STATE OF LOUISIANA
SOUTHEASTERN LOUISIANA UNIVERSITY
HAMMOND, LOUISIANA

A Member of the University of Louisiana System

INVITATION TO BID

LEASE 4WD TRACTOR IMPLEMENT READY BACKHOE WITH ADJUSTABLE HYDRAULIC THUMB FOR THE PHYSICAL PLANT DEPARTMENT AND SOUTHEASTERN LOUISIANA UNIVERSITY

SUING AGENCY: Southeastern Louisiana University
Purchasing Department
SLU 10800
Hammond, LA 70402

DIRECTOR OF PURCHASING: Richard Himber
Telephone: (985) 549-2064

PROCUREMENT SPECIALIST: Monette Scott
Telephone: (985) 549-5324

REQUISITIONED BY: Sandra Lelleck
Telephone: (985) 549-3405

RELEASE DATE: May 12, 2020

DEADLINE FOR FAX INQUIRY: May 21, 2020 Fax Number: 985-549-3810

BID OPENING DATE: June 3, 2020 4:00PM CENTRAL TIME

BID OPENING LOCATION: Southeastern Louisiana University
Purchasing Department
Property Control & Supply Building
2400 North Oak Street
Hammond, Louisiana 70402

NOTE: THIS SOLICITATION IS A SEALED BID AND MUST BE RETURNED BY MAIL OR DELIVERED IN PERSON. BID RESPONSE FORMS CANNOT BE FAXED AND ANY FAX RESPONSES SHALL BE REJECTED.

This ITB is available in electronic form at https://wwwcfprd.doa.louisiana.gov/OSP/LaPAC/dspBid.cfm?search=department&term=42 **It is available in PDF format or in printed form by submitting a written request to the Procurement Specialist listed above. It is the Bidder's responsibility to check the Office of State Purchasing LaPAC website frequently for any possible addenda that maybe issued. Southeastern is not responsible for a bidder's failure to download any addenda documents required to complete an Invitation to Bid.**

STATE OF LOUISIANA
SOUTHEASTERN LOUISIANA UNIVERSITY
HAMMOND, LOUISIANA

The Southeastern Louisiana University (SLU) Purchasing Department will receive sealed bids until 4:00 P.M. on the bid opening date specified in the solicitation document. No bid responses will be considered by the SLU Purchasing Department after 4:00 P.M. Beginning at that time, bids shall be opened and read.

Mail address:	**Southeastern LA University** **Purchasing Department** **SLU 10800** **Hammond, LA 70402-0800**	**Delivery:**	**Southeastern LA University** **Purchasing Department** **Property Control & Supply Bldg** **2400 North Oak Street** **Hammond, LA 70402**

Bids submitted are subject to LA R.S. 39:1551-1736; Purchasing Rules and Regulations; Executive Orders; General Conditions; any Special Conditions; and Specifications listed in the solicitation document.

The purpose of this solicitation is to set forth the requirements and specifications of Southeastern Louisiana University. The contents of this solicitation and the Bidder/ Vendor/ Contractor's bid response shall become contractual obligations if a contract (purchase order) ensues.

INSTRUCTIONS TO BIDDERS

1) **Bid Forms: Per LA R.S. 39:1556, all written bids, unless otherwise provided for, must be submitted on, and in accordance with, forms provided, properly signed by an authorized representative of the bidding entity. Bids submitted in the following manner will not be accepted: (1) bid contains no signature indicating intent to be bound; (2) bid sent by facsimile equipment or email. Price alterations to bid responses received before bid opening time will be considered provided the written price alteration has been received and time-stamped before bid opening time. Any other alterations of the bid response form or foreign conditions attached thereto may cause rejection of the bid response without further consideration.**

2) **Special Envelope: To assure consideration, all bids should be submitted in the special bid envelope if furnished for that purpose. In the event bid contains bulky material, the special bid envelope should be firmly affixed to the mailing envelope.**

3) **Standard of Quality: Any product or service bid shall conform to all applicable Federal and State laws and regulations and specifications contained in the solicitation document. Unless otherwise specified in the solicitation document, any manufacturer's name, trade name, brand name, or catalog number used in the specifications is for the purpose of describing the quality level and characteristic required. Bidder should specify the brand and model number of the product offered in his bid. Bids not specifying brand and model number shall be considered as offering the exact products specified in the solicitation document.**

