

TO RECEIVE A BID PACKAGE, BIDDER MAY EITHER DOWNLOAD THE BID FROM THE AUTHORITY'S WEBSITE AT <http://www.state.nj.us/turnpike/purchasing.html> OR REQUEST A BID BY COMPLETING THIS FORM AND FAXING IT TO THE NUMBER STATED BELOW FOR RECORD KEEPING PURPOSES. WE REQUEST THAT THE BIDDER COMPLETE THIS FORM AND RETURN TO US, EVEN WHEN BIDDER IS DOWNLOADING THE BID. THIS IS THE ONLY NOTICE OF BIDDING FOR THE FOLLOWING GOODS / SERVICES YOU WILL RECEIVE.

**THE NEW JERSEY TURNPIKE AUTHORITY
PROCUREMENT AND MATERIALS MANAGEMENT DEPARTMENT**

P.O. Box 5042
581 Main Street
Woodbridge, New Jersey 07095-5042
Tel. - 732-750-5300
Fax - 732-750-5399

REQUEST FOR BIDS

TITLE: TRACTORS WITH FLAIL MOWERS

BID NO: R-99096

DUE DATE: April 9, 2013

TIME: 2:00 PM

SUBMIT BIDS BEFORE THE DUE DATE AND TIME TO THE ABOVE ADDRESS

BIDDER INFORMATION (PLEASE PRINT)

NAME OF BIDDING ENTITY

ADDRESS

CITY, STATE AND ZIP CODE

E-MAIL ADDRESS

REPRESENTATIVE TO CONTACT-NAME & TITLE

TELEPHONE NO.

FEDERAL TAX I.D. NO. or TAXPAYER I.D. NO.

FAX NO

WE HAVE DOWNLOADED THE BID FROM THE AUTHORITY WEBSITE

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FAX NO.

_____BUSINESS CORPORATION_____PARTNERSHIP_____INDIVIDUAL

_____OTHER (SPECIFY):_____

BIDDER GUIDELINES/CHECKLIST

PURSUANT TO N.J.S.A. 27:23-6.1 AND N.J.A.C. 19:9-2.1 et seq. BID PROPOSALS WHICH FAIL TO CONFORM TO THE FOLLOWING REQUIREMENTS MAY BE REJECTED:

1. Bids must be received at or before the public opening time stated on the cover page at the following place: New Jersey Turnpike Authority, Administration Building, 581 Main Street, Woodbridge, New Jersey 07095. Telephone or Facsimile bids will not be accepted.
2. The bid proposal must include all price information. Bid prices shall include delivery of all items F.O.B. destination or as otherwise provided. Bids must be firm through issuance of contract.
3. All bid proposal prices must be typed or written in ink. Quote the specified unit of measure. If bidding an alternate, provide detailed specifications.
4. All corrections, white-outs, erasures, re-striking of type, or other forms of alteration or the appearance of alteration, to unit and/or total prices must be initialed in ink by the bidder.
5. **Have you included the following documents?**
 - (a) State of New Jersey Division of Revenue Business Registration Certificate(s)
 - (b) Certification of Registration with the Secretary of State (only if a foreign (non- NJ) corporation)
 - (c) Acknowledgement of Requirement for Disclosure of Political Contributions (ELEC)
 - (d) Public Works Contractor Registration Certificate(s) (if applicable)
 - (e) Affirmative Action Information Sheet with Certificate or Form AA302
 - (f) Signed Mandatory Equal Employment Opportunity Language
 - (g) SBE/WBE/MBE Certificates and Form
 - (h) Vendor Disclosure Form (EO129 - Location of Services)
 - (i) Notice of Set-Off for State Tax (P.L. 1999, c.159)
 - (j) Automobile Waiver
 - (k) Insurance Requirement
 - (l) **See the Authority's Instructions to Bidders (attached) for a complete list of the Authority's standard contract Terms and Conditions, as well as Required Forms that must be included with the bid.**
6. **Failure to comply with the requirements set forth in 1-5 above may result in bid rejection.**
7. **This Request for Bids requires the following Mandatory Documents or the bid will be rejected:**
 - Stockholder/Partnership Disclosure Statement**
 - Bid Bond and/or Letter of Surety, Cashiers Check Requirement**
8. Bidder must sign the Bid, or it may be rejected.
9. Contract Bond Requirement – Full amount of contract.
10. 3-Year Open End Option

REQUEST FOR BIDS
THIS IS NOT AN ORDER

Sealed Bid R-99096 will be received at the New Jersey Turnpike Authority Administrative Offices, 581 Main St., Woodbridge, New Jersey, as stated on the cover page at which time and place said bid will be publicly opened and read. Bidders mailing bids should allow for their normal mail delivery time to ensure timely receipt of their Public Bids. Please be advised that using overnight/next-day delivery service does not guarantee overnight/next-day deliveries to our location. The Authority will not be responsible for any bid not being received by the required date and time.

