

CITY OF MOBILE

BID SHEET

This is Not an Order

Mailing Address:
 P. O. Box 1948
 Mobile, Alabama 36633
 (251) 208-7434

**Purchasing Department
 and Package Delivery:**
 Government Plaza
 4th Floor, Room S-408
 205 Government St
 Mobile, Alabama 36644

**READ TERMS AND CONDITIONS
 ON REVERSE SIDE OF THIS PAGE
 BEFORE BIDDING**

Typed by: en Buyer: 004

Please quote the lowest price at which you will furnish the articles listed below

DATE 02/28/2020	BID NO. 5395	DEPARTMENT Traffic Engineering	Commodities to be delivered F.O.B. Mobile to: To Be Specified
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This bid must be received and stamped by the Purchasing office not later than: 10:30 A.M., Tuesday, March 24, 2020

QUANTITY	ARTICLES	UNIT	UNIT PRICE		EXTENSION	
			Dollars	Cents	Dollars	Cents
Qty 2 - 4	<p style="text-align: center;">TRAFFIC CONTROL EQUIPMENT - VIDEO IMAGING VEHICLE DETECTION SYSTEM</p> <p>Video Imaging Vehicle Detection System:</p> <p>Includes: low maintenance video imaging vehicle detection system, for N.E.M.A. shelf mount cabinet, each with 4 (four) cameras, dual channel VIVDS cards with ethernet, surge/lightning suppression panel, card mounting rack, power supply, 1,000 feet camera cable, hardware to mount camera to pole, to include all equipment to setup and run.</p> <p>System to meet attached minimum specifications.</p> <p style="text-align: center;">Make _____ Model _____</p> <p>Pricing to be firm for a one (1) year period following the award of this bid. At the option of the City of Mobile and the successful vendor(s), the award of this bid may be extended for two (2) additional one (1) year periods.</p> <p>All items must meet requirements as per the attached specifications.</p> <p>Provide Literature and Specifications on item bid.</p> <p>Quote delivered pricing FOB Mobile.</p> <p style="text-align: right;">Page 1 of 2</p>					
		TOTAL				

**RETURN ONE SIGNED COPY OF THIS BID
 IN ENCLOSED ENVELOPE**

State delivery time within _____ days of receipt of P.O.

Firm Name _____

Typed Signature _____

By _____

We will allow a discount _____ % 20 days from date of receipt of goods and correct invoice of completed order.

1. All quotations must be signed with the firm name and by an authorized officer or employee.
2. Verify your bid before submission as it cannot be withdrawn or corrected after being opened. In case of error in extension of prices, the unit price will govern.
3. If you do not bid, return this sheet and state reason. Otherwise, your name may be removed from our mailing list.
4. The right is reserved to **reject** any, or all quotations, or any portions thereof, and to waive technicalities if deemed to be in the interest of the City of Mobile.
5. This bid shall not be reassignable except by written approval of the Purchasing Agent of the City of Mobile.
6. State brand and model number of each item. All items bid must be new and latest model unless otherwise specified.
7. If bid results are desired, enclose a self-addressed and stamped envelope with your bid. (All or None bids only)
8. Do not include Federal Excise Tax as exemption certificate will be issued in lieu of same. The City is exempt from the Alabama and City sales taxes.
9. PRICES ARE TO BE FIRM AND F.O.B. DESTINATION UNLESS OTHERWISE REQUESTED.
10. BID WILL BE AWARDED ON ALL OR NONE BASIS UNLESS OTHERWISE STATED.
11. Bids received after specified time will be returned un-opened.
12. Failure to observe stated instructions and conditions will constitute grounds for rejection of your bid.
13. Furnish literature, specifications, drawings, photographs, etc., as applicable with the items bid.
14. Vendor May be required to obtain City of Mobile Business License as applicable to City of Mobile Municipal Code Section 34-50. For Business License inquiry contact the Revenue Department at (251) 208-7461 or cityofmobile.org/taxes.php.
15. If a bid bond is required in the published specifications, see below:
Each Bid Shall be Accompanied By A Cashier's Check, Certified Check, Bank Draft Or Bid Bond For the Sum Of Five (5) Percent Of The Amount Bid, Made Payable To The City Of Mobile And Certified By A Reputable Banking Institution. All Checks Shall Be Returned Promptly, Except The Check Of The Successful Bidder, Which Shall Be Returned After Fulfilling The Bid.
16. Contracts in excess of \$50,000 require that the successful bidder make every possible effort to have at least fifteen (15) percent of the total value of the contract performed by socially and economically disadvantaged individuals.
17. All bids/bid envelopes must have the bid number noted on the front. Bids that arrive unmarked and are opened in error shall be returned to vendor as an unacceptable bid.
18. If successful vendor's principal place of business is out-of-state, vendor may be required to **have a Certificate of Authority** to do business in the State of Alabama from the Alabama Secretary of State prior to issuance of a Purchase Order. **Vendors are solely responsible for consulting with the Secretary of State** to determine whether a Certificate is required. See www.sos.alabama.gov/BusinessServices/ForeignCorps.aspx . Please note that the time between application for and issuance of a Certificate of Authority may be several weeks.
19. Vendors do not need a City of Mobile Business License or Certificate of Authority from the Alabama Secretary of State to submit a bid, but will need to obtain the Business License and Certificate of Authority, if applicable, prior to issuance of a Purchase Order.

