



PURCHASING DEPARTMENT
DIVISION OF BUDGET & FINANCE

**PUR-1514
ADDENDUM NO. 1
INVITATION TO BID**

INDUSTRIAL EQUIPMENT LEASE/PURCHASE AND TRADE-IN

DATE: Monday, August 30, 2021

**BIDS DUE: Wednesday, September 22, 2021
2:00 P.M., (EDT/EST)**

To Bidders:

This Addendum is hereby made a part of the Contract Documents on which all bids will be based and is issued to correct and clarify the original documents.

Please acknowledge receipt of this Addendum at the appropriate space on the Proposal Form. This Addendum consists of two (2) pages.

NOTE: All Bidders must enter the Washington County Administrative Complex through either the front door at the 100 West Washington Street entrance or through the rear entrance (w/blue canopy roof) which is handicap accessible and must use the elevator to access the Purchasing Department to submit their bid and/or to attend the Pre-Bid Conference/Teleconference and/or the Bid Opening. Alternate routes are controlled by a door access system. Washington County Government has announced new security protocols being implemented at the Washington County Administrative Complex at 100 West Washington Street, Hagerstown. The general public will be subject to wand search and will be required to remove any unauthorized items from the building prior to entry. Prohibited items include but are not limited to: Weapons of any type; Firearms, ammunition and explosive devices; Cutting instruments of any type - including knives, scissors, box cutters, work tools, knitting needles, or anything with a cutting edge, etc.; Pepper spray, mace or any other chemical defense sprays; and Illegal substances.

ITEM NO. 1: Due to the significant number of Pre-Bid/Teleconference inquiries and coupled with numerous document changes, we respectfully attached a **REVISED Invitation to Bid** document and a **REVISED Form of Proposal**.

ADDENDUM NO. 1

Industrial Equipment Lease/Purchase and Trade-In

PUR-11514

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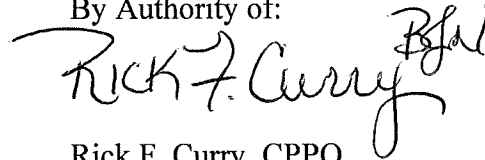
ITEM NO. 2: *Inquiry:* Does grounds maintenance need an additional front and rear rim? The reason for this question is because we had determined that the 6 backhoe loaders on bid for the Highway division already had spare rims from the 2017 bid. If grounds maintenance already has spare rims that meet the same specifications as the 2022 backhoe loaders, will they still be required?

Response: See **REVISED Invitation to Bid** document.

ITEM NO. 3: A **REVISED** Invitation to Bid (ITB Pages 1 - 146), that includes a **REVISED** Form of Proposal have been included as an attachment to this addendum. The revision resulted in deleting duplicate language, correcting the Table of Content numbering and updating of the buy-back adjusted bid items.

ITEM NO. 4: Bidders shall submit the Provisions for Other Agencies and Signature to Bids contained in the **REVISED Invitation to Bid** document and the **REVISED Form of Proposal** in accordance with the above-mentioned bid submission deadline: **No later than 2:00 P.M., (EDT/EST), Wednesday, September 22, 2021.**

By Authority of:

A handwritten signature in black ink that reads "Rick F. Curry". The signature is written in a cursive style with a large, stylized "R" and "C".

Rick F. Curry, CPPO
Director of Purchasing

(NOTE: The wording of all "Inquiries" submitted are displayed exactly as received.)

**BID NO. PUR-1514
INVITATION TO BID
ISSUED ON BEHALF OF
THE BOARD OF COUNTY COMMISSIONERS
OF WASHINGTON COUNTY, MARYLAND**

**BY
THE WASHINGTON COUNTY PURCHASING DEPARTMENT
100 WEST WASHINGTON STREET, SUITE 3200
HAGERSTOWN, MD 21740
PHONE: 240-313-2330
FAX: 240-313-2331**

DATE ISSUED: August 13, 2021

REVISED - INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

PRE-BID CONFERENCE/TELECONFERENCE

DATE/ TIME AND LOCATION: **Monday, August 23, 2021 at 10:00 a.m. (EDT/EST)**
Washington County Administration Complex
Conference Suite 3000
Third Floor, 100 West Washington Street
Hagerstown, MD 21740

SUBMIT BIDS TO: Washington County Purchasing Department
Washington County Administration Complex
100 West Washington Street
Third Floor, Suite 3200
Hagerstown, MD 21740

**BID SUBMISSION DEADLINE
AND BID OPENING TIME:** No later than **2:00 P.M., Wednesday, September 22, 2021**

BID OPENING LOCATION: Washington County Administration Complex
Conference Suite 3000
Third Floor, 100 West Washington Street
Hagerstown, MD 21740

If indicated below (√) and not waived by the County, Bidders shall be required to provide the following:

- _____ A Bid Bond, in the amount of five (5%) percent of the bid on a bid of \$100,000 or more for construction contracts and on a bid of \$50,000 or more for contracts for services, supplies, or construction related services. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.
- _____ A Performance Bond for a bid award of \$100,000 or more on construction contracts and on contracts for services, supplies, or construction related services. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.
- _____ A Labor and Material Bond for a bid award of \$100,000 or more on construction contracts and on contracts for services, supplies, or construction related services. See "Bid Bonds – Section 2" of the General Conditions and Instructions to Bidders.

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE IN

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Industrial Lease-Purchase Equipment & Trade-In

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**PUR-1514
INVITATION TO BID
INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN**

The Board of County Commissioners of Washington County, Maryland will accept sealed bids for **INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN**. Bid documents are available immediately from the Washington County website: www.washco-md.net by accessing the “**Services/Bids-Purchasing/Open Bid Invitations**”, for assistance you may contact the Washington County Purchasing Department, Washington County Administration Complex, 100 West Washington Street, Third Floor, Suite 3200, Hagerstown, MD 21740. **Direct all inquiries to Brandi Naugle, CPPB, Buyer at telephone 240-313-2330.**

All bids must be enclosed in a sealed opaque envelope marked “**SEALED BID – (PUR-1514) INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN**” and be received and time stamped by the Washington County Purchasing Department, Washington County Administration Complex, 100 West Washington Street, Third Floor, Suite 3200, Hagerstown, Maryland, 21740, no later than **2:00 P.M., (EDT/EST), Wednesday, September 22, 2021** after which time they will be opened in the presence of a County staff member. All interested parties are invited to hear a reading of the bids. For those bidders who wish to hear a reading of the bids please call 240-313-2330 to receive instructions prior to this teleconference.

