shall have a minimum thickness of 0.0007 inch and a minimum 0.97 ounce per square inch coating weight.
- C. Unless otherwise specified, supply the cabinet painted in white color with a natural aluminum finish. Take sufficient care in handling to ensure that scratches are minimized.
- D. Provide all surfaces free from weld flash. Provide smooth, neatly formed welds free from cracks, blowholes, and other irregularities. Grind sharp edges smooth.
- E. Cabinet drawings shall be submitted to the City for approval.
- F. Each cabinet shall be supplied with the following as a minimum:
 1. Shelf for the SCU;
 2. Fan and thermostat;
 3. Duplex convenience outlet (not for DMS equipment);
 4. Outlet strips for DMS equipment (as needed);
 5. Surge protection and lightning protection;
 6. Termination panel and terminal blocks;

7. Harnesses and connectors, viii) Provisions for grounding;
 8. One florescent lamp, with door switch actuation, per door;
 9. Cabinet electrical diagram and drawing storage;
 10. Cabinet weatherproofing;
 11. Two pull-out shelves. One shelf will be used for test equipment and the notebook computer, the other for mounting of communication equipment;
 12. Approved cabinet drawings and mounting directions.
- G. Provide all base-mounted cabinets with anchor bolts to properly secure the cabinet to its base. Design cabinet flange for securing the anchor bolts so that the anchor bolts so that it does not protrude outward from the bottom of the cabinet.
- H. Doors:
1. The DMS cabinet door(s) shall withstand a 100lb vertical load applied anywhere on the door. The door(s) shall have catches to hold the door open at 90 degrees and 135 degrees.
 2. Doors shall be gasketed in channels or L brackets with a minimum 0.37-inch gasket made of non-absorbent material and shall maintain its resiliency after a ten-year period while exposed to the outdoor environment.
 3. Door(s) shall be provided with an integral locking system that utilizes a Corbin No. 2 type lock, wherein a key is required to utilizes a Corbin No. 2 type lock, wherein a key is required to lock the door, and removable only in the locked position. All locks shall be keyed alike. The Contractor shall provide two (2) keys for each DMS cabinet furnished.
- I. Filter: A removable air filter shall be housed behind the door vents. The filter Products E355 pleated paper filter, or approved equivalent.
- J. Ventilation: Cabinet ventilation shall consist of an axial fan. Openings shall be covered with removable filters. The thermostat shall be a fixed type that turns the fans on at +100-degree F and off at +84-degree F.
- K. Lighting: A nine-inch minimum florescent light shall be mounted internal to the DMS cabinet above the cabinet door(s). A door- actuated switch shall be used to turn the light on/off. The lamp(s) shall light the front face of the controller and the rear of the cabinet and be positioned such that it does not shine into the technician's eyes.
- L. Shelves: Pull-out shelves shall have ball-bearing slides capable of supporting 20 pounds. A minimum of three inches shall be provided above the shelf designated for communication equipment.

- M. Duplex Outlets: A 120 VAC, duplex convenience outlet shall be provided with integral ground fault interrupt and shall be protected by a circuit breaker. The receptacles shall be NEMA Type 5-15 R and shall have a spring-loaded cap and be positioned so that no electrical hazard shall exist when used by maintenance personnel.
- N. Grounding and Surge Protection: The cabinet will be grounded by the Contractor. Surge protection for incoming power and communication cables will be furnished and installed by the Contractor. The Contractor shall verify and inspect all existing ground connections to ensure acceptability for the installation and operation of DMS control equipment.
- O. DMS cabinet foundation: provide Class A, 3000 psi concrete with a 5 inch slump in accordance with Maricopa Association of Governments (MAG) Section 725 Street Transportation 2015 MAG Uniform Standard (phoenix.gov).
- P. Surge Suppression
- Q. Provide surge protectors in the DMS cabinet for all conductors (power and data) between DMS cabinet and DMS case. Ground each surge protector to a terminal block mounted to the cabinet rack. Bond the terminal block directly to the cabinet ground using a #8 American Wire Gauge (AWG) copper ground wire. Surge protector leads shall be in length and installed as straight as possible.
- R. Power cable surge protectors shall meet the following requirements:
 - 1. Clamping Mode: 2-stage
 - 2. Clamping Voltage: 350-volts for a 20,000- ampere, 10,000-volts per microsecond waveform
 - 3. Peak Clamping Current: 20,000-amperes for an 8 x 20 microsecond waveform
 - 4. Response Time: 0.5 microseconds or less
 - 5. Number of Peak Surges: 20 surges at peak current, minimum
 - 6. Holdover Current: Zero
 - 7. Service Current Rating: Adequate for the continuous load imposed by the equipment served
- S. Low voltage control cable surge protectors shall meet the following requirements:
 - 1. Clamping Mode: 2-stage, hybrid
 - 2. Clamping Voltage: As appropriate for the specific circuit as approved by the City
 - 3. Peak Clamping Current: 4,000-amperes for an 8 x 20 microsecond waveform
 - 4. Response Time: 30 nanoseconds or less

5. Number of Peak Surges: 25 surges at peak current, minimum

T. Wire, ground, and bond equipment in accordance with Section 250-86 of the National Electrical Code (NEC).

U. Spares: The Contractor shall provide 1 Spare Fan Assembly (for DMS Cabinet) 2 Spare Filter Sets (for DMS Cabinet) with each Dynamic Message Sign Controller Cabinet.

V. DMS SIGN SIZES:

1. 33" H x 30" W x 5" D

2. 48" H x 72" W x 6" D

3.7. Blank Out Sign Requirements:

A. The sign housing shall be rated as NEMA 4 NEMA 4 Enclosures - NEMA 4 Electrical Enclosure | Nema Enclosures. The housing shall be rain proof with the top of the enclosure crowned to prevent standing water. It shall have single front door equipped with a lock.

B. No bolts shall protrude through the cabinet top or walls.

C. The enclosure, doors, two lifting eyes, and all supports welded to the enclosure and doors shall be fabricated of 0.125-inch minimum thickness aluminum sheet.

D. All exterior seams for the enclosure and doors shall be continuously welded and shall be smooth. Exterior cabinet welds shall be done by Tungsten Inert Gas (TIG) arc process only. ER5356 aluminum alloy bare welding electrodes conforming to AWS A5.10 requirements (https://pubs.aws.org/Download_PDFS/A5.10-A5.10M-2017-ISO%2018273-2004%20MOD-WebPV.pdf) shall be used for welding on aluminum. Procedures, welders, and welding operators shall conform to the requirements and practices in American Welding Society (AWS) B3.0 and C5.6 **AWS B3.0: Standard Qualification Procedure (resource.org)** for aluminum. Internal cabinet welds shall be done by either metal inert gas (MIG) or gas tungsten arc TIG process.

E. A gasket shall be provided on all door openings and shall be dust tight. Gaskets shall be 0.25-inch minimum thickness closed-cell neoprene or silicone and shall be permanently bonded to the metal. If neoprene is used, the mating surface of the gasket shall be covered with a silicone lubricant to prevent sticking to the mating metal surface. A gasket top channel shall be provided to support the top gasket on the door to prevent gasket gravitational fatigue.

3.8. Blank Out Sign Single Message (Static) (BOS) (Dry Contact) Requirements:

General Requirements:

Sign faces shall emulate the Federal Manual on Uniform Traffic Control Devices (MUTCD) requirements unless otherwise noted or stipulated.

