

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

Bid Number: <u>                  <b>M-14-041R</b>                  </u>	<b>BID OPENING LOCATION:</b> AHTD Equipment & Procurement Division 11302 West Baseline Road Little Rock, AR 72209	<b>MAIL TO:</b> AHTD Equipment & Procurement Division P.O. Box 2261 Little Rock, AR 72203	<b>DELIVER TO:</b> AHTD Equipment & Procurement Division 11302 West Baseline Road Little Rock, AR 72209
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Bid Opening Date:           **March 25, 2014**           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: _____
Federal Tax ID or Social Security No.: _____	<b>Signature:</b> _____

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

Truck Mounted Thermoplastic Paint Striping Machine                 **1** ea.                 Amount \_\_\_\_\_

To meet the requirements of Arkansas State Highway and Transportation Department Specifications **14-066** attached to and made a part of this bid.

FOB: AHTD – Equipment & Procurement, 11302 Baseline Road, Little Rock 72209

Truck proposed to furnish:  
Make: \_\_\_\_\_ Model: \_\_\_\_\_ Warranty: \_\_\_\_\_

Striping Machine proposed to furnish:  
Make: \_\_\_\_\_ Model: \_\_\_\_\_ Warranty: \_\_\_\_\_

If any literature and/or specifications of items conflict with AHTD specifications, the conflict(s) shall be specifically noted, corrected and submitted with the bid.

**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. **Performance Bond** in the amount of 5% of total bid price will be required of successful bidder prior to providing goods/services. **Personal and company checks are not acceptable as Performance Bonds.** See Condition 3 on page 2.

The successful bidder will be required to complete delivery within **210** days after award.

Bids and Specifications are available on-line by going to the AHTD Web Site – [www.arkansashighways.com](http://www.arkansashighways.com) and clicking on “Commodities and Services Bids/Contracts Information”. Tabulations will also be available at this site within 72 hours after bid openings. If you have any questions, call this office at 501-569-2667.

## STANDARD BID CONDITIONS

## M-14-041R

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. 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). 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 or disability, 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@arkansashighways.com](mailto:Joanna.Mcfadden@arkansashighways.com). 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**

**SPECIFICATION 14-066**

**FOR**

**TRUCK MOUNTED THERMOPLASTIC STRIPING MACHINE**

1. **General:** This specification is intended to cover the purchase of a truck-mounted, self-contained striping machine to apply reflectorized lines utilizing thermoplastic material and glass beads. The machine shall have the capability to apply hot thermoplastic road marking material and glass beads at 60 mils of thickness on dry, clean pavement at speeds up to 10 mph and shall be capable of applying three lines in two colors in either a solid or skip pattern, or a combination of these patterns, and of simultaneously or separately applying a center and edgeline marking.
2. **Chassis:** Tandem axle tilt cab and chassis with low COE type cab.
  - A. **GVWR:** 60,000 pounds, minimum.
  - B. **Cab to Center of Tandem Axle:** Maximum effective CA of 174". The manufacturer of the striping machine shall submit a fully dimensioned plan and profile drawing of the unit (truck and platform) layout with their bid. *The thermoplastic striping truck is used primarily in urban areas where frequent, small radius turns are made. Longer CA's can adversely effect operation in these areas.*
  - C. **Rear Tires And Wheels:** Eight (8) no less than 11R22.5 - load range "H" steel belted tubeless radials. Wheels shall be 22.5" diameter ten (10) hole, hub piloted steel disc with a rim section of no less than 8.25".
  - D. One (1) spare rear wheel (less tire) shall be furnished.
  - E. **Front Tires And Wheels:** Two (2) no less than 425/65R22.5 - load range "L" minimum, steel belted tubeless radials. Wheel shall be 22.5" diameter ten (10) hole, hub piloted steel disc with a rim section of no less than 12.25".
  - F. **Engine:** Liquid cooled, turbocharged diesel with a minimum piston displacement of 10.8 liters developing no less than 385 SAE gross horsepower at a governed speed of no less than 2,000 RPM and a minimum of 1,450 ft. lbs. SAE gross torque. Shall have full flow oil filter(s), fuel filters, dry type air filter, 12 volt electrical system with a minimum of 160 amp alternator and maintenance free batteries as regularly furnished with engine specified.
    - (1) **Engine Brake:** Engine shall be equipped with compression brake system designed to use engine compression to retard engine speed. Shall be capable of utilizing all engine cylinders for braking effect.
    - (2) **Engine Shutdown:** Engine safety shutdown system with manual or automatic override to include the following features: low oil pressure - warning bell/buzzer plus shutdown, high coolant temperature - warning bell/buzzer plus shutdown and low coolant level - warning bell/buzzer plus light or shutdown.
    - (3) **Cooling System:** Heavy duty cooling system as recommended by the manufacturer for use with the engine size specified above, equipped with engine coolant filter and conditioner. Shall have anti-freeze protection to -20° F, or lower.
    - (4) **Block Heater:** Engine shall be equipped with a block heater rated at no less than 1,500 watts which will operate on 120 volts AC.
    - (5) **Exhaust System:** Vertical exhaust stack with rain cap or curved outlet. Exhaust stack to be equipped with a heat shield.
  - G. **Transmission:** Allison 4560P RDS automatic with a minimum of six forward speed. Transmission shall have synthetic lubricant and be equipped with a transmission oil cooler.
  - H. **Steering:** Hydraulic actuated power steering as regularly offered by manufacturer.
  - I. **Front Axle:** I Beam type with wet seals, outboard mounted drums and a minimum capacity of 20,000 pounds.
  - J. **Front Suspension:** Leaf springs with a minimum capacity of 20,000 pounds.

