

		Date Bids Due: September 23, 2015	Time of Bid Opening: 1:00 P.M.	Bid Opening Location: 800 Lincoln Way, Ames, IA	
Proposal Number: <b>15057</b>	Description: Radar Speed Trailers				
Contract to Begin: October 15, 2015	Date of Completion: October 14, 2017	Proposal Guaranty Amount: N/A	Performance Bond (Y/N) N/A	Liquidated Damages: N/A	
Purchasing Agent: Zach Gillen	E-mail Address: zachary.gillen@dot.iowa.gov	Phone: 515-239-1347	Fax: 515-239-1538		
Company Name:			Federal Tax ID:		
Street Address:		City:	State:	Zip Code:	
Supplier Contact (type or print)	E-mail Address:	Phone:	Fax:		
Supplier agrees to sell items/services at the same prices, terms and conditions to any other Iowa state agency. Regent or Political Subdivision upon request. Please check Yes or No. <input type="checkbox"/> Yes <input type="checkbox"/> No			Are you an Iowa Targeted Small Business? <input type="checkbox"/> Yes <input type="checkbox"/> No		

## GENERAL INFORMATION

This bid proposal includes the Bid Response cover page, Schedule of Prices, Standard Terms and Conditions, Supplemental terms (if any), specifications, mailing label and all other information needed to prepare a bid response. Information in the "Bid Response" above must be typed or completed in ink, signed, and returned in a flat style envelope along with any other information required in the bid proposal prior to the bid opening date and time. Please use the furnished mailing label, or label the bid response as "Iowa Department of Transportation, proposal number & letting date" on the outside of the return envelope. Bidders may personally deliver, mail, or select a carrier that ensures timely delivery. **Faxed or e-mail bids will not be accepted.**

If required, each bid response must be accompanied by a proposal guaranty in an accepted form, in the sum indicated above. Refer to the Standard Terms and Conditions for the accepted forms in which the proposal guaranty requirement may be fulfilled. **Bids lacking a required proposal guaranty will not be considered for award.** If the intended awarded bidder fails to enter into a formal contract within fifteen (15) days after award is made for any reason on their part, the proposal guaranty may be retained by the State.

## PROPOSAL STATEMENT

The entire contents of this Proposal, Addendums to the Proposal, Specifications, Supplemental Terms and Conditions, Standard Terms and Conditions, and Schedule of Prices shall become part of the contract.

We promise to furnish all materials, equipment and/or services specified, in the manner and the time prescribed, at prices hereinafter set out.

We certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a bid; that this bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; and that this bid has not been knowingly disclosed prior to the opening of bids to any other bidder or competitor.

We certify that all materials, equipment and/or services proposed meet or exceed the specifications and will be supplied in accordance with the entire contents of this proposal.

We promise to complete the contract within the contract period, or pay any liquidated damages, if stipulated, for each calendar day as set forth in the bid documents.

Signed \_\_\_\_\_ Date \_\_\_\_\_



## Schedule Of Prices

Number	<b>15057</b>
Date Required	09/23/2015 1:00 PM

**Title** Radar Speed Trailers  
**Delivery Location** AMES, IA 50010  
**Shipping Terms** FOB Destination/Freight Prepaid

**Vendor**  
**PA Name** Zachary Gillen  
**Phone** 515-239-1347  
**E-Mail** zachary.gillen@dot.iowa.gov

**Description**

Product Availability Days: \_\_\_\_\_

**All items must be bid.**

Item	Qty	Unit	Description	Part #	Unit Price	Total Price
1	4	EACH	Radar Speed Trailer, Solar with 18-inch Display, ITEM-1 as per Spec.13-B499-0815			
Comments:						
2	2	EACH	Radar Speed Trailer, Solar with 24-inch Display, ITEM-2 as per Spec.13-B499-0815			
Comments:						
3	3	EACH	Radar Speed Trailer, Solar with 18-inch Display and Data Collection, ITEM-3 as per Spec.13-B499-0815			
Comments:						
4	4	EACH	Radar Speed Trailer, Solar with 24-inch Display and Data Collection, ITEM-4 as per Spec.13-B499-0815			
Comments:						

I HEREBY CERTIFY THAT THIS PROPOSAL MEETS OR EXCEEDS THE MINIMUM REQUIREMENT INCLUDING SPECIFICATIONS AND ADDENDUMS.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



**Iowa Department of Transportation  
Standard Terms and Conditions For  
Bid Proposals/Contracts  
-FORMAL-**

*Formal* is the procurement process required by Iowa law when the estimated, aggregate amount of the purchase equals or exceeds \$50,000.

