

**ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT
EQUIPMENT AND PROCUREMENT DIVISION
BID INVITATION**

Bid Number: M-17-020P

BID OPENING LOCATION:
AHTD Equipment and
Procurement Division
11302 West Baseline Road
Little Rock, AR 72209

MAIL TO:
AHTD Equipment and
Procurement Division
P.O. Box 2261
Little Rock, AR 72203

DELIVER TO:
AHTD Equipment and
Procurement Division
11302 West Baseline Road
Little Rock, AR 72209

Bid Opening Date: November 1, 2016 Time: 11:00 a.m.

Sealed bids for furnishing the commodities and/or services described below, subject to the Conditions on page 2 of this Bid Invitation will be received at the above-noted mail and delivery locations until the above-noted bid opening date and time, and then publicly opened at the above-noted bid opening location. **Bids must be submitted on this form, with attachments when appropriate, or bids will be rejected. Late bids and unsigned bids will not be considered.**

In compliance with this Bid Invitation and subject to all the Conditions thereof, the undersigned offers and agrees to furnish any and all items upon which prices are quoted, at the price set opposite each item.

Company Name: _____

Name (Type or Print): _____

Address: _____

Title: _____

Phone: _____ Fax: _____

City: _____ State: _____ Zip: _____

E-mail Address: _____

Federal Tax ID or Social Security No.: _____

Signature: _____

Signature must be legible, original (not photocopied) and in ink.
Unsigned bids will be rejected.

Item No.	Description	Quantity	Unit	Unit Price	Amount
	<p>Two (2) License Plate and Two (2) USDOT Reader Cameras with triggering mechanisms and illumination systems, installation, and interfacing with IIS' Smart Roadside Inspection System as per attached Worksheets 1-3. (Job #100649)</p> <p>FOB: AHTD – Bridgeport & Riverside Weigh Stations, West Memphis, AR</p> <p>Contact for Technical Information: Ron Burks, Chief of Highway Police (501-569-2424) Contacts for Bidding Information: Danny Keene (501-569-2674) or Chicita Pate (501-569-2675)</p> <p>To meet the requirements of Arkansas State Highway and Transportation Department Specifications attached to and made a part of this bid.</p> <p>Bid price shall include all labor, materials, and equipment necessary to perform the work as specified, and shall further include all licenses, fees, permits, royalties, and <u>all taxes</u>. Bid price shall represent full compensation for completion of the work. This provision supersedes Condition 4 on page 2 of this Bid Invitation. Payment will be made in accordance with Arkansas State Highway & Transportation Department Standard Specifications and Applicable Special Provisions.</p> <p>Bid Bond in the amount of 5% of total bid price required of all bidders at time of bid opening or bid will be rejected. Personal and company checks are not acceptable as Bid Bonds. See Condition 3 on page 2 of this Bid Invitation. Performance Bond only (no checks of any kind allowed) in the amount of 100% of total bid price will be required of successful bidder prior to providing goods/services. See Condition 3 on page 2 of this Bid Invitation.</p> <p>The successful bidder will be required to complete job within 60 days after award.</p> <p>Bids and Specifications are available on-line by going to the AHTD Web Site – www.arkansashighways.com and clicking on “Commodities and Services Bids/Contracts Information”. Tabulations will also be available at this site after award of bid/contract. If you have any questions, call this office at 501-569-2667.</p> <p>(14-0305)</p>			TOTAL BID	