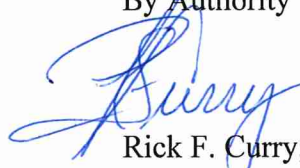
A Pre-Bid Conference/Teleconference will be held on **Monday, August 23, 2021 at 10:00 A.M. (EDT/EST)** in the Washington County Administration Complex Third Floor Conference Room 3000, 100 West Washington Street, Hagerstown, Maryland. All interested bidders are requested to be present. Attendance is not mandatory but is strongly encouraged. Bidders who wish to participate in the teleconference, please call 240-313-2330 for further instructions.

NOTE: All Bidders must enter the Washington County Administrative Complex through either the front door at the 100 West Washington Street entrance or through the rear entrance (w/blue canopy roof) which is handicap accessible and must use the elevator to access the Purchasing Department to submit their bid and/or to attend the Pre-Bid Conference/Teleconference and/or the Bid Opening. Alternate routes are controlled by a door access system. Washington County Government has announced new security protocols being implemented at the Washington County Administrative Complex at 100 West Washington Street, Hagerstown. The general public will be subject to wand search and will be required to remove any unauthorized items from the building prior to entry. Prohibited items include but are not limited to: Weapons of any type; Firearms, ammunition and explosive devices; Cutting instruments of any type - including knives, scissors, box cutters, work tools, knitting needles, or anything with a cutting edge, etc.; Pepper spray, mace or any other chemical defense sprays; and Illegal substances.

Washington County, Maryland shall make positive efforts to utilize Disadvantaged Business Enterprises for its supplies and services and shall allow these sources to maximum feasible opportunity to compete for contracts. The Board of County Commissioners does not discriminate on the basis of race, color, national origin, sex, religion, age and disability in employment or the provision of services. Individuals requiring special accommodations are requested to contact the undersigned at 240-313-2330, Voice, TTY Dial 711 to make arrangements no later than five (5) calendar days prior to the Pre-Bid Teleconference and/or Bid Opening.

The Board of County Commissioners of Washington County, Maryland, reserves the right to accept or reject any or all bids and to waive formalities, informalities and technicalities therein. The Board reserves the right to contact a Bidder for clarifications and may, at its sole discretion, allow a Bidder to correct any and all formalities, informalities and technicalities in the best interest of Washington County, Maryland.

By Authority of:



Rick F. Curry, CPPO
Director of Purchasing

BOARD OF COUNTY COMMISSIONERS
OF WASHINGTON COUNTY, MARYLAND

GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS
Supply and Service Contracts

INTRODUCTION

The general rules and conditions which follow, along with all other documents consisting of this "Bid Document," apply to all purchases and become a definite part of each formal invitation to bid, purchase order, contract, or other award issued by the Washington County's Director of Purchasing (hereinafter "Director of Purchasing"), unless otherwise specified. Bidders or their authorized representatives are expected to fully inform themselves as to the conditions, requirements, and specifications before submitting bids; failure to do so will be at the Bidder's own risk and they cannot secure relief on the plea of error. Bidders are advised that all costs related to preparing and/or submitting a Bid or Proposal shall be borne by the Bidder.

Satisfactory evidence of authority to bind the firm by the person signing the Bid when submitted by partnerships or corporations may be requested by the County prior to making any award. Anyone signing a Bid as an agent shall include evidence of his/her authority to do so.

Subject to Maryland State and Washington County, Maryland (hereinafter "County") laws and all rules, regulations and limitations imposed by legislation of the Federal Government, bids on all advertisements and invitations issued by the Washington County Purchasing Department shall bind bidders to applicable conditions and requirements set forth herein unless otherwise specified in the Invitation to Bid. Should there be a conflict in laws between states, State of Maryland law shall prevail.

Should there be a conflict between the general bid conditions and the supplemental bid conditions (if any), the supplemental bid conditions shall prevail.

GENERAL CONDITIONS OF BIDDING

1. **Bids Binding for Ninety (90) Days:** Unless otherwise specified all formal bids submitted shall be binding for ninety (90) calendar days following bid opening date, unless the bidder, upon request of the Director of Purchasing, agrees to an extension.
2. **Bids for All or Part:** Unless otherwise specified by the County or by the Bidder, the County reserves the right to make award on all items, or on any of the items according to the best interests of the County. Bidder may restrict his/her bid to consideration in the aggregate by so stating but should name a unit price on each item bid upon; any bid in which the bidder names a total price for all the articles without quoting a price on each and every separate item, may be rejected at the option of the County.
3. **Catalogs:** Each Bidder shall submit where necessary or when requested by the Director of Purchasing, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, finishes and the like necessary to fully describe the materials or work they propose to furnish.

4. **Collusive Bidding:** The Bidder certifies that his/her bid is made without any previous understanding, agreement or connection with any person firm, or corporation making a bid for the same project, without unlawful prior knowledge of competitive prices, and is in all respects fair, without outside control, collusion, fraud or otherwise illegal action.
5. **Competency of Bidder:** No proposal shall be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default to Washington County upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said County, or had failed to perform faithfully any previous contract with the County. The Bidder, if requested, must present within forty-eight (48) hours evidence satisfactory to the Director of Purchasing of performance ability and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

The successful Bidder shall actively cooperate in all matters pertaining to the proper compliance of this contract and shall come to the office of the Director of Purchasing whenever requested in connection with the performance of this contract.