The entire contents of this bid proposal shall become a part of a contract or purchase order. In case of a discrepancy between the contents of the bid documents, the following items listed by descending order shall prevail:

- Addendums to the bid proposal
- Bid Proposal-
  - Schedule of Prices
  - Specifications
  - Plans and Drawings
- Supplemental Terms and Conditions
- Standard Terms and Conditions

(Example - if a statement in the specifications contradicts a statement in the Standard Terms and Conditions, the statement in the specifications shall apply)

**Preparation of Bid Response:** All bid responses must address all aspects of the proposal including clearly answering all questions within the proposal. Bid responses must be typed or completed in ink and submitted on the forms supplied by the Iowa DOT.

**Bid responses must be signed and received prior to the bid opening date and time as indicated on the Bid Response cover page or bid opportunity. The signed, submitted quotation or bidder's proposal shall become the official bid response to be considered for award.**

**No email, fax or web link bid responses will be accepted. Bid Responses must be signed, sealed and delivered in person or by a mail courier that ensures timely delivery.**

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**A. Bid Proposal**

1. **Bid Opening:** Bid openings are made public and conducted at the Iowa DOT, Ames complex unless otherwise specified. Proposals received after the time of the bid opening will be returned unopened and considered non-compliant.
2. **Communications:** Questions concerning this proposal should be directed to the purchasing agent listed on the bid proposal. Inquiries can be written, phoned, or faxed. In all cases, written communication will take precedence over verbal communication
3. **Proposal Guarantee:** If required, the bid response page will indicate the amount required to be included in the bid response. A Proposal Guarantee can be supplied in one of the following ways: **(1)** Certified check or credit union certified share draft, cashier's check, or bank draft, drawn on a solvent bank or credit union. Certified checks and certified share drafts shall be drawn and endorsed in the amount indicated. Checks or drafts shall be made payable either to the Iowa Department of Transportation (Iowa DOT) or to the bidder. If payable to the bidder, the check or draft shall be endorsed without qualifications to the Iowa DOT by the bidder or an authorized agent. **(2)** An insurance or surety company may be retained to provide a bond in fulfillment of the proposal guarantee requirement. A properly completed and signed copy of the Proposal Guarantee (*Form 131084*) must accompany the bid. **The Iowa DOT's Proposal Guarantee form must be used; no other forms or formats will be accepted.**
4. **Pricing and Discount:** Unit prices shown on the bid/response shall be quoted as the price per unit (e.g., gal., case, each, etc.) as stated in the bid proposal. If there is a discrepancy between the unit bid prices, extension, or total amount of bid, the unit prices shall prevail. Unless otherwise indicated, prices shall be firm for the duration of the contract or purchase. Discounts for early payment are allowed, but not considered in award of the contract.

5. **Acceptance/Rejection:** The Iowa DOT reserves the right to accept or reject any or all bids and to waive irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any supplier(s). The Iowa DOT also reserves the right to accept that bid which is deemed to be in the best interests of the state. Any unauthorized changes, additions, or conditional bids including any ties to another bid or proposal or any reservations about accepting an award or entering into a contract, may result in rejection of the bid. Bids must remain available for award for thirty (30) days from date of bid opening.
6. **Bid Results & Disclosure:** Bid tabulations will be posted on the Iowa DOT website at [www.iowadot.gov/purchasing](http://www.iowadot.gov/purchasing) under the *Bid Award* link referencing the proposal number with an award recommendation indicated. At the conclusion of the selection process, the contents of all received bid responses will be placed in the public domain and be open to inspection by interested parties, according to state law. Trade secrets or proprietary information that are recognized as such and are protected by law may be withheld if clearly identified as such in the proposal.
7. **Quality:** All material shall be new and of first quality. Items which are used, demonstrators, refurbished, obsolete, seconds, or which have been discontinued are unacceptable without prior written approval by the Iowa DOT.
8. **Recycled Content:** The Iowa Code encourages purchase of products and materials with recycled content, including but not limited to paper products, oils, plastic products, compost materials, aggregate, solvents, and rubber products. Recycled items or alternatives must be noted in the bid response, if known.
9. **Shipping Terms:** Deliveries shall be F.O.B. Destination unless otherwise specified. All deliveries shall be accompanied by a packing slip indicating the Supplier, quantities shipped, and the purchase order number(s). All delivery charges shall be included in the bid price and paid by the Supplier. No collect C.O.D. deliveries shall be accepted. When entering into a contract, the Supplier shall notify the freight company that all freight and delivery charges are to be prepaid by the Supplier. Goods delivered to the Iowa DOT Distribution Center at 800 Lincoln Way, Ames, IA shall be received between the hours of 7:00 a.m. and 3:00 p.m. on any day except Saturday, Sunday, or a holiday. For deliveries to other Iowa DOT locations, the Supplier may contact the destination location for available times to deliver as not all Iowa DOT locations have the same business hours. The Iowa DOT will not be liable for any freight claims or unpaid freight bills arising from contract or purchase order issues.