BID CONTINUATION SHEET

QUANTITY	ARTICLES	UNIT	UNIT PRICE		EXTENSION	
			Dollars	Cents	Dollars	Cents
	<p align="center">Page 2 of 2</p> <p>System / Products Bid are to be compatible with existing equipment in use by the City of Mobile.</p> <p>Upon award, the City of Mobile will purchase minimum quantities.</p> <p>All vendors will be required to provide verification of enrollment in the E-Verify program. Additional information may be found at http://immigration.alabama.gov/</p> <p>If the successful vendor's principal place of business is out-of-state, vendor may be required to have a Certificate of Authority to do business in the State of Alabama from the Secretary of State prior to issuance of a Purchase Order.</p> <p>Vendors are solely responsible for consulting with the Secretary of State to determine whether a Certificate is required. See: www.sos.alabama.gov/BusinessServices/ForeignCorps.aspx. Please note that the time between application for the issuance of a Certificate of Authority may be several weeks.</p> <p>Upon notification, vendor will have 10 business days to provide the Certificate of Authority and the E-Verify numbers to the Purchasing Department before award can be completed. (Vendors will possibly need to pay the expedite fee to meet this requirement because application is not sufficient. We must have a copy of the certificate with your Company ID number).</p> <p>Vendors do not need a City of Mobile Business License or Certificate of Authority from the Alabama Secretary of State, nor the E-Verify for certification to submit a bid, but will need to obtain the Business License and Certificate of Authority verification and/or provide the E-Verify Certification, if applicable, prior to issuance of a Purchase Order.</p> <p>State of Alabama Local Vendor Preference Law 41-16-50 (a) and (d) will apply to this purchase.</p> <p>If you have any questions please feel free to contact the Purchasing Department at 251-208-7434 or purchasing@cityofmobile.org.</p> <p>TO BE AWARDED ON AN ITEM BASIS.</p>					
			TOTAL			

RETURN ONE SIGNED COPY OF THIS QUOTATION IN ENCLOSED ENVELOPE

READ ABOVE INSTRUCTIONS BEFORE QUOTING

Firm Name _____
 By _____

We will allow a discount _____ % 20 days from date of receipt of goods and correct invoice of completed order.

LOW-MAINTENANCE VIDEO IMAGING VEHICLE DETECTION SYSTEM (Intersection Control-Video Detection Only)

1.0 GENERAL

This specification sets forth the minimum requirements for a camera for use with a Video Imaging Vehicle Detection System (VIVDS) that monitors vehicles on a roadway via processing of video images and provides detector outputs to a traffic controller or similar device. The camera must adhere to the latest statewide-approved VIVDS specification and is approved for video detection only. In the case of discrepancies, this specification shall govern.