STANDARD BID CONDITIONS

M-17-020P

1. **ACCEPTANCE AND REJECTION:** The Arkansas State Highway and Transportation Department (AHTD) reserves the right to reject any or all bids, to accept bids in whole or in part (unless otherwise indicated by bidder), to waive any informalities in bids received, to accept bids on materials or equipment with variations from specifications where efficiency of operation will not be impaired, and to award bids to best serve the interest of the State.
2. **PRICES:** Unless otherwise stated in the Bid Invitation, the following will apply: (1) unit prices shall be bid, (2) prices should be stated in units of quantity specified (feet, each, lbs., etc.), (3) prices must be F.O.B. destination specified in bid, (4) prices must be firm and not subject to escalation, (5) bid must be firm for acceptance for 30 days from bid opening date. In case of errors in extension, unit prices shall govern. Discounts from bid price will not be considered in making awards.
3. **BID BONDS AND PERFORMANCE BONDS:** If required, a **Bid Bond** in the form of a cashier's check, certified check, or surety bond issued by a surety company, in an amount stated in the Bid Invitation, must accompany bid. **Personal and company checks are not acceptable as Bid Bonds.** Failure to submit a Bid Bond as required will cause a bid to be rejected. The Bid Bond will be forfeited as liquidated damages if the successful bidder fails to provide a required Performance Bond within the period stipulated by AHTD or fails to honor their bid. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a **Performance Bond** in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. **Personal and company checks are not acceptable as Performance Bonds.** In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company authorized to do business in Arkansas, and must be signed by a Resident Local Agent licensed by the Arkansas State Insurance Commissioner to represent that surety company. Resident Agent's Power-of-Attorney must accompany the surety bond. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U. S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid opening.
4. **TAXES:** The AHTD is not exempt from Arkansas State Sales and Use Taxes, or local option city/county sales taxes, when applicable, and bidders are responsible to the State Revenue Department for such taxes. These taxes should not be included in bid prices, but where required by law, will be paid by the AHTD as an addition thereto, and should be added to the billing to the AHTD. The AHTD is exempt from Federal Excise Taxes on all commodities except motor fuels; and excise taxes should not be included in bid prices except for motor fuels. Where applicable, tax exemption certificates will be furnished by the AHTD.
5. **"ALL OR NONE" BIDS:** Bidders who wish to bid "All or None" on two or more items shall so stipulate on the face of bid sheet; otherwise, bid may be awarded on an individual item basis.
6. **SPECIFICATIONS:** Complete specifications should be attached for any substitution or alternate offered, or where amplification is necessary. Bidder's name must be placed on all attachments to the bid.
7. **EXCEPTIONS TO SPECIFICATIONS:** Any exceptions to the bid specifications must be stated in the bid. Any exceptions to manufacturer's published literature must be stated in the bid, or it will be assumed that bidder is bidding exactly as stated in the literature.
8. **BRAND NAME REFERENCES:** All brand name references in bid specifications refer to that commodity or its equivalent, unless otherwise stated in Bid Invitation. Bidder should state brand or trade name of item being bid, if such name exists.
9. **FREIGHT:** All freight charges should be included in bid price. Any change in common carrier rates authorized by the Interstate Commerce Commission will be adjusted if such change occurs after the bid opening date. Receipted common carrier bills that reflect ICC authorized rate changes must be furnished.
10. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of AHTD request, and free demonstrations within 30 days, unless AHTD extends time. Failure to provide as requested within this period may cause bid to be rejected. Samples, literature and demonstrations must be substantially the same as the item(s) being bid, unless otherwise agreed to by AHTD. Samples that are not destroyed will be returned upon request at bidders expense. Samples from successful bidders may be retained for comparison with items actually furnished.
11. **GUARANTY:** Unless otherwise indicated in Bid Invitation, it is understood and agreed that any item offered or shipped on this bid shall be newly manufactured, latest model and design, and in first class condition; and that all containers shall be new, suitable for storage or shipment and in compliance with all applicable laws relating to construction, packaging, labeling and registration.
12. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the AHTD, as soon as possible, of the reason for any delay and the expected delivery date. The AHTD has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
13. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by AHTD after delivery. Default in promised delivery or failure to meet specifications authorizes the AHTD to cancel award or any portion of same, to reasonably purchase commodities or services elsewhere and to charge full increase, if any, in cost and handling to defaulting vendor. Applicable bonds may be forfeited.
14. **ETHICS:** *"It shall be a breach of ethical standards for a person to be retained, or to retain a person, to solicit or secure a State contract upon an agreement of understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies maintained by the contractor for the purpose of securing business."* (Arkansas Code, Annotated, Section 19-11-708).

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT NOTICE OF NONDISCRIMINATION

The Arkansas State Highway and Transportation Department (Department) complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, the Department does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the Department's programs and activities, as well as the Department's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the Department's nondiscrimination policies may be directed to Joanna P. McFadden Section Head – EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501)569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ahtd.ar.gov

Free language assistance for Limited English Proficient individuals is available upon request.