- A. W10-7 LRT (Symbolic, MUTCD Standard)
- B. R10-6 Modified "STOP HERE FOR TRAIN"
- C. R10-6 "NO LEFT TURN" (Symbolic, MUTCD standard)
- D. R10-6 "NO RIGHT TURN" (Symbolic MUTCD standard)
- E. R10-6 Modified "NO LEFT TURN" with the word "TRAIN" on bottom of display.
- F. R10-6 Modified "NO RIGHT TURN" with the word "TRAIN" on bottom of display.
- G. R5-1 "DO NOT ENTER" (symbolic, MUTCD STANDARD)
- H. R3-27 "NO TRAVEL" Symbolic, MUTCD standard)
- I. R3-2 NO LEFT TURN (Symbolic MUTCD standard)
- J. Blank Out Sign Sizes.
 - 1. 24 X 24 80 X 80 Pixels
 - 2. 30 X 24 100 X 80 Pixels
 - 3. 30 X 30 100 x 100 Pixels
 - 4. 36 X 24 120 X 80 Pixels
 - 5. 36 X 30 120 x 100 Pixels
 - 6. 36 X 36 120 x 120 Pixels
- K. Blank Out Sign Full Matrix (FMX) NTCIP Compliant Requirements: Signs under this category shall be Full Matrix type and come equipped with the Full MUTCD Library display capabilities.
- L. Lane Control Sign Dry Contact & NTCIP compliant: Signs under this category shall be Full Matrix type and will be designated either Dry Contact or NTCIP at the time order is placed.
- M. Functionality and Feature
 - 1. Provide a full color, 30-degree viewing angle, 20mm pixel pitch, full matrix, high intensity LED type sign capable of displaying MUTCD compliant interstate shields, parking, symbols, and arrows for detour routes.
 - 2. Maximum sign case dimensions of 36 inches wide by 36 inches high or a nominal 900 square inches
 - 3. Maximum sign weight of 100 pounds.
 - 4. Maximum Power usage of 3,000 Watts.

5. The sign shall be designed to operate from -35 to +165°F, 0 – 95% relative humidity, and non-condensing.
6. All connections shall be watertight. All arterial BOS equipment shall operate correctly regardless of interference sources such as mobile radio, Electromagnetic interference (EMI), and Radio Frequency Interference (RFI).
7. Withstand extreme temperatures, wind, adverse weather (including dust storms), and humidity.
8. The signs shall be capable of displaying ASCII/ANSI character codes 32 through 126 (which includes all English upper and lower case letters, punctuation characters, such as: ., " ' ' ! ?, other characters, such as: # & + - / () < > ^ ~ \$ % * and digits from 0 to 9) at any location in a message line.

3.9. LED Display Modules Requirements:

- A. Each LED module shall be easily removable and replaceable without special tools.
- B. Space between pixels shall be the same vertically and horizontally and the columns shall be perpendicular to the rows (i.e. no pitch or slant).
- C. Each LED module shall include the LED display circuit board(s). All necessary electronics shall be provided to control pixel data and read pixel status.
- D. All LED modules and circuit boards shall be fully interchangeable and shall not require and address switches or adjustments when interchanged or placed in service.
- E. Each display module shall be replaceable individually. This is to ensure that when one pixel dies only the respective display module is replaced, not the entire sign.
- F. Epoxy encapsulation of the LEDs will not be permitted.
- G. LED lenses shall be fabricated from UV light resistant epoxy.
- H. The LED lens diameter shall be 0.2 inches (5 mm).
- I. LEDs shall have a minimum half-power viewing angle of thirty degrees (30°). Half-power viewing angle is defined such that, at a given distance from the LED, luminous intensity measured at any point at an angle of fifteen degrees (15°) from the LEDs center axis is no less than half the luminous intensity measured directly on the LEDs center axis.
- J. All LEDs shall be from the same manufacturer.

3.10. Miscellaneous Electrical Requirements:

- A. A cable shall be furnished to allow for the maintenance operations of the SCU from the controller cabinet. At the SCU, the cable shall be terminated with a connector that matches the laptop maintenance computer (LMC) interface connector of the SCU.

- B. 120 VAC, duplex convenience outlets shall be provided at no additional cost, if required in a traffic signal cabinet to power the proposed equipment, with an integral ground-fault circuit interrupter (GFCI) and shall be protected by a circuit breaker.
- C. The receptacles shall be NEMA Type 5-15 R and shall have a spring-loaded cap and be positioned so that no electrical hazard shall exist when used by service personnel.
- D. The DMS case shall be provided with all cables securely clamped or tied within the DMS case.
- E. No adhesive attachments will be allowed.
- F. The complete sign case shall be designed and manufactured under the supervision and control of the DMS sign manufacturer.
- G. The sign face shall be manufactured of non-glare polycarbonate panels of GE Lexan Type 5300-12 and a KYNAR 500 coated aluminum mask over a clear glazing, or a substitute identified in the product submittal as an equal with a minimum thickness exceeding American Association of State Highway and Transportation Officials (AASHTO) design requirements for a wind velocity of 90 mph (145 km/h).

3.11. Sign Controller Unit Requirements:

- A. The SCU shall receive commands to place messages in its memory buffer, confirm message content, and display a stored message on the sign. The SCU shall consist of a solid-state electronic device dedicated to the operation of the DMS.
- B. The rated life of all components in the SCU shall be a minimum of ten years under 24-hour-a-day operation. Semiconductor devices shall be used exclusively, and solid-state components shall be standard production types and readily available.
- C. The SCU shall have sufficient memory to store a minimum of fifty (50) three-phase messages or JPEG symbols/graphics. A three-phase message is defined as a continuous statement that requires three separate displays on the sign face. Either Erasable Programmable Read-Only Memory (EPROM) or Electrically Erasable Programmable Read-Only Memory (EEPROM) shall be used to store messages in the SCU. Internal circuitry shall be provided to replace stored messages with new messages received from the central server and LMC. A long-life battery shall back up the SCU's RAM such that no loss of memory occurs during power outages of 24-hour duration.
- D. Upon external command, the SCU shall allow any message stored in memory to be displayed on the sign face or replaced with a new message. The SCU shall receive messages through the communications unit from the central server or LMC and shall store the received messages in its memory buffer. The SCU shall transmit confirmation of message content back to the central server or LMC for received messages and stored messages when requested to do so.

- E. During uploading and downloading of messages by the central server or LMC, normal sign operations shall not be suspended, and current message display shall not be interrupted.
- F. The SCU shall either be included as an integral unit with each DMS assembly or installed within a contractor furnished and installed NEMA 3R (NEMA 3R Enclosures - NEMA 3R Electrical Enclosure | Nema Enclosures) rated cabinet mounted on an existing traffic signal pole.
- G. The NEMA 3R rated cabinet shall have maximum dimensions of 18" H x 18" W x 12" D and be constructed from 0.125" thick 5052-H32 aluminum. All hardware shall be stainless steel. The cabinet shall have 0.25" mounting brackets and stiffeners welded to the cabinet and be strapped to the existing signal pole. The cabinet shall include an AC line with 20 am breakers mounted on the back panel of the cabinet.
- H. Each DMS assembly (with integrated controller) or NEMA 3R rated cabinet shall receive AC power from the existing PSP or lighting circuit.