1.1 Definitions:

- 1.1.1 **Camera Assembly:** The complete camera or optical device assembly used to collect the visual image. The camera assembly consists of a charged coupled device (CCD) or complementary metal oxide semi-conductor (CMOS) camera, environmental enclosure, sun shield, and all necessary mounting hardware.
- 1.1.2 **Live Video:** Video output shall be 30 frames per second.
- 1.1.3 **Lux:** The unit of light intensity used to determine the minimum and maximum values of light in which a camera may operate.

2.0 FUNCTIONAL REQUIREMENTS

- 2.1 Ensure the camera provided works with all approved Traditional VIVDS Processor units to provide real-time vehicle detection in compliance with the latest VIVDS Intersection Control specifications, unless superseded by the specifications listed in this document.
- 2.2 Provide CCTV Cameras in accordance with NTSC and EIA-170A. Conform the system limiting resolution to FCC regulations for broadcast signals. Provide clear, low-bloom and low-lag video pictures under all conditions from bright sunlight to nighttime scene illumination.

3.0 CAMERA ASSEMBLY

- 3.1 As a minimum, each camera shall be of solid state design and provide the following capabilities:

- 3.1.1 Provide a color camera. During night-mode, it may switch over to black and white for better contrast.
 - 3.1.2 Images shall be produced with:
 - 3.1.2.1 A Charge Coupled Device (CCD) sensing element with a horizontal resolution of 480 lines for black and white or 550 lines for color with a vertical resolution for 350 lines for black and white or color. Images shall be output as a video signal conforming to RS170 and NTSC.
 - 3.1.2.2 Or a Complementary Metal Oxide Semiconductor (CMOS) sensing element. This element shall output both digital 1080p or analog NTSC Broadband 1 Vp-p video.
 - 3.1.3 Useable video and resolvable features in the video image shall be produced when those features have luminance levels as low as 0.2 lux for black and white or as low as 1.0 lux for color for night use.
 - 3.1.4 Useable video and resolvable features in the video image shall be produced when those features have luminance levels as high as 10,000 lux during the day. The camera must not sustain any permanent damage when pointed directly at strong light sources, including the sun, for brief periods of time.
 - 3.1.5 The camera shall include an electronic shutter or auto-iris control based upon average scene luminance and shall be equipped with an electronic shutter or auto-iris.
 - 3.1.6 The camera shall not incorporate any mechanically adjustable zoom or focus elements which can move out of adjustment over time due to vibration. Digital zoom is acceptable.
- 3.2 The camera and lens assembly shall be housed in an environmental enclosure that provide the following capabilities:
- 3.2.1 The enclosure shall be waterproof and dust-tight to the latest NEMA-4 specifications.
 - 3.2.2 The PCB's shall be conformally coated.
 - 3.2.3 The camera and lens shall be capable of operating in all weather conditions and able to withstand wind load of 140 mph without permanent damage to mechanical and electrical equipment or loss of alignment. The camera shall be made of material and placed

in a location that minimizes lightning strikes to it.

- 3.2.4 The camera's front lens cover shall be easily replaceable without the use of special tools or the loss of warranty.
- 3.2.5 The unit shall provide strain relief for all cables (AC, DC, Coax, and camera cables).
- 3.2.6 The camera will be designed so as to allow up to two cameras to be mounted on a single U Bracket. The camera shall also be capable of being mounted directly to a mast arm or luminaire pole by only using strapping material.
- 3.2.7 The enclosure shall allow the camera to operate satisfactorily over an ambient temperature range from -40 degrees Fahrenheit to 165 degrees Fahrenheit while exposed to precipitation as well as direct sunlight.
- 3.2.8 Input power to the environmental enclosure shall be nominally 115 VAC 60 Hz or 12 VDC to 28 VDC. The maximum power consumption under all conditions shall be 1.4W or less.
- 3.2.9 The camera enclosure shall also include a sun shield to minimize glare. The front edge of the sunshield shall protrude beyond the front edge of the environmental enclosure and shall include a provision to divert water flow to the sides of the sun shield.
- 3.2.10 All materials used in the enclosures and cables shall include ultra violet inhibitors.
- 3.2.11 When operating in the environmental enclosure with power and video signal cables connected, the image sensor shall meet FCC class B requirements for electromagnetic interference emissions.
- 3.2.12 The lens shall require very little cleaning. The camera lens shall not require cleaning more than once a year.
- 3.2.13 The camera shall not require a heater to keep the lens free from fog, ice and snow accumulations.
- 3.2.14 The camera shall provide digital optical masking capabilities to block bright lights (car hi beam vehicle headlights at night or during sunset/sunrise hi glare conditions).
- 3.2.15 The camera shall have Wide Dynamic Range (WDR) capabilities to further enhance performance under difficult lighting conditions.