INTENTION

It is the intention of the Authority to issue a Purchase Order for the purchase of **THREE (3) TRACTORS WITH FLAIL MOWERS AS PER ATTACHED SPECIFICATIONS**. Items purchased under this Contract will be delivered as directed by the Authority. Please contact Richard Bava with any questions regarding this procurement at 732-750-5300 X 8636.

BID SHEET INSTRUCTIONS

Prospective Bidders should follow all instructions in this Request for Bids and in the standard Instructions to Bidders issued by the Authority, and any other documents issued by the Authority in connection with this Request for Bids (collectively, "Bid Documents"). Prospective Bidders must examine the Bid Documents carefully before bidding and must ask the Director of Purchasing in writing for any interpretation or correction of any apparent ambiguity, inconsistency or apparent error therein. Any written request for interpretation or correction shall be directed to the Director of Purchasing. Written requests can be submitted by FAX at 732-750-5399. If necessary, an interpretation or correction shall be issued by the Director of Purchasing as an Addendum and FAXED to prospective Bidders who have obtained the Bid Documents. Upon the issuing of an Addendum, the content of the Addendum shall become part of the Bid Documents. **Requests for interpretation or correction shall be considered only if received at least 5 business days prior to the bid opening date.**

Only written interpretations or corrections issued by the Director of Purchasing by Addendum shall be binding.

The submission of the Bid is conclusive evidence that the Bidder is fully aware of the conditions, requirements, and details as stated in the Bid Documents. If the Bidder, prior to submitting its Bid, fails to notify the Director of Purchasing of the existence of an ambiguity, inconsistency in

the Bid Documents, a Bid will conclusively be presumed to have been based upon the interpretation of such ambiguity or inconsistency. All erasures, interpolations or other physical changes on the Bid form shall be signed or initialed by the bidder. Bids containing any conditions, omissions, erasures, alterations, or items not called for in this Request for Bids, or irregularities of any kind, may be rejected by the Authority, in its sole discretion, as being incomplete. The bidders shall not attach conditions, limitations or provisos to their Bid, except in cases where "Exceptions" are permitted.

The Authority will accept Approved Equivalent items on this bid. If a bidder is basing the proposal on items other than what is specified, and wishes the items he proposes to be considered as an "Approved Equivalent," the Bidder shall enter a price on the bid sheet then submit on the Exception Sheet in the exact format of the line item on the Request for Bids contained herein, the item number, an item description, including manufacturers name, model number, and packaging quantities of those Items which the Bidder proposes to substitute.

Bidders must quote only one price per line item. If a bidder quotes multiple prices per line item, the bid proposal may be rejected. All items are to be bid FOB Destination. All shipping, handling, and other costs should be considered in the bid price. The Authority will purchase amounts of any given item as needed, at the sole discretion of the Authority and shall not be bound by any quantities listed. The Authority reserves the right to make reasonable increases to line item quantities.

Contract award will be made to the lowest, responsible bidder.

BID PRICE FORM

ITEM	QUAN.	UNIT OF MEAS.	DESCRIPTION	UNIT PRICE	TOTAL BID PRICE
1	3	Each	TRACTORS WITH FLAIL MOWERS, AS PER ATTACHED SPECIFICATIONS.	\$	\$

Contract award will be made to the lowest, responsible bidder.

**ANY INQUIRIES CONCERNING THIS BID MUST BE SENT VIA FAX NO LATER THAN FIVE (5)
BUSINESS DAYS BEFORE BID OPENING**

DELIVERY DATE _____, to sites as specified in the bid specifications.
Discount Terms Based On Net 30 Days Only.

NEW JERSEY TURNPIKE AUTHORITY

AUTHORIZED SIGNATURE

Name of Company and / Authorized Signature of Bidder

SIGNATURE PAGE

ADDENDA / INQUIRIES: COMPLETE (if applicable) BEFORE SUBMITTING BID:
Receipt of Addendum / Inquiries # _____ dated _____ is hereby
acknowledged.

Receipt of Addendum / Inquiries # _____ dated _____ is hereby
acknowledged.