3.12. Sign Controller Unit Communications Interface Requirements:

- A. The SCU shall be able to communicate with the central server and the LMC using the following two separate Ethernet or Electronic Industry Alliance (EIA-232 EIA 232 Info (digi.com) serial interfaces:
- B. An Ethernet or Electronic Industries Association EIA-232 serial interface functioning as the primary communications path to the DMS server.
- C. The SCU shall be able to communicate with the central server through an Ethernet port connected to the field Ethernet switch.

3.13. Construction Requirements:

- A. All conduit entries into the sign case shall be watertight. The DMS will be installed on A-poles and Mast Arms in a workmanship manner acceptable to the Traffic Services Division, or as shown on the plans.
- B. All mounting assemblies and mounting requirements of the DMS to the A-poles or mast arms shall be per the manufacturer's recommendations and submitted to the Engineer for approval.
- C. All conductors installed between the signal cabinet and DMS case shall be contained in a watertight environment. Conductors shall be installed in accordance with the requirements of Section 732 of ADOT Standard Specifications (https://azdot.gov/sites/default/files/construction-manual/CMChapter_7_Section_732.pdf)
- D. Provide strain relief for conductors within the DMS structure. Strain relief (such as wire mesh grip) and any connectors or splices within the DMS structure shall be located within 6 inches of a handhole.

- E. Ground the DMS case and contents to the DMS support structure using a #8 solid copper wire.

3.14. Testing Requirements:

- A. Pixel Test: The pixel test shall be performed from the DTMS server and automatically once a day. During a pixel test, the full operational status of each string of LEDs in each pixel shall be tested and then transmitted to the DTMS server or LMC. This pixel status test shall distinguish the difference between half-out, full-out; half-stuck-on, and fully stuck-on pixels. A list of defective pixels shall be provided, listing pixel status, line number, module number, column number, and row number for each defective pixel. The pixel test may briefly disturb the displayed message for less than 0.5 seconds.
- B. Pixel Read: The pixel read shall be performed when a message displayed and during every sign poll from the DTMS server. The pixel read shall perform a real-time read of the displayed message and shall return the state of each pixel to the DMS server through the SCU as it is currently displayed to the motorist, including any errors. This shall allow the DTMS server operator to see what is visibly displayed to the motorist on an individual pixel basis. During a pixel read, the state of each pixel (full-on, half-on, or off) in the sign shall be read by the SCU to allow the DTMS server or laptop computer to show the actual message, including static, flashing and alternating messages, that is visibly displayed on the sign in a What-you-see-is-what-you-get (WYSIWYG) format. This pixel reading shall take place while a message is displayed on the sign without disturbing the message in any way. Any flashing, flickering, blinking, dimming, or other disturbance of the message during this pixel read shall be cause for rejection of the sign.
- C. The pixel read shall be an actual real-time read of the current flowing through each string of LEDs at the time of the associated sign poll or message download and shall not be accomplished by simulating errors based on the last pixel test.
- D. All signs shall incorporate a means of changing the lighting level provided by the lamps automatically in response to ambient lighting conditions as detected by the Photoelectric Sensor(s).

3.15. Estimated Quantities:

Need to enter est quantities table - 5/15 it will be available.

3.16. Delivery Requirements:

- A. All deliveries shall be made between the hours of 7:30 a.m. and 2:30 p.m. Monday thru Friday, excluding City Holidays.
- B. To schedule and ensure that delivery can be accepted, contact 602-262-6021 at least 24 hours prior to delivery.

- C. The Delivery Location is gated and requires access via a security box. The contractor shall contact Street Maintenance Administrative staff on-site from the security box to let them know they have arrived on-site to deliver.
- D. Street Maintenance staff will then send a staff member to assist and escort the delivery to the silo for drop-off.
- E. Under no circumstances shall the delivery driver tailgate (follow another vehicle) into the facility without first contacting Street Transportation Administrative staff, per 18.3 above and being granted access to the facility.
- F. A City of Phoenix, Street Transportation Department employee must sign each delivery ticket. The contractor shall keep an original signature delivery ticket. The employee will sign the original and receive a copy of the delivery ticket at delivery.
- G. Contractor shall be required to provide their own equipment to unload the shipment at the designated City of Phoenix location.

3.17. City Observed Holidays

New Year's Day

Dr. Martin Luther King Day

President's Day

Cesar Chavez Day

Memorial Day

Juneteenth - June 19

Independence Day

Labor Day

Indigenous People's Day Oct 9th

Veteran's Day

Thanksgiving Day

Day After Thanksgiving

Christmas Day

4. STANDARD TERMS AND CONDITIONS

4.1. Definition of Key Words Used in the Solicitation

Shall, Will, Must: Indicates a mandatory requirement. Failure to meet these mandatory requirements may result in the rejection of Offer as non-responsive.

Should: Indicates something that is recommended but not mandatory. If the Offeror fails to provide recommended information, the City may, at its sole option, ask the Offeror to provide the information or evaluate the Offer without the information.

May: Indicates something that is not mandatory but permissible.

For purposes of this solicitation, the following definitions will apply:

"A.R.S." Arizona Revised Statute

"Buyer" or "Procurement Officer" City of Phoenix staff person responsible for the solicitation. The City employee or employees who have specifically been designated to act as a contact person or persons to the Contractor, and responsible for monitoring and overseeing the Contractor's performance under this contract.

"City" The City of Phoenix

"Contractor" The individual, partnership, or corporation who, as a result of the competitive process, is awarded a contract by the City of Phoenix.

"Contract" or "Agreement" The legal agreement executed between the City of Phoenix, AZ and the Contractor.

"Days" Means calendar days unless otherwise specified.

"Chief Procurement Officer" The contracting authority for the City of Phoenix, AZ, authorized to sign contracts and amendments thereto on behalf of the City of Phoenix, AZ.

"Employer" Any individual or type of organization that transacts business in this state, that has a license issued by an agency in this state and employs one or more employees in this state. Employer includes this state, any political subdivision of this state and self-employed persons. In the case of an independent contractor, employer means the independent contractor and does not mean the person or organization that uses contract labor. (A.R.S. 23-211).

"Offer" Means a response from a Supplier, Contractor, or Service Provider to a solicitation request that, if awarded, binds the Supplier, Contractor, or Service Provider to perform in accordance with the contract. Same as bid, proposal, quotation or tender.

"Offeror" Any Vendor, Seller or Supplier submitting a competitive offer in response to a solicitation from the City. Same as Bidder or Proposer.

"Solicitation" Means an Invitation for Bid (IFB), Request for Proposal (RFP), Request for Quotations (RFQ), Request for Qualifications (RFQu) and request for sealed bids, or any other type of formal procurement which the City makes public through advertising, mailings, or some other method of communication. It is the process by which the City seeks information, proposals, bids or quotes from suppliers.

“Suppliers” Firms, entities or individuals furnishing goods or services to the City.

“Vendor or Seller” A seller of goods or services.