The successful Bidder shall inform the Director of Purchasing of any and all circumstances which may impede the progress of the work or inhibit the performance of the contract including, but not limited to: bankruptcy, dissolution or liquidation, merger, sale of business, assignment, etc.

The County may examine the Bidder's and first-tier subcontractor's records to determine and verify compliance with the contract. The Bidder and first-tier subcontractor must grant the County access to these records at all reasonable times during the contract term and for three (3) years after final payment. If the contract is supported to any extent by Federal or State funds, the appropriate Federal or State authorities may also examine these records. The Bidder must include the preceding language of this paragraph in all first-time subcontracts.

6. **Completeness:** All information required by Invitation to Bid must be supplied to constitute a proper bid. The County shall not be responsible for the premature opening of Bids if not properly addressed or identified.
7. **Conditional Bids:** Qualified bids are subject to rejection in whole or in part.
8. **Confidentiality:** Firms shall give specific attention to the identification of those portions of their proposals that they deem to be confidential, proprietary information or trade secrets and provide any justification why such materials, upon request, should not be disclosed by the County under the Access to Public Records Act, State Government Article, Title 10, Sections 10-611 to 10-628, Annotated Code of Maryland.
9. **Errors in Bids:** When an error is made in extending total prices, the written unit bid price shall govern. In the absence of written prices, the unit bid price shall govern. Carelessness in quoting prices, or in preparation of bid, otherwise, will not relieve the Bidder. *Erasures or changes in bids must be initialed.*

10. General Guaranty: Bidder agrees to:

- a. Save the County, its agents and employees harmless from liability of any nature or kind for the use of any copyrighted or uncopied composition, secret process, patented or unpatented, invention, article or appliance furnished or used in the performance of the contract which the Bidder is not the patentee, assignee, licensee or owner.
- b. Protect the County against latent defective material or workmanship and to repair or replace any damages or marring occasioned in transit or delivery.
- c. Furnish adequate protection against damage to all work and to repair damages of any kind, to the building or equipment, to their own work or to the work of other contractors, for which their worker is responsible due to the negligence in the course and scope of the employment.
- d. Pay for all permits, licenses and fees and give all notices and comply with all laws, ordinances, rules and regulations of the County and State of Maryland.

11. Illegal Immigrants:

- a. The Bidder shall comply with the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, the Bidder may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The Bidder shall verify the identity and employment eligibility of anyone employed or to be employed, including completion of the Employment Eligibility Verification Form (I-9). The Bidder shall establish appropriate procedures and controls to ensure that no services under this Contract will be performed by any worker who is not legally eligible to perform such services or for employment.
- b. Failure by the Bidder or his/her Sub-Contractors to comply with the provisions of Section 11.a. herein will be grounds for termination of the Contract.

12. Insurance: Liability insurance on all major divisions of coverage for each and every Bidder and subcontractor shall be required for the length of the contract. Bidder and subcontractor must supply evidence of insurance upon request. Each Bidder agrees to assist in every manner possible in the reporting and investigation of any accident, and upon request, agrees to cooperate with all interested insurance carriers in the handling of any claims by securing and giving evidence and obtaining the attendance of witnesses as required for any claim or suit. The Bidder shall be prepared to show evidence of insurance as required under Washington County's *Insurance Requirements for Independent Contractors Policy*, included herein, prior to the execution of any contract. The Bidder, if requested, shall provide the Certificate of Insurance to the Purchasing Department within ten (10) calendar days after receiving a request for it. Failure to provide an acceptable Certificate of Insurance within the time frame stated above shall be cause to terminate the contract(s). The certificate shall state that such insurance is in force and cannot be cancelled or released except upon thirty (30) days prior written notice to the County. If any of the stated coverages expire during the term of this contract, the Bidder shall deliver renewal certificates to the County at least ten (10) calendar days prior to the expiration.

13. **Interpretations, Discrepancies, Omissions:** Should any Bidder find discrepancies in, or omissions from the documents or be in doubt of their meaning, he/she should at once request, in writing, an interpretation from:

Brandi Naugle, CPPB – Buyer
Washington County Purchasing Department
Washington County Administration Complex
100 West Washington Street, Suite 3200
Hagerstown, MD 21740
FAX: 240-313-2331; or send questions in Microsoft Word
platform via email to: purchasingquestions@washco-md.net

All necessary interpretations will be issued to all Bidders in the form of addenda to the specifications, and such addenda shall become part of the contract documents. Exceptions as taken in no way obligates the County to change the specifications. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under his/her bid as submitted. The County shall assume no responsibility for oral instructions or suggestions. ORAL ANSWERS WILL NOT BE BINDING ON THE COUNTY. Requests received after 4:00 P.M. on the date included in the Supplemental Terms and Conditions may not be considered.

14. **Landfill Tipping Fees:** Disposal of items shall be at an approved sanitary landfill and any fees for same must be included in the Bidder's proposal.
15. **Late Bids:** Formal bids or amendments thereto received by the County after the time specified for bid opening will not be considered. Bids received after the time specified for bid opening will be returned unopened.
16. **Mailing of Bids:** The County assumes no responsibility for the timely deliverance of mailed bids. Ample time should be allowed for the transmittal of bids by mail, and postmarks indicating the date of mailing will not be considered as evidence of intent to submit bids in proper time for the opening.
17. **Maryland Buy American Steel Act:** In accordance with the Annotated Code of Maryland - State Finance and Procurement Article, Sections 17-301 – 17-306, Washington County is defined as a Public Body and as such shall require a Bidder or subcontractor to use or supply only American Steel products in the performance of a contract as stated in the above referenced Sections.
18. **Multiple Bids:** No Bidder shall be allowed to offer more than one (1) price on each item even though he/she may feel that there are two (2) or more types or styles that will meet specifications. Bidders must determine for themselves which to offer. If said Bidder should submit more than one (1) price on any item, all prices for that item may be rejected at the discretion of the Director of Purchasing.
19. **Officers Not to Benefit:** No member of the elected governing body of Washington County, or members of his or her immediate family, including spouse, parents, or children, or any person representing, or purporting to represent any member or members of the elected governing body

shall receive or be promised directly or indirectly, any financial benefit, by way of fee, political contribution, or any other similar form of remuneration and/or on the account of awarding and/or executing the contract and that upon request of the County, as a prerequisite to payment pursuant to the terms of this contract, there will be furnished to the requester, under oath, answers to any interrogatories related to a possible conflict of interest as herein embodied. The Bidder, to the best of his/her knowledge, whether he/she be an officer, director, partner or any of its employees directly involved in obtaining contracts with the State, or any County or other subdivision of the State, has not been convicted of bribery or conspiracy to bribe under the laws of any State or Federal Government. Any contract made or entered into where it is discovered that violation of the intent of this provision exists shall be declared null and void and all monies received by the Bidder shall be returned to the County.