This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

BID NO. M-17-020P

JOB NO. 100649

LICENSE PLATE AND USDOT READERS FOR WEST MEMPHIS WEIGH STATIONS

Bidders shall complete Worksheet 1: Price Worksheet and Worksheet 2: Maintenance Price Worksheet below. Any costs listed in Line 9 of the Worksheet 1 should be itemized in Worksheet 2. Costs from Worksheet 1 and Worksheet 3 shall be used in calculating the overall cost and determining the low bidder.

WORKSHEET 1: PRICE WORKSHEET

Number	Item	Unit Price	Number of Units	Total Price
1	LPR Cameras			
2	USDOT Cameras			
3	Triggering Devices			
4	Illuminators			
5	Power line materials, equipment and installation			
6	Communication materials, equipment and installation			
7	All communications hardware and software required to communicate with the IIS SRIS.			
8	Camera System installation and infrastructure (in addition to components priced above)			
9	Any other costs necessary to meet the requirements herein.*			
TOTAL				

*Bidders shall provide an itemization in Worksheet 2 of any costs listed on line 9 above.

BID NO. M-17-020P (Job No. 100649)

WORKSHEET 2: ITEMIZATION OF OTHER COSTS (See line 9 of Worksheet 1)

Item	Description of purpose in Camera System	Unit Cost	Number of Units	Total Cost

WORKSHEET 3: MAINTENANCE PRICE WORKSHEET

Year	Item	Unit Price	Number of Units	Total Price
1	Year 1 Annual Maintenance			
2	Year 2 Annual Maintenance			
3	Year 3 Annual Maintenance			
4	Year 4 Annual Maintenance			
5	Year 5 Annual Maintenance			
TOTAL				

ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

SPECIAL PROVISION

JOB NO. 100649

LICENSE PLATE AND USDOT READERS FOR WEST MEMPHIS WEIGH STATIONS

A. License Plate and USDOT Reader Cameras

This request for bids is issued by the Arkansas State Highway and Transportation Department to a qualified firm (Bidder) to install license plate reader and USDOT reader cameras on the weigh station ramps at the Bridgeport (on I-55) and Riverside (on I-40) weigh stations in Crittenden County, Arkansas. The readers will be interfaced with the Intelligent Imaging Systems (IIS) Smart Roadside Inspection System (SRIS) being installed at the two weigh stations.

B. Scope of Work

The scope of work includes license plate reader and USDOT reader cameras, triggering mechanisms, illumination systems, installation, and interfacing with IIS' SRIS system. Bidders shall propose cameras that have previously been interfaced with IIS' SRIS. Cameras that meet this requirement include:

License Plate Readers

- PIPS P372
- Federal Signal P382
- 3M P492
- HTS VRS DR200

USDOT Readers

- IIS DOT Reader

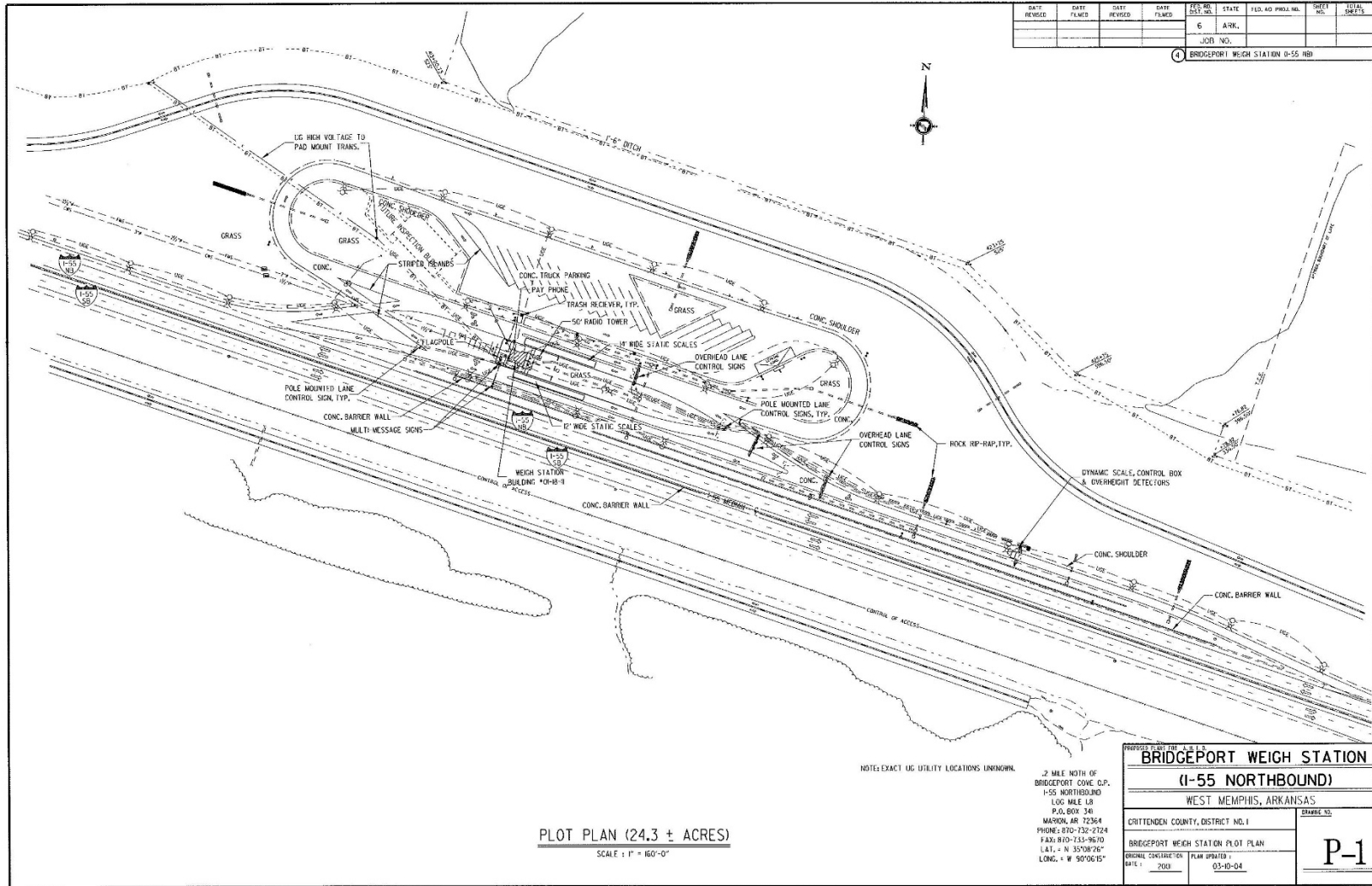
One USDOT Reader camera and one License Plate Reader (LPR) camera shall be installed at each weigh station on the entrance ramp to the weigh station. Entrance ramps are one lane only at the point of ingress, later expanding to multiple lanes as the weigh station is approached. Diagrams of the weigh station are shown in Exhibits B-1 through B-2. Cameras shall be installed ramp-side at the one lane portion of the ramp. Triggering mechanisms shall be installed to trigger the image capture of the license plate and USDOT number during vehicle approach.

Additional equipment, installation, testing, and operation requirements are given in Section C. Maintenance requirements are shown in Section D.

B.1 Schedule

Cameras and triggering devices shall be installed and functional within 40 days of contract execution. Interface testing with the IIS' SRIS shall begin thereafter, and be completed within 60 days of contract execution.

