ARKANSAS STATE HIGHWAY COMMISSION ARDOT-EQUIPMENT AND PROCUREMENT DIVISION BID INVITATION

Contract Number:	H-18-2	83H		BID OPENING LOCATION: ARDOT Equipment and	MAIL TO: ARDOT Equipment and	DELIVER TO: ARDOT Equipment and
Bid Opening Date:	May 30, 2018	Time:	11:00 a.m.	Procurement Division 11302 West Baseline Road Little Rock, AR 72209	Procurement Division P.O. Box 2261 Little Rock, AR 72203	Procurement Division 11302 West Baseline Road Little Rock, AR 72209
mail and delivery loo	cations until the above-noted	l bid opening	date and time, and	ject to the Standard Bid Conditions o then publicly opened at the above-not bids and unsigned bids will not be	ed bid opening location. Bid	
In compliance with the price set opposite each		to all the Cor	nditions thereof, the u	indersigned offers and agrees to furnis	h any and all items upon whic	ch prices are quoted, at the
Company Name:				Name (Type or Print):		
Address:				Title:		
				Phone:	Fax:	
City:	Stat	e:	Zip:	E-Mail:		
Federal Tax ID or S	Social Security No.:				original (not photocopied) and	d in ink.

Wheel Tractor

Bid prices shall include any applicable labor cost as well as delivery of all Equipment to ARDOT at the F.O.B. location(s) shown on attached Bid Sheet.

Contract may be renewed or extended upon mutual agreement of the parties, but shall not exceed limitations allowed by Arkansas State Procurement Law.

All bidders should complete and return the Eligible Bidder Certification (Attachment A) and Disclosure Form (see Page 2 of Standard Bid Conditions – Item 18) and Restriction of Boycott of Israel Certification issued with this bid. A current copy of the DFA Illegal Immigrant Contractor Disclosure Certification (see Page 1 of Standard Bid Conditions – Item 17) should also be submitted with bid. These forms are kept on file and remain current for one year from date of submission. Forms do not need to be submitted again, during that time, unless there is a status change.

Literature Submittals – Item B2 of Bid Specifications shall supersede Item #11 of Standard Bid Conditions.

Bid Bond in the amount of \$1,000 required of all bidders at time of bid opening or bid will be rejected. <u>Personal and</u> <u>company checks are not acceptable as Bid Bonds</u>. See Condition 4 on page 1of Standard Bid Conditions. **Performance Bond** in the amount of 5% of the total awarded to the respective bidders must be furnished within 10 days

after receipt of notice of intent to award as a guarantee of delivery in accordance with the specifications and within the time established in the bid. <u>Personal and company checks are not acceptable as Performance Bonds.</u> See Condition 4 on page 1 of Standard Bid Conditions.

Bidder shall specify guaranteed delivery date for all vehicles/equipment in the space provided under each item number for which a price is being submitted. Successful bidder shall furnish Warranty Data for each vehicle/equipment delivered. 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/equipment is delivered to the Department of Transportation. Certificate of Origin, Federal Excise Tax Exemption Certificates, Odometer Disclosure Statement and five (5) copies of the Invoice for each vehicle/equipment to be furnished to Equipment & Procurement Division, P.O. Box 2261, Little Rock, AR 72203.

The successful bidder will be required to complete delivery within 150 days after award.

Bids and Specifications are available on-line by going to the ARDOT Web Site – <u>www.ardot.go</u>v and clicking on "Commodities and Services Bids/Contracts Information". Tabulations will also be available at this site after award of bid/contract. If you have any questions, call this office at 501-569-2667. 64-8183