4) **Descriptive Information: Bidders proposing an equivalent brand or model should submit with the bid response information (such as illustrations, descriptive literature, technical data) sufficient for the University to evaluate quality, suitability, and compliance with the specifications of the solicitation document. Failure to submit descriptive information may cause bid to be rejected. Any change made to a manufacturer's published specification submitted for a product shall be verifiable by the manufacturer. If item(s) bid does not comply with specifications (including brand and/or product number), bidder should state in what respect the item(s) deviate. Failure to note exceptions on the response form will not relieve the successful bidder(s) from supplying the actual products requested.**

5) **Louisiana Preference: Preference is hereby given to products produced, manufactured, harvested, grown or assembled in Louisiana which are equal in quality to products produced, manufactured, harvested, grown or assembled outside of Louisiana. The bidder shall state his right to claim the ten percent (10%) preference in his bid response and the bidder should state the respective Louisiana location where each qualifying item is produced, manufactured, harvested, grown or assembled.**

6) **Signature Authority: In accordance with LA Revised Statute 39:1594 (Act 121), the person signing the bid must be: (1) A current corporate officer, partnership member or other individual specifically authorized to submit a bid as reflected in the appropriate records on file with the Secretary of State; or (2) An individual authorized to bind the vendor as reflected by corporate resolution or affidavit before awarding the bid. By signing the bid, the bidder certifies compliance with the above.**

GENERAL CONDITIONS

The SLU Purchasing Department reserves the right to award items separately, grouped or on an all-or-none basis and to reject any or all bids and waive any informalities.

1) **Prices: Unless otherwise specified in the solicitation, bid prices shall be complete, including transportation and handling prepaid by the bidder to destination - SLU, Hammond, LA. Bids other than FOB destination may be rejected. Bid prices should be quoted in the unit of measure stated. Bid prices shall be firm for a minimum of thirty (30) calendar days, unless otherwise specified by SLU in the solicitation document.**

2) **Payment Terms: Cash discounts for less than 30 days may be offered, but will not be considered in determining awards. Bids containing "payment in advance" or "COD" requirements may be rejected. Payment is to be made within 30 days after receipt of properly executed invoice or delivery, whichever is later.**

3) **Delivery: Bids may be rejected if the delivery time indicated is longer than that specified in the solicitation document.**

4) **Taxes: Bidder is responsible for including all applicable taxes in the bid price. The University is currently exempt from Louisiana State Sales and Use Taxes, and local parish and city taxes. An exemption certificate for state sales and use tax can be provided upon request.**

5) **New Products: Unless specifically called for in the solicitation document, all products for purchase must be new, never previously used, and the current model and/or packaging. No remanufactured, demonstrator, used or irregular product will be considered for purchase unless otherwise specified in the solicitation document. The manufacturer's standard warranty will apply unless otherwise stated in solicitation.**

6) **Default of Contractor: Failure to deliver within the time specified in the solicitation document will constitute a default and may cause cancellation of the contract. Where the University has determined the contractor to be in default, the state reserves the right to purchase any or all products or services covered by the contract on the open market and to charge the contractor with cost in excess of the contract price. Until such assessed charges have been paid, no subsequent bid from the defaulting contractor will be considered.**

7) **Contract Cancellation: The University shall have the right to cancel any contract, in accordance with Purchasing Rules and Regulations, for cause, including but not limited to, the following: (1) failure of the vendor to deliver within the time specified in the contract; (2) failure of the product or service to meet specifications, conform to sample quality, or to be delivered in good condition; (3) misrepresentation by the contractor; (4) fraud, collusion, conspiracy or other unlawful means of obtaining any contract with the state; (5) conflict of contract provisions with constitutional or statutory provisions of state or federal law; (6) any other breach of contract.**

8) **Applicable Law: All contracts shall be construed in accordance with and governed by the laws of the State of Louisiana.**

9) **Equal Opportunity: By submitting and signing this bid, bidder agrees that he will not discriminate in the rendering of services to and/or employment of individuals because of race, color, religion, sex, age, national origin, handicap, disability, veteran status, or any other non-merit factor.**

By submitting a response to this solicitation, the bidder or proposer certifies and agrees that the following information is correct: In preparing its response, the bidder or proposer has considered all proposals submitted from qualified, potential subcontractors and suppliers, and has not, in the solicitation, selection, or commercial treatment of any subcontractor or supplier, refused to transact or terminated business activities, or taken other actions intended to limit commercial relations, with a person or entity that is engaging in commercial transactions in Israel or Israeli-controlled territories, with the specific intent to accomplish a boycott or divestment of Israel. The bidder also has not retaliated against any person or other entity for reporting such refusal, termination, or commercially limiting actions. The state reserves the right to reject the response of the bidder or proposer if this certification is subsequently determined to be false, and to terminate any contract awarded based on such a false response.