CHECK BOX IF NO ADDENDA/INQUIRY ISSUED

(All Addenda / Inquiries must be acknowledged as indicated above.)

BID IRREVOCABLE: This offer shall be irrevocable for ninety (90) working days after the date on which the Authority publicly opens this bid except in those instances where an unsuccessful bidder has filed a Protest pursuant to N.J.A.C. 19:9-2.12. Upon notification of a Protest, Bidders are required to hold their prices for an additional 90 days. All bidders will be notified in writing of the action taken by the Authority.

OFFER/CERTIFICATION: The undersigned offers and agrees to furnish to the New Jersey Turnpike Authority the services and/or materials in compliance with all terms, conditions, specifications and addenda of the RFB, Bid Documents, and resulting contract. The undersigned further certifies understanding and compliance with the requirements of the standard terms and conditions as stated in the Instructions to Bidders included with the Bid Documents. The undersigned certifies that he or she executes this bid with full authority so to do; and that all statements contained in this bid and in this certification are true and correct, and made with full knowledge that the Authority relies upon the truth of the statements contained herein and in any statements requested by the Authority showing evidence of qualifications in awarding the contract. I certify that the foregoing statements made by me are true. I am aware that if any of the foregoing statements made by me are willfully false, I am subject to punishment.

AUTHORIZED SIGNATURE: _____

Print Name and Title: _____

Bidding Entity: _____

Address: _____

City, State, Zip: _____

Telephone #: _____ Fax: _____

NEW JERSEY TURNPIKE AUTHORITY

NO RESPONSE BID SURVEY

BID REQUISITION NUMBER: R-99096

BID TITLE: TRACTORS WITH FLAIL MOWERS

If you do not choose to respond to this Bid, please complete the form below:

Name of Company _____

Reason you did not respond (Check all that apply)

- Cannot supply product or service
- Cannot meet technical specifications
- Cannot meet delivery specifications
- Cannot meet legal requirements
(i.e. bid/performance/security/insurance, etc.)
- Cannot provide a competitive price at this time
- Interested in receiving specifications for informational purposes only.
- Insufficient lead time to respond
- Other :(please be specific)

Do you wish to remain on our mailing list?

Yes No

Additional comments: _____

Signed :(optional) _____

Company: _____

ADDITIONAL YEARS PURCHASING OPTION, for R-99096

BID TITLE: TRACTORS WITH FLAIL MOWERS

3- Year Open End Option: The Authority shall have the option for one (1) Model Year* from the date of Contract, to order additional units conforming to the requirements of these specifications at the same price and under the same terms and conditions as those required herein.

The Authority shall further have the option to purchase additional units conforming to these specifications for two (2) additional Model Years. Any unit(s) offered during the two (2) subsequent Model Years shall be of the model equivalent to that specified herein. In the latter instances, if there have been any price changes in the two subsequent Model Years, the vendor shall submit a request to the Authority covering the aforesaid price changes, and shall include appropriate explanation and justification for any such price changes.

Any such request for price adjustment shall be in writing and directed to the Director, Purchasing Department and shall be accompanied by the following evidence as a basis for your request;

1. The published price lists for equipment, which were in effect at the time of your original proposal.
2. The equivalent published price lists in effect at the time of your request.
3. Any additional evidence which the Authority deems necessary in the evaluation of your request.

The Authority shall, within its sole discretion, have the right to accept the price changes proposed by the vendor or if it is so desires re-bid the requirement.

*Model Year is defined as the Model Year of the Manufacturer of the unit(s) offered by you in this Request For Quotation. In that instance where proposals are for equipment for which "Model Year" and "Production Cut-Off Dates" are undefined or non-existent, the "Model Year" is defined, for bid purposes, as one calendar year from the date on which the Contract is accepted. The last date on which orders may be placed for the Model currently in effect is_____.

NEW JERSEY TURNPIKE AUTHORITY

GENERAL INSTRUCTIONS AND SPECIFICATIONS FOR: FOUR-WHEEL DRIVE TRACTOR WITH A LEFT/RIGHT BOOM FLAIL MOWER

Quantity	Description	Maximum Delivery Date
3	Four-Wheel Drive Heavy-Duty Utility Tractor with Left/Right Boom Flail Mower	150 Days After Receipt of Order

SPECIFICATIONS: FWDTWLRBFM: 2013 FOUR-WHEEL DRIVE TRACTOR WITH LEFT/RIGHT BOOM FLAIL MOWER

COMPLIANCE WITH RULES AND REGULATIONS: The unit and associated equipment furnished must comply with all Federal and State Motor Vehicle Safety Laws and Regulations and shall be capable of passing the New Jersey State Motor Vehicle Inspection Laws, where applicable.