4.2. Contract Interpretation

- A. **Applicable Law:** This Contract will be governed by the law of the State of Arizona, and suits pertaining to this Contract will be brought only in Federal or State courts in Maricopa County, State of Arizona.
- B. **Contract Order of Precedence:** In the event of a conflict in the provisions of the Contract, as accepted by the City and as they may be amended, the following will prevail in the order set forth below:
1. Federal terms and conditions, if any
 2. Special terms and conditions
 3. Standard terms and conditions
 4. Amendments
 5. Statement or scope of work
 6. Specifications
 7. Attachments
 8. Exhibits
 9. Instructions to Contractors
 10. Other documents referenced or included in the Solicitation
- C. **Organization – Employment Disclaimer:** The Agreement resulting hereunder is not intended to constitute, create, give rise to or otherwise recognize a joint venture agreement or relationship, partnership or formal business organization of any kind, and the rights and obligations of the parties will be only those expressly set forth in the agreement. The parties agree that no persons supplied by the Contractor in the performance of Contractor’s obligations under the agreement are considered to be City’s employees and that no rights of City civil service, retirement or personnel rules accrue to such persons. The Contractor will have total responsibility for all salaries, wage bonuses, retirement, withholdings, workmen’s compensation, occupational disease compensation, unemployment compensation, other employee benefits and all taxes and premiums appurtenant thereto concerning such persons, and will save and hold the City harmless with respect thereto.
- D. **Severability:** The provisions of this Contract are severable to the extent that any provision or application held to be invalid will not affect any other provision or application of the contract which may remain in effect without the invalid provision or application.

- E. **Non-Waiver of Liability:** The City of Phoenix as a public entity supported by tax monies, in execution of its public trust, cannot agree to waive any lawful or legitimate right to recover monies lawfully due it. Therefore, any Contractor agrees that it will not insist upon or demand any statement whereby the City agrees to limit in advance or waive any right the City might have to recover actual lawful damages in any court of law under applicable Arizona law.
- F. **Parol Evidence:** This Agreement is intended by the parties as a final expression of their agreement and is intended also as a complete and exclusive statement of the terms of this agreement. No course of prior dealings between the parties and no usage in the trade will be relevant to supplement or explain any term used in this Contract. Acceptance or acquiescence in a course of performance rendered under this contract will not be relevant to determine the meaning of this Contract even though the accepting or acquiescing party has knowledge of the nature of the performance and opportunity to object.

4.3. Contract Administration and Operation

- A. **Records:** All books, accounts, reports, files and other records relating to the contract will be subject at all reasonable times to inspection and audit by the City for five years after completion of the contract. Such records will be produced at a City of Phoenix office as designated by the City. Confidentiality will be maintained, and City will not violate any proprietary or other confidentiality agreements Contractor has in place.
- B. **Discrimination Prohibited:** Contractor agrees to abide by the provisions of the Phoenix City Code Chapter 18, Article V as amended. Any Contractor, in performing under this contract, will not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, sex, national origin, age or disability nor otherwise commit an unfair employment practice. The supplier and/or lessee will take action to ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, sex, or national origin, age or disability and adhere to a policy to pay equal compensation to men and women who perform jobs that require substantially equal skill, effort and responsibility, and that are performed within the same establishment under similar working conditions. Such action will include but not be limited to the following: Employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training; including apprenticeship. The supplier further agrees that this clause will be incorporated in all subcontracts with all labor organizations furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this contract. Contractor further agrees that this clause will be incorporated in all subcontracts, job-contractor agreements or subleases of this agreement entered into by supplier/lessee.
- C. **Equal Employment Opportunity and Pay:** In order to do business with the City, Contractor must comply with Phoenix City Code, 1969, Chapter 18, Article V, as

amended, Equal Employment Opportunity Requirements. Contractor will direct any questions in regard to these requirements to the Equal Opportunity Department, (602) 262-6790.

1. **For a Contractor with 35 employees or fewer:** Contractor in performing under this Agreement shall not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, sex, national origin, age, or disability, nor otherwise commit an unfair employment practice. The Contractor will ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, sex, national origin, age, or disability. Such action shall include but not be limited to the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training; including apprenticeship. The Contractor further agrees that this clause will be incorporated in all subcontracts related to this Agreement that involve furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this Agreement. Contractor further agrees that this clause will be incorporated in all subcontracts, Contractor agreements or subleases of this agreement entered into by supplier/lessee.

2. **For a Contractor with more than 35 employees:** Contractor in performing under this Agreement shall not discriminate against any worker, employee or applicant, or any member of the public, because of race, color, religion, sex, national origin, age, or disability, nor otherwise commit an unfair employment practice. The Contractor will ensure that applicants are employed, and employees are dealt with during employment without regard to their race, color, religion, sex, national origin, age, or disability, and shall adhere to a policy to pay equal compensation to men and women who perform jobs that require substantially equal skill, effort, and responsibility, and that are performed within the same establishment under similar working conditions. Such action shall include but not be limited to the following: employment, promotion, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training; including apprenticeship. The Contractor further agrees that this clause will be incorporated in all subcontracts with all labor organizations furnishing skilled, unskilled and union labor, or who may perform any such labor or services in connection with this contract. Contractor further agrees that this clause will be incorporated in all subcontracts, job-Contractor agreements or subleases of this Agreement entered into by supplier/lessee. The Contractor further agrees not to discriminate against any worker, employee or applicant, or any member of the public, because of sexual orientation or gender identity or expression and shall ensure that applicants are employed, and employees are dealt with during employment without regard to their sexual orientation or gender identity or expression.

3. **Documentation:** Suppliers and lessees may be required to provide additional documentation to the Equal Opportunity Department affirming that a nondiscriminatory policy is being utilized.
 4. **Monitoring:** The Equal Opportunity Department shall monitor the employment policies and practices of suppliers and lessees subject to this article as deemed necessary. The Equal Opportunity Department is authorized to conduct on-site compliance reviews of selected firms, which may include an audit of personnel and payroll records, if necessary.
- D. **Legal Worker Requirements:** The City of Phoenix is prohibited by A.R.S. § 41-4401 from awarding a contract to any Contractor who fails, or whose subcontractors fail, to comply with A.R.S. § 23-214(A). Therefore, Contractor agrees that:
1. Contractor and each subcontractor it uses warrants their compliance with all federal immigration laws and regulations that relate to their employees and their compliance with A.R.S. § 23-214, subsection A.
 2. A breach of a warranty under paragraph 1 will be deemed a material breach of the contract that is subject to penalties up to and including termination of the contract.
 3. The City of Phoenix retains the legal right to inspect the papers of any Contractor or subcontractor employee who works on the contract to ensure that the Contractor or subcontractor is complying with the warranty under paragraph 1.
- E. **Health, Environmental, and Safety Requirements:** The Contractor's products, services and facilities will be in full compliance with all applicable Federal, State and local health, environmental and safety laws, regulations, standards, codes and ordinances, regardless of whether or not they are referred to by the City. At the request of City representatives, the Contractor will provide the City:
1. Environmental, safety and health regulatory compliance documents (written safety programs, training records, permits, etc.) applicable to services provided by the Contractor in this contract.
 2. A list of all federal, state, or local (EPA, OSHA, Maricopa County, etc.) citations or notice of violations issued against their firm or their subcontractors including dates, reasons, dispositions and resolutions.
 3. The City will have the right, but not the obligation to inspect the facilities, transportation vehicles or vessels, containers and disposal facilities provided by the Contractor or subcontractor. The City will also have the right to inspect operations conducted by the Contractor or subcontractor in the performance of this agreement. The City further reserves the right to make unannounced inspections of the Contractor's facilities (during normal business hours).
- F. **Compliance with Laws:** Contractor agrees to fully observe and comply with all applicable Federal, State and local laws, regulations, standards, codes and ordinances

when performing under this Contract regardless of whether they are being referred to by the City. Contractor agrees to permit City inspection of Contractor's business records, including personnel records to verify any such compliance. Because the contractor will be acting as an independent contractor, the City assumes no responsibility for the Contractor's acts.