- 3.2.16 The camera shall provide both analog and digital outputs.
- 3.3 The output from the camera enclosure shall be in accordance with NTSC and EIA-170A.
- 3.4 Connections for both video and power shall be made to the image sensor using a standard quick disconnect connectors. The coaxial cable termination shall be a standard BNC while the power and ground connectors shall be able to accommodate 14 - 22 gauge solid or stranded cable. The connectors themselves (coaxial and power) shall be fully enclosed inside a waterproof traffic signal housing (NEMA-4 enclosure) with strain reliefs to protect against premature failure due to wind, vibration, hail, snow, ice, water or other weather related elements.
- 3.4.1 All connections shall enter the NEMA-4 enclosure from the bottom of the enclosures to reduce the chance of water leakage into the enclosures.
- 3.4.2 There will be an option to connect the coax cable to the camera without the use of a BNC connector.
- 3.5 The connection between the image sensor and the VIVDS processor unit is a coaxial cable. The coaxial cable used shall be a low loss, 75 OHM, precision video cable suited for outdoor installation, such as Belden 8281 or approved equal.
- 3.6 The camera shall meet TSA cabinet specifications for both environmental and electrical performance.
- 3.7 The power supply shall be rated at least 5 times greater than the power requirement of the camera.
- 3.8 Surge protection shall utilize a triple stage hybrid including a gas tube to withstand up to 20kA of surge. Sneak and fault currents shall be addressed by resettable fuses.
- 3.9 The total weight of the camera in the environmental enclosure shall be 2 pounds or less.

4.0 VIVDS REQUIREMENTS

- 4.1 As a minimum, each VIVDS card shall be of solid state design and provide the following capabilities:
- 4.1.1 Four (4) outputs per card with capabilities of sixteen (16) outputs per card via a SDLC option.

- 4.1.2. SDLC shall be available in either a slide in card or stand along module.
 - 4.1.2.1 The SDLC module shall be able to support up to 6 cameras and 96 outputs.
 - 4.1.2.2 The slide in SDLC card shall provide quad video output of both raw video and video detection overlay.
 - 4.1.2.2.1 The slide in SDLC card shall be able to support up to 8 cameras and 128 outputs.
- 4.1.3 An optional expansion card shall also be available to provide an additional 4 outputs per card.
 - 4.1.3.1 The expansion card can be daisy chained to provide up to 16 outputs.
- 4.1.4 NEMA TS1/TS2, ATC and 170/2070 cabinet compatible.
- 4.1.5 Advanced detection capabilities up to 1,000 feet while simultaneously performing stop bar detection and left hand turn counts plus total vehicle counts from a single camera.
- 4.1.6 Presence, speed and volume capabilities.
- 4.1.7 Set up via USB mouse and monitor or laptop PC (at the intersection or remotely at a TMC/TOC).
 - 4.1.7.1. Field upgradeable software via s USB thumb drive.
- 4.1.8 Ability to store 2 weeks of vehicle counts and queue data in 15 minute increments, then download up to 4 approaches from a single Ethernet IP address from the TMC/TOC or laptop PC.
- 4.1.9 Capable of queue data to 600 ft.
- 4.1.10 Analog NTSC, Ethernet and digital outputs.
 - 4.1.10.1 With the Ethernet option the card shall be capable of being monitored, adjusted and set up remotely at a TMC/TOC.
- 4.1.11 Single or dual channel video input cards.
- 4.1.12 Up to thirty (30) detection zones per card.
- 4.1.13 Meets TSA Electrical/Environmental cabinet spaces.