- K. Rear Axle: Tandem axle with power divider and inter-axle differential with lockout. Shall be full floating type with wet seals, synthetic lubricant, outboard mounted drums, and have a minimum capacity of 46,000 pounds. Shall have a ratio of 5.38, 5.43 or 5.57 to 1. Alternate ratio may be provided if approved by AHTD prior to delivery.
  - L. Rear Suspension: Air ride suspension with a minimum capacity of 46,000 pounds. Shall include dual instant response rear suspension leveling valves.
  - M. Air System: Air compressor shall have a minimum capacity of 16.5 cfm and draw air through the engine air cleaner. Air system shall be equipped with a heated air dryer.
  - N. Brakes: Factory installed full air operated two shoe type with automatic slack adjusters and dust shields on front and rear. Rear brakes shall have spring set parking brakes. Front axle may be equipped with disc brakes per chassis manufacturers recommendations.
  - O. Frame: Section modulus and yield strength of frame material shall provide a minimum RBM of 3,200,000.
  - P. Tow Hook: A minimum of one (1) front tow hook shall be provided. One on either side of the frame.
  - Q. Cab: Shall be low COE tilt cab design as regularly furnished by manufacturer complete with insulation and all interior trim. Cab glass shall include windshield, roll-up windows in doors and rear cab glass as a minimum. Shall have key type lock on right and left doors, factory installed fresh air heater-defroster unit, grab handles on each side, right and left sun visors, right and left arm rests and fitted rubber floor mat.
    - (1) Instruments: Speedometer/odometer, electric tachometer, electric hourmeter, ammeter or voltmeter, oil pressure gauge, coolant temperature gauge, transmission oil temperature gauge, fuel gauge and air brake pressure gauge.
    - (2) Windshield Wipers: Dual electric intermittent windshield wipers with washers.
    - (3) Heated Mirrors: Dual West Coast Sr. type heated mirrors no less than 6" x 16" with adjustable brackets and auxiliary convex mirrors.
    - (4) Suspension Seats: Driver's and passenger's air suspension seats with seat adjustment including back cushion.. Shall include driver's and passenger's seat belts.
    - (5) Low speed Throttle Control: Shall provide an electronic low and high speed control, which when activated will automatically maintain a constant speed within the normal striping range of five(5) to twelve (12) miles per hour and normal highway speeds.
    - (6) Air Conditioning: Shall be equipped with factory installed air conditioning and include tinted glass all around.
    - (7) Horn: Single-base, dual trumpet air horn.
    - (8) Radio: Factory installed electronic AM/FM/CD radio.
  - R. Turn Signals: Class A directional turn signals with hazard flasher switch. Rear signals to be wired for stop and tail lights in addition to directional signals.
  - S. Fuel Tank/s: Minimum fuel capacity of 180 gallons. Shall have an instrument panel fuel gauge.
  - T. Backup Alarm: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 97 decibels.
  - U. Color: Cab and Wheels shall be Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal. Grill, front bumper, mirrors and frame shall be as regularly furnished by manufacturer.
  - V. Tools: Lug wrench with handle.
3. Platform: The vendor shall supply and install on the chassis a steel platform of adequate size to accommodate all equipment. The bed shall not exceed 96" in total width. The platform shall, as a minimum, be constructed of 4" @ 5.4 pounds per foot structural channel cross-members welded to two 6" @ 8.2 pounds per foot structural channel longitudinal frame rail members. Spacing of the cross-members shall not exceed 24". The platform shall have two (2) 4" @ 13.8 pounds per foot channels supporting the melting tanks and two (2) 4" @ 13.8 pounds per foot channels supporting the thermoplastic material storage area. A

4" @ 5.4 pounds per foot steel channel shall be welded to the outside of the structural cross-members on each side of the truck platform. Undercoating will be applied to the underside of the platform.

- A. A material storage area capable of storing 4 pallets (1 pallet deep x 2 pallets wide x 2 pallets high (stacked)) of thermoplastic material with removable 55" high storage side railings shall be provided on the platform near the melter feed doors. The removable rails and arrangement of the thermo storage area should allow for easy placement of the pallets of thermo material using a fork lift.
  - B. The platform shall have a non-skid, 11 gauge minimum, steel safety treadplate surface.
  - C. The platform shall be mounted to the chassis frame with a minimum of 10" high risers constructed from 8" @ 13.75 pounds per foot channel backed by 3/8" x 10" steel plate. These risers shall be welded to the platform and bolted to the truck rail side members with 5/8" diameter grade eight bolts. A 1/8" x 2-1/2" x 10" aluminum crush plate shall be inserted between the riser and the top flange of the frame rail to protect the rail from fretting.
  - D. Access ladders shall be provided on each side of the material storage area. The access ladders will be hinged to fold up into alignment with the platform railing when not in use, and will have spring loaded locking mechanisms to hold the ladders upright when not in use.
  - E. A steel rail shall be installed around the perimeter of the deck in areas requiring protection. The rails shall be a minimum of 42" high and shall be bolted in place for easy removal.
4. Rear Bumper/Platform: A 72" wide x 24" deep rear bumper/platform shall be provided. All required clearance lights shall be mounted to the platform.
5. Front Guide: A front mounted adjustable pointer guide shall be provided. The pointer shall be adjustable in length from 7'8" to 13'. The unit shall be mounted directly on the front bumper, and so designed that it can be easily swung and secured to brackets attached to the bumper face for easy transport. A square tube within a square tube design will be provided. The guide shall be movable from the left hand side to the right hand side operating positions. The guide will ride on a pneumatic, rubber tired caster wheel when in the operating (float) position, and contain a flag socket at its forward end.
- A. The guide assembly shall be equipped with a hydraulic lift capable of lifting the pointer off the ground approximately 45° to 60° for transporting or maneuvering the striper. The controls for controlling the pointer shall be located in the truck cab, and be easily accessible to the operator. In order that the pointer will follow the road contour there shall be a float position in the hydraulic controls when in the lower position.
  - B. The use of hydraulic power from the chassis power steering unit to power the front guide is not acceptable.
6. Rear Operators Shelter: A ROPS certified, air conditioned and heated rear operators shelter shall be supplied on the unit. The cab shall be rectangular, approximately 96" wide and 60" deep, with an overall height of approximately 78". The ROPS structure shall be an integral part of the enclosure. Access steps approximately 30 1/2" wide, constructed of no less than 11 gauge safety tread plate, shall be mounted at the rear. A 1" minimum steel pipe hand rail shall also be provided.
- A. Enclosure shall be a steel tubing structure with weathertight, sheet steel covering, basically constructed as follows:
    - 1) 4" x 4" x 1/4" wall tube base perimeter with 4" x 2" x 1/4" wall tube cross members.
    - 2) 3" x 3" x 1/4" wall tube vertical posts.
    - 3) 2" x 2" x 1/4" wall tube horizontal.
    - 4) 3" x 3" x 1/4" wall tube ceiling perimeter with 2" x 2" x 1/4" wall tube cross members.
    - 5) 1/8" diamond tread plate steel floor.
    - 6) 16 gauge sheet steel skin.
  - B. The enclosure shall be equipped with two doors: one at the right hand front corner of the shelter to provide access to the striping equipment platform, and one at the center rear to allow access to the