10) Piggyback: Other Louisiana Governmental Agencies may purchase at the same terms and conditions if agreed upon by awarded bidder.

SOUTHEASTERN LOUISIANA UNIVERSITY
BID RESPONSE FORM

BUSINESS NAME: _____

TELEPHONE NO.: (_____)_____ FAX NUMBER: (_____)_____

ADDRESS:_____
MAILING CITY STATE ZIP

EMAIL:_____

SCOPE OF BID: Lease Implement Ready Backhoe With Adjustable Hydraulic Thumb, Front Loading and Back Digging Bucket

CONTRACT TERM: July 1, 2020 through June 30, 2021

The intent of this bid is to lease the equipment for a period of three years with annual renewal required each fiscal year. The continuation of the lease shall be contingent upon the appropriation of funds by the Louisiana Legislature. Should the legislature not appropriate funds for the continuation of the lease then the contract shall terminate on the 1st day of the fiscal year (July to June) in which funds are not appropriated. In addition, the University reserves the right to cancel the contract at its convenience upon 30 days written notice by registered or certified mail.

I/we do hereby acknowledge receipt of the following addenda (if any):

No._____ Dated _____ No._____ Dated _____

OTHER REQUIREMENTS:
The unit must be delivered the first week of July and must be on-site no later than July 6-9, 2020. TO schedule delivery please call 985-549-3333.

Bidder shall include the cost of transportation and handling in the unit price of item offered - F.O.B. University, Hammond, LA.

If bidding other than the specified make and model, then the bidder shall attach illustrations and descriptive literature of the item(s) offered to the bid response form for evaluation purposes.

The attached Instructions To Bidders/General Conditions, Insurance Requirements and Indemnification Agreement shall be a part hereof.

TO THE VENDOR:
Whenever brand name specifications or catalogue numbers are used to describe the standard of quality, performance and other characteristics, the use of such specifications shall not restrict unless otherwise specified, the submission of equivalent products.

TERMS: Net 30 Prox., F.O.B. University, Hammond, LA 70402

TAXES: Any taxes, other than state sales and use tax, shall be included within the bidder's unit price. The University is currently exempt from state sales and use tax. **Any anticipated charges for property tax must be included in the unit bid price as additional charges for property tax will not be considered.**

SIGNATURE TO THE BID RESPONSE FORM SHALL BE CONSTRUED AS ACCEPTANCE OF THE ITB IN ITS ENTIRETY.

AUTHORIZED OFFICER:_____ _____
(Signature) (Print or Type Name)

TITLE:_____ DATE:_____

BID RESPONSE FORM CONTINUED

Item	Description	Unit	Bid Amount
1	State the annual lease price for a 4WD Tractor, Implement Ready Backhoe with adjustable hydraulic thumb. Per specifications included. Annual lease price SHALL include property tax, if applicable;	Per Year	
	State the price for an extended warranty to cover equipment repairs for the entire term of the lease. The extended warranty shall include loaner equipment at No Additional Cost if off-site repairs become necessary. Extended warranty must include the cost for on-site mechanic for all warrantied repairs. Extended warranty to include pickup of equipment if of-site service is required for such warrantied repair(s). **If no additional charge, State "NO CHARGE".**_____ **If included in Item # 1 State "INCLUDED".** _____	Per Year	
2	State the price to deliver the equipment to Southeastern Louisiana University, Physical Plant Department, 2400 North Oak Street, Hammond, LA 70402. Quoted price must include any and all transportation and handling charges. **If no charge, State "NO CHARGE".** _____	One Time	
3	State the total cost for pickup of unit if off-site repair becomes necessary to complete any non-warrantied repairs. **If no charge, State "NO CHARGE".** _____	Per Instance	
4	State the Bid Price for Transportation and Handling required for Pickup of the leased equipment at the end of the lease. **If no charge, State "NO CHARGE".** _____	One Time	
5	State the total cost for Pickup and Return of the leased equipment in the event of an early termination. **If no charge, State "NO CHARGE".** _____	One Time	
	TOTAL		

Note: Payments are not to be made in arrears, so as not to interfere with our fiscal year. Payment should be scheduled for the 15th of each month.