20. **Payment Terms:** Bid prices are to be net thirty (30) calendar days; all discounts are to be deducted and reflected in net prices. Term discounts of less than twenty (20) calendar days will not be considered in connection with any prompt payment discount offered, time will be computed from date of receipt of correct invoice or receipt and acceptance of shipment, whichever is later.
21. **Procurement Policy Manual:** This bid is administered according to Washington County's Procurement Policy Manual adopted by the Board of County Commissioners of Washington County, Maryland on June 25, 2013 and effective July 1, 2013. The contents of the aforementioned Manual may be requested from the Washington County Purchasing Department at 240-313-2330 or may be found on the web site at: <https://www.washco-md.net/wp-content/uploads/ProcurementPolicyManual2013FinalDraftrevised3-5-2020.pdf>.
22. **Proposal Forms:** Bids shall be submitted only on the forms provided by the County. The Bidder shall submit one (1) original bid on the forms provided with original signature, sealed to the County for that purpose. All bids must be enclosed in a sealed, opaque envelope marked with the title of the bid and be received in the Washington County Purchasing Department promptly on or before, time, date, and place stipulated on the Invitation to Bid. **NO** bids received after such stipulated time and date will be considered by the County. ***Facsimile or Electronic Bids will not be accepted.***
23. **Registration with Maryland Department of Assessments and Taxation:** Prior to contracting, private corporations must either be incorporated in the State of Maryland or registered with the Maryland Department of Assessments and Taxation as a foreign corporation, and must be in good standing. Proof of such standing is required prior to the start of the contracting process and good standing shall be maintained for the duration of the contract. The website for the State Department of Assessments and Taxation is: <http://dat.maryland.gov/Pages/sdatforms.aspx#BNE>, email address is sdat.charterhelp@maryland.gov, and phone numbers are: **(410) 767-1340** or **(888) 246-5941**.
24. **Reservations:** The County or its authorized agent reserves the right to reject any or all bids and to waive any informality or deficiency in bids received whenever such rejection or waiver is in the best interest of the County. The County also reserves the right to reject the bid of a Bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or the Bid of a Bidder who investigation shows is not in a position to perform the contract. The County reserves the right to waive minor differences in specifications provided these differences do not violate the specifications intent nor affect the operation for which the items are being

purchased, nor increase estimated maintenance and repair cost to the County. The County reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination as shall, in its judgment, be in the best interest of the County.

- 25. Response to Invitation:** In the event you cannot submit a bid on our requirements, as set forth in the "Invitation to Bid", please return the Bid with an explanation as to why you are unable to bid on these requirements. Because of the large number of firms listed on the County's lists of Bidders, it is necessary to delete from these lists the names of those persons, firms or corporations who fail to respond after having been invited to bid on a commodity or commodities for three (3) successive bid openings.
- 26. Substitutions:** All equipment is to be supplied in exact accordance with the specifications. Any Bidder who contemplates offering a product that differs from that specified must obtain the County's written approval prior to bid opening. Substitution requests must be received in the Purchasing Department no later than the date/time specified in the Supplemental Terms and Conditions. Requests received after the specified date/time will not be considered. All such decisions will be considered final and not subject to further recourse.
- 27. Taxes-Responsibility for Payment, Exemptions, Forms to be Filed, etc.:**
- a. The County is exempt from State of Maryland Sales Tax. The County's Maryland Sales Tax Exemption Number is 3000129 2. However, the Bidder is responsible for making any necessary inquiries and investigations with regulating state agencies to obtain a determination of tax exemptions in his/her bid.
 - b. The Bidder is responsible for and by submitting a Bid agrees to pay all retail sales, income, real estate, sales and use, transportation and special taxes applicable to and assessable against any materials, equipment, processes and operations incident to or involved in the Project. The Bidder is responsible for ascertaining and acquainting his/herself with such taxes and making all necessary arrangements to pay same.
 - c. The Successful Bidder shall complete a W-9 Vendor Information form (provided by the County) and return it to the Director of Purchasing.
 - d. The County hereby reserves the right to withhold payment under this Contract until the Bidder and any subcontractor performing any duties under this Contract have furnished or caused to be furnished the Comptroller of the State of Maryland with all properly completed forms required by the said Comptroller and until all of said retail sales and/or use taxes due the State of Maryland by the Bidder have been paid and the Bidder exhibits a release or receipt from the Comptroller evidencing such payment.
 - e. The Bidder is hereby advised of Section 1-106(b)(3) of the Code of Public Local Laws of Washington County, MD: "If a bidder has not paid all taxes owed to the County or a municipal corporation in the County, the County Commissioners may reject the bidder's bid."
- 28. Withdrawal of Bids:** A written request for the withdrawal of a bid or any part thereof may be granted if the request is received by the County prior to the specified time of opening.