01-23, 01-35

ARKANSAS STATE HIGHWAY COMMISSION ARDOT-EQUIPMENT AND PROCUREMENT DIVISION

BID SHEET

Conti	ract No.: H-18-283H	BIDDER:	
1.	1 Wheel Tractor, 95 PTO to meet ARDOT Spec. 1		Saw Blade Cutter & Forestry Mulcher Attachment
	FOB: 1 ea. ARDOT Distri	ct 1 Headquarters, 2701 Highway 64 V	Vest, Wynne, AR 72396
	Bid Price (Do not include	any Local, State or Federal Taxes)	
		1 each – Unit Price \$	Amount \$
	Additional Units may be p	urchased at the same pricing and (Date)	
			Bid Total \$
ADDI	TIONAL INFORMATION		
Saw	Blade Cutter proposed	as meeting specifications:	
Make:	M	odel:	
Warra	nty:Ea	sh \$	
Fore	estry MulcherAttachme	nt proposed as meeting specifica	ntions:
Make	e:	Model	
Warr	anty:	Each \$	

Attachments must be priced individually but bid will be awarded by the unit price of the complete unit.

ARKANSAS STATE HIGHWAY COMMISSION

ARDOT - STANDARD BID CONDITIONS

- 1. **GENERAL:** Any special terms and conditions included in the invitation for bid override these standard terms and conditions. The standard terms and conditions and any special terms and conditions become part of any contract entered into if any or all parts of the bid are accepted by the Arkansas Department of Transportation (ARDOT).
- 2. ACCEPTANCE AND REJECTION: ARDOT 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.
- 3. **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.
- BID BONDS AND PERFORMANCE BONDS: If required, a Bid Bond in the form of a cashier's check, certified check, or 4. 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 ARDOT or fails to honor their bid. When a bidder claims and can show clear and convincing evidence that a material mistake was made in the bid and was not the bid intended, the bidder may be permitted to withdraw their bid prior to award without forfeiture of bid bond. Cashier's checks and certified checks submitted as Bid Bonds will be returned to unsuccessful bidders; surety bonds will be retained. The successful bidder will be required to furnish a Performance Bond in an amount stated in the Bid Invitation and in the form of a cashier's check, certified check, or surety bond issued by a surety company, unless otherwise stated in the Bid Invitation, as a guarantee of delivery of goods/services in accordance with the specifications and within the time established in the bid. Personal and company checks are not acceptable as Performance Bonds. In some cases, a cashier's check or certified check submitted as a Bid Bond will be held as the Performance Bond of the successful bidder. Cashier's checks or certified checks submitted as Performance Bonds will be refunded shortly after payment has been made to the successful bidder for completion of all terms of the bid; surety bonds will be retained. Surety bonds must be issued by a surety company that is authorized to do business in the State of Arkansas and that is listed on the current United States Department of the Treasury Listing of Approved Sureties. Surety bonds must be executed by a resident or non-resident agent who is licensed by the Arkansas State Insurance Commissioner to represent the surety company executing the bond, and the resident or non-resident agent shall file with the bond the power of attorney of the agent to act on behalf of the bonding company. Certain bids involving labor will require Performance Bonds in the form of surety bonds only (no checks of any kind allowed). These bonds shall not only serve to guarantee the completion of the work, but also to guarantee the excellence of both workmanship and material until the work is finally accepted and the provisions of the Plans, Specifications, and Special Provisions fulfilled. In such cases, the company issuing the surety bond must comply with all stipulations herein and must be named in the U.S. Treasury listing of companies holding Certificates of Authority as acceptable sureties on Federal Bonds and as acceptable reinsuring companies. Any excess between the face amount of the bond and the underwriting limitation of the bonding company shall be protected by reinsurance provided by an acceptable reinsuring company. Annual Bid and Performance Bonds on file with E & P Division must have sufficient unencumbered funds to meet current bonding requirements, or the bid will be rejected, unless the balance is submitted as set forth above, prior to bid openina.
- 5. TAXES: The ARDOT 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 ARDOT as an addition thereto, and should be added to the billing to the ARDOT. The ARDOT 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 ARDOT.
- 6. "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.
- 7. **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.
- 8. **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.
- 9. 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.
- 10. **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.