ENERGY STAR REQUIREMENTS: If applicable for items specified in bid package, the vendor must provide products that earn ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency. The vendor is encouraged to visit energystar.gov for complete product specifications and updated lists of qualifying products. The ENERGY STAR label must also be affixed to each delivered item. The bidder's signature on the signature page certifies that items so indicated that have earned ENERGY STAR and meet the ENERGY STAR specifications or other standards for energy efficiency will be supplied.

ERRORS AND OMISSIONS: Inadvertent omissions or errors in the attached specifications must be brought to the attention of the New Jersey Turnpike Authority's Director of Purchasing at 732-750-5300 before bid submission date. If the bidder discovers any errors or omissions in the work undertaken and executed by them, they shall also immediately notify Peter Perperas (Project Supervisor) at 732-442-8600 ext. 2868 who shall promptly verify the same. If, with knowledge of such error or omission and prior to the correction thereof, the bidder proceeds with any work affected hereby, they shall do so at their own risk and the work so done shall not be considered as work done under and in performance of this Agreement unless and until approved and accepted.

PILOT MODEL: Questions, which arise before or during the preparation of the pilot model, shall be addressed in writing via e-mail from the vendor to Peter Perperas (Project Supervisor), perperas@turnpike.state.nj.us at the New Jersey Turnpike Authority on a not to delay basis.

The awarded bidder shall make available one **fully completed** pilot model for inspection and approval by the Authority. The unit shall be transported (responsibility of the awarded vendor) to the NJTA Garden State Parkway Division's Telegraph Hill Maintenance Facility located at Garden State Parkway Exit 116 in Holmdel, NJ 07733.

DELIVERY INSTRUCTIONS:

- A. Vendor must contact Peter Perperas (Project Supervisor) at 732-442-8600 ext. 2868 for authorization to schedule date and time prior to delivery. Any work that needs to be completed including all pre-delivery preparation shall be done prior to delivery.
Deliveries shall be made to the NJTA Garden State Parkway Division Telegraph Hill Maintenance Facility located at GSP Exit 116 in Holmdel, NJ 07733.
- B. Vendor shall be responsible for all delivery, shipping and pick-up expenses.
- C. All units must be pre-delivery serviced, completely assembled, operational, and cleaned prior to delivery.
- D. The following administrative package **must** accompany all deliveries:
- **Certificate of Origin:** stamped "Sales Tax Satisfied" and shall be made out to New Jersey Turnpike Authority, 581 Main St. Woodbridge, NJ 07095. Certificate of Origin shall have current date and be hand delivered to Peter Perperas after final acceptance of complete order.
 - **Invoice:** purchase order number must be displayed on vendors invoice. Invoice shall have current date and be hand delivered to Peter Perperas after final acceptance of complete order.
 - Warranty forms properly executed.
 - Four (4) keys for each tractor shall be furnished. **NO EXCEPTIONS**
 - Delivery of all units fully completed and fully compliant shall be made no later than one-hundred fifty (150) days after receipt of Purchase Order.
 - In the event the vendor fails to timely deliver the units, the vendor shall pay the Authority liquidated damages in the amount of \$346.80 per unit for each calendar day (**No Exceptions for Liquidated Damages**) beyond the maximum delivery date, as per Dataquest's Rental Rate Blue Book for Construction Equipment.
- E. Deliveries made directly from the manufacturer to the Authority shall **not** be acceptable.

WARRANTY: Tractors must be guaranteed to be free from defects in materials, design and workmanship for a minimum of two (2) years/2400 hours, and boom flail mowers shall be guaranteed for a period of one (1) year from the time of acceptance by the New Jersey Turnpike Authority. All warranties shall start upon written acceptance of units by the New Jersey Turnpike Authority. Warranty must include service availability from any manufacturers authorized dealer establishment most closely located to Parkway and Turnpike area. This repair facility may not be further than 100 miles from the Central Maintenance Facility in Holmdel, NJ 07733 or the Central Shops Maintenance Facility located in Hightstown, NJ 08520. If warranty service is required, the vendor who supplied the unit shall provide for pickup, delivery and repair of unit at no charge to the New Jersey Turnpike Authority. The vendor shall also have a program to include an in-house warranty. All warranty periods shall start from date of acceptance of unit by the New Jersey Turnpike Authority.