BID BONDS

- 1. Bid Deposit - Bid Bond, Certified or Cashier's Check:** When required, each bid shall be accompanied by a bid bond signed by a surety company licensed to do business in the State of Maryland, or by a cashier's check, certified check or Treasurer's check drawn on a responsible bank doing business in the United States in the amount of five (5%) percent of the total Bid and shall be made payable to the Board of County Commissioners of Washington County, Maryland. When computing the amount of Bid for Check purposes, DO NOT deduct for trade-ins. U.S. Postal Money Orders are acceptable in lieu of checks.
- 2. Performance/Labor and Material Bonds:** The successful Bidder(s) on this bid must furnish the required bonds as indicated on the bid cover, made out to the Board of County Commissioners of Washington County, Maryland, prepared on forms contained herein, or in his/her absence, on an approved form, as security for the faithful performance of his/her contract, within ten (10) calendar days of his/her notification that his/her bid has been accepted. The surety thereon must be such surety company or companies as are authorized and licensed to transact business in the State of Maryland. Attorneys in fact who sign bonds must file with each bond a certified copy of his/her power of attorney to sign bonds. The successful Bidder or Bidders upon failure or refusal to furnish within ten (10) calendar days after his/her notification the required bonds shall forfeit to the County, as liquidated damages his/her bid deposit. The Performance Bond shall be in the amount of one hundred (100%) percent of the contract price covering faithful performance of the contract; and the Labor and Materials Payment Bond shall be in the amount of one hundred (100%) percent of the contract price as security for payment of all persons performing labor and furnishing materials in connection therewith.

SPECIFICATIONS REFERENCES

- 1. Formal Specifications:** The Bidder shall abide by and comply with the true intent of the specifications and not take advantage of any unintentional error or omission but shall fully complete every part as the true intent and meaning of the specifications and drawings. Whenever mention is made herein, of any article, material, or workmanship to be in accordance with laws, ordinances, building codes, underwriter's codes, A.S.T.M. regulations or similar expressions, the requirements of these laws, ordinances, etc., shall be construed to meet or exceed specification requirements and current established noise levels for specific equipment, materials, and/or services being furnished under this contract. All deviations from the specifications must be noted in detail by the Bidder, in writing, at the time of submittal of the formal bid. The absence of a written list of specification deviations at the time of submittal of the bid will hold the Bidder strictly accountable to the County to the specifications as written. Any deviation from the specifications as written not previously submitted, as required by the above, will be grounds for rejection of the material and/or equipment when delivered.
- 2. Samples:** The Purchasing Department reserves the right to retain or destroy the samples submitted for the purpose of evaluation and will be free from any redress or claim on the part of the Bidder if any samples are lost or destroyed. Bidders shall make all arrangements for delivery of samples to the place designated, as well as the removal of samples. Cost of delivery and removal of samples shall be borne by the Bidder. Upon notification by the Purchasing Department that a sample is available for pickup, it shall be removed within thirty (30) calendar

days at the Bidder's expense or the Director of Purchasing shall dispose of same at his/her discretion. All sample packages shall be marked "Sample for Purchasing Department" and each sample shall bear the name of the Bidder, item number, bid number, and shall be carefully tagged or marked in a substantial manner. Failure of the Bidder to clearly identify samples as indicated may be considered sufficient reason for rejection of bid.

3. **Trade Names/Substitutions:** In cases where an item is identified by a manufacturer's name, trade name, catalog number, or reference it is understood that the Bidder proposes to furnish the item so identified and does not propose to furnish an "equal/substitution" unless submission of an "equal/substitution" is stated otherwise as permissible. Any Bidder who contemplates offering a product that differs from that specified must obtain the County's written approval by submission of his/her request no later than the deadline for receipt of substitution requests as stated in the Supplemental Terms and Conditions. The reference to the above catalog is intended to be descriptive but not restrictive and only to indicate to the prospective Bidder articles that will be satisfactory. Bids on makes and catalogs will be considered, provided each Bidder clearly states on the face of his/her proposal exactly what he/she proposes to furnish, and forwards with his/her bid, a cut, illustration, or other descriptive matter which will clearly indicate the character of the article covered by his/her bid. The Director of Purchasing hereby reserves the right to approve as an equal, or to reject as not being an equal, any article the Bidder proposes to furnish which contains major or minor variations from specification requirements but may comply substantially therewith. If no particular brand, model, or make is specified, and if no data are required to be submitted with the bid, and after award and before manufacture or shipment, the successful Bidder may be required to submit working drawings or detailed descriptive data sufficient to enable the Director of Purchasing to judge if each requirement of the specifications is being complied with.

AWARD

1. **Award or Rejection of Bids:** For contracts of purchase, the contract shall be awarded to the lowest, responsive and responsible Bidder complying with all the provisions of the Invitation, provided the bid price is reasonable and it is to the best interest of the County to accept it. For contracts of sale, the contract shall be awarded to the highest, responsive and responsible Bidder complying with all the provisions of the Invitation, provided the bid price is to the best interest of the County to accept it.
2. **Notice of Award:** A written award (or Acceptance of Bid) mailed (or otherwise furnished) to the successful Bidder within the time for acceptance as specified herein shall be deemed to result in a binding contract without further action by either party. The bid with respect to all items accepted and all papers accompanying the same, the general conditions and instructions to Bidders, the specifications, and other papers and documents referred to in any of the foregoing shall constitute the formal contract, unless otherwise specified, between the Bidder and the County.
3. **Political Contribution Disclosure:** In accordance with Maryland Code, State Finance and Procurement Article, §17-402, the Bidder shall comply with Maryland Code, Election Law Article, Title 14, which requires that every person that enters into contracts, leases, or other agreements with the State, a county, or any incorporated municipality, or their agencies during a calendar year in which the person receives in the aggregate \$100,000 or more, shall file with the

State Administrative Board of Election Laws a statement disclosing contributions in excess of \$500 made during the reporting period to a candidate for elective office in any primary or general election. The statement shall be filed with the State Administrative Board of Election Laws: (1) before a purchase or execution of a lease or contract by the State, a county, an incorporated municipality or their agencies, and shall cover the preceding two (2) calendar years; and (2) if the contribution is made after the execution of a lease or contract, then twice a year, throughout the contract term, on: (a) February 5, to cover the 6-month period ending January 31; and (b) August 5, to cover the 6-month period ending July 31.