OTHER REQUIREMENTS: The backhoe is to be delivered the first week of July and must be on-site **NO LATER than July 6-9, 2020.** TO schedule delivery please call 985-549-3333.

NAME OF BIDDER: _____ BIDDER'S INITIALS _____

Signature: _____ Date: _____

BACKHOE LOADER 4WD, Caterpiller 420E, John Deere 310SJ, New Holland B95B
Or Equal

Equipment Specifications

1. Digging Backhoe to have a minimum digging depth of 14-15’ with standard stick.
2. Turbocharged engine net flywheel horsepower shall be at least 88 HP (66kW) according to SAE J1349.
3. Multi-purpose loader bucket (front bucket) (4 & 1) SAE heaped capacity rating shall be a minimum of 1.4 cubic yards.
4. Unit to have a maximum height to the top of the cab roughly 9 ft 1 in (2770 mm) with standard tires.
5. Unit to have a maximum overall transport height of about 11 ft 9 in (3590 mm) with standard tires.
6. Unit to have a minimum wheelbase of 7’3” (2210 mm).
7. Unit shall have a maximum width of roughly 7’9” (2352 mm) with a multi-purpose (Front loader) bucket.
8. Maximum operating weight to be approximately 22,046 lbs (10,000 kg).

Engine

1. Engine to be protected to a minimum -34 degrees F (-36.7 degrees C) with extended life antifreeze that needs not to be replaced for 5 years.
2. Engine cooling fan shall have a heavy-duty guard that fully prevents human contact while in operation.
3. Radiator shall have a heavy-duty guard to resist continued impact at low speeds.
4. Coolant circulation shall be provided by a gear-driven water pump, not solely belt driven.
5. Engine shall be equipped with an alternator that has a charging capacity of minimum 120 amperes.
6. Engine to be equipped with one maintenance-free 880 CCA battery or greater.
7. Engine shall be equipped with a 12-volt or greater direct-electric starting and charging system.
8. Engine shall have an internally-mounted, dry type, radial-seal, combined replaceable air cleaner and precleaner unit with an air service indicator to monitor air filter condition.
9. Engine air filter to have an automatic integrated dust ejection system that prevents more than 95% of contaminates from embedding in the filter media.
10. Engine shall have a water/sediment bowl and spin-on type replaceable filter in the fuel system, with water separator service indicator light.
11. Engine shall have variable-speed, hand and foot governor controls.
12. Engine shall have a full flow spin-on type oil filter that is vertically mounted below the crankshaft centerline.
13. Engine shall have replaceable valve guides and valve seats for extended service life.
14. Engine shall come standard with glow plug starting aid for cold weather operation without using either.
15. Net peak torque at 1400 rpm to be not less than 281 ft-lb (381 N-m).
16. Units shall be equipped with a turbocharged, four cylinder, direct injection diesel engine with high strength, cast iron alloy single block design for high strength and long life.
17. Machine to be Tier II compliant meeting all EPA Emissions Standards.

Power Train/Transmission 4 WD Unit

1. Transmission, differentials, and hydraulics shall have separate fluid reservoirs.
2. Unit shall be able to change direction and travel speed on-the-go.
3. Forward/reverse shuttle shall be a contactless unit for reliability.
4. Units shall be equipped with a transmission disconnect button on the gear shifter and loader control to allow full engine power to the loader.
5. Transmission shall be made, serviced and supported by the machine manufacturer.
6. Transmission shall have an electric, neutral lock switch on the front console.
7. Transmission shall have spin-on type oil filter vertically mounted.
8. The automatically shifting transmission shall have a manual override switch to allow the operator full control over the gear selection. (This is applicable for item 11).
9. Unit to have a single stage torque converter of no less than 2.63:1 stall ratio.
10. Unit to have a high gear speed of no less than 25 mph (40.0 kph).
11. Unit to have 4 forward and 4 reverse gears (or 5 forward and 3 reverse gears with kick-down capability), with a fully synchronized Power-Shuttle transmission coupled with electro-hydraulically shifted forward and reverse shuttle clutches).