## B. Award

The binding agreement (award) may be issued in the form a purchase order or contract or both depending on the requirements and complexity of the agreement.

1. **Method of Award:** Award shall be made to the lowest responsible, responsive bidder whose bid meets the requirements of the solicitation and is the most advantageous to the Iowa DOT unless otherwise specified. An Iowa bidder will be given preference over an out-of-state bidder when bid responses are equal in all aspects and are tied in price. By virtue of statutory authority preference will be given to products and provisions grown and coal produced within the State of Iowa.
2. **Award Protests:** Protests of award recommendations are to be addressed to the Director of Purchasing, and shall be made in accordance with paragraph 761--20.4(6)"e" of the Iowa Administrative Code.
3. **Contracts:** Successful contractor(s) may be sent either a formal Contract, Notification of Award or purchase order as confirmation of acceptance and award. Any of these binding agreements shall be for the term stated in the bid proposal or on a purchase order and may be renewed for additional period(s) under the same terms and conditions upon mutual agreement as defined. The successful bidder may not assign a contract to another party without written authorization from the Iowa DOT Purchasing Section. A service contract, including all optional renewals, shall not exceed a term of six years unless a state agency obtains a waiver of this provision pursuant to rule 11-118-11(3).
4. **Payment Terms:** The Iowa DOT typically pays properly submitted vendor invoices within thirty (30) days of receipt, providing goods and/or services have been successfully delivered, installed or inspected (if required), and accepted. Invoices presented for payment must be only for quantities received by the Iowa DOT and must reference the purchase order number to be submitted for processing.

5. **Default:** Failure of the Supplier to adhere to specified delivery schedules or to promptly replace rejected materials shall render the Supplier liable for all costs in excess of the bid price when alternate procurement is necessary. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the binding agreement.
6. **Default:** Failure of a Contractor other than a Supplier to meet any specified project completion deadline shall render the Contractor liable for all costs incurred by the Iowa DOT that were: a) necessary to meet said deadline; or b) necessary to complete said project after said deadline. This shall not be the exclusive remedy and the Iowa DOT reserves the right to pursue other remedies available to it by law or under the terms of the agreement.