EXCEPTION SHEET: Exception sheet is furnished with each set of specifications. Bidders making exceptions must note exceptions by item and indicate substitution in lieu and submit with bid, detailed specifications on the substitution. If the vendor is submitting an alternate product, component, feature or part to what is referenced in the specifications, the proposals **must** be accompanied by descriptive literature, marked and indicate the exact items to be furnished, with an engineering drawing of the same. **Failure to supply information requested may result in rejection of bid.** Where no exception is taken, the word "None" shall be neatly printed or typed on the exception sheet. **Failure to supply information and/or failure to complete the bidder's exception spaces in the prescribed manner may disqualify bid. It shall be understood that if no exception is taken, the vendor shall supply all material exactly as specified. No substitution will be permitted after receipt of bids.**

SERVICE PARTS IDENTIFICATION FORM: Vendor shall complete the entire Service Parts Identification Form, where applicable for chassis section. Replacement parts shall be available to the general using trade, parts shall not be proprietarily manufacturer protected. **Failure to complete form may result in rejection of bid.**

UNIT INFORMATION FORM: Vendor shall complete the entire Unit Information Form. **Failure to complete form may result in rejection of bid.**

MANUFACTURER'S PRODUCTION SHEET: The vendor shall furnish one (1) copy of the actual Factory Production Sheet for each unit provided. The copies of the Factory Production Sheet shall be submitted at the time of the Authority's inspection of the unit.

TRAINING: It shall be the responsibility of the successful bidder to supply all safety, operational and service training to New Jersey Turnpike Authority personnel in accordance with all applicable ANSI and OSHA regulations. The safety and operational training shall consist of a complete review and understanding of the manufacturer's owner manual, along with actual operation of equipment. The instructor shall emphasize all proper uses for safe operation. The training shall include but not limited to all general troubleshooting of the hydraulic system and

associated electronics. The instructor shall also emphasize the proper use of tools and test equipment along with general shop safety. The service seminars shall be similar to factory and manufacture type schools. The training shall be scheduled and take place at one (1) designated site with a minimum of eight (8) hours training scheduled by the New Jersey Turnpike Authority.

LABELS: Plastic stick-on labels shall not be acceptable.

ADVERTISEMENTS: No Dealer advertisements shall appear on unit or any other related equipment.

ACCESSORIES: All accessories shall be manufacturer installed when the item is available from the manufacturer.

FACILITIES: Bidders shall represent a manufacturer, which has in operation a factory adequate for the manufacture of the equipment, which it proposes to furnish. The manufacture(s) whose associated equipment or products are bid shall have a full service warranty and parts supply facility that can guarantee availability of parts within 24 hours after telephone order and shall be located within a 100 mile radius of either Central Shops Maintenance Facility (exit 8 on the NJ Turnpike) located in Hightstown, NJ 08520 or Telegraph Hill Maintenance Facility (exit 116 on the GSP) located in Holmdel, NJ 07733. This facility will be required to establish an in-house warranty program and provide all warranty work related to the equipment in the bid proposal. The bidder shall submit the locations, names and telephone numbers of people who are authorized to service the equipment or who can be reached for emergency service.

Location _____

Phone # _____

Contact _____

Name & Title

**SPECIFICATIONS: FWDTWLRBFM-2013
FOUR-WHEEL DRIVE TRACTOR WITH LEFT/RIGHT BOOM FLAIL MOWER**

BIDDER’S INSTRUCTIONS

IT SHALL BE THE BIDDER’S RESPONSIBILITY TO CAREFULLY EXAMINE EACH ITEM OF THE SPECIFICATION. BIDDERS MUST INDICATE WHETHER THEY COMPLY OR NON-COMPLY FOR EACH LINE ITEM IN THE SPECIFICATION. FAILURE TO PROVIDE A COMPLETED BID MAY CAUSE REJECTION OF BID. ALL NON-COMPLY RESPONSES AND/OR BIDDERS PROPOSED “APPROVED EQUIVALENTS” MUST BE FULLY EXPLAINED ON EXCEPTION FORM, NOTING SECTION AND ITEM. FAILURE TO EXPLAIN NON-COMPLY RESPONSES OR FAILURE TO SUPPLY DETAILED LITERATURE/BROCHURES ON THE BIDDERS PROPOSED “APPROVED EQUIVALENTS” MAY CAUSE REJECTION OF BID. WHERE “MINIMUM/MAXIMUM” IS SPECIFIED, BIDDERS MUST PROPOSE AT LEAST THE MINIMUM/MAXIMUM SIZES OR THE BID MAY BE REJECTED.