Exhibit B-1. Bridgeport Weigh Station



DATE REVISION	DATE PLANNED	DATE REVISED	DATE PLANNED	FED. DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
							JOB NO.	
							BRIDGEPORT WEIGH STATION 0-55 NB	

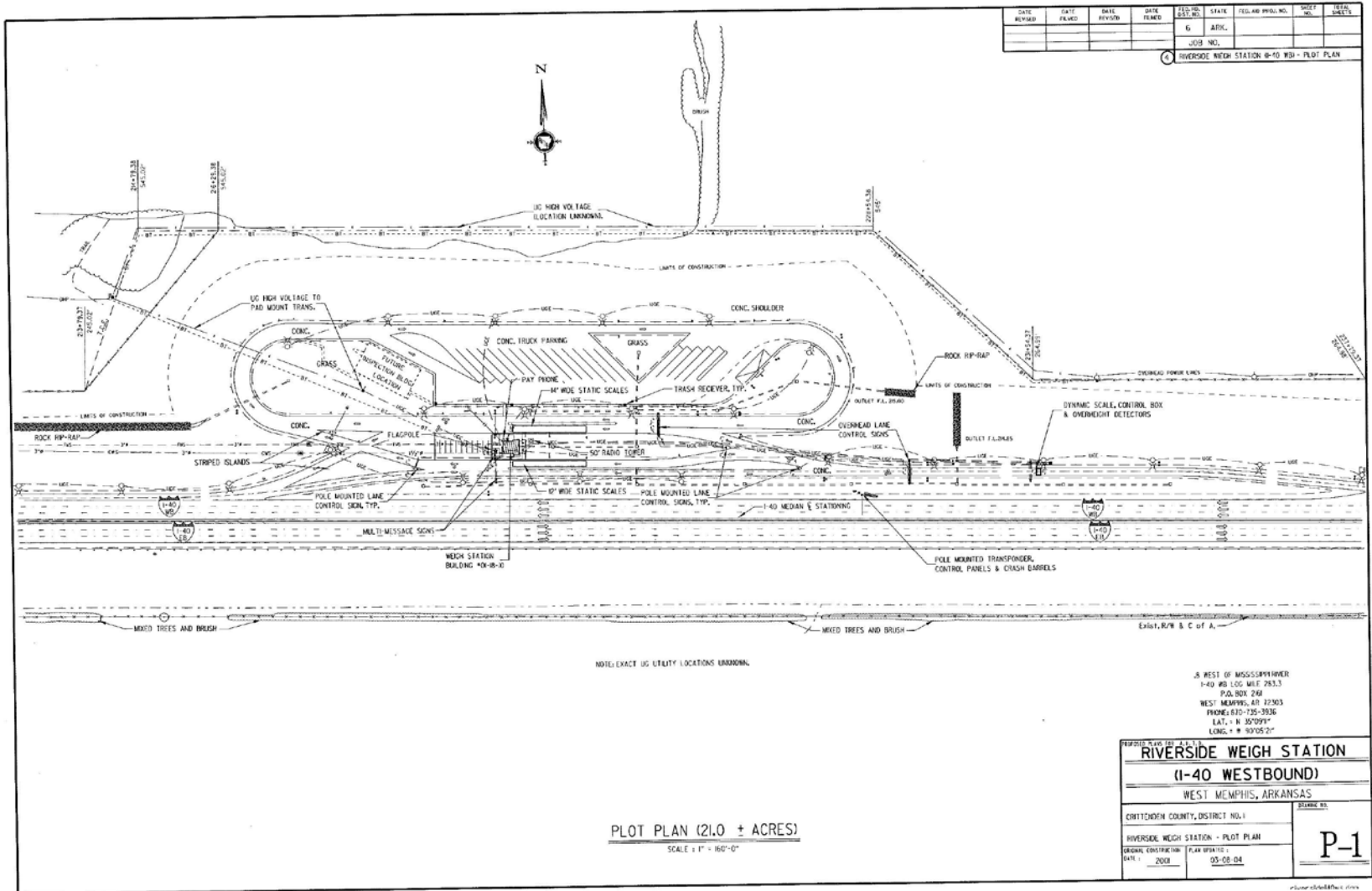
PLOT PLAN (24.3 ± ACRES)
SCALE: 1" = 160'-0"

NOTES EXACT UG UTILITY LOCATIONS UNKNOWN.