- G. **Lawful Presence Requirement:** Pursuant to A.R.S. §§ 1-501 and -502, the City of Phoenix is prohibited from awarding a contract to any natural person who cannot establish that he or she is lawfully present in the United States. In order to establish lawful presence, this person must produce qualifying identification and sign a City-provided affidavit affirming that the identification provided is genuine. This requirement will be imposed at the time of contract award. In the event the prevailing responder is unable to satisfy this requirement, the City will offer the award to the next-highest scoring responder. The law does not apply to fictitious entities such as corporations, partnerships and limited liability companies.
- H. **Continuation During Disputes:** Contractor agrees that notwithstanding the existence of any dispute between the parties, insofar as is possible, under the terms of the contract, the Contractor will continue to perform the obligations required of Contractor during the continuation of any such dispute unless enjoined or prohibited by an Arizona Court of competent jurisdiction.
- I. **Emergency Purchases:** The City reserves the right to purchase from other sources those items which are required on an emergency basis and cannot be supplied immediately from stock by the Contractor.

4.4. Costs and Payments

- A. **General:** Any prompt payment terms offered must be clearly noted by the Contractor on all invoices submitted to the City for the payment of goods or services received. The City will make every effort to process payment for the purchase of material or services within thirty to forty-five calendar days after receipt of a correct invoice, unless a good faith dispute exists to any obligation to pay all or a portion of the account. Payment terms are specified in the Offer.
- B. **Payment Deduction Offset Provision:** Contractor acknowledges that the City Charter requires that no payment be made to any Contractor as long as there is an outstanding obligation due to the City. Contractor agrees that any obligation it owes to the City will be offset against any payment due to the Contractor from the City.
- C. **Late Submission of Claim by Contractor:** The City will not honor any invoices or claims which are tendered one year after the last item of the account accrued.
- D. **Discounts:** Payment discounts will be computed from the date of receiving acceptable products, materials and/or services or correct invoice, whichever is later to the date payment is mailed.

- E. **No Advance Payments: Advance** payments are not authorized. Payment will be made only for actual services or commodities that have been received, unless addressed specifically in the Scope of work for subscription services.
- F. **Fund Appropriation Contingency:** The Contractor recognizes that any agreement entered into will commence upon the day first provided and continue in full force and effect until termination in accordance with its provisions. The Contractor and the City herein recognize that the continuation of any contract after the close of any given fiscal year of the City, which ends on June 30th of each year, will be subject to the approval of the budget of the City providing for or covering such contract item as an expenditure therein. The City does not represent that said budget item will be actually adopted, said determination being the determination of the City Council at the time of the adoption of the budget.
- G. **Maximum Prices:** The City will not be invoiced at prices higher than those stated in any contract resulting from this Offer. Contractor certifies, by signing this Offer that the prices offered are no higher than the lowest price the Contractor charges other buyers for similar quantities under similar conditions, as applicable and shown by quotes for like services and goods. Contractor further agrees that any reductions in the price of the goods or services covered by this Offer and occurring after award will apply to the undelivered balance. The Contractor will promptly notify the City of such price reductions.
- H. **F.O.B. Point:** All prices are to be quoted F.O.B. destination, unless specified elsewhere in this solicitation.

4.5. Contract Changes

- A. **Contract Amendments:** Contracts will be modified only by a written contract amendment signed by persons duly authorized to enter into contracts on behalf of the Contractor. No verbal agreement or conversation with any officer, agent, or employee of the City either before or after execution of the contract, will affect or modify any of the terms or obligations contained or to be contained in the contract. Any such verbal agreements or conversation shall be considered as unofficial information and in no way binding upon the City or the Contractor. All agreements shall be in writing and contract changes shall be by written amendment signed by both parties.
- B. **Assignment - Delegation:** No right or interest in this contract nor monies due hereunder will be assigned in whole or in part without written permission of the City, and no delegation of any duty of Contractor will be made without prior written permission of the City, which may be withheld for good cause. Any assignment or delegation made in violation of this section will be void.
- C. **Non-Exclusive Contract:** Any contract resulting from this solicitation will be awarded with the understanding and agreement that it is for the sole convenience of the City. The

City reserves the right to obtain like goods or services from another source when necessary.

4.6. Risk of Loss and Liability

- A. **Title and Risk of Loss:** The title and risk of loss of material or service will not pass to the City until the City actually receives the material or service at the point of delivery; and such loss, injury, or destruction will not release seller from any obligation hereunder.
- B. **Acceptance:** All material or service is subject to final inspection and acceptance by the City. Material or service failing to conform to the specifications of this contract will be held at Contractor's risk and may be returned to the Contractor. If so returned, all costs are the responsibility of the Contractor. Noncompliance will conform to the cancellation clause set forth in this document.
- C. **Force Majeure:** Except for payment of sums due, neither party will be liable to the other nor deemed in default under this contract if and to the extent that such party's performance of this contract is prevented by reason of force majeure. The term "force majeure" means an occurrence that is beyond the control of the party affected and occurs without its fault or negligence. Force majeure will not include late performance by a subcontractor unless the delay arises out of a force majeure occurrence in accordance with this force majeure term and condition. If either party is delayed at any time in the progress of the work by force majeure, the delayed party will notify the other party in writing of such delay, as soon as is practical, of the commencement thereof and will specify the causes of such delay in such notice. Such notice will be hand-delivered or mailed certified-return receipt and will make a specific reference to this provision, thereby invoking its provisions. The delayed party will cause such delay to cease as soon as practicable and will notify the other party in writing when it has done so. The time of completion will be extended by contract modification for a period of time equal to the time that results or effects of such delay prevent the delayed party from performing in accordance with this contract.
- D. **Loss of Materials:** The City does not assume any responsibility, at any time, for the protection of or for loss of materials, from the time that the contract operations have commenced until the final acceptance of the work by the City.
- E. **Contract Performance:** Contractor will furnish all necessary labor, tools, equipment, and supplies to perform the required services at the City facilities designated, unless otherwise specifically addressed in the scope, or elsewhere in this Agreement. The City's authorized representative will decide all questions which may arise as to the quality and acceptability of any work performed under the contract. If, in the opinion of the City's authorized representative, performance becomes unsatisfactory, the City will notify the Contractor. The Contractor will have 30 days from that time to correct any specific instances of unsatisfactory performance, unless a different amount of time is specified in the agreement. In the event the unsatisfactory performance is not corrected within the time specified, the City will have the immediate right to complete the work to

its satisfaction and will deduct the cost to cover from any balances due or to become due the Contractor. Repeated incidences of unsatisfactory performance may result in cancellation of the agreement for default.

- F. **Damage to City Property:** Contractor will perform all work so that no damage to the building or grounds results. Contractor will repair any damage caused to the satisfaction of the City at no cost to the City. Contractor will take care to avoid damage to adjacent finished materials that are to remain. If finished materials are damaged, Contractor will repair and finish to match existing material as approved by the City at Contractor's expense.

4.7. City's Contractual Rights

Whenever one party to this contract in good faith has reason to question the other party's intent to perform, the former party may demand that the other party give a written assurance of this intent to perform. In the event that a demand is made and no written assurance is given within five days, the demanding party may treat this failure as an anticipatory repudiation of this contract.