4. **“Requirements” Contract Bid Quantities:** On “Requirements” bids, acceptance shall bind the County to pay for, at unit bid prices, only quantities ordered and satisfactorily delivered. All stated quantities are estimated requirements and do not constitute a minimum or maximum.

5. **Responsibility/Qualifications of Bidder:** The County may make such investigations as it deems necessary to determine the ability of the Bidder to perform the work, and the Bidder shall furnish to the County all such information and data for this purpose as the County may request. The County reserves the right to reject any bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the County that such Bidder is properly qualified to carry out the obligation of the contract and to complete the work contemplated therein. Conditional bids will not be accepted. In determining responsibility, the following qualifications, in addition to price, shall be considered by the Director of Purchasing on contracts of purchase and on contracts of sale (if applicable):
 - a. The ability, capacity and skill of the Bidder to perform the service required.
 - b. The character, integrity, reputation, judgment, experience and efficiency of the Bidder.
 - c. The quality of performance of previous contracts or services.
 - d. The Bidder’s previous and present compliance with laws and ordinances relating to the contract or service.
 - e. The sufficiency of the financial resources and ability of the Bidder to perform the contract or provide the service.
 - f. The quality, availability and adaptability of the supplies, or services, to the particular use required.
 - g. The ability of the Bidder to provide future maintenance and service for the use of the subject of the contract.
 - h. Whether the Bidder is in arrears to the County on a debt or contract or is a defaulter on surety to the County.
 - i. Such other information as may be secured having a bearing on the decision to make the award.

In determining a Bidder's responsiveness, the Director of Purchasing shall consider material deviations from the advertised specifications which materially affect price, quantity, quality or limit the Bidder's liability.

6. **Specific Bid Quantities:** Where quantities are specifically stated, acceptance will bind the County to order quantities specified and to pay for, at contract prices, all such supplies or services delivered that meet specifications and conditions of the contract. However, the County will not be required to accept delivery of any balances unordered, as of the contract expiration date; unless Bidder furnishes the Director of Purchasing with a statement of unordered balances not later than ten (10) calendar days after the termination date of the contract.
7. **Tie Bids:** If two (2) or more Bidders shall be tied for the lowest bid on a purchase contract, quality and service being equal, the contract shall be awarded to a local Bidder. If there is no local Bidder, or more than one local Bidder, the County shall award the contract to one (1) of the Bidders by drawing lots in public.

CONTRACT PROVISIONS

1. **Availability of Funds:** A contract shall be deemed executory only to the extent of appropriations available to each County department/agency for the purchase of such articles. The County's extended obligation on those contracts that envision extended funding through successive fiscal periods shall be contingent upon actual appropriations for the succeeding fiscal year.
2. **Contract Alterations:** No alterations or variables in the terms of a contract shall be valid or binding upon the County unless made in writing and signed by the County or its authorized agent.
3. **Default:** The contract may be cancelled or annulled by the County in whole or in part by written notice of default to the Bidder upon non-performance or violation of contract terms. An award may be made to the next low Bidder, or, articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting Bidder (or their surety) shall be liable to the County for costs to the County in excess of the defaulted contract prices: Provided, that the Bidder shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the Bidder to deliver materials or services within the time stipulated on his/her bid, unless extended in writing by the Director of Purchasing, shall constitute contract default. In the event that a Bidder exempted from posting a Bid or Performance Guarantee fails to execute and perform any contract awarded to them, they shall forfeit the right to Bid on any future County contract for a period of time determined by the Director of Purchasing and they shall be liable for any costs incurred by the County as a result of his/her default.
4. **Guarantee:** All work, supplies, and/or materials and requirements described in the specifications including any modifications thereto which may be made in accordance with the direction and/or approval of the County Director of Purchasing shall be Guaranteed/Warranted for a period of one (1) year from the date of final acceptance by the County as follows, unless indicated otherwise in this contract:

- a. Against all faulty or imperfect materials and/or equipment and against all imperfect, careless and/or unskilled workmanship.
- b. Against injury or undue deterioration from proper and usual use of the goods and/or services.
- c. Removal and replacement with proper materials, equipment, and/or services and re-execute, correct or repair without cost to the County, any materials, equipment, and/or services found to be improper, imperfect, defective or fails to perform as specified.
- d. Make good all damage caused to other work, materials and/or equipment due to such required removal, replacement and/or re-execution.
- e. Shall comply with any and all guarantee/warranties of whatever nature referred to in other portions of the contract specifications.

Any warranties whether expressed or implied shall not reduce the risk of the seller's/manufacturer's obligation to the County against latent defect which may be found during the rated life of the supplies and/or materials and requirements described in the specifications including any approved modifications.

5. **Intergovernmental Purchasing:** The following Agencies/Jurisdictions shall be able to purchase, if applicable, directly from contracts resulting from this Invitation to Bid (ITB): Washington County Board of Education and all of its public schools, Hagerstown Community College, Municipalities of Washington County, and public or quasi-public agencies that receive County money and are exempt from taxation under Section 501(c)(3) of the Internal Revenue Code, i.e, Washington County Volunteer Fire and Rescue Companies. While this ITB is prepared on behalf of the County, it is intended to apply for the benefit of the above-named agencies/jurisdictions as though they were expressly named throughout the document. Each of these agencies/ jurisdictions may purchase from the successful Bidder under the same terms and conditions of the contract with the County, in accordance with each agencies/jurisdictions respective laws and regulations, or an agency may choose not to procure from the successful Bidder at the agency's sole discretion. If one of the above-named agencies/jurisdictions elects to purchase under the contract, the price shall be determined by using unit costs and other pertinent costs provided in the offer. Any special discounts unique to a particular agency/jurisdiction shall be stated. Bidder shall also submit the attached "Provisions for Other Agencies" form, if included in this bid.
6. **New Goods, Fresh Stock:** All contracts, unless otherwise specifically stated, shall produce new commodities, fresh stock, latest model, design or pack.
7. **Non-Discrimination:** No Bidder who is the recipient of County funds or who proposes to perform any work or furnish any goods under this agreement shall discriminate against any worker, employee or applicant or any member of the public because of religion, race, sex, color or national origin, age, marital status, physical or mental handicap, nor otherwise commit an unfair employment practice. Bidder further agrees that this article will be incorporated by Bidder in all contracts entered into with suppliers of materials or services, Bidders and subcontractors and all labor organizations, furnishing skilled, unskilled and craft union skilled labor, or who may perform any such labor or services in connection with this contract.