Steering

1. Oscillation shall be no less than 11 degrees each side direction from centerline.
2. Machine shall have hydrostatic steering.
3. Steering cylinder to be double acting with a 50 degree steering angle.
4. Unit to have a minimum 4WD cylinder size of 2.75” (70mm) bore, 8.8” (224 mm) stroke, and 1.75” (44 mm) rod diameter.

Brakes

1. Parking/secondary brakes shall be independent of the service brake system, allow operator complete control for a modulated stop, and shall be mechanically applied and adjusted from the cab without the need for tools.
2. Foot-operated brake pedals shall be able to be interlocked for roading.
3. Service brakes shall be boosted for low pedal efforts.
4. Service brakes shall be completely enclosed and sealed using Kevlar as brake pad
5. Brakes shall be inboard oil-immersed, hydraulically-actuated, multiple discs on final drive input drive shaft.
6. Service brakes shall be fully self-adjusting.

Hydraulic System

1. Hydraulic system shall include high pressure hoses consisting of 4 overlapping insulated spiral wires on all high pressure lines.
2. Machine shall be able to reach maximum lift capacity at any engine speed.
3. Maximum hydraulic pump pressure to be at least 3,600 psi (24,845 kPa) for both backhoe and loader.
4. Hydraulic system shall have a replaceable 5 micron vertically mounted, spin-on filter that is accessible from under the main frame.
5. Hydraulic pump to be rated at 43 gpm (163 lpm) at 2,200 rpm.
6. Machine shall have a variable displacement load sensing, axial piston pump for low idle lifting and maximum durability.

Hydraulic System (Continued)

7. Hose fitting shall have O-ring face seal connections for maximum seal reliability.
8. Hydraulic tank shall be mounted towards the rear of the engine above the pump, enabling the hood of the machine to slope downward for visibility and to keep positive pressure into the pump supply hose.
9. Supply hose to the pump shall be protected high within the chassis and not vulnerable to puncture.
10. Backhoe hydraulic lines shall be fastened and constrained from hanging low within the chassis, preventing hoses from damage.
11. All hydraulic hoses restrained by rubber grommets and steel band clamps shall have full protective coverage by the rubber grommet, preventing cuts and chaffing by the band clamps.
12. Hose routing shall be in such a way that no chafing protection material is needed around hoses in any area.

Axles

1. Rear axle shall have differential lock with “on-the-go” engagement.
2. 4WD front axle to have a minimum static load rating of 50582 lbs (22964 kg).
3. Rear axle to have a minimum static load rating of 50582 lb (22964 kg).
4. Heavy-duty rear axle shall be semi-floating with self-adjusting inboard rakes.

Wheels

1. Standard tires, appropriate for 4WD, shall be no less than 11L x 16 12PR (front) and 19.5 x 24 12PR (rear) with radial tires and other sizes available.
2. Front tires shall ride inside loader bucket cutting width.

Operators Station

1. Cab shall have an air conditioner that provides the operator with a choice of fresh outside air drawn through filters or recirculating cab air.
2. Operator shall have complete control to disable, or lock, the backhoe Pilot Controls with a single switch on the console.
3. The backhoe Pilot Controls locking switch shall always indicate the correct state of the controls, “locked” or “unlocked,” and be lighted when “locked”.
4. Pilot Controls for the backhoe shall store away from the operator with a single lever.
5. Cab shall be equipped with two doors and five opening windows and floor mat.
6. Machine shall come standard with horn, audible back up alarm and electric fuel system shut off.
7. Operator’s compartment shall feature flat laminated safety glass on front, windshield and tempered glass on all other windows.
8. The governor pedal shall be hinged and mounted to the floor for maximum pedal positioning control.
9. Cab shall include factory-installed heater/defroster with multiple speed blower with the control in reach from the front and rear of the machine.
10. Heater to have a minimum rated capacity of 39,920 BTU and be equipped with a 500 cfm fan.
11. Side instruments should include tachometer, fuel gauge, transmission/converter oil temperature gauge and coolant temperature gauge.
12. Unit shall have a lighted instrument panel located on the right side of the cab so that it is visible from both loader and backhoe operating positions.