ARDOT - STANDARD BID CONDITIONS

- 11. **SAMPLES, LITERATURE, DEMONSTRATIONS:** Samples and technical literature must be provided free of any charge within 14 days of ARDOT request, and free demonstrations within 30 days, unless ARDOT 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 ARDOT. 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.
- 12. **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.
- 13. **BACKORDERS OR DELAY IN DELIVERY:** Backorders or failure to deliver within the time required may constitute default. Vendor must give written notice to the ARDOT, as soon as possible, of the reason for any delay and the expected delivery date. The ARDOT has the right to extend delivery if reasons appear valid. If reason or delivery date is not acceptable, vendor is in default.
- 14. **DEFAULT:** All commodities furnished will be subject to inspection and acceptance by ARDOT after delivery. Default in promised delivery or failure to meet specifications authorizes the ARDOT 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.
- 15. 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).
- 16. NOTICE OF NONDISCRIMINATION: The Arkansas State Highway Commission, through ARDOT, complies with all civil rights provisions of federal statutes and related authorities that prohibit discrimination in programs and activities receiving federal financial assistance. Therefore, ARDOT does not discriminate on the basis of race, sex, color, age, national origin, religion (not applicable as a protected group under the Federal Motor Carrier Safety Administration Title VI Program), disability, Limited English Proficiency (LEP), or low-income status in the admission, access to and treatment in the ARDOT's programs and activities, as well as the ARDOT's hiring or employment practices. Complaints of alleged discrimination and inquiries regarding the ARDOT's nondiscrimination policies may be directed to Joanna P. McFadden Section Head EEO/DBE (ADA/504/Title VI Coordinator), P. O. Box 2261, Little Rock, AR 72203, (501)569-2298, (Voice/TTY 711), or the following email address: joanna.mcfadden@ahtd.ar.gov. Free language assistance for Limited English Proficient individuals is available upon request. This notice is available from the ADA/504/Title VI Coordinator in large print, on audiotape and in Braille.
- 17. PROHIBITION OF EMPLOYMENT OF ILLEGAL IMMIGRANTS: Pursuant to Arkansas Code Annotated 19-11-105, all bidders must certify prior to award of a contract that they <u>do not</u> employ or contract with any illegal immigrant(s) in its contract with the state. Bidders shall certify online at <u>https://www.ark.org/dfa/immigrant/index.php</u>.
- 18. **DISCLOSURE:** Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that order, **shall** be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy **shall** be subject to all legal remedies available to the agency.

ATTACHMENT A

ELIGIBLE BIDDER CERTIFICATION

The Bidder represents and warrants for itself, its employees and its subcontractors and certifies they:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- 2. Have not within a three-year period preceding thus Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph two (2) of this Certification;
- 4. Have not within a one-year period preceding this application/Bid had one or more public transactions (Federal, State, or local) terminated for cause or default; and

The Bidder represents, warrants and acknowledges the understanding that restrictions placed on the employment of labor or on the scale of pay for the work on a contract will be the requirements of the Fair Labor Standards Act (Federal Wage-Hour Law) of 1938, 28 USC §201 et seq., and other applicable labor laws.

The person executing this Certification further represents, warrants and affirms the truthfulness and accuracy of the contents of the statements submitted on or with this Certification and understands that the provisions of 31 USC §3801 et seq. are applicable thereto.