operators console from the rear of the vehicle. Each door shall be equipped with fixed windows of approximately 20" x 20" and a key lock. (both doors keyed alike).

- C. There shall be a minimum of five (5) sliding windows.
  - 1) A front window
  - 2) A window behind each operator
  - 3) A window to the side of each operators station (minimum 35" H x 47" W)
- D. There shall be a minimum total glass area of 54 square feet. All glass shall be laminated and tinted, and no less than 3/16" thick.
- E. As much as possible, the front and sides of the operators shelter should contain windows to allow the operators a clear view of the striping equipment platform and the roadway where pavement marking is being applied
- F. The enclosure shall be bolted to the rear of the platform
- G. Two (2) separate and complete roof mounted heater/air conditioner units shall be installed. The heater portion of each unit shall have a minimum output rating of 20,000 BTU. The air conditioning portion of each unit shall have a minimum output rating of 17,000 BTU.
- H. Two (2) lockable tool boxes will be mounted inside the operators shelter.
- I. Two (2) air ride type high back bucket seats with armrests and seatbelts shall be mounted as work stations for the operation of the striping equipment.
- J. One (1) hinged, two piece steel construction operators console will be mounted in the shelter between the rear operators stations. The hinged console design will enable easy access to console mounted controls for repairs and maintenance. Access to the inside of the console shall require no tools. Bidders shall provide photo documentation showing the hinged console system proposed in both the closed and tilted position.
  - 1) All controls affixed to the console will be clearly labeled and securely mounted.
  - 2) All wires, cables, hoses and tubing inside the console will be adequately secured and properly labeled and color coded for ease of maintenance and repairs.
  - 3) The control console shall consist of an intergral sheet metal covered framework providing space for control panel, electric controls, spray and thermoplastic heat and delivery system controls, spray gun atomizing controls, and any other auxiliary parts required by the spray equipment.
  - 4) The control panel shall be mounted in an inclined position so that it can be observed from either operators position.
  - 5) A condensate drain hose with petcock shall be located on the panel air manifold and its discharge hose routed to the rear of the truck.
  - 6) There shall be one toggle switch to turn off the glass bead guns without turning off the paint guns. Each glass gun shall be equipped with a toggle switch that allows each glass gun to be tested without the paint guns turning on.
  - 7) A master control switch controlling power to all functions shall be located in the chassis cab and an additional master switch located at the operator console shall control power to all rear (operators shelter) controls.
- K. Two portable hand boxes connected to the master console by means of electrical umbilical cords shall be provided. These boxes shall be aluminum construction approximately 10" x 6" and have environment proof sealing. A bracket for storing the hand boxes shall be conveniently located at each operators station.
  - 1) The boxes shall be equipped with a "solid/off/skip" solenoid control switch for each paint gun.
  - 2) A master control light and indicator light shall show "ready" or "zero" condition of the controller.

- 3) An advance/retard control for the skipline mechanism to register new line over old line shall also be provided.
- L. Provision shall be made so that any glass sphere guns may be controlled from the same system for simultaneous spray gun and glass gun operation. All electrical wiring shall be enclosed in conduit type protective case. Any wires passing through the deck shall have grommets around them.
- M. All electrical controls shall be 12 volt DC power only and be protected by manual reset circuit breakers mounted in the console or other readily accessible area.
- N. The shelter shall have two 12 volt dome lights mounted inside for illumination during night operations.

7. Air Compressor:

- A. The air compressor shall be a rotary screw type capable of supplying a minimum of 250 cubic feet of free air per minute at 100 psi. The compressor shall be directly mounted to a liquid cooled, four-cylinder, overhead valve diesel engine.
- B. An A.S.M.E. certified air receiver/oil separator shall be included.
- C. The compressor shall be mounted on a skid base so it may be handled and mounted as a unit. The compressor shall be located so air blows out of the left (drivers side) and does not blow on the operators when loading. A complete housing with hinged or sliding doors shall be supplied for weather protection.
- D. The compressor operating control panel shall be located at the end of the compressor so the controls are located on the curb side of the platform. They must be readily accessible from the ground. In addition to operating controls, the compressor must have gauges showing oil and air pressure, water temperature, an ammeter and an electric hour-meter. A sight gauge or oil level dip stick shall be included in the air sump to indicate oil level. A moisture separator, adjustable oiler, automatic blow down valve, and a minimum pressure valve shall be included as standard equipment.
- E. A manual valve shall be located on the curb side the cut the compressor off from the remainder of the air system.
- F. An air take-off will be provided on both the right hand and left had side of the truck with a quick disconnect air chuck.
- G. Unit shall be equipped with a fuel tank with a minimum capacity of 18 gallons. In addition, a fuel selector valve with LED indicator light to enable selection of compressor fuel source between the compressor fuel tank and the chassis fuel tank will be provided.
- H. The air compressor shall have remote "kill switches" located in the operators shelter and the truck cab.