Operators Station (Continued)

13. Unit shall include two front and two rear loading lights.
14. Machine shall have stop and turn signals with flashing hazard lamps visible from front and rear.
15. In addition to head and tail lights, the machine shall include 2 front and 2 rear halogen work lights actuated by separate switches.
16. Electric auxiliary socket shall be available on roof for connection to items such as a rotating beacon.
17. A switch, accessible to the operator from the seat, shall control the auxiliary socket, primarily used for beacon operation.
18. OSHA approved ROPS/FOPS shall be integral with cab.
19. Air-suspension seat shall come with a vertical adjustment and adjustable flip-up arm rests.
20. Operator’s compartment shall come equipped with a standard air suspension seat that can be adjusted in the fore/aft position and has a lever that controls the release for rotation at 180 degree swivel from anywhere on a sliding track mechanism.
21. Standard seat shall be available with vinyl or cloth covering.
22. Equipped with the standard steering wheel, the seat shall be able to swivel 180 degrees in a single motion without contacting the steering wheel or pilot control pods.
23. Hour meter shall be functional with key in off position and visible from ground level.
24. With doors and windows closed, unit shall have a maximum operator sound exposure Leq of 78.5 dB(A) according to SAE J1166.
25. Stabilizer controls shall be pilot operated and conveniently located to the operator’s left or right side/hand
26. Tilt steering wheel shall be standard for operator comfort.
27. All rear window sections shall stow overhead, inside the cab for maximum visibility, ventilation and operator comfort.
28. All rear window sections shall open upwards and store overhead with outside portion facing upwards to keep water droplets and dirt from falling on operator.
29. Each side of the cab should have two windows sharing a common hinge that are of approximately equal size, can be fastened together, then swung to either a front or rear securing point to maximize cross flow ventilation.
30. Front and rear windshield wipers/washers shall be included.

Loader and Backhoe

1. Maximum boom width shall be no wider than 10 inches (254 mm).
2. Backhoe should come standard with a curved boom for its ability to work in confined areas and to reach over obstacles, allowing a minimum of 1” (279 mm) of clearance as measured in the deepest point from a plane, subtended through the axis of the rotation.
3. Per SAE standards, rated bucket digging force shall be a minimum of 13,875 lb (61.7 kN).
4. Per SAE standards, stick digging force shall be a minimum of 9,616 lbs (42.8 kN) with a standard stick or a retracted extendible stick.
5. Backhoe reach, from the swing pivot, shall be no less than 18’5” (5618 mm) with a standard stick.
6. Backhoe shall have a loading height of no less than 11’11” (3636 mm) with a standard stick.
7. Backhoe bucket shall be OEM standard, 24” digging capacity with side cutters and pin (or teeth)and have a minimum of 205 degrees of bucket rotation in one pin position.
8. Backhoe shall have a minimum cushioned swing arc of 180 degrees.

Loader and Backhoe (Continued)

9. Per SAE J31, backhoe stick lifting ability at 8 ft (2438 mm) shall be no less than 5298 lb (2408 kg) with a standard stick.
10. Per SAE J31, backhoe boom lifting at 8 feet (2438 mm) to be no less than 3357 lbs (1526 kg) with a standard stick.
11. Backhoe shall be center-pivot type complete with hydraulic stabilizers.
12. Boom cylinder shall be exterior mounted for serviceability.
13. Stick cylinder shall be exterior mounted for serviceability.
14. Boom and stick shall be weld repairable.
15. Backhoe shall be equipped with a swing transport lock.
16. Backhoe shall be equipped with a boom lock that can be controlled from the seat.
17. Pattern changer shall be available for switching Backhoe and Excavator control patters with an electric switch, located within the operator’s station, and positioned at least 12” away from exterior surfaces.
18. Backhoe controls shall be available as pilot operated joystick controls with a standard patter changer for SAE excavator or ISO backhoe control patterns.
19. Backhoe shall be controlled with excavator style pilot operated joystick controls.
20. Loader bucket hall not roll back, and must not move under normal dig operations.
21. Loader bucket shall not roll back, and must not move under normal dig operations.
22. Loader shall have positive down pressure sufficient to lift tractor front end off level.
23. Conventional loader breakout force to be no less than 10,242 lbs (45.6 kN) for any OEM bucket offered.
24. Conventional loader to have a lift capacity of no less than 6457 lbs (2929 kg) at full height with a general purpose bucket.
25. Bucket rollback at ground to be a minimum of 40 degrees.
26. Bucket dump angle to be a minimum of 43 degrees.
27. Loader shall be equipped with a return-to-dig mechanism.
28. Loader shall be equipped with a lift cylinder brace to mechanically hold the loader arms in the raised position.
29. Loader shall incorporate a steel bumper system between the loader arms and chassis to absorb side loading and reduce pin joint stress in the loader tower.
30. Loader arm torque tube shall be constructed such that it is welded to each side of each loader arm section, providing maximum strength with minimal weld stress.
31. Loader linkage shall incorporate a single, full width main tower pin for maximum strength and load distribution.
32. Loader arms shall be divergent, widening toward the bucket.
33. Loader bucket shall be suitable for general purpose with heavy-duty characteristics including high strength wear material in the leading edges of the lower side corners, equaling the material properties of the bas cutting edge.
34. Loader bucket base cutting edge shall be specially hardened steel, achieving Rockwell hardness of 50 or greater.
35. Loader bucket to have a 2-piece or 3-piece bolt-on cutting edge for serviceability.
36. Loader bucket dump time shall be no more than 2.5 seconds at full raised position.