0.2 MILE NORTH OF
BRIDGEPORT CONE, C.P.,
I-55 NORTHBOUND
LOG MILE 1.8
P.O. BOX 341
MARIION, AR 72354
PHONE: 870-732-2724
FAX: 870-733-9670
LAT. = N 35°08'46"
LONG. = W 90°06'15"

BRIDGEPORT WEIGH STATION	
(I-55 NORTHBOUND)	
WEST MEMPHIS, ARKANSAS	
CRITTENDEN COUNTY, DISTRICT NO. 1	DRAWING NO.
BRIDGEPORT WEIGH STATION PLOT PLAN	
ORIGINAL CONSTRUCTION DATE: 2001	PLAN UPDATED: 03-10-04
P-1	

Exhibit B-2. Riverside Weigh Station



C. Equipment, Installation, Testing and Operation

To achieve the goals of AHTD, the delivered system must contain, at a minimum, the following components for each weigh station:

1. One ramp-side License Plate Reader (LPR) camera installed at a location and configuration sufficient to capture each vehicle license plate number as it approaches the weigh station. At each weigh station the camera shall be installed at a sufficient distance from the weigh station to allow the SRIS system to receive and perform screening based on the license number and to display results to the in-station officer prior to the arrival of the vehicle at the station.
2. One ramp-side USDOT Reader camera installed at a location and configuration sufficient to capture each vehicle USDOT number as it approaches the weigh station. At each weigh station the camera shall be installed at a sufficient distance from the weigh station to allow the SRIS system to receive and perform screening based on the USDOT number and to display results to the in-station officer prior to the arrival of the vehicle at the station.
3. Camera triggering devices, as needed, to detect vehicle presence and initiate operation of LPR and USDOT reader cameras.
4. Communications, as needed, between all installed devices and the IIS SRIS processor at ramp-side.
5. Illumination, as required by the cameras, to obtain readable/viewable images during daytime and nighttime use.
6. The infrastructure for the installation, including possible mounting poles, electrical lines and conduit, communication lines and conduit, and any other infrastructure needed for the Camera System to function properly.
7. Other interface hardware and software necessary to transmit license plate and DOT images and resulting data to the IIS SRIS.

These components, together, are referred to as the *Camera System(s)* in the specifications listed herein.

The successful Bidder will be required to run communication lines from the SRIS processor at ramp-side to the camera installation sites for both Riverside and Bridgeport installations. Bidders are expected to include the price of installing communication lines to connect to the IIS SRIS. For both the Bridgeport and Riverside installation, the State prefers that communication lines be run in-ground and then brought to the point needed to support communications with the installed camera equipment. Where in-ground communication lines are not deemed feasible, wireless communications may be used as an alternative, provided the wireless communications installed meet the requirements listed in this document.

Both Bridgeport and Riverside Weigh Stations have overhead lighting installed on the ramp and at other locations within the weigh station boundaries. The overhead lighting may be sufficient to assist in illumination for night time image capture, but shall not be solely relied upon by the Bidder to provide illumination for image capture.

At both Bridgeport and Riverside weigh stations, an AC power line is available on the ramp between the scale house and ramp WIM location. However, AHTD electricians advise that insufficient amperage is available on the existing line. The Bidder may choose one of the following two options:

1. The successful Bidder shall be responsible for pulling a power line from the weigh station to the site of the camera installations. This will include digging a trench and laying new conduit and wire. If the bidder selects this option, the cost of installing the power line shall be included in the bid.
2. The successful Bidder may connect to the line that powers the SRIS ramp-side processor. However, to do so, a cost sharing plan must be negotiated with IIS prior to submitting the bid, and Bidder's share of costs shall be included in the bid.

Exhibit C-1 provides additional mandatory requirements for the Camera Systems.

Exhibit C-1. Mandatory Requirements

Requirement Number	Requirement Description
C.1	Communications
C.1.1	All communications required to support the Camera Systems (including the interface with the IIS SRIS) shall be provided by the selected Bidder.
C.1.2	All installed communications must provide sufficient bandwidth to fulfill requirements herein and allow full-time maximum vehicle traffic through the weigh station.
C.1.3	Wireless communications shall comply with all Federal Communications Commission (FCC) Regulations.
C.1.4	All communications conduit and inner duct shall be dedicated to communications only.
C.1.5	Communications monitoring equipment shall be installed to provide feedback on communication reliability, timeliness, and to report errors.
C.1.6	Communication availability shall be 99.95%.
C.1.7	Communicated messages shall be uncorrupted and reach their intended destination in a timely manner with 99.995% reliability.
C.1.8	Mean Time Between Failure (MTBF) of all installed communications equipment shall be a minimum of 20,000 hours.
C.1.9	All communications installed shall not be adversely affected by climate conditions encountered at the installed locations.
C.1.10	Any data transfers between systems and/or devices that occur over the Internet shall be secured.
C.2	Camera system equipment and installation