8. Compressed Air System:

- A. Two (2) finned tube type air cooler assemblies equipped with integral electric fans shall be installed in the compressed air system from the air compressor to cool the air and enhance moisture separation.
- B. A coalescing dryer tank shall be installed on the compressed air system to aid in moisture condensation.
- C. Three (3) self-expelling automatic moisture separators will be installed. One separator shall be dedicated to the main airline, one for the bead tank air system and one for the Venturi supply.
- D. Two (2) adjustable air oilers shall be installed in the airlines to supply oil to the gun actuating solenoids. The oiler must be readily accessible for servicing.
- E. Air pressure regulators and gauges to control bead tank pressure and spray gun atomizing pressures shall be mounted in rear operator's control console.



- F. Unit will be equipped with a blow air system plumbed to the gun carts to clean the road surface directly in front of the spray guns. System shall be equipped with on, off, and auto functions.
  - G. All air manifolds used to distribute compressed air will be made of aluminum.
  - H. A quick coupler shall be located at the rear of the unit to facilitate the use of air tools.
  - I. A “blow down” compressed air system to purge residual thermoplastic from the pumps, manifold, re-circulation lines, material lines and guns shall be provided.
  - J. The air system shall include two (2) weather resistant “boxes” mounted on the outermost section of the gun carts. These boxes shall house all operating solenoids for the thermoplastic application devices and glass bead guns. Bidders shall provide photo documentation showing the placement of the boxes. Photos shall show access method to the solenoids in the opened and closed position.
9. Auxiliary Engine: Power for the hydraulic systems shall be provided by a liquid cooled, turbocharged diesel engine developing a minimum of 99 horsepower at rated RPM (Cummins 4BT4.5, or approved equal). It shall be equipped with a minimum of three (3) hydraulic pumps to power the various striper systems. Shall include a 120 amp minimum alternator, full gauge package, and an engine hourmeter. It shall be housed in a steel frame equipped with a hinged, diamond plate access door. Fuel for this engine shall be drawn from the chassis fuel tank. The engine shall be mounted on the curb side of the truck, under the equipment platform, and placed so that all fluids and filters are easily serviceable.
10. Hydraulic System:
- A. The hydraulic system shall consist of three pumps mounted to the auxiliary engine. One pump shall power the steering orbital, one pump shall power the material pumps and one pump shall power all other hydraulic systems.
  - B. The hydraulic system shall be equipped with a hydraulic reservoir equipped with a sight gauge, magnetic particle separator, interior baffles, removable lid and “cleanout” fittings. The hydraulic system shall be equipped with a hydraulic cooler of sufficient size for the system. It shall be mounted on top of the air compressor housing to allow for maximum air flow.
  - C. Two (2) hydraulic steering orbitals with steering wheels will be installed to enable the right and left side rear operators to control the hydraulic cylinders that provide lateral movement of the gun carriage assemblies.
  - D. A hydraulic cylinder will be installed on the front bumper mounted guidance bar. The striper driver will be capable of electrically controlling this cylinder with raise, lower, and float functions.
  - E. One (1) external hydraulic filter mounted in the oil return plumbing to the hydraulic reservoir will be provided.
  - F. All pre-melters shall be equipped with a “load sense” pressure compensating system that will sense load requirements. The hydraulic system shall include RPM flow control valves and directional control valves which allow for forward, neutral and reverse positions for the agitators.
  - G. Hydraulic lift cylinders shall be provided for the gun carriage system.
  - H. A hydraulically driven heat transfer oil circulation pump system shall be provided. The pump(s) shall be located within 30” of the oil heating system. Bidders shall supply photographic documentation of this system.
  - I. Hydraulic motors shall be provided to power the material pumps. The hydraulic motor drive system shall incorporate a dual speed control system on the centerline side and edgeline side of the pumps to allow for the application of two lines simultaneously in spray or ribbon extrusion application methods.
  - J. A PTO driven, backup hydraulic pump shall be provided to run the melter kettle agitating paddles.
11. Marking Material System:
- A. Two (2) 4000 lb capacity air jacketed thermoplastic pre-melting kettles with foldable steel steps and railings shall be provided. Kettles shall be equipped with safety doors. The three safety door

system shall consist of a main door which resists rain from entering the melter. When loading the material, the first door is lifted, the second safety door is then pulled downward (the second door is also the shelf for the bag or block thermoplastic), the third door is hinged to minimize exposure of the material, fumes and heat contained in the kettle. A flash panel shall be located away from the material loader and to the rear of the lid. The two kettles shall be mounted in a common housing which will allow for more efficient heat retention.