GENERAL:	COMPLY	
	YES	NO
A. New current model four-wheel drive, heavy-duty utility tractor with ROPS cab and left/right boom flail mower.		
B. Tractor and axle mounted hydraulically powered flail mower for cutting grass and brush along roadsides.		
C. The flail mower shall have the capability to operate both left and right sides of the tractor.		
D. The units shall be new and of the latest design and be in current production at the time of the submission of bid.		
E. Vendor must supply detailed specifications, technical sheets, and pictures describing exact equipment that shall be provided. NO EXCEPTIONS		
F. All standard and optional equipment shall be Original Equipment Manufacturer (OEM) items, when available.		
ENGINE:		
A. 6-cylinder, turbo-charged diesel engine.		
B. 400 cubic inch minimum .		
C. 125 gross horsepower minimum .		
D. 125 PTO horsepower minimum @ 2,200 rpm .		
E. Dry type air cleaner.		
F. Vertical exhaust.		
G. Fuel filter with water sensor.		

H. Grid heater starting aid.		
I. Hand and foot throttle.		
J. Tilting hood.		
TRANSMISSION:		
A. Power shuttle transmission.		
B. 16 speeds forward/8 speeds reverse.		
C. Forward/reverse clutchless power shuttle.		
D. Left hand shuttle control.		
E. Electro-hydraulic differential lock.		
AXLE:		
A. MFD front axle.		
B. Limited slip differential.		
C. Shielded drive shaft.		
D. Turning angle: 55°.		
E. Oscillation: 12°.		
WEIGHT:		
A. Un-ballasted tractor weight: 10,400 lbs.		
B. Vendor must supply counterweight if needed, for safe and efficient operation of left/right boom flail mower specified in this bid.		
HITCH:		
A. 3-point hitch.		
B. Lift capacity minimum : 7,200 lbs. @ 24" behind lower links.		
BRAKES:		
A. Hydraulically assisted wet brakes with dual pedal safety lock.		
B. Independent parking brake.		
HYDRAULICS:		
A. Dual pump system.		
B. Rated pressure, operating pressure, pumps, and operating oil volume shall be of sufficient capacities to operate unit, 3-point hitch, remote valves, and quick couplers.		
POWER TAKEOFF:		
A. 540/1,000 rpm rear PTO with safety shield.		
B. PTO clutch with electro-hydraulic engagement.		
C. Category II 3-point hitch with mechanical draft and position control.		
D. Telescoping lower links.		
E. Telescoping stabilizers.		
F. Fender mounted controls.		
G. Swinging drawbar.		
FUEL TANK:		
A. Fuel tank capacity: 60-gallons minimum .		
B. Tank shall be labeled in 1" high green letters "DIESEL FUEL ONLY" .		
C. Fuel cap shall be painted green.		

D. Unit shall be delivered with a minimum of a half tank of fuel.		
TIRES & WHEELS:		
A. Front tires: 14.9R-24, R1		
B. Rear tires: 18.4R-34, R1		
LIGHTING/ELECTRICAL:		
A. Two (2) front halogen headlights.		
B. Two (2) front hood-mounted work lights.		
C. Two (2) rear mounted work lights.		
D. Turn signals, flashers, rear taillights, and brake lights.		
E. 120-amp alternator.		
F. 12-volt, 950 CCA maintenance free battery.		
G. Horn.		
H. Warning lights: <ul style="list-style-type: none"> • One (1) SAE J845 Class I Ecco Roto LED Beacon, Model # 7660A or approved equivalent rotating amber warning light mounted in center on top of cab. • Two (2) amber warning lights Par-36 size Super LED, Whelen Model 2EA00ZAR or approved equivalent mounted at rear of unit (Exact location shall be determined by contacting the NJTA Inspector prior to mounting). <p><u>NOTE:</u> One (1) rocker type backlit switch shall be installed in cab for operating both types of warning lights.</p>		
INSTRUMENTATION:		
A. Analog instrumentation with warning lights for: <ul style="list-style-type: none"> • Air cleaner service • Alternator • Oil pressure • MFD engaged • Differential lock engaged • Headlight high beam • PTO engaged • Left/right turn and flasher indicator • Tail light • Parking brake 		
B. Gauges: <ul style="list-style-type: none"> • Fuel level • Engine coolant temperature • Hour meter • Tachometer 		
CAB:		
A. ROPS protected, flat deck platform with heater and air conditioner.		