8. **Non-Liability:** The Bidder shall not be liable in damages for delay in shipment or failure to deliver when such delay or failure is the result of fire, flood, strike, act of God, act of government, act of an alien enemy or by any other circumstances which, in the Director of Purchasing's opinion, is beyond the control of the Bidder. Under the circumstances, however, the County may in its discretion, cancel the contract.
9. **Placing of Orders:** Orders against contracts shall be placed with the Bidder on a Purchase Order executed and released by the Director of Purchasing.
10. **Subletting of Contract:** It is mutually understood and agreed that the Bidder shall not assign, transfer, convey, sublet, or otherwise dispose of their contract or their rights, title or interest therein, or their power to execute such contract, to any other person, firm or corporation, without the previous written consent of the County Director of Purchasing, but in no case shall such consent relieve the Bidder from his/her obligations, or change the terms of the contract.
11. **Termination of Contracts:** Contracts shall remain in force for full periods specified and until all articles ordered before date of termination shall have been satisfactorily delivered and accepted and thereafter until all requirements and conditions shall have been met, unless:
 - a. Terminated prior to expiration date by satisfactory deliveries of entire contract requirements.
 - b. Extended upon written authorization of the Director of Purchasing and accepted by Bidder, to permit ordering of unordered balances or additional quantities at contract prices and in accordance with contract terms.
12. **Termination for Convenience:** The performance of work under this Contract may be terminated by the County in accordance with this clause in whole, or from time to time in part, whenever the County shall determine that such termination is in the best interest of the County. The County shall pay all reasonable expenses associated with this Contract that the Contractor has incurred up to the date of termination, and all reasonable expenses associated with termination of the Contract; provided, however, the Contractor shall not be reimbursed for any anticipatory profits that have not been earned up to the date of termination.

DELIVERY PROVISIONS

1. **Delivery:** Delivery shall be required to the place designated in the specifications or on the proposal form. All prices must be FOB Destination, Inside Delivery. The weight, count, measure, etc. shall be determined at the points of delivery. The Bidder shall be required to furnish proof of delivery in every instance. Bulk materials are to be placed on skids or pallets. No help for unloading shall be provided by the County. Suppliers shall notify their shippers accordingly.
2. **Delivery Failures:** Failure of a Bidder to deliver within the time specified, or within a reasonable time as interpreted by the Director of Purchasing or failure to make replacements of rejected articles when so requested, immediately or as directed by the Director of Purchasing shall constitute authority for the Director of Purchasing to purchase in the open market articles of comparable grade to replace the articles rejected or not delivered. On all such purchases, the Bidder shall reimburse the County, within a reasonable time specified by the Director of

Purchasing, for any expense incurred in excess of contract prices or the County may deduct such amount from monies owed the defaulting Bidder. Such purchases shall be deducted from contract quantities.

3. **Inspections:** Inspection and acceptance of materials or supplies shall be made after delivery. Final inspection shall be conclusive except as regards latent defects, fraud, or such gross mistakes as amount to fraud. Final inspection and acceptance or rejection of the materials or supplies shall be made as promptly as practicable, but failure to inspect and accept or reject materials or supplies shall not impose liability on the County for such materials or supplies as are not in accordance with the specifications. All delivered materials shall be accepted subject to inspection and physical count.
4. **Hazardous Safety Data Sheets:** Any hazardous substances as defined under the Department of Labor Occupational Safety and Health Standard for General Industry (29-CFR-1910.1200) and State of Maryland Law and Regulations on "Access to Information About Hazardous and Toxic Substances", MDSH Article 89, Section 28-49-D, being delivered to Washington County as a result of this Invitation to Bid shall be accompanied by a current "Hazardous Data Safety Sheet" or item may not be accepted.
5. **Packing Slips or Delivery Tickets:** All shipments or deliveries shall be accompanied by Packing Slips or Delivery Tickets and shall contain the following information for each item delivered. Bidders are cautioned that failure to comply with these conditions shall be considered sufficient reason for refusal to accept the goods.

The Purchase Order Number
The Name of the Article and Stock Number (Supplier's)
The Quantity Ordered
The Quantity Back Ordered
The Name of the Contractor

6. **Responsibility for Materials Shipped:** The Bidder shall be responsible for the materials or supplies covered by this contract until they are delivered at the designated point and the Bidder shall bear all risk on rejected materials or supplies after notice of rejection. Rejected materials or supplies must be removed by and at the expense of the Bidder promptly after notification of rejection, unless public health and safety require immediate destruction or other disposal of rejected delivery. Upon failure of the Bidder to remove materials or supplies within ten (10) calendar days after date of notification, the County may return the rejected materials or supplies to the Bidder at the Bidder's risk and expense or dispose of them as its own property.
7. **Testing:** The cost of testing a representative sample of an order or shipment for acceptance shall be borne by the County. However, if the order and shipment is rejected for failure to meet the requirements of the specifications or purchase description, the cost of testing shall be charged to the Bidder.
8. **Time of Delivery:** Deliveries shall be accepted between 8:00 A.M. and 2:00 P.M. on weekdays only, unless stated otherwise in the bid document. No deliveries shall be accepted on Saturdays, Sundays or County Holidays, unless otherwise arranged by an individual Department/Agency.