Requirement Number	Requirement Description
C.2.1	The selected Bidder will provide all poles, overhead arms, concrete/asphalt work, vehicle detector loop installation, conduit and electrical line installation, communications installation, cabinets, electrical grounding equipment and installation, and any other equipment, installation or construction services necessary to install the delivered system at the site(s).
C2.2	All cables shall be in conduit unless specifically approved by the AHTD engineer.
C.2.3	All materials and services shall comply with the current version of the <u>Arkansas Standard Specification for Highway Construction</u> . (http://www.arkansashighways.com/standard_specifications.aspx) Materials and services shall also comply with all Federal, State, and Local Codes.
C.2.4	Duct seal shall be used to seal all conduits in any installed cabinets and in junction boxes.
C.2.5	All conduits shall have a polyethylene pull string with a minimum 210 lb. break strength left in place at the completion of construction.
C.2.6	Separate conduit shall be used for AC/DC power and low voltage signal cables.
C.2.7	All exposed equipment must be constructed to prevent internal water damage and the exteriors shall be fabricated from corrosion and rust resistant materials, or properly plated to achieve corrosion and rust resistance. If the proposed system includes a roadside cabinet, the cabinet must be constructed of non-corrosive material and reasonably secured against tampering and vandalism.
C.2.8	Material used in the construction and installation of the system must be of sufficient quality for the purposes intended and must be suited for the wind, snow and/or ice loads encountered at the location.
C.2.9	The installed equipment shall be constructed of standard materials to assure prompt and continued delivery of spare parts for future system repair.
C.2.10	All installed systems and equipment shall be properly grounded and shall be protected against over current, surges, over voltage, under voltage, and lightning.
C.2.11	All equipment shall be reasonably protected from electromagnetic interference.
C.2.12	All computers and controllers shall be provided with backup power units (UPS) in case of power outages. Each UPS shall provide a minimum of 15 minutes backup power.
C.2.13	All wiring and communication cabling shall be clearly labeled and Underwriters Laboratory (UL) labels shall be used for any electrical panel board enclosures and accessories.

Requirement Number	Requirement Description
C.2.14	All installation and construction services will comply with the safety requirements set forth by AHTD.
C.2.15	Any installed system components that are exposed to climactic conditions shall be capable of performing within the range of temperatures, precipitation, winds, humidity and all other climate conditions encountered in Arkansas. In addition, equipment shall be capable of performing under roadside conditions where vehicle exhaust, and roadway dirt and rainwater, snow and ice may come in contact with the components.
C.2.16	Any ramp closures, weigh station closures, or lane closures required for installation activities shall be subject to prior approval of AHTD and will be restricted as to time of day. In the West Memphis area, lane closures may only occur from 8:00 PM to 8:00AM.
C.2.17	The selected Bidder shall be responsible for resolution of all installation issues, including issues of incompleteness, workmanship, complete sealing of surfaces to prevent penetration of roadway grime and water, and the complete restoration of the site after construction / installation activities are completed.
C.2.18	Installed equipment, systems, communications, and materials shall be of a quality to result in an above average Mean Time Between Failure (MTBF).
C.2.19	Illuminators shall be included as necessary for the video imaging system, the LPR system and the USDOT reader system, but illumination shall not be in a wavelength, direction, duration and brightness that would cause temporary visual impairment or distraction of the vehicle driver.
C.2.20	The imaging systems shall be triggered to operate by vehicle detectors. Detectors shall be in-road vehicle detectors.
C.3	License Plate Reader data requirements
C.3.1	Arkansas legislation requires that LPR data collected shall not be used or shared for any other purpose than the screening of commercial vehicles, and data shall not be sold, traded or exchanged.
C.3.2	Should the successful Bidder store data captured by the License Plate Readers, the data shall not be retained for over 150 days after capture. Per Arkansas legislation, any data older than 150 days shall be purged. The purging process shall be run daily to assure no LPR data remain for more than 150 days.
C.4	Interface and Testing Requirements