B. Tinted windshield.		
C. Front and rear windshield wipers.		
D. Two (2) doors lockable (include 4-keys for each tractor).		
E. Interior mirror.		
F. Am/fm radio.		
G. Two (2) external mirrors.		
H. Tilt steering wheel.		
I. Air adjustable cloth seat with operator presence sensor.		
J. Retractable seatbelt.		
K. SMV emblem.		
L. 5 lb. dry chemical “UL” listed fire extinguisher suitable for ABC class fires in a quick-release type bracket mounted in cab.		
M. Safety triangle reflector kit shall be supplied in cab.		
N. Include all other standard equipment and accessories.		
PAINT (TRACTOR):		
A. All metal parts shall have the mill scale and oil removed by means of a high-pressure chemical cleaner prior to painting.		
B. DuPont Dulux Omaha Orange Enamel # 93-082 or approved equivalent.		
C. Paint shall be applied in a two-step process with the orange base coat and additional polyurethane overcoat.		
MANUALS:		
A. The following manuals shall be supplied with each tractor upon delivery: <ul style="list-style-type: none"> • Operating-2 • Parts-1 • Repair-1 • Maintenance-1 		
BOOM FLAIL MOWER:		
A. Boom type flail mower shall be able to operate interchangeably to both the right and left sides of the tractor. NO EXCEPTIONS		
B. The hydraulically driven flail mower shall mount on the rear axle of the tractor utilizing axle brackets with mounting forks on the mainframe of the mower and a mounting yoke engaging the tractor linkage drop arms for additional support.		
C. Axle brackets shall remain with tractor in the event the mower is removed.		
D. The mower shall be able to be removed or reinstalled within one hour’s time.		
E. Storage stands shall be incorporated into the machines mainframe design.		
F. The arm design shall incorporate a hydraulic power sideways swing to facilitate both mowing capabilities and folding for transport.		
HYDRAULICS:		
A. The self-contained hydraulic system utilizing hydraulic pumps shall be		

driven by the tractors 540 rpm rear PTO.		
B. The main gear pump shall operate the cutting head producing a minimum of 35 gpm at a working pressure of 3,900 psi.		
C. The second gear pump shall power the booms arm motion producing a minimum of 8.9 gpm at a working pressure of 3,000 psi.		
D. 60-gallon hydraulic reservoir with filter and external oil level indicator.		
E. A suction line filter and safety bypass valve shall be installed.		
F. Return line filter shall be supplied.		
G. Hydraulic connections to cylinders shall be a minimum thickness of ¼" flexible hose.		
H. All hoses shall be double braided wire braid with soft seal connectors.		
I. A remote control mower mounted valve for independent head on/off control from tractor PTO shall be supplied.		
CONTROL VALVE & INTELLIGENT CONTROL SYSTEM (ICS):		
A. An Intelligent Control System (ICS) shall provide cab mounted boom remote control.		
B. This control system shall provide fully proportional control of 1 st arm ram, 2 nd arm ram, and head angle control.		
C. Function as the 180° power swing, 180° head swing shall be controlled by either key pads or buttons on top of joystick.		
D. The Intelligent Control System (ICS) shall give the operator the ability to select different service speed for hydraulic rams.		
E. Diagnostic functions and service warnings shall be standard features.		
F. Load holding check valves shall be installed to insure no leakage when valves are in neutral.		
SWING/BREAKOUT SYSTEM:		
A. The king post mounted arm sideways swing system shall be controlled by hydraulic rams.		
B. Twin ram controls shall permit operation of machine on either side of the tractor.		
C. The ram circuit shall incorporate a breakout system to protect the machine in the event of encountering an obstacle during operation.		
D. The breakout system shall also simultaneously lift the 1 st lift ram to reduce ground drag and lift clear of an obstacle.		
REACH:		
A. The mower shall be able to reach at least 22' horizontally measured from the center line of the tractor.		
B. The mower shall reach at least 17' at 45° below ground level measured from the outside tractor tire.		
C. The mower shall reach at least 22½' at 45° above ground level measured from the outside tractor tire.		
D. Vertical reach level cutting head shall be a minimum of 17'.		

E. The minimum kingpost top height in operating mode shall be 4' above ground level in order to reach over guard rails and other obstructions.		
F. The arm section shall be able to give 240° angular movement to the cutting head.		
G. Head shall be able to cut adjacent to the rear tire.		
H. Transport width shall be less than 8'.		
I. The rear mount transport position allows the operator an unobstructed view forward and lateral.		
SAFETY:		
A. Boom mower shall be mounted at the rear of the tractor for unobstructed visibility forward.		
B. Constant pressure safety breakaway shall protect arms and mower head in the event of obstruction and reset automatically once passed the obstacle.		
C. The unit shall be fitted with a hydra-cushion enabling the head to follow ground contours without involvement by the operator when mowing at ground level.		
D. Protective screening shall be installed on both sides of cab and shall not affect the operation of the door or window.		
FLAIL HEAD:		
A. The flail mowing head shall have a 240° continuous angling head.		
B. The arm to head mount shall incorporate a slide fixture to maximize head angle and reach configurations.		
C. The hydraulically operated flail head shall include a dynamically balanced shaft that shall turn at a minimum of 2,400 or 3,200 rpm depending on the pulley positons.		
D. Cutting width: 47" minimum.		
E. Flail head shall include a full width roller.		
F. The flail head shall be capable in accepting an alternative shaft and bearing assembly equipped with 32 flail stations.		
G. The fails shall be chisel type, constructed of drop-forged steel and mounted on drop-forged shackles.		
H. Each flail and shackle shall weigh approximately 16 oz. and shall be capable of cutting and mulching grass and brush up to 1½" thick.		
I. The drive system of the head shall be equipped with interchangeable pulleys to allow different shaft speeds.		
J. Protective shields shall be mounted onto the front and rear of the flail head.		
K. An alternate shaft shall also be supplied and consist of end plates, bearings, and drive pulley.		
L. Knife configuration shall be 24 flail stations with 2 lb. knives that shall be capable of spinning 360° within mounting ears and cutting up to 4" material.		

PAINT (BOOM & FLAIL):		
A. All metal parts shall have the mill scale and oil removed by means of a high-pressure chemical cleaner prior to painting.		
B. DuPont Dulux Omaha Orange Enamel # 93-082 or approved equivalent.		
C. Paint shall be applied in a two-step process with the orange base coat and additional polyurethane overcoat.		

SERVICE PARTS IDENTIFICATION FORM

List All Applicable Preventative Maintenance Items:			
Private label part number identification shall not be acceptable. A common automotive industry recognizable identification capable of cross referencing with manufactures such as Fram, Hastings, Purolator, Wix, etc. shall only be accepted.			
	Required Amount	OEM Part #	After Market Part #
Engine Group:			
Primary Oil Filter			
Secondary Oil Filter			
Air Filter			
Other			
Primary Fuel Filter			
Secondary Fuel Filter			
Water/Fuel Separator			
Coolant Filter			
Other			
Ignition Group:			
Spark Plug			
Spark Plug Wires			
Other			
Other			
Emissions Group:			
PCV Valve			
Other			
Drive Train Group:			
Transmission Primary Filter			
Transmission Secondary Filter			
Axle Housing Breather			
Other			
Brake Group:			
Compressor Intake Filter			
Air Dryer Desiccant			
Power Take Off Group:			
Hydraulic Filter			
Breather Filter			
Other			
Miscellaneous:			
Left Windshield Wiper			
Right Windshield Wiper			
Rear Windshield Wiper			
Cab Ventilation Filter			

FAILURE TO COMPLETE ALL AREAS MAY RESULT IN REJECTION OF BID

UNIT INFORMATION FORM

TRACTOR:

YEAR: _____

MAKE: _____ MODEL: _____

TIRES FRONT:
SIZE/PLY _____

TIRES REAR:
SIZE/PLY _____

FUEL TANK CAPACITY: _____ GALLONS

SERVICING AGENCY: _____

LOCATED AT: _____

TELEPHONE #: _____

CONTACT: _____

Name & Title

ENGINE:

YEAR: _____

MAKE _____ MODEL: _____

NO. OF CYLINDERS _____

CUBIC INCH DISPLACEMENT _____ INCHES

GROSS HORSEPOWER _____ MINIMUM

HORSEPOWER PTO MINIMUM _____ @ 2,200 RPM

BOOM FLAIL MOWER:

YEAR: _____

MAKE: _____ MODEL: _____

MOWER REACH AT 45° BELOW GROUND LEVEL MEASURED FROM OUTSIDE TRACTOR TIRE _____ FT

MOWER REACH AT 45° ABOVE GROUND LEVEL MEASURED FROM OUTSIDE TRACTOR TIRE _____ FT

VERTICAL REACH LEVEL CUTTING HEAD _____ FT

FLAIL CUTTING WIDTH: _____ INCHES

SERVICING AGENCY: _____

LOCATED AT: _____

TELEPHONE #: _____

CONTACT: _____

Name & Title