BIDDER NAME

BY:______Signature

TITLE:_____

CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM

Failure to complete all of	the following i	nformatio	n may result in a delay in obtaining	g a contract, l	ease, puro	hase agreer	ment, or grant award with any Arkansas State Agency.	
SUBCONTRACTOR:	SUBCONTRACT	TOR NAME:						
🗆 Yes 🔲 No								
			IS THIS FOR:					
TAXPAYER ID NAME:			□Goods? □	Services?		Both?		
YOUR LAST NAME:			FIRST NAME:				M.I.:	
ADDRESS:								
CITY:			STATE:		ZIP CODE		COUNTY:	
						A CONT	DACT LEASE DUDGUASE ACDEENASIT OF	
							RACT, LEASE, PURCHASE AGREEMENT, OR	GRANTAWARD
WITH ANY ARKAN	SAS STAT	E AGEN	CY, THE FOLLOWING IN	FORMATI	ON ML	IST BE D	ISCLOSED:	
				FOR II	NDIVI	DUAL	S*	
Indicate below if: you, yo	our spouse or	the broth	er, sister, parent, or child of you	or your spo	use is a cu	irrent or fo	rmer: member of the General Assembly, Constitutional	Officer, State Board or
Commission Member, or	State Employ	yee:	1					
	Mark (🗸)		Name of Position of Job Held	For Ho	For How Long?		What is the person(s) name and how are they related to you? (i.e., Jane Q. Public, spouse, John Q. Public, Jr., child, etc.)	
Position Held	Current	Former	(senator, representative, name of board/ commission, data entry, etc.)	From MM/YY	To MM/YY		Person's Name(s)	Relation
General Assembly								
Constitutional Officer								
State Board or Commission Member								
State Employee								
□ None of the above	applies							I
			FOF	<u>R AN EP</u>	NTITY	(BUSI	NESS)*	
	-	•				•	ship interest of 10% or greater in the entity: member of	•
,				• •			nt, or child of a member of the General Assembly, Const	itutional Officer, State Board
or Commission Member,	or State Emp	oloyee. Pc	sition of control means the pow	er to direct t	he purcha	ising policie	es or influence the management of the entity.	
	Mark (√)	Name of Position of Job Held	For How Lo	ong?		What is the person(s) name and what is his/her % of ownersh	ip interest and/or

Position Held	Mark (✓) Current Former		Name of Position of Job Held	For Hov	For How Long? What is the person(s) name and what is his/her % of ownership interest and/or what is his/her position of control?			
Position neid			(senator, representative, name of board/ commission, data entry, etc.)	From MM/YY	To MM/YY	Person's Name(s)	Ownership Interest (%)	Position of Control
General Assembly								
Constitutional Officer								
State Board or								
Commission Member								
State Employee								

□ None of the above applies

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this contract. Any contractor, whether an individual or entity, who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the agency.

As an additional condition of obtaining, extending, amending, or renewing a contract with a state agency I agree as follows:

- 1. Prior to entering into any agreement with any subcontractor, prior or subsequent to the contract date, I will require the subcontractor to complete a **CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM**. Subcontractor shall mean any person or entity with whom I enter an agreement whereby I assign or otherwise delegate to the person or entity, for consideration, all, or any part, of the performance required of me under the terms of my contract with the state agency.
- 2. I will include the following language as a part of any agreement with a subcontractor:

Failure to make any disclosure required by Governor's Executive Order 98-04, or any violation of any rule, regulation, or policy adopted pursuant to that Order, shall be a material breach of the terms of this subcontract. The party who fails to make the required disclosure or who violates any rule, regulation, or policy shall be subject to all legal remedies available to the contractor.

3. No later than ten (10) days after entering into any agreement with a subcontractor, whether prior or subsequent to the contract date, I will mail a copy of the CONTRACT AND GRANT DISCLOSURE AND CERTIFICATION FORM completed by the subcontractor and a statement containing the dollar amount of the subcontract to the state agency.

Signature			Title		Date
Vendor Contact Person			Title		Phone No
Agency Use Only Agency Number	Agency Name	Agency Contact Person		Contact Phone No.	Contract or Grant No.

RESTRICTION OF BOYCOTT OF ISRAEL CERTIFICATION

Pursuant to Arkansas Code Annotated § 25-1-503, a public entity **shall not** enter into a contract valued at \$1,000 or greater with a company unless the contract includes a written certification that the person or company is not currently engaged in, and agrees for the duration of the contract not to engage in, a boycott of Israel.

By signing below, the Contractor agrees and certifies that they do not boycott Israel and will not boycott Israel during the remaining aggregate term of the contract.

If a company does boycott Israel, see Arkansas Code Annotated § 25-1-503.