### C. General

1. **Administrative Rules:** For Additional details on the rules governing the actions of the Iowa DOT Purchasing Section, refer to 761 IAC, Chapter 20, Iowa Administrative Code, entitled "Procurement of Equipment, Materials, Supplies and Services".
2. **Affirmative Action:** The Contractor (and also subcontractor, vendor or supplier) is prohibited from engaging in discriminatory employment practices forbidden by federal and state law, executive orders and rules of the Iowa Department of Management, pertaining to equal employment opportunity and affirmative action. Contractor may be required to have on file a copy of their affirmative action program, containing goal and time specifications. Contractors doing business with Iowa in excess of \$5,000 annually and employing 50 or more full time employees may be required to file with the Iowa Department of Management a copy of their affirmative action plan. Failure to fulfill these non-discrimination requirements may cause the contract to be canceled and the contractor declared ineligible for future state contracts or subject to other sanctions as provided by law or rule.
3. **Applicable Law:** The contract shall be governed under the laws of the State of Iowa. The contractor shall at all times comply with and observe all federal and state laws, local laws, ordinances, and regulations which are in effect during the period of a contract and which in any manner affect the work or its conduct. Any legal action relating to a contract shall only be commenced in the Story County, Iowa, District Court or the United States District Court for the Southern District of Iowa.
4. **Conflict of Interest:** No state or county official or employee, elective or appointive shall be directly or indirectly interested in any contract issued by the Iowa DOT, see Code of Iowa 314.2.
5. **Debarment and Vendor Suspension:** By submitting a proposal, the contractor is certifying that it and its principals and/or subcontractors are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by the State of Iowa or any Federal department or agency.
6. **Equal Opportunity:** Firms submitting bids must be an "Equal Opportunity Employer" as defined in the Civil Rights Act of 1964 and in Iowa Executive Order Number Thirty-four.
7. **Infringement:** Goods shall be delivered free of the rightful claim of any third party by way of infringement. Contractor shall indemnify and save harmless the State of Iowa and the Iowa DOT against all claims for infringement of, and/or royalties claimed under, patents or copyrights on materials and equipment furnished under this bid.
8. **Records Audit:** The contractor agrees that the Auditor of the State of Iowa or any authorized representative of the state, and where federal funds are involved, the Comptroller General of the U.S. Government, shall have access to and the right to examine, audit, excerpt, and transcribe any directly pertinent books, documents, papers, and records of the contractor relating to orders, invoices, or payments of a contract or purchase order.
9. **Targeted Small Businesses:** The Iowa DOT seeks to provide opportunities for women and/or minority small business enterprises. To apply for certification as an Iowa Targeted Small Business, contact the Iowa Department of Inspection and Appeals (515-281-5796). Contractors shall take documented steps to encourage participation from Targeted Small Businesses for the purpose of subcontracting and supplying of goods or services or both.
10. **Taxes:** Prices quoted shall not include state or federal taxes from which the state is exempt. Exemption certificates will be furnished upon request.
11. **Termination:**
  - **Termination Due to Lack of Funds or Change in Law**

The Iowa DOT shall have the right to terminate this Contract without penalty by giving thirty (30) days written notice to the vendor as a result of any of the following:

    - Adequate funds are not appropriated or granted to allow the Iowa DOT to operate as required and to fulfill its obligations under contract.
    - Funds are de-appropriated or not allocated or if funds needed by the Iowa DOT, at the

Iowa DOT's sole discretion, are insufficient for any reason.

- The Iowa DOT's authorization to operate is withdrawn or there is a material alteration in the programs administered by the Iowa DOT.
- The Iowa DOT's duties are substantially modified.

Following a 30 day written notice, the Iowa DOT may terminate a binding agreement in whole or in part without the payment of any penalty or incurring any further obligation to the Supplier. Following termination upon notice, the Supplier shall be entitled to compensation upon submission of invoices and proper proof of claim for goods and services under contract up to and including the date of termination.

**Iowa Department of Transportation  
SUPPLEMENTAL TERMS & CONDITIONS  
For  
Radar Speed Trailers  
Proposal No.: 15057  
Letting Date: September 23, 2015**

**Contract Award**

It is the intent of the Iowa DOT to award the contract to the responsible bidder whose submitted quotation is the most advantageous to the Iowa DOT, cost and other factors considered. Other factors include, but are not limited to: meeting or exceeding mandatory requirements, proposed staffing, and meeting required time schedule. One contract will be awarded for all items.

**Contract Period**

The successful bidder will be awarded a two (2) year contract with an option to renew for three (3) additional years in twelve (12) month increments. A price adjustment may be allowed on each renewal but must not exceed the CPI. (PPI or appropriate index for adjustment may be used) Any adjustment must be mutually agreed upon and be pre-approved by the Iowa Department of Transportation, Purchasing Section.

**Contract Quantities**

Quantity stated is the minimum quantity that will be purchased throughout the contract period.

**Purchase Orders**

One Purchase Order will be issued for quantities stated in the Request for Bid. Purchase orders will be issued for items as needed throughout the contract period.

**Alternatives or Exceptions**

Any equipment being offered as an alternative to the specified make/model must be submitted on the enclosed form "Bidder's Request for Alternatives or Exceptions." The form must specifically state the requested alternative and be accompanied by adequate supporting information to evaluate the request.

The "Bidder's Request for Alternatives or Exceptions" form must be received in sufficient time *prior* to the bid opening to evaluate and respond with the appropriate action. It is suggested that any requests for alternatives be submitted either by e-mail or fax immediately upon receipt of the proposal in order to receive full consideration. Fair treatment to all vendors shall be the primary concern in evaluation of requests for of proposed alternates, particularly those submitted just prior to the bid opening. **Do not submit "Bidder's Request for Alternative or Exceptions" with your bid response.**

**Separate Bids**

A bidder may quote prices on more than one model. Complete a separate Schedule of Prices for each make/model bid.