- B. The kettles provided shall be diesel fired 4,000 pound capacity air-jacketed, vertical design thermoplastic pre-heating kettles (8,000 lb. total capacity). They shall be equipped with hydraulically driven agitators and thermostatically controlled electronic ignition systems with a safety shutdown system. Pre-heating kettles shall be equipped with digital material temperature displays installed near the kettle feed doors to allow the material loader to monitor the material.
- C. Each pre-melter kettle burner compartment shall be lined with stainless steel. A ¾" stainless steel "floating" burner deflector plate and primary deflector plate shall be provided for each pre-heating kettle.
- D. Each pre-melter shall be equipped with a 12 volt diesel fired burner with integral safety shut down system. Each burner shall be rated at a minimum of 210,000 BTU. Fuel for the burners shall be drawn from the chassis fuel tank. Each pre-melter shall be equipped with an inspection door that requires no tools to open.
- E. Each pre-melter shall be equipped with a 3" diameter cleanout outlet with screw on cap.
- F. The melter's material outlets to the material pumps shall be mounted below the bottom level of the pre-melter "floor" to allow melters to be drained completely. Bidder to supply photo documentation to document compliance.
- G. Each pre-melter shall be equipped with an auger enhanced multi-paddle agitator. It shall be designed to provide a full "sweep" horizontally as well as vertically. The agitator shafts shall have replaceable end shafts. An inner auger shall be incorporated into the agitator shaft to provide additional agitation.
- H. Two (2) model Moyno IL-10 hydraulically driven material pumps shall be provided to provide thermoplastic material to the application devices. The pumps shall be equipped with digital readout pump RPM indicators. The pumps shall be "fed" from the pre-melters from two manual actuated knife valves mounted on the rear most section of the pre-melters. Both material pumps shall be equipped with two-speed pump controls capable of maintaining two even width and thickness lines simultaneously while in either a double or solid application or solid and skip application. The two (2) knife valves shall be controlled by manual actuators.
- I. The thermoplastic system shall incorporate a re-circulation system on both material pumps as well as a material recirculation system from the filter/manifolds to each of the melters. Bidder to supply photo documentation to document compliance. A steel step assembly with hand rail mounted to the bed shall be provided to access re-circulation handles.
- J. The system shall have an easily accessible oil jacketed material crossover line installed between the left and right side material plumbing mounted under the deck with a return line to the white kettle for white skip line operation.
- K. The system shall be equipped with 1 ½" ID oil jacketed lines from the material pump outlet to the filter /manifolds assembly.
- L. Two (2) oil jacketed material / manifolds which shall be mounted, one on each gun carriage. The manifolds should be provided with a snap on insulating cover.
- M. Two (2) oil jacketed material filter/manifolds with full flow SST outlet valves shall be mounted on the gun carts. The manifolds should be provided with a snap on insulating cover. Each shall be equipped with a perforated filter to strain the thermoplastic. Material lines to the application guns shall be by a 1 ¼" ID oil jacketed hose. Manifolds shall be mounted on the carriages to allow for material lines to the thermoplastic application guns to be no longer than 42".

- N. All pre-melters shall be mounted in a common housing allowing efficient use of the BTU's from each melter to aid in heating of the entire melting system. The entire pre-melting area shall be insulated with a minimum 2" thick fiber board material. Bidder to supply photo documentation showing pre-melter housing and insulation material to insure specification compliance.

12. Marking Material Heating System:

- A. The marking material heating system shall have a diesel fired heat transfer oil heating furnace with a thermostatically controlled ignition system. The heat transfer oil furnace will be equipped with an automatic high temperature safety shut down limit switch. Fuel for the burner shall be drawn from the chassis fuel tank. The furnace shall be mounted in front of the rear axles, away from the rear operators shelter.
- B. The system shall include an oil expansion tank with heat shield, sight gauges and an overflow hose mounted on the deck. The overflow hose will be routed through the striper deck to the road surface.
- C. There shall be heat transfer oil temperature gauges installed at various points in the oil circulation system
- D. The hot oil system shall be engineered to provide and maintain sufficient heat to apply spray or ribbon extrusion applications throughout the material delivery system during striping operations.
- E. Melter and furnace thermostat controls for the material marking heating system will be mounted in the rear operator's control console.
- F. All oil jacketed lines included in the material marking system and marking material heating system shall be wrapped in fiberglass (or equivalent) insulation and sealed to prevent moisture from entering the insulating material.

13. Reflective Media System:

- A. One (1) A.S.M.E. certified reflective media tank, no less than 42" in diameter, with a minimum capacity of 2,000 pounds shall be mounted to striper deck. Tank shall be equipped with a 14" minimum diameter lid. The suction inlet on the tank will be equipped with a male camlock coupling and cap.
- B. The tank pressure will be controlled by an individual regulator and gauge mounted in the rear operator's control console.
- C. The unit will be equipped with a Venturi vacuum bead load system. The Venturi will exhaust below the striper deck through a muffler.
- D. One (1) detachable 15' long suction load hose will be provided. The hose will be equipped with a female camlock coupling to enable quick connection to the suction inlet on the bead tank.
- E. Two (2) glass bead manifolds with exhaust mufflers shall be mounted to the gun carriage assemblies. One (1) mounted on the centerline side and one (1) on the edgeline side.

14. Carriages Assembly: Two spray gun carriage assemblies, one on the drivers side, and one on the passenger side, shall be supplied and mounted behind the vehicle's rear wheels to support and align the spray guns. The gun carriages should be constructed from material of sufficient rigidity to prohibit flexure under normal operating conditions from the weight of the carriage and spray gun assemblies when in use. The main (centerline) gun carriage, mounted on the left hand side of the vehicle, shall have provisions for attaching three (3) spray guns and three glass sphere guns. The edgeline gun carriage, mounted on the right hand side of the vehicle, shall have provisions for attaching one (1) spray gun and one (1) glass sphere gun.

- A. Two (2) wheels mounted on castering axles shall support the carriage and maintain it at a fixed height from the road surface. The caster wheels shall consist of 3 x 5 inch tires, steel wheels with greasable bearings, and heavy duty front mounted swivel forks.
- B. A pneumatic lift cylinder with a minimum diameter of 3" and a minimum stroke of 9", controlled from the operators position, shall be used to raise the carriage to a transport position. An auto-lock storage bracket shall be provided to hold it in this position during transport. The cylinder shall also maintain a constant down pressure on the carriage wheel assembly during operation.