Bid Number/Contract Number	
Description of product or service	
Contractor name	

Contractor Signature:
Signature must be hand written, in ink

Date: _____

ARKANSAS DEPARTMENT OF TRANSPORTATION

SPECIFICATION 18-260-166

<u>FOR</u>

ARTICULATED HYDRAULIC BOOM WITH CUTTING ATTACHMENTS MOUNTED ON FOUR WHEEL DRIVE TRACTOR

A. <u>General Conditions</u>:

- 1. <u>Current Model</u>: 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.
- 2. <u>Literature</u>: Manufacturers literature, verifying adherence of proposed unit to each line item addressed in this specification, shall be submitted with the bid. If any literature and/or specifications of items conflict with ARDOT specifications, the conflict(s) shall be specifically noted, corrected and submitted with the bid.
- 3. 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 Department of Transportation that deviations will be acceptable.
- 4. <u>Manuals</u>: The successful bidder shall furnish one (1) Operator's Instruction Manual with each unit delivered and one (1) copy each of Shop Repair Manual and Parts Book to each FOB point. The successful bidder may provide Shop Repair Manuals and Parts Manuals on computer media (CD ROM, Floppy Disks, etc.) in lieu of printed manuals.
- 5. <u>Training</u>: The successful bidder shall furnish qualified personnel to instruct ARDOT personnel on operation and maintenance of units purchased under this specification.

In addition, the successful bidder shall furnish information on any factory service schools, which would be available for ARDOT service technicians.

- 6. Units shall be assembled, adjusted and made ready for continuous operation at time of delivery.
- 7. All parts, accessories and tools necessary for satisfactory operation of this unit shall be furnished whether or not they are specifically mentioned in this specification (Including Standard Equipment as regularly furnished by manufacturer as shown on printed literature and specifications unless specifically excluded by this specification.
- 8. <u>Parts Inventory & Service Facilities</u>: The successful bidder shall maintain a representative inventory of replacement parts and service facilities for servicing equipment bid on.
- 9. <u>Demonstration</u>: The Arkansas Department of Transportation 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.
- 10. <u>Cooperative Purchasing</u>: 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.

B. Unit Specifications:

- 1. <u>General</u>: This specification is intended to cover a mid-mounted, hydraulic powered, articulated, boom mounted cutting attachment completely installed on an industrial, utility or row crop type four wheel drive tractor.
- 2. <u>Tractor</u>: Industrial, utility or row crop type wheel tractor with liquid cooled diesel engine, mechanical front wheel drive axle, independent Power Take-Off, hydraulic system, three point hitch and fully enclosed ROPS type cab complete with heat and air conditioning.
 - a. <u>PTO Power</u>: Minimum of 95 horsepower at rated RPM.
 - b. <u>Engine</u>: Liquid cooled diesel equipped with 12 volt electrical system including starter, battery, alternator and ammeter or charge indicator light. Shall be equipped with approved dry type air cleaner, oil and fuel filters with replaceable elements, tachometer, electric hour meter and all necessary gauges including temperature gauge, oil pressure gauge or warning light and fuel gauge. Shall have vertical exhaust muffler with rain cap or curved exhaust pipe. Cooling system shall have anti-freeze protection to -20° F, or lower. All other equipment necessary for efficient operation shall be furnished.
 - c. <u>Transmission</u>: Synchronized power shift transmission with forward and reverse shuttle. Transmission shall be equipped with an additional creeper gear set. Normal configuration shall provide a minimum of sixteen (16) forward speeds and sixteen (16) reverse speeds with the creeper gear set providing additional speeds as slow as 0.25 mph. The forward/reverse shuttle control shall allow the operator to change directions without using the foot-operated clutch pedal.
 - d. <u>Front Axle</u>: Mechanical front wheel drive axle providing all-wheel drive capability. Shall be equipped with differential lock or limited slip differential.
 - e. <u>Rear Final Drive</u>: Double reduction with planetary gears mounted inboard on axles.
 - f. <u>Rear Differential Lock</u>: Mechanical or electro-hydraulic engagement.
 - g. <u>Steering</u>: Hydrostatic power steering.
 - h. Brakes: Wet disc type.
 - i. <u>Power Take Off</u>: Independent type providing a speed of 540 RPM. PTO engagement shall have feathering capability. Control shall be separate from transmission and easily reached from operator's seat. Power-take-off shaft shall be protected by a safety shield
 - j. <u>Hyd</u>raulics: Hydraulic pump for tractor hydraulics shall have a minimum capacity of 21 gpm at approximately 2,500 psi. Hydraulic pump for operating hydraulic driven cutter shall be front mounted, driven from front of engine crankshaft, with a minimum capacity of 38 gpm at approximately 2,500 psi. Hydraulic oil reservoir for cutter shall have a minimum capacity of 25 gallons.
 - k. <u>3-Point Lift Capacity</u>: Minimum of 6,000 pounds at 24" behind lift arms.
 - 1. <u>Tread Width</u>: Adjustable front and rear tread width.
 - m. <u>Rear Wheels and Tires</u>: Shall have no less than 34" diameter rear wheels. Rear tires shall be no less than 18.4 R 34. Tires shall be 6 ply rating, minimum, and have R1 or R4 tread. Valve shall be the type to allow liquid ballast to be added. The left rear tire and wheel shall have sufficient ballast to create a stable operating platform that is not prone to tipping when the boom and attachments are fully extended. The left rear tire shall be filled to 90% capacity with a solution of CaCl₂. Left rear wheel shall be equipped with a minimum 1,300 pound steel wheel weight.
 - n. <u>Front Wheels and Tires</u>: Size of front wheels and tires shall be as recommended to provide the proper speed match between the front drive axle and the rear axle equipped with rear wheels and tires specified above. Tires shall have R1 or R4 tread and no less than 6 ply rating.