Requirement Number	Requirement Description
C.4.1	Integration with IIS SRIS: After installation and site testing of delivered components, interface testing with the IIS SRIS shall be conducted. The selected Bidder is responsible for defining all test scripts after consultation with and agreement of IIS and conducting all tests in cooperation with IIS.
C.4.2	AHTD acceptance testing shall be conducted after all other tests have been completed. The selected Bidder is responsible for developing test scripts and assisting AHTD as needed to conduct the tests. At AHTDs option, AHTD may perform additional acceptance testing beyond the test scripts developed by the selected Bidder.
C.4.3	Any remedial work required to any system component, including remedial work required due to results of Acceptance Testing, shall be performed as part of the scope of this contract and no additional costs to AHTD shall be incurred.
C.4.4	The Bidder shall provide support for a five (5) month AHTD operational test of the system.
C.5	Warranty, Performance, Availability, and Reliability
C.5.1	All installed equipment and communications must provide sufficient bandwidth to allow full-time maximum vehicle traffic through the weigh station.
C.5.2	Vehicle detection loops shall have an accuracy rate of 99.9%
C.5.3	Installed equipment, systems, communications, and materials shall be of a quality to result in an above average Mean Time Between Failure (MTBF).
C.5.4	The selected Bidder shall warrant and represent that all products and deliverables furnished by or through the Bidder shall perform as intended, and shall be substantially uninterrupted and error-free in operation and guaranteed against faulty material and workmanship for a warranty period of a minimum of one hundred and fifty (150) days from the date of acceptance or the maximum allowed by the manufacturer. During the warranty period, defects in the products or deliverables specified and furnished by or through the Bidder shall be repaired or replaced by the Bidder at no cost or expense to AHTD.
C.5.5	The License Plate Reader and USDOT Reader cameras and software shall be capable of imaging and processing images from cameras at a rate of 1000 vehicles per hour. The License Plate Reader shall achieve a minimum accuracy of 90% at ramp speeds found at the location of install. USDOT readers shall achieve a minimum accuracy of 88% at the ramp speeds found at the location of camera installation.

Requirement Number	Requirement Description
C.5.6	The License Plate Reader OCR error rate should be less than 1%. The OCR error rate is defined as follows: out of a set of human-readable license plate images, the number of incorrect reads divided by the total number of reads.
C.5.7	The UDOT Reader OCR error rate should be less than 2%. The OCR error rate is defines as follows: out of a set of human-readable USDOT number images, the number of incorrect reads divided by the total number of reads.
C.5.8	Camera System availability shall meet or exceed 99.5%

D. Maintenance Requirements

Annual Camera System maintenance costs shall be provided in the bid for years one (1) through three (3) commencing at the conclusion of the warranty period described in C.5.4. Bidder must also provide maintenance pricing for years four (4) and five (5) which will be procured at AHTD's option. Maintenance Requirements are listed in Exhibit D-1.

Exhibit D-1. Maintenance Requirements

Requirement Number	Requirement Description
D.1	The maintenance agreement shall include preventative maintenance activities and periodic system testing, tuning, and calibration. Maintenance shall also include repair or replacement of malfunctioning Camera Systems or system components, at no additional cost to AHTD. A Camera System or system component is deemed to be malfunctioning if it falls below the performance requirements listed herein or does not perform as accepted by AHTD at the conclusion of the Acceptance Testing.
D.2	The Camera Systems shall be composed of modular replaceable and repairable components to allow for efficient repair and minimal impact to traffic.
D.3	For any failures of the system, the Mean Time To Repair (MTTR) shall not exceed 48 hours. Overall Camera System availability shall be a minimum of 99.5%.
D.4	Problem Reporting: The selected Bidder shall provide a toll-free number for problem reporting, and shall respond, providing a test/ repair plan within 8 business hours after the problem report.