- C. The cross slide supporting the carriage shall allow the carriage to be positioned for transport within the width of the vehicle platform, and permit its use anywhere from this location outward for a distance of no less than 48". The slide shall be a dual telescoping tube in tube structure fabricated from 3 1/2" square tubing and 2 1/2" square tubing with the moving portion supported by UHMW Polyethylene bearing blocks requiring no lubrication.
- D. Each carriage slide shall be equipped with a hydraulic cylinder for moving the carriage to any point within its operating range. The cylinder shall be double acting with a minimum diameter of 2", controlled by a power steering control and steering wheel conveniently located for the operator in the rear shelter. The steering wheel shall be no less than 14" in diameter and be tilt adjustable.
- E. Hydraulic power for the operation shall be supplied by a high pressure, gear driven pump driven directly from the auxillary engine. A belt driven hydraulic pump will not be acceptable.
- F. Provisions shall be made to prevent the carriage assemblies from drifting out when not in use.
- G. All bearings or pivots on the carriage or linkage, where relative motion occurs, shall be fitted with replaceable bearings or bushings. All bearings that are not prelubricated and sealed shall have pressure lubrication fittings.
- H. The gun cart/carriage system shall have an "auto-reverse/up" feature that will automatically lift the gun carts off the roadway when the striping truck is in operation and is shifted into reverse.
- I. Each carriage shall be equipped with a machined aluminum air manifold to support all paint and bead gun on/off solenoids.
  - (1) There shall be an individual solenoid with stainless steel body and 1/4" NPT ports for each gun.
  - (2) A brass manual petcock shall be located between the manifold and each control solenoid.
  - (3) The air control line to each gun shall be 3/8" OD UV protected nylon meeting the requirements of SAE J844 type B and DOT FMVSS 571.106. The line shall be color coded blue and equipped with push to connect or air brake fitting connections.

15. Gun Carriage Layouts:

A. Centerline Gun Carriage:

- (1) The centerline gun carriage will include:
  - Three (3) MRL-oil jacketed spray guns (3 yellow with provisions to apply white material from the outside gun with material provided from oil jacketed cross overline with all required valves).
  - One (1) bead manifold.
  - Three (3) Binks bead guns
  - Three (3) blow air nozzles mounted on an adjustable mounting bracket in front and in-line with the spray guns.
- (2) Centerline gun carriage layout diagram:

⊕	⊕	⊕	Three (3) Blow Air Nozzles.
◇	◇	◇	Three (3) MRL Oil Jacketed Spray Guns.
□	□	□	Three (3) Binks Bead Dispensers.

B. Edgeline Gun Carriage:

- (1) The edgeline gun carriage will include:
  - One (1) MRL oil jacketed spray gun (white).
  - One (1) Binks bead gun
  - One (1) bead manifold.
  - One (1) blow air nozzle mounted on an adjustable mounting bracket in front and in-line with the spray gun.
- (2) Edgeline gun carriage layout diagram:

⊕	One (1) Blow Air Nozzle.
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- ◇ One (1) MRL Oil Jacketed Spray Gun.
- One (1) Binks Bead Dispenser.

- C. Operator shall be able to see the guns.
- D. All spray gun and bead dispenser actuating solenoids will be mounted in weather resistant, steel boxes equipped with bulkhead fittings enabling the air hoses to exit to the spray guns and bead dispensers. These boxes will be mounted at the outermost edges of the gun carriage assemblies, just below and flush with the endplate for the gun carriage tube assemblies. Photo documentation showing all weather resistant boxes and bulkhead fittings shall be submitted with the bid.
- E. Each spray gun (four (4) total) shall be equipped with a 12 volt linear electric actuator to raise and lower the gun from the rear operators position.

16. Electronic Skip-Line System:

- A. Two solid-state electronic gun controllers and microprocessors shall be supplied, one each for left and right side skip operation. MB Model 3001 or Skipline model SM5 or approved equal.
- B. The controllers shall be adjustable by the operator while the machine is in motion or standing still. The operator should be able to time skip patterns for left and right synchronized or independent operation if striping from both sides.
- C. The controllers shall be adjustable so that any combination of skip and paint may be obtained from 0.1 to 99.9 ft., adjustable by 0.1 ft. increments.
- D. The controllers shall be equipped with an “advance” and “retard” switch, which will advance or retard the cycle in increments of 0.2 of a foot per actuation of the respective switch. This switch shall be located in the remote operator control panels.
- E. A provision to start the cycle with the paint portion of the cycle or with the skip portion shall be selectable.
- F. On command, the controllers shall immediately reset to “ready” or “start cycle” position. The reset switch shall be located in the remote control operator panels. There shall also be an off position.
- G. All adjustments must be so that these functional changes can be made readily by the operator while the machine is in motion or stopped.
- H. Timing system shall operate at speeds up to 15 MPH minimum at ambient temperatures from 30 to one-hundred-seventy-five degrees (175) F.
- I. The controllers shall have a digital display with simple controls and inputs.
- J. The system shall provide for bead gun delay to fully cover the paint line.
- K. Controller shall keep a constant cycle for 3 line striping when a skip line switches from one paint gun to the other as the gun switch goes through neutral.
- L. A six digit, digital reset, footage and gallon meter capable of measuring actual feet of line applied per gun and gallons per color applied shall be provided in the system. The meters shall be integral to the master control center. Footage counters shall accumulate and display upon command the total feet (or meters) painted by each striping gun to the nearest foot.
- M. Two (2) handheld thumb control switches with spring coiled cord shall be provided for control of skip patterns using a manual, automatic, or semi-automatic setting when activated by a 3 position switch in each controller.