- A. **Non-Exclusive Remedies:** The rights and remedies of the City under this Contract are non-exclusive.
- B. **Default in One Installment to Constitute Breach:** Each installment or lot of the agreement is dependent on every other installment or lot and a delivery of non-conforming goods or a default of any nature under one installment or lot will impair the value of the whole agreement and constitutes a total breach of the agreement as a whole.
- C. **On Time Delivery:** Because the City is providing services which involve health, safety and welfare of the general public, delivery time is of the essence. Delivery must be made in accordance with the delivery schedule promised by the Contractor.
- D. **Default:** In case of default by the Contractor, the City may, by written notice, cancel this contract and repurchase from another source and may recover the excess costs by (1) deduction from an unpaid balance due; (2) collection against the bid and/or performance bond, or (3) a combination of the aforementioned remedies or other remedies as provided by law.
- E. **Covenant Against Contingent Fees:** Seller warrants that no person or selling agent has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employers or bona fide established commercial or selling agencies maintained by the seller for the purpose of securing business. For breach or violation of this warranty, the City will have the right to annul the contract without liability or in its discretion to deduct from the contract price a consideration, or otherwise recover the full amount of such commission, brokerage or contingent fee.

- F. **Cost Justification:** In the event only one response is received, the City may require that the Contractor submit a cost proposal in sufficient detail for the City to perform a cost/price analysis to determine if the Offer price is fair and reasonable.
- G. **Work Product, Equipment, and Materials:** All work product, equipment, or materials created or purchased under this contract belongs to the City and must be delivered to the City at City's request upon termination of this contract. Contractor agrees to assign to City all rights and interests Contractor may have in materials prepared under this contract that are "works for hire" within the meaning of the copyright laws of the United States, including any right to derivative use of the material.

4.8. Contract Termination

- A. **Gratuities:** The City may, by written notice to the Contractor, cancel this contract if it is found that gratuities, in the form of entertainment, gifts or otherwise, were offered or given by the Contractor or any agent or representative of the Contractor, to any officer or employee of the City making any determinations with respect to the performing of such contract. In the event this contract is canceled by the City pursuant to this provision, the City will be entitled, in addition to any other rights and remedies, to recover or withhold from the Contractor the amount of the gratuity.
- B. **Conditions and Causes for Termination:**
 - 1. This contract may be terminated at any time by mutual written consent, or by the City, with or without cause, upon giving thirty-day written notice to Contractor. The City at its convenience, by written notice, may terminate this contract, in whole or in part. If this contract is terminated, the City will be liable only for payment under the payment provisions of this contract for services rendered and accepted material received by the City before the effective date of termination. Title to all materials, work-in-process and completed but undeliverable goods, will pass to the City after costs are claimed and allowed. The Seller will submit detailed cost claims in an acceptable manner and will permit the City to examine such books and records as may be necessary in order to verify the reasonableness of any claims.
 - 2. The City reserves the right to cancel the whole or any part of this contract due to failure of Contractor to carry out any term, promise, or condition of the contract. The City will issue a written notice of default to Contractor for acting or failing to act as in any of the following:
 - In the opinion of the City, Contractor provides personnel who do not meet the requirements of the contract;
 - In the opinion of the City, Contractor fails to perform adequately the stipulations, conditions or services/specifications required in this contract;
 - In the opinion of the City, Contractor attempts to impose on the City personnel or materials, products or workmanship, which is of an unacceptable quality;

- Contractor fails to furnish the required service and/or product within the time stipulated in the contract;
- In the opinion of the City, Contractor fails to make progress in the performance of the requirements of the contract and/or give the City a positive indication that Contractor will not or cannot perform to the requirements of the contract.

C. **Contract Cancellation:** All parties acknowledge that this contract is subject to cancellation by the City of Phoenix pursuant to the provision of Section 38-511, Arizona Revised Statutes.

4.9. State and Local Transaction Privilege Taxes

In accordance with applicable state and local law, transaction privilege taxes may be applicable to this transaction. The state and local transaction privilege (sales) tax burden and legal liability to remit taxes are on the Contractor that is conducting business in Arizona and the City of Phoenix. Any failure by the Contractor to collect applicable taxes from the City will not relieve the Contractor from its obligation to remit taxes. It is the responsibility of the prospective bidder to determine any applicable taxes. The City will look at the price or offer submitted and will not deduct, add or alter pricing based on speculation or application of any taxes, nor will the City provide advice or guidance. If you have questions regarding your tax liability, please seek advice from a tax professional prior to submitting your Offer. You may also find information at <https://www.phoenix.gov/finance/plt> or <https://www.azdor.gov/Business.aspx>. Once your Offer is submitted, the Offer is valid for the time specified in this Solicitation, regardless of mistake or omission of tax liability. If the City finds over payment of a project due to tax consideration that was not due, the Contractor will be liable to the City for that amount, and by contracting with the City, the Contractor agrees to remit any overpayments back to the City for miscalculations on taxes included in an offer price.

4.10. Tax Indemnification

Contractor will pay all federal, state and local taxes applicable to its operation and any persons employed by the Contractor, and require the same of all subcontractors. Contractor will hold the City harmless from any responsibility for taxes, damages and interest, if applicable, contributions required under federal, and/or state and local laws and regulations and any other costs including transaction privilege taxes, unemployment compensation insurance, Social Security and Worker's Compensation, and require the same of all subcontractors.

4.11. Tax Responsibility Qualification

Contractor may be required to establish, to the satisfaction of City, that any and all fees and taxes due to the City or the State of Arizona for any License or Transaction Privilege taxes, Use Taxes or similar excise taxes, are currently paid (except for matters under legal protest). Contractor agrees to a waiver of the confidentiality provisions contained in the City Finance Code and any similar confidentiality provisions contained in Arizona statutes relative to State Transaction Privilege Taxes or Use Taxes. Contractor agrees to provide written authorization to the City Finance Department and to the Arizona State Department of Revenue to release tax information relative to Arizona Transaction Privilege Taxes or Arizona Use Taxes in order to assist the Department in evaluating Contractor's qualifications for and compliance with contract for duration of the term of contract.

4.12. No Israel Boycott

If this Contract is valued at \$100,000 or more and requires Contractor (a company engaging in for-profit activity and having ten or more full-time employees) to acquire or dispose of services, supplies, information technology, or construction, then Contractor must certify and agree that it does not and will not boycott goods or services from Israel, pursuant to Title 35, Chapter 2, Article 9 of the Arizona Revised Statutes. Provided that these statutory requirements are applicable, Contractor by entering this Contract now certifies that it is not currently engaged in, and agrees for the duration of the Contract to not engage in, a boycott of goods or services from Israel.

4.13. No Forced Labor of Ethnic Uyghurs

If this Contract requires Contractor (a company engaging in for-profit activity and having ten or more full-time employees) to acquire or dispose of services, supplies, information technology, goods, or construction, then pursuant to Title 35, Chapter 2, Article 10 of the Arizona Revised Statutes Contractor must certify and agree that it and any contractors, subcontractors, or suppliers it utilizes do not and will not use the forced labor of ethnic Uyghurs in the People's Republic of China or any goods or services produced by such forced labor. Provided these statutory requirements are applicable, Contractor, by entering this Contract, now certifies it is not currently engaged in, and agrees for the duration of the Contract to not engage in, (a) the use of forced labor of ethnic Uyghurs in the People's Republic of China; (b) the use of any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or (c) the use of any contractors, subcontractors, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

4.14. Advertising

Except as required by law, Contractor shall not publish, release, disclose or announce to any member of the public, press, official body, or any other third party any information or documents concerning this Agreement or any part thereof without the prior written consent of the City. The name of any City site on which services are performed by the Contractor pursuant to this Agreement shall not be used in any advertising or other promotional context by Contractor without the prior written consent of the City.