PUR-1514
INDUSTRIAL EQUIPMENT LEASE/PURCHASE AND TRADE-IN

REVISED - SUPPLEMENTAL TERMS AND CONDITIONS

1. Delivery:

- a. Bidders shall guarantee delivery of equipment and items in accordance with such delivery schedule as may be provided in the specifications and proposal.
- b. All items shall be delivered F.O.B. Destination to all locations listed in the specifications and delivery costs and charges included in the bid.
- c. The Board of County Commissioners reserves the right to charge the contractor or vendor for each day the materials, supplies, or services are not delivered in accordance with the delivery schedule. The per diem charge may be invoked at the discretion of the Board of County Commissioners, said sum of One Hundred Fifty (\$150.00) dollars per calendar day to be charged back to the contractor or vendor for each piece of equipment not delivered by the delivery time specified herein.

2. Competition:

- a. To better ensure fair competition and to permit determination of lowest bidder:
 1. The name of the manufacturer, trade name, or manufacturer or vendor catalog number mentioned in the specifications is for the purpose of designating a standard or quality and type and for no other.
 2. Bids which show any omission, irregularity of forms, additions not called for, conditional or unconditional bids, or bids obviously unbalanced may be rejected.
 3. All bids must be accompanied by such descriptive literature as may be called for by the specifications or proposal.
 4. Specifications provided are based on County needs and uses estimated cost of operation and maintenance, and other significant and/or limiting factors to meet County requirements and be consistent with County policies. Minimum specifications where included, are not established arbitrarily to limit competition or to exclude otherwise competitive bidders.

3. Interpretation, Discrepancies, Omissions: Refer to General Conditions and Instructions to Bidders – General Conditions of Bidding, Section 13; no requests received after **4:00 P.M. (EDT/EST) Wednesday, September 1, 2021** may be considered.

4. Substitutions: Refer to General Conditions and Instructions to Bidders – General Conditions of Bidding, Section 24; no requests received after **4:00 P.M. (EDT/EST) Wednesday, September 1, 2021** may be considered.

5. Sale by County of Used Loaders and/or Backhoes:

a. Deposits

1. Bidders must submit a deposit in the amount of ten (10%) percent of the total bid for purchase of used equipment with their proposals. Only deposits of certified checks or cashier's checks in US currency made payable to the Washington County Treasurer will be accepted.
2. Deposits of bidders for used equipment will be retained until bid award. With the exception of the highest bidder, all other deposits will be returned to any unsuccessful bidders within fourteen (14) calendar days after the bid award.

b. On-Site Inspection

1. The equipment to be sold by the County may be inspected at the various locations listed in the specifications. Bidders must contact representatives of each department listed in the specifications to schedule inspections of the equipment.

6. Removal of Equipment: The equipment shall not be available for removal until delivery and acceptance by the County of its new equipment. Refer to Specifications, pages **26 – 112**, for further information. All expenses related to removal of equipment must be included in the bidder's proposal. Final payment and removal of the equipment from the site must be completed within fourteen (14) calendar days after notification of availability for removal. Final payment must be made by cash, certified check, or a cashier's check prior to removal of the equipment. Should final payment and removal of the equipment not be completed within the required time, the Bidder's deposit shall be retained by the Board of County Commissioners as liquidated damages and not as a penalty.

7. Award: The County reserves the right to award contracts to the lowest responsive, responsible bidder for each type of equipment to be lease/purchased. The County reserves the right to award the contracts for Item Nos. 1, 2, 3, 4, 5 and 6 to the lowest responsive, responsible bidder for either Nos. 1, 2, 3, 4, 5 and 6 as indicated on the Forms of Proposal and to include or exclude the Trade-ins. Any combination of or all Alternates, if indicated on the Forms of Proposal, may also be included to determine the successful bidder for each award.

REVISED - SPECIAL CONDITIONS
FOR BACKHOES AND LOADERS

1. Brochures, Descriptive Literature, Manuals:

- a. Bidders shall furnish two (2) sets of complete descriptive literature and specifications of the equipment upon which the bid is based. The bidder shall furnish a detailed listing of the components and accessories of the complete unit upon which the bid is based and is to be attached to the proposal. Failure to comply with this requirement shall be ample cause for rejection of the bid proposal.

2. Maintenance Performance:

- a. Bidders shall specify nearest location of parts depots from which parts may be obtained.
- b. Availability of parts and service will be a factor in award or rejection of bid.
- c. Equipment proposed shall be standard manufacturer's equipment.

3. Operation Performance:

- a. All equipment to be furnished shall be designed and manufactured to efficiently operate continuously for eight (8) hour periods at maximum rated operating loads and at governed engine speeds. Such minimum rated operating loads and governed engine speeds must accompany your bid. These matters are considered to accompany the bid if they are contained in the required accompanying manuals or data sheets.

4. All bidders shall be willing to demonstrate proposed equipment to County prior to award, to ensure unit will function as per specifications and will perform adequately in County required work.

5. The bidder shall maintain a service center and parts department within a fifty (50) mile radius of Hagerstown, Maryland. A parts inventory of \$20,000 must be maintained and will be made available for verification by a representative of Washington County Government. The Service Center will be staffed with qualified servicemen that can perform Road Service plus In-Shop service and be able to provide necessary parts or service within three (3) days.

6. Certification of Compliance with Specifications:

- a. The bidders shall comply with all conditions, provisions and specifications contained herein and which are hereby made a part of the contract. The bidder shall certify the equipment with its allied and/or accessory equipment; component parts and units will be suitable for the intended usage it was designed for. Furthermore, the bidder shall specify that the equipment will or will not comply in every respect with this specification. In the event the equipment offered does not fully comply with these specifications, the bidder shall state all deviations on his bid proposal sheet or an attached sheet. Where no statement is received, Washington County Government will assume the bidder meets every requirement of these specifications.

7. Warranty:

- a. Warranty shall be effective after final acceptance, which shall occur after a two (2) day demonstration period and the required one (1) workday of on-site safety, maintenance and operator training. The contractor hereby warrants for a period of five (5) years/2,000-hours from date of delivery that he will, at his own expense and without any cost to the County, replace all defective parts and make any repairs that may be required or made necessary by reason of defective design, material or workmanship, or by reason of non-compliance