17. Operators Communication System:

- A. An intercommunication system shall be furnished to provide a means of vocal communication between the driver of the vehicle and the operators of the striping equipment. This system shall provide open communications for all operator stations. The system shall operate on 12 volt DC from the truck chassis. A master station shall be located in the truck cab with two (2) headset jacks. The unit shall be in a polycarbonate, weatherproof housing with weather-tight connectors and covers on the housing.

- B. Two lightweight, dual ear headsets for the rear operators and one (1) lightweight, single ear headset for the front cab operator shall be provided. The headsets shall be equipped with clear isolated reception, M-7A noise cancelling microphone, and on/off/microphone controls for hands free communications.
- C. The rear operator headset station shall provide a listen volume control and have weather tight connectors and cover.
- D. A noise filter will be installed in the system to prevent feedback from other electrical components.

18. Electronic Traffic Warning Lights:

- A. The unit shall be equipped with one (1) four by eight (4' x 8') foot 25 light multi-function arrowboard mounted to the rear operator cab with a 12-volt linear actuator to raise and lower the arrowboard. The arrowboard control panel and actuator control switch will be mounted in the chassis cab.
  - (1) The board shall pivot to a horizontal, lights down, position for storage and transport.
  - (2) The board shall be mounted so when in the raised position, the maximum height of the top of the board is no more than 12 ft. from the ground.
  - (3) Rubber stops shall provide support to the board in the operating and storage positions.
- B. A minimum of two (2) amber strobe lights shall be mounted on the rear of the unit.
- C. The unit will be equipped with a minimum of two (2) mini- light bars with amber lenses mounted on the cab and chassis cab.
- D. The switches to actuate the strobes and light bar will be located in the chassis cab.
- E. Two (2) "marker lights", one on the front and one on the rear of each gun cart, shall be supplied. The markers shall have flashing and continuous modes of operation.

19. Electronics:

- A. The unit will be equipped with a digital LCD 3/8" minimum character display speedometer with red backlighting mounted in the truck chassis cab.
- B. There will be one (1) main electrical junction box for the material marking system. The electrical junction box shall be mounted on the truck deck for easy access. All wires must be clearly marked and secured in the box.
- C. The marking material guns and reflective media dispenser electrical solenoids will be enclosed in NEMA boxes located on the gun carriage assemblies. Bidder to provide photo documentation showing the solenoid mounting, and related air hoses mounted in weather protected box.
- D. All pertinent material marking system electrical components will be wired with expandable fusible switches with LED indicator lights.
- E. A minimum of one (1) 12-volt power receptacle will be furnished in the rear operator's control console.
- F. The temperature controls for the marking material heat system will be digitally controlled temperature push button control indicators.
- G. All electrical switches in the rear operator's control console will be push/pull Allen Bradley brand, or approved equal.

20. Additional Equipment & Spare Parts:

- A. Two (2) steel pans for "popping" of the spray guns shall be provided. They shall be stored in an integral storage area built into the rear tailboard section.
- B. One (1) 5 gallon water cooler will be mounted to striper deck.
- C. Four (4) 10# capacity fire extinguishers will be mounted to the striper.
- D. Four (4) mounted "CAUTION HOT" placards shall be installed on the thermoplastic unit.
- E. Four (4) insulated covers for the material / manifold assemblies and exhaust vent stacks shall be provided.

- F. Aluminum fenders with mud flaps (without advertising) shall be provided over the rear tires and wheels
  - G. Conspicuity tape shall be installed along the striping platform.
21. Height: The specified machine must not have any portion of the striper more than 12' 7" above the ground. The rear arrowboard, when in an operational position must not exceed 12' above the ground.
22. Width: The specified machine must not have any portion of the striper more than 96" wide, except the chassis mirrors.
23. Finish: The complete machine and all components, including tanks, compressor, etc., shall have the following minimum protective coatings applied:
- A. All metal parts and components, unless cadmium or chromium plated, shall have one prime coat and one finish coat of paint. The prime coat material shall be specifically compounded for the respective metals to which it is applied.
  - B. Finish Coat Color: Sherwin Williams F8W2030 Frost White Acrylic Enamel, or equal.
24. Materials and Workmanship: All equipment furnished and the parts thereof shall be of the manufacturer's latest listed and published stock models, which meet all the applicable requirements of the specification.
- A. All design, workmanship and materials shall in every respect be in accordance with the best current practice in the industry, and all materials used shall be new. All design, workmanship and materials shall be at all times and places subject to the inspection of the purchaser. Should they fail to meet these specifications, they shall be forthwith made good, replaced or corrected, as the case may be, by the vendor at his own expense.
  - B. All hoses, fittings, fasteners, bolts, and miscellaneous hardware used shall be properly designed and engineered for the purpose in which it is being used.
  - C. The vehicle shall conform to all the latest Federal and State Safety standards.
  - D. Prior to acceptance and payment, it shall be demonstrated that the vehicle being furnished meets the requirements of the specifications and will undergo an on-site technical review to insure that all specifications have been fully and precisely met without deviation.
  - E. All fabrication, assembly and paint techniques will provide a finished unit consistent or exceeding common industry standards.
25. Warranty:
- A. Cab and chassis shall have truck manufacturer's regular warranty. Warranty data shall be furnished with each unit. The Warranty Data shall contain all necessary information such as motor and/or serial numbers and shall be signed by the selling dealer at the time vehicle is delivered to the Highway Department.
  - B. The striper and other incidental equipment purchased under this specification shall be warranted against defective material and workmanship for a minimum period of twelve (12) months (365 Days) from date unit is placed in operation by AHTD. In addition, manufacturer's standard warranty period on certain machine components that exceeds the 12 months warranty shall remain in effect.
    - (1) Warranty shall include all parts, labor and transportation costs to the location of equipment.
    - (2) If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
    - (3) It will be the responsibility of the successful bidder to insure that repairs are completed in a timely manner.
  - C. Recent prior failure to provide warranty-work, parts, replacement parts or service, in a timely manner, for equipment from the same manufacturer or dealer shall be grounds for the rejection of any submitted bid, or for the denial of any otherwise qualified low bidder, whether such failure is attributable to the manufacturer or the dealer of the equipment. For the purposes of this paragraph