4.15. Strict Performance

Failure of either party to insist upon the strict performance of any item or condition of the contract or to exercise or delay the exercise of any right or remedy provided in the contract, or by law, or the acceptance of materials or services, obligations imposed by this contract, or by law, will not be deemed a waiver of any right of either party to insist upon the strict performance of the contract.

4.16. Authorized Changes

The City reserves the right at any time to make changes in any one or more of the following: (a) specifications; (b) methods of shipment or packing; (c) place of delivery; (d) time of delivery; and/or (e) quantities. If the change causes an increase or decrease in the cost of or the time required for performance, an equitable adjustment may be made in the price or delivery schedule, or both. Any claim for adjustment will be deemed waived unless asserted in writing

within sixty days from the receipt of the change. Price increases or extensions of delivery time will not be binding on the City unless evidenced in writing and approved by the Chief Procurement Officer prior to the institution of the change.

5. SPECIAL TERMS AND CONDITIONS

5.1. Term of Contract

The term of this Contract will commence on or about November 1, 2023, and will continue for a period of five **(5) years** thereafter. This Contract includes one **(1) five-year option** to extend the term, for an aggregate years **(10) years**, which may be exercised by the sole discretion of the City.

5.2. Free on Board (FOB)

Prices quoted shall be FOB destination and delivered, as required, to the following point(s): Signal Shop, 2141 E. Jefferson St., Phoenix, AZ 85034

5.3. Price

All prices submitted shall be firm and fixed for the initial year of the contract. Thereafter, price increases will be considered annually provided the adjustments are submitted in writing with 60 days' notice to the Procurement Officer. Price increase requests shall be accompanied with written documentation to support the increase, such as a letter from the manufacturer, published price index, applicable change in law, etc. Price decrease requests do not require supporting documentation and are allowed at any time during the contract term.

The City will be the sole judge in determining the allowable increase amount. Price increases agreed to by any staff other than the Chief Procurement Officer are invalid. The Contractor acknowledges and agrees to repay all monies paid because of a requested price increase unless the increase was specifically approved, in writing, by the Chief Procurement Officer.

5.4. Method of Ordering

Contractor shall deliver items and/or services only upon receipt of a written purchase order. All Contractor invoices and packing/delivery tickets must include the City of Phoenix purchase order number.

5.5. Method of Invoicing

Invoice must be emailed in .pdf format to invoices@phoenix.gov and must include the following:

- City purchase order number or shopping cart number
- Items listed individually by the written description and part number
- Unit price, extended and totaled
- Quantity ordered, back ordered, and shipped
- Applicable tax
- Invoice number and date
- Delivery address
- Payment terms

- FOB terms
- Remit to address

5.6. Method of Payment

Payment to be made from Contractor's invoice and a copy of the signed delivery/service ticket submitted to cover items received and accepted during the billing period.

5.7. Partial Payments

Partial payments are authorized on individual purchase orders. Payment will be made for actual goods and services received and accepted by the City.

5.8. Supplier Profile Changes

It is the responsibility of the Contractor to promptly update their profile in procurePHX at <https://www.phoenix.gov/procure>. If Contractor's legal identify has changed, the Procurement Officer must be notified immediately. Failure to do so may result in non-payment of invoices and contract termination.

5.9. Estimated Quantities or Dollar Amounts (Requirements Contracts Only)

Quantities and dollar amounts listed are the City's best estimate and do not obligate the City to order or accept more than City's actual requirements during the period of this agreement, as determined by actual needs and availability or appropriated funds. It is expressly understood and agreed that the resulting contract is to supply the City with its complete actual requirement for the contract period.

5.10. Suspensions of Work

The City reserves the right to suspend work wholly or in part if deemed necessary for the best interest of the City. This suspension will be without compensation to the Contractor, other than to adjust the contract completion/delivery requirements.

5.11. Hours of Work

All work under this contract shall be coordinated with the City's authorized Department representative. Any changes to the established schedule must have prior written approval by the City's authorized Department representative.

5.12. Post Award Conference

A post-award conference will be held prior to commencement of any work on the project. The purpose of this conference is to discuss critical elements of the work schedule and operational problems and procedures.

5.13. Performance Interference

Contractor shall notify the City's authorized Department representative immediately of any occurrence and/or condition that interferes with the full performance of the contract and confirm it in writing within 24 hours.

5.14. Cooperative Agreement

In addition to the City and with approval of the Contractor, this contract may be extended for use by other municipalities and government agencies in the State of Arizona.

5.15. Exclusive Possession

All services, information, computer program elements, reports, and other deliverables which may be created under this contract are the sole property of the City of Phoenix and will not be used by the Contractor or any other person except with prior written permission by the City.

5.16. Licenses and Permits

Contractor will keep current Federal, State, and local licenses and permits required for the operation of the business conducted by the Contractor as applicable to this contract.

5.17. Delivery

All deliveries shall be made between 7:30 a.m. and 2:30 p.m., local time, Monday through Friday, excluding City holidays. City holiday calendar:

<https://www.phoenix.gov/calendar/holidays>

5.18. Delivery / Service Ticket

Contractor shall provide a packing list or service ticket for items delivered to the City or services provided to the City. Tickets should include the following and a legible copy shall be provided to the City:

- Date
- City purchase order number
- Written description of services which were provided
- Itemized list of materials which were delivered, including quantity
- A unique identification number and Contractor name
- Signature of City employee who accepted for the materials/services

5.19. Miscellaneous Fees

Additional charges for fuel surcharges, delivery charges, dealer prep, environmental fees, waste disposal, shop supplies, set-up, freight and/or shipping and handling, etc. will not be paid. These costs must be incorporated in the pricing provided.

Labor rates (Shop and On-site) shall be charged as a flat hourly rate and are allowed only in performance of services under this agreement. Travel hours and other incidental fees will not be permitted under this agreement. Labor hours will be from “check-in” to “check-out” at the worksite.

5.20. Evaluation Literature

Offers submitted for products considered by the Contractor to be equal or better than the products specified herein must be submitted with technical literature and/or product brochures

for the City's use to evaluate the offered products. Complete specifications, literature, illustrations, blueprints, photos etc. describing the offered product shall be included with the Offer. Contractor shall indicate any variation between the product offered and the literature submitted.

5.21. Industry Standards

It is intended that the manufacturer in the selection of components will use material and design practices that are the best available in the industry for the type of operating conditions to which the item will be subjected. Component parts shall be selected to give maximum performance, service life and safety and not merely meet the minimum requirements of this specification. All parts, equipment and accessories shall conform in strength, quality of material and workmanship to recognized industry standards.

The term "heavy duty" if used in these specifications shall mean that the item to which the term is applied shall exceed the usual quantity, quality, or capacity supplied with standard production items and it shall be able to withstand unusual straining, exposure, temperature, wear and use.

The City reserves the right to waive minor variations if, in the opinion of the City's authorized Department representative, the basic unit meets the general intent of these specifications.

The product offered shall not include a major component that is of a prototype nature or has not been in production for a sufficient length of time to demonstrate reliability.

If the specifications stated herein for component items do not comply with legal requirements, the Contractor shall so notify the City prior to the offer opening due date.

5.22. Inspection and Acceptance

Each product delivered shall be subject to complete inspection by the City prior to acceptance. Inspection criteria shall include, but not be limited to, conformity to the specifications, mechanical integrity, quality, workmanship and materials. Ten business days will be allowed for this process. If delivered items are unacceptable and returned to the Contractor prior to acceptance, an additional five business days will be allowed for inspection when subsequent delivery occurs. It shall be the Contractor's responsibility to pick up unacceptable products, correct the deficiencies, and return the product following the corrections.