Loader and Backhoe (Continued)

37. Loader bucket shall be self-leveling for truck loading spoil and equipped with a bucket tilt indicator.
38. Loader bucket lower time from full raised position to digging position shall be no more than 2.5 seconds.
39. Minimum distance between bucket bottom edge and tilt cylinder pin to be no less than 13” (330.2 mm) for tilt cylinder rod eye protection.
40. Loader bucket raise time to full height shall be no more than 4.5 seconds.
41. Stabilizers shall be pilot operated for low efforts and located on the side console for easy access whether facing front or rear.
42. Backhoe shall have stabilizer lock valves as standard equipment.
43. Flip over stabilizer pads shall have a dirt grouser.
44. Stabilizer spread in the operating position to the center of the pad to be at least 10’7” (3226 mm).
45. Stabilizers shall be able to lift the machine high enough to clear tires, on concrete with street pads.
46. Swing grunion shall be supported on each side by three bolts loaded in sheer.

Work Tool Options

1. The machine shall come with a hydraulic thumb with parts and service support from OEM and equipped with a 24” digging bucket;
2. Hydraulic Backhoe thumb shall engage from the joystick auxiliary hydraulic control.
3. Digging Bucket equipped with pin-on tooth tips that are exchanged whereby the pin retainers are diagonal or vertical, allowing them to be extracted or inserted with a hammer and punch only.

Serviceability

1. Engine oil transmission oil, hydraulic oil, brake fluid, washer fluid, coolant, engine air filter, and engine air filter monitor shall all be consolidated service points, accessible under the hood with loader arms down.
2. Water and sediment shall be drained from the fuel/water filter without raising the hood or opening an access panel.

Minimum Service Fill Capacities

1. Standard QA/C cooling system capacity not be less than 4.2 gallons (15.9 L).
2. Standard front axle capacity (4WD) not be less than 2 gallons (7.6 L), with planetary capacity no less than .2 gallons (.8L).
3. Standard rear axle capacity not be less than 6.4 gallons (24.2 L).
4. Standard high-ambient cooling system capacity not be less than 4.4 gallons (16.7 L).
5. Standard engine oil with filter capacity not be less than 2 gallons (7.6 L).
6. Standard fuel tank capacity not less than 34 gallons (125 L), providing 10 hours of continuous work @ 70% load factor without refueling.
7. Standard hydraulic system capacity not less than 21 gallons (79 L).
8. Standard hydraulic tank capacity, not be less than 10 gallons (38 L).
9. Standard transmission (4WD, Power Shuttle) capacity, not be less than 4 gallons (15.1 L).

Owning and Operating Costs

1. Front axles shall have sealed king pin and center pendulum bearings.
2. Driveshaft universal joints shall be maintenance free.
3. Engine shall have a 500 hour oil change interval for lowering operating maintenance cost. (The Southeastern Physical Plant will be responsible for routine maintenance such as oil and filter changes).

Additional Requirements

1. Ride-Control to be included to smooth the ride under operating conditions. An extended warranty shall be included to cover the entire machine for the duration of the lease.
2. A copy of the warranty should be included with bid response documents.