- o. <u>Cab</u>: Fully enclosed ROPS cab equipped with air conditioning, heater-defroster unit, front and rear windshield wipers, inside rear view mirror, floor mat, adjustable air suspension seat equipped with arm rests, and seat belt. Cab shall have either a hardened polycarbonate right hand window or a polycarbonate screen designed to protect the existing cab window. (If a protective polycarbonate screen is used, a method shall be provided to clean the cab glass.) Windshield and all other cab windows shall be tinted safety glass.
- p. <u>Backup Alarm</u>: Shall be equipped with an electric backup alarm meeting the requirements of SAE J994 with a minimum sound level output of 97 decibels.
- q. <u>Weight</u>: No less than 11,000 pounds without attachments, wheel weight or liquid ballast.
- 3. <u>Cutting Assembly</u>:
 - a. <u>General</u>: Shall be a boom mounted, hydraulically powered unit capable of utilizing either a tree limb cutter or forestry mulching attachment mounted on tractor specified above. Shall have a minimum reach of 20' from centerline of tractor to outer edge of cutting attachment in horizontal position. Shall work forward and to the right of the right rear tire. Shall permit reaching over highway guard rail and trimming from the inside position with cutting attachment able to move freely in and out to trim close to obstructions.
 - b. <u>Main Frame</u>: The main frame shall mount between the front and rear axles of the tractor. It shall be braced to the rear axle housing.
 - c. <u>Boom</u>: A two section articulated boom shall be mounted to the main frame on the right side of the tractor. The boom shall support the cutting assembly and provide vertical and horizontal movements. The cutting assembly shall be attached to the boom arm in such a manner to allow angular movement between the cutter and the boom with the cutter capable of a minimum 100° rotation in relation to the boom. The boom shall pivot a minimum of 90° to allow it to be placed in the boom rest. Shall have maneuvering cylinders for controlling movement of cutter, lift cylinder for main boom, secondary boom cylinder and cutter head angle cylinder.
 - d. <u>Controls</u>: All cylinders shall be actuated by means of electro-hydraulic control valves with single lever joystick control within easy reach of the operator seated in the operator position. The cutter control valve shall be a solenoid operated remote control valve. Shall be equipped with a safety switch which will prevent the engine from starting if the cutting head is engaged.
 - e. <u>Boom Rest</u>: Shall be equipped with either a rear or front mounted boom rest to cradle the boom when in the transport position. Boom rest must take the pressure off of the cylinders while in transport.
 - f. <u>Tree Limb Cutter Attachment</u>: Shall utilize no more than two (2) saw blades to provide a minimum cutting swath of 48" and have the capability of cutting brush and limbs up to a maximum of no less than 6".
 - (1) <u>Powertrain</u>: Shall be powered by a hydraulic motor producing a minimum of 38 horsepower. Power shall be transferred from the motor to the blades by either a direct drive coupler or high performance Micro-V belts.
 - (2) <u>Belt Guard</u>: If the unit is belt driven it shall have a hinged belt guard with quick release fasteners to provide access to the belt tensioner.
 - (3) <u>Cutting Head</u>: Shall be of open blade design that allows the cutting of limbs and small trees regardless of the direction the boom is moving. Shall be equipped with a heel plate to prevent blade(s) from touching the ground when the cutting head in the vertical position.
 - (4) <u>Spindles</u>: The spindle shaft(s) shall be mounted in roller bearings enclosed in heavy duty housing. The spindle shaft(s) shall have an anti-wrap guard to protect seals from debris.
 - (5) <u>Blade(s)</u>: Cutter head shall be equipped with no more than two (2) circular saw blades. Blades shall be of one of the following designs:
 - a) Shall have a minimum diameter of 26". Blades shall be made of no less than 3/16" thick steel and each blade shall have a minimum of sixty (60) teeth. One (1) extra set of blades shall be furnished with each unit. These are in addition to the set provided on the cutter.
 - b) Shall have a minimum diameter of 48". Blades shall be made of no less than 9/32" thick steel and each blade shall have a minimum of thirty (30) carbide tip teeth. One (1) extra set of carbide tip teeth, silver soldered to the body shall be furnished with each unit. These are in addition to the set provided on the blade. Unit shall also include tooth replacement tool.