5.23. Inventory Levels

Contractor's inventory levels of the items may be a factor in the City's award decision. Contractor will be required to maintain sufficient local inventory to provide daily support of the City's requirement. Failure to supply sufficient support may result in cancellation of the contract.

5.24. New Equipment

All items offered shall be new equipment supplied from the manufacturer. Offers for remanufactured/refurbished equipment will be considered as non-responsive and rejected.

5.25. Product Discontinuance

The City may award contracts for products and/or models of equipment because of this solicitation. If a product or model is discontinued by the manufacturer, the City, in its sole

discretion, may allow the Contractor to provide a substitute for the discontinued item. Contractor shall request permission to substitute a new product or model and will provide the following:

- A formal announcement from the manufacturer that the product or model has been discontinued.
- Documentation from the manufacturer that names the replacement product or model.
- Documentation that provides clear and convincing evidence that the replacement meets or exceeds all specifications required by the original solicitation.
- Documentation that provides clear and convincing evidence that the replacement will be compatible with all functions or uses of the discontinued product or model.
- Documentation from the manufacturer confirming that the price for the replacement item will be the same as the discontinued item.
- The Chief Procurement Officer will be the sole judge in determining the allowable substitute, new product or model change for discontinued item.

5.26. Substitution of Specified Items

Whenever in the specifications any item or process is requested or identified by manufacturer name, proprietary name, or patent such specifications shall be used to facilitate descriptions of the item or process and shall be followed by the words "or equal". The Contractor may offer any item or process that is equal in every respect. However, if the item or process delivered is not, in the opinion of the City of Phoenix, equal in every respect to the specifications, then the Contractor must furnish the item or material that is equal, in the opinion of the City.

6. DEFENSE AND INDEMNIFICATION

6.1. Standard General Defense and Indemnification

Contractor ("Indemnitor") must defend, indemnify, and hold harmless the City of Phoenix and its officers, officials (elected or appointed), agents, and employees ("Indemnitee") from and against any and all claims, actions, liabilities, damages, losses or expenses (including but not limited to court costs, attorney fees, expert fees, and costs of claim processing, investigation and litigation) of any nature or kind whatsoever ("Losses") caused, or alleged to be caused, in whole or in part, by the wrongful, negligent or willful acts, or errors or omissions of Indemnitor or any of its owners, officers, directors, members, managers, agents, employees or subcontractors ("Indemnitor's Agents") arising out of or in connection with this Contract. This defense and indemnity obligation includes holding Indemnitee harmless for any Losses arising out of or recovered under any state's Workers' Compensation Law or arising out of the failure of Indemnitor or Indemnitor's Agents to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. Indemnitor's duty to defend Indemnitee accrues immediately at the time a claim is threatened or a claim is made against Indemnitee, whichever is first. Indemnitor's duty to defend exists regardless of whether Indemnitor is ultimately found liable. Indemnitor must indemnify Indemnitee from and against any and all Losses, except where it is proven that those Losses are solely a result of Indemnitee's own negligent or willful acts or omissions. Indemnitor will be responsible for primary loss investigation, defense and judgment costs where this indemnification applies. In consideration of the award of this Contract, Indemnitor waives all rights of subrogation against Indemnitee for losses arising from the work performed by Indemnitor or Indemnitor's Agents for the City of Phoenix. The obligations of Indemnitor under this provision survive the termination or expiration of this Contract.

7. INSURANCE REQUIREMENTS

7.1. Vendor's Insurance

Vendor must procure insurance against claims that may arise from or relate to performance of the work hereunder by Vendor and its agents, representatives, employees and sub-Vendors. Vendor must maintain that insurance until all their obligations have been discharged, including any warranty periods under this Contract.

The City in no way warrants that the limits stated in this section are sufficient to protect the Vendor from liabilities that might arise out of the performance of the work under this Contract by the Vendor, its agents, representatives, employees or subcontractors and Vendor may purchase additional insurance as they determine necessary.

7.2. Scope and Limits of Insurance

Vendor must provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the liability limits provided that (1) the coverage is written on a "following form" basis, and (2) all terms under each line of coverage below are met.

7.3. Commercial General Liability – Occurrence Form

General Aggregate \$2,000,000

Products – Completed Operations Aggregate \$1,000,000

Personal and Advertising Injury \$1,000,000

Each Occurrence \$1,000,000

The Vendor's insurance coverage must be primary and non-contributory with respect to any insurance or self-insurance carried by the City.

7.4. Notice of Cancellation

For each insurance policy required by the insurance provisions of this Contract, the Vendor must provide to the City, within 5 business days of receipt, a notice if a policy is suspended, voided or cancelled for any reason. Such notice must be emailed to kathryn.small@phoenix.gov.

7.5. Acceptability of Insurers

Insurance is to be placed with insurers duly licensed or authorized to do business in the state of Arizona and with an "A.M. Best" rating of not less than B+ VI. The City in no way warrants that the required minimum insurer rating is sufficient to protect the Vendor from potential insurer insolvency.

7.6. Verification of Coverage

Vendor must furnish the City with certificates of insurance (ACORD form or equivalent approved by the City) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and any required endorsements are to be received and approved by the City

before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract must be sent directly to Kathryn Small at kathryn.small@phoneix.gov. The City project/contract number and project description must be noted on the certificate of insurance. The City reserves the right to review complete copies of all insurance policies required by this Contract at any time. **DO NOT SEND CERTIFICATES OF INSURANCE TO THE CITY'S RISK MANAGEMENT DIVISION.**

7.7. Approval

Any modification or variation from the insurance coverages and conditions in this Contract must be documented by an executed contract amendment.

8. SUBMITTALS

8.1. Copies

Please submit one electronic copy of the Submittal Section and all other required documentation. Please do not lock the electronic copy with password protection so that the CITY may digitally incorporate the successful offer into the awarded contract.

Please submit only the Submittal Section, do not submit a copy of the entire solicitation document. This Offer will remain in effect for a period of 180 calendar days from the opening date and is irrevocable unless it is in the City's best interest to release offer(s).

8.2. Solicitation Response Check List

Use this check list as a tool to review your submission to ensure that all required documents and forms are included.

The written offer should be:

- Typewritten for ease of evaluation
 - Signed by an authorized representative of the Offeror
 - Submitted with contact information for the individual(s) authorized to negotiate with the City.
- A. Offeror's Proposal - A detailed proposal describing the firm or individual's qualifications and experience responsive to the requirements of the solicitation and evaluation criteria.
 - B. Pricing Proposal - A completed pricing proposal with all requested prices, quantities, and/or discounts completed.
 - C. Submittal Forms - All submittal forms are completed and signed.
 - D. Addenda - Signed copies of all published addenda.

Offers must be in possession of the Department on or prior to the exact time and date indicated in the Schedule of Events. Late offers will not be considered. Electronic submission is preferred. Due to file size limitations for electronic transmission, offers sent by email may need to be sent in parts with multiple emails. It is the responsibility of the Offeror to ensure that the offer is received timely and that there are no technical reasons for delay. Please refer to the Instructions Section for complete information regarding the submission of offers.

8.3. Additional Quantities

The City anticipates considerable activity under the resultant contract(s). However, no guarantee can be made as to actual quantity that will be purchased under this contract. The City reserves the right to add, change or delete quantities or items as circumstances may require.