**Warranty**

Entire unit shall be covered under warranty for at least one (1) year of service. Display, solar charging system, all controls and electronic components shall be covered under warranty for at least two (2) years of service. Warranty shall include all parts and labor to correct any material, workmanship or manufacturer defects. If component manufacturer's warranties are for a longer period, they shall apply. Warranty shall begin when unit is delivered to the assigned Iowa DOT field location.

**Tied Items**

All items are tied.

**Manuals**

A total of twenty one (21) manuals shall be supplied. Manuals may be paper or electronic with one (1) copy minimum being an electronic version. Manuals shall include operator, service and repair information as well as an illustrated parts list. Manuals shall be delivered to Equipment Services (Ames, IA) on or before delivery of the units.

**General Info**

Model bid shall be current standard production, produced in quantity for national distribution. Bid shall include all standard equipment and be complete with all options and accessories as requested or required for proper operation. The Department may at its discretion require a demonstration of the exact model bid. Demonstrations will be at a location of the Department's choosing within the State of Iowa.

**IOWA DEPARTMENT OF TRANSPORTATION  
EQUIPMENT SERVICES  
SPECIFICATIONS  
For  
RADAR SPEED TRAILER**

The following specifications shall apply to the purchase of solar powered, radar speed trailers by the Iowa Department of Transportation, Iowa DOT. Speed trailers shall meet requirements for temporary traffic control devices as outlined in section-6F of the FHWA 2009 Manual on Uniform Traffic Control Devices. Trailers will be used at road construction sites within the State of Iowa to provide vehicle speed detection and display in a portable platform that does not require permanent installation or wiring.

GENERAL REQUIREMENTS

Using built-in radar, the speed trailer detects the speed of an oncoming vehicle in the near lane and far lane, and then displays that speed on a full-matrix LED display informing drivers of their actual speed.

- A. 18" or 24" character height (dependent on model) with full matrix LED display.
- B. MUTCD (2009) compliant
- C. Display continuously shows speeds of approaching vehicles over a threshold and does not flash regardless of speed limit.
- D. Be able to display two digits in MPH.
- E. Regulatory speed-limit sign with easily changeable speed numbers.
- F. Approach-only K-band radar.
- G. Compact and easily portable.
- H. AGM Battery powered & solar charging.
- I. Operating temperature range  $-20^{\circ}$  to  $165^{\circ}$ F ( $-29^{\circ}$  to  $74^{\circ}$ C)
- J. Integral control box with tamper-resistant cover that locks (with key) when latched.
- K. Able to collect and store data (with optional equipment).

**ITEM-1 SOLAR POWERD SPEED TRAILER WITH 18-INCH CHARACTERS**

1. Power system

- A. Solar power system shall charge and maintain batteries automatically without intervention, designed for year round deployment in Iowa assuming minimal solar charging during winter months.
- B. No component shall create a shadow on any portion of the solar panels.

- C. Battery type shall be AGM (Absorbent Glass Mat) sized for seven (7) days of run time without an available charging source.
- D. A 120-volt battery charger shall be wired into the electrical system with an external 3-wire connector.
- E. Both solar and 120-volt charging systems shall be sized and regulated for AGM batteries.
- F. System shall include a low voltage shut off to prevent damage to the batteries. Shut off should not prevent the solar panels from charging the batteries.
- G. Battery box shall be lockable to prevent unauthorized access.

## 2. Speed Display and Behavior

- A. Display shall be two (2) digits displayed in MPH.
- B. Character units shall be of one font and a minimum of 18-inches in height.
- C. Legibility, must be able to determine numbers from 1/4 mile.
- D. Visibility, must be able to determine if the sign is on from ½ mile.
- E. Display shall have the ability to:
  - a. Continuously show the speed of an approaching vehicle and not flash regardless of speed limit or preset thresholds.
  - b. 0 to 50% of speed limit setting -Display is blank.
  - c. 50% to 130% of speed setting - Display shows vehicle speed.

## 3. Cabinet

- A. Display modules and electronics shall be housed in a dust resistant, weather-proof aluminum cabinet.
- B. Display window shall be a minimum of 0.125-inches thick, clear UV resistant, anti-glare polycarbonate.
- C. Display cabinet shall be lockable and provide easy access for repair and replacement of display modules and electronics.