- g. <u>Forestry Mulching Attachment</u>: Shall be a Gyro-Trac Corporation boom mounted cutter head providing no less than 49" of cutting width. Shall be capable of cutting brush and trees up to a maximum of no less than 6". Mulching head shall have no less than 20 teeth. Shall be driven by a hydraulic motor providing no less than 3,100 rpm at rated hydraulic flow. Weight of mulching head shall not exceed 1,000 pounds.
 - (1) <u>Extra Teeth</u>: One (1) extra set of cutting teeth and mounting hardware shall be furnished with each mower. These are in addition to the set provided on the mower.
- h. <u>Delivery Requirements</u>: Unit shall be delivered with the forestry mulching attachment specified above completely installed and ready for operation. Pins, couplers or any other items required for proper removal of the forestry mulcher attachment and installation of the tree limb cutting attachment shall be furnished.
- 4. <u>Color</u>: Manufacturer's standard color is acceptable.
- 5. <u>Warranty</u>: Units purchased under this specification shall be warranted against defects in material and workmanship for a minimum period of twelve (12) months (365 days) from date unit is placed in operation by ARDOT.
 - a. Warranty shall include all parts, labor and transportation costs to the location of equipment.
 - b. If equipment cannot be repaired on location, warranty shall include cost of transport to the facility where the repair work will be done.
 - c. Warranty repairs are to be performed by any authorized dealership of the manufacturer; however, the successful bidder will be ultimately responsible for coordinating repairs and insuring that warranty repairs are completed in a timely manner.
 - d. Warranty repair action shall begin within five (5) working days after notification for the need of warranty repairs; and repairs should be completed and the unit returned to ARDOT within fifteen (15) working days after notification (unless prior arrangements have been made with ARDOT personnel).
 - e. If any warranty literature submitted with the bid conflicts with ARDOT warranty requirements, the conflict(s) shall be specifically noted, corrected and included with the bid or the conflict(s) will be considered an exception to warranty specifications and the bid rejected.
 - f. 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.