5.0 ADDITIONAL FUNCTIONALITY

- 5.1 A surge suppression panel will provide Edco CX06-M surge protectors or equivalent.
 - 5.1.1 Each camera power feed shall have a switch to control the individual power to each camera independent of the other cameras at the intersection.
 - 5.1.2 Surge suppression and circuit breaker shall also be incorporated into the power termination panel.
- 5.2 Additional sensors/features shall be capable of being added to the camera sensor platform for further functionality.
 - 5.1.1 A Power Line Modem (PLM) to eliminate the need for the pulling of the power or coaxial cable for communications back to the cabinet. The system shall require the use of the neutral wire and a spare unshielded wire. The output of the PLM shall be either NTSC analog video or digital.
 - 5.1.2.1 The PLM meet FCC Part 15 Carrier Current Device, specifications. The unit shall operate on standard 120V AC wires already available in the intersection.

6.0 INSTALLATION AND TRAINING

- 6.1 The supplier of the video camera shall upon request supervise the installation and testing of the video and computer equipment. If requested a factory certified representative from the supplier shall be on-site during installation.
- 6.2 Up to two days of training shall be provided to City personnel in the operation, setup, and maintenance of the camera. Instruction and materials shall be provided for a maximum of 20 persons and shall be conducted at a location selected by the City of Mobile.
- 6.3 Instruction personnel are required to be certified by the equipment manufacturer. The User's Guide is not an adequate substitute for practical, classroom training, and formal certification by an approved agency. The supplier shall also provide installation and training material on their website.

7.0 WARRANTY, MAINTENANCE AND SUPPORT

- 7.1 The camera shall be warranted to be free of defects in material and workmanship for a period of 2 years from date of shipment from the supplier's facility. During the warranty period, the supplier shall repair with new or refurbished materials, or replace at no charge, any product containing a warranty defect provided the product is returned FOB to the supplier's factory or authorized repair site. Product repaired or replaced under warranty by the supplier will be returned with transportation prepaid. This warranty does not apply to products damaged by accident, improper operation, abused, or unauthorized modification.
- 7.2 During the warranty period, technical support shall be available from the supplier via telephone within 4 hours of the time a call is made by a user, and this support shall be available from factory certified personnel or factory certified installers.
- 7.3 The supplier shall maintain a program for technical support and software updates following expiration of the warranty period. This program shall be made available to the City of Mobile in the form of a separate agreement for continuing support.
- 7.4 The supplier shall maintain an adequate inventory of parts to support maintenance and repair of the cameras and VIVDS cards.
- 7.5 Each unit shall be permanently labeled with Serial Number, Model Number, and Date Code. If the Date Code is incorporated in the Serial Number, the Date Code may be omitted.



PROCUREMENT DEPARTMENT

Potential bidders are responsible to check this site for any **ADDENDUMS** that are issued. It is the responsibility of the **BIDDER** to check for, download, and include with their **BID RESPONSE** any and all **ADDENDUMS** that are issued for a specific **BID** published by the City of Mobile. Failure to download and include **ADDENDUMS** in your **BID RESPONSE** may cause your bid to be rejected.

This is a sealed bid. Any responses faxed or e-mailed will be rejected.

This is a sealed bid. Any response must be submitted in a sealed envelope with the bid number and bid opening date on the outside of the envelope.

Any response that arrives improperly marked or with no bid number and opening date on the outside of the delivery or express package and opened in error will be rejected and not considered.

It is the responsibility of the bidder to insure that their bid response is delivered to and received in the Purchasing Department before the date and time of the bid opening.

Be sure to read the Terms and Conditions. All bids are F.O.B. Destination unless otherwise stated.

Be sure to sign your bid!

Package/Bid Delivery Address:
Purchasing Department
205 Government St. Room S408
Mobile, AL 36644

(Request First Delivery)