## 4. Display modules

- A. Modular design shall allow for any display module to be easily and quickly installed in any position in the matrix without repositioning DIP switches.
- B. Controller shall be capable of sensing each module's position in the full matrix display with a one-step initialization process.
- C. Modules shall have quick-connect electrical connectors for easy servicing. All wiring shall terminate at a single terminal strip inside the display cabinet.
- D. Display modules shall be mounted on vibration-isolation mounts, decreasing the risk of physical shock during transport and chassis ground.
- E. Module electronics shall be coated with a low-VOC, silicone conformal coating rated to 95% relative humidity, (Dow Corning 1-2577 or approved alternative) to provide long-

term protection against moisture and other atmospheric contaminants and resists corrosion and shorts due to high humidity (acrylic based coatings will not be accepted).

## 5. LEDs

### A. LED requirements:

- a. AllInGaP II (aluminum indium gallium phosphide) technology, T-1¼ size, through-hole auto-insertion.
- b. Color range, Amber, 589.5 to 592.0 nm
- c. Operating temperature -20° to 212°F (-29° to 100°C)
- d. Viewing angle, minimum 30 degrees (15 degrees each side of the viewing axis).
- e. LEDs controlled through 30mA pulse-width modulation design.

### B. Brightness shall vary for optimal viewing and power consumption based on ambient light. System will automatically adjust the brightness of the LEDs.

## 6. Controls

- A. System shall use an LCD display, keypad, Rotary switches or other means to set and view operating modes, matrix displayed speed, error codes and other system information.
- B. To conserve power, display shall power off automatically.
- C. LED indicators (or similar) signify power is on, the solar charging system is active, activated alarms need checking, battery charge is low, and power failure.

## 7. Operating modes

### A. Required modes:

- a. Off Except for the charging system the entire unit is off. Solar panels will continue to charge batteries in this position.
- b. Run Normal operating mode.
- c. Speed Limit Settings 10 to 75 mph in 5 mph increments.
- d. Data Collector Only Used with Traffic Data Collector, when traffic data collection is desired without displaying speed.

### B. Requested modes:

- a. Demo Used for ensuring matrix display is performing correctly.
- b. Preview For viewing available excessive-speed messages and other test patterns, one at a time, regardless of the excessive-speed message that has been configured with DIP switches on the systems board.
- c. Radar Setup Continuous speed mode.
- d. Power Test Used for verifying all matrix-display pixels are functioning, for testing any auxiliary device after replacement, or to fully load the battery and verify it holds a charge.

- e. Status Used for diagnostics and troubleshooting.
- f. Service Used when installing character panels in matrix display, and when uploading new software.

## 8. Radar

- A. Radar requirements:
  - a. K-Band, approach-only senses the largest, nearest mass moving toward it.
  - b. 10 to 99 mph speed range.
  - c. 1000-foot range.
  - d. Centered antenna head for maximum effectiveness regardless of which side of road the trailer is being used.
  - e. Fused and reverse-polarity protected.

## 9. Regulatory Sign

- A. System shall include a regulatory speed limit sign with threaded mounting studs for attaching interchangeable speed limit numbers. Numbers shall be supplied in quantities necessary to display a speed range of 10 to 75 mph in 5 mph increments. Numbers not in use shall store in the trailer's battery box.
- B. Sign requirements:
  - a. Size, 30" x 36" (W x H).
  - b. Color, black characters on white background.
  - c. Height, minimum 5-feet (60-inches) measured from ground to bottom of sign.
  - d. Material, 0.063-inch minimum, tempered aluminum sheet with high-intensity reflective coating.

## 10. Trailer

- A. All trailer components shall be of proper size and design to safely withstand the maximum stresses imposed by all phases of operation.
- B. Trailer shall have torsion or leaf spring suspension and full bolt on fenders.
- C. Lights shall be LED, wired into a standard 4-pin flat connector.
- D. Tires shall be 15-inch minimum LRC mounted on 5-bolt wheels and rated to meet or exceed the GVWR of the trailer.
- E. Trailer shall come equipped with a 2-inch ball coupler. Coupler rating shall meet or exceed the trailer GVWR.
- F. Safety chains, attaching points and components shall meet or exceed the GVWR of the trailer.
- G. No brakes are requested with this trailer.
- H. Two (2) pin-type, adjustable jack stands shall be installed at the rear corners of the trailer and two (2) screw-type adjustable jack stands installed at the front corners of the trailer for support when setup on site.