“timely manner” means a period of time not exceeding thirty (30) calendar days to provide requested warranty-work, parts, replacement parts, or service. For the purposes of this paragraph “manufacturer” means the original manufacturer of the equipment and its successor or successors, regardless of number, and whether acquired by sale, merger, or otherwise. For the purposes of this paragraph “replacement part” means a part redesigned by a manufacturer to correct a design or engineering defect and which replacement part is capable of providing dependable performance in normal operation conditions for its normal service life without failure. Such bid or bids may be rejected by the Department until such failure or failures have been remedied to the satisfaction of the Department and until such manufacturer or dealer is providing such warranty-work, parts, replacement parts, and service in a timely manner.

26. Current Model: Units furnished under this specification shall be the latest improved model in current production, as offered to commercial trade, built for the U.S. market, and shall be of quality workmanship and material. Machines manufactured for foreign markets will not be accepted. All equipment offered under this specification shall be new. Used, reconditioned, shopworn, demonstrator, prototype or discontinued models are not acceptable. Manufacturers of the units supplied must have been in the business of producing operational units for at least two years and must have recently sold similar units to domestic governmental agencies. The model furnished must have been in production for a minimum of one year, or be the latest version of a previous model. Bidder/s may be required to submit documentation substantiating the aforementioned requirements. A list of user references may also be required.
27. References: A list of at least six (6) users of the specified machine with contact names and telephone numbers will be supplied.
28. Manuals, Certificate of Origin and Invoice:
  - A. The successful bidder shall supply Operator’s Manual and Shop Repair Manual for Truck Chassis and two (2) service, parts and troubleshooting manuals with each machine delivered. The manuals will include all systems schematics and specific component literature.
  - B. Manufacturer’s Certificate of Origin, Federal Excise Tax Exemption Certificate, Odometer Disclosure Statement and Five (5) copies of the Invoice to be furnished to Equipment & Procurement Division, P.O. Box 2261, Little Rock, AR 72203 (11302 W. Baseline Road, Little Rock, AR 72209, if shipping UPS, FedEx, etc.).
  - C. The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD, DVD, USB Drive, etc.) in addition to printed manuals if available.
29. Drawings: Professional quality drawings that will depict the equipment layout will be provided with the bid.
30. Any deviations from specifications and requirements herein must be clearly pointed out by bidder. Otherwise it will be considered that equipment offered is in strict compliance with these specifications and requirements, and successful bidder will be held responsible therefor. Deviations must be explained in detail on an attached sheet. However, no implication is made by the Arkansas State Highway and Transportation Department that deviations will be acceptable.
31. Technical Training: Successful bidder shall furnish necessary factory trained personnel for a minimum period of four (5) days for each machine delivered, to instruct Arkansas State Highway and Transportation Department personnel in the use, operation and maintenance of the striper.
32. Technical Support: The manufacturer shall have a technical service and parts support group available through a toll free 800 number.
33. Inspection Trip: The manufacturer shall provide transportation for two (2) Arkansas State Highway & Transportation Department representatives to inspect the machine before it is shipped.
34. Pre-Delivery Service: Truck shall be completely serviced when delivered to the Arkansas State Highway and Transportation Department.
35. Unit shall be assembled, adjusted and made ready for continuous operation at time of delivery.  
All parts, accessories and tools necessary for satisfactory operation of this unit shall be furnished whether or not they are specifically mentioned in these specifications (including standard equipment as regularly



furnished by manufacturer as shown on printed literature and specifications - unless specifically excluded by this specification).

36. Delivery Requirements: It will be the responsibility of the Successful Bidder to guarantee delivery of the unit as specified within the quoted time.
- A. The striper will be either shipped on an appropriate lowboy tractor trailer or driven by a qualified driver from the manufacturer's facility to the purchasers designated destination at the manufacturer's expense.
  - B. Liquidated Damages in the amount of \$50.00 per day may be assessed for late delivery.
37. Parts Inventory & Service Facilities: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
38. Demonstration: The Arkansas State Highway & Transportation Department reserves the right to require a demonstration, under actual working conditions, of equipment bid under this specification before award is made. The demonstration would be performed (free of any charge) by the bidder or an authorized representative at a mutually acceptable location. If requested, the bidder should be prepared to demonstrate the equipment within thirty (30) days after notification. Failure of the bidder to perform a satisfactory demonstration within the specified time may be grounds for rejection of the bid.
39. Cooperative Purchasing: Other tax-supported entities\* in Arkansas (cities, counties, state agencies, school districts, etc.) may purchase from this Contract on an individual basis under the same specifications and conditions, and at the pricing set forth by each vendor, all at the discretion of each vendor in each case. Prices could be reduced by a vendor for minor alterations in conditions (changing order quantities, deleting options, etc.) as agreed by both parties, but could not be raised above the contract bid price except for any additional freight charges. Vendors would not be required to sell to any such entity under this contract, and those entities would not be obligated to purchase from the contract.

Each entity wishing to purchase from the contract must make contact directly with the appropriate vendor(s). The Highway Department shall remain "out of the loop" for such transactions: all contact, orders, invoices, payments, etc. regarding such transactions must take place exclusively between the tax-supported entity and the vendor. The Department shall be held harmless of any and all liability arising from such transactions.

\* Tax-supported entities are defined as those receiving more than half of total funding from appropriated tax funds.