- I. Trailer shall have a transport position to reduce height and wind drag. Changing between transport and working positions shall be easily performed by one person.
- J. All welding shall conform to current industry standards and American Welding Society recommendations.
- K. Trailer shall meet all current Federal and State of Iowa standards and regulations.

#### 11. Finish

- A. Entire trailer shall be thoroughly cleaned and Powder coated standard Iowa DOT "Omaha Orange". Coating shall be designed for prolonged exterior exposure with the application being of high quality uniform thickness, shiny and free of defects.

#### **ITEM-2 SOLAR POWERD SPEED TRAILER WITH 24-INCH CHARACTERS**

##### 1. General Requirements

- A. Same as ITEM-1 except as noted below.

##### 2. Speed Display

- A. Character units shall be of one font approximately 24-inches in height.

#### **ITEM-3 SOLAR POWERED SPEED TRAILER WITH 18-INCH CHARACTERS AND DATA COLLECTION**

##### 1. General Requirements

- A. Same as ITEM-1 except as noted below.

##### 2. Traffic Data Classifier and Collection System

- A. Speed trailer shall include a traffic data classifier and collection system.
- B. System shall be radar-based registering both approaching and receding vehicles and be nonintrusive (does not require loops or hoses, no disturbance of traffic flow during installation).
- C. System requirements:
  - a. Memory, collection system shall be supplied with sufficient memory for the recording of a minimum of 1 million vehicles.
  - b. Five (5) types of data shall be detected and saved, (Speed-MPH, date, time, direction, length for each vehicle).
  - c. Data shall be Time stamped (Yr,Mo,Dy,Hr,Min,Sec).
  - d. Speed detected shall be between 5 to 99 mph.
  - e. No external power shall be required to run the traffic data classifier system.

- f. Data logger must be able to connect to a cellular modem and download data remotely with vendor supplied software.
- D. System shall be available as an accessory that may be purchased for ITEM-1.

**ITEM-4 SOLAR POWERED SPEED TRAILER WITH 24-INCH CHARACTERS AND DATA COLLECTION**

1. General Requirements

- A. Same as ITEM-2 except as noted below.

2. Traffic Data Classifier and Collection System

- A. Speed trailer shall include a traffic data classifier and collection system.
- B. System shall be radar-based registering both approaching and receding vehicles and be nonintrusive (does not require loops or hoses, no disturbance of traffic flow during installation).
- C. System requirements:  
Memory, collection system shall be supplied with sufficient memory for the recording of a minimum of 1 million vehicles.
  - a. Five (5) types of data shall be detected and saved, (Speed-MPH, date, time, direction, length for each vehicle).
  - b. Data shall be Time stamped (Yr,Mo,Dy,Hr,Min,Sec).
  - c. Speed detected shall be between 5 to 99 mph.
  - d. No external power shall be required to run the traffic data classifier system.
  - e. Data logger must be able to connect to a cellular modem and download data remotely with vendor supplied software.
- D. System shall be available as an accessory that may be purchased for ITEM-2.



## Bidders Request for Alternatives or Exceptions (BRAE)

Letting Date: September 23, 2015

Proposal No.: 15057

BRAE form due on or before: September 9, 2015

Item: Radar Speed Trailers

Spec. No.: 13-B499-0815

Request: \_\_\_\_\_  
\_\_\_\_\_

Bidder Proposes to furnish in lieu of above: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NOTE: The determination of acceptance of this BRAE request is only valid for the bid for which it was submitted. BRAE approvals received for this bid do not determine or set a precedent for what is acceptable in any other bid posted by the State of Iowa.

Email/Fax to:

Iowa Department of Transportation  
Purchasing Section  
Attention: Zach Gillen  
Email: zachary.gillen@dot.iowa.gov

Fax No.: 515-239-1538

Submitted By \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Fax No. \_\_\_\_\_

=====

### DOT USE ONLY

Approved \_\_\_\_\_

Disapproved \_\_\_\_\_

Reason \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Bidder \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **SEALED BID**

**LETTING DATE:** September 23, 2015  
**PROPOSAL NO:** 15057  
**PROPOSAL DESCRIPTION:** Radar Speed Trailers

**Iowa Department of Transportation  
PURCHASING - SEALED BID PROPOSAL  
800 Lincoln Way  
Ames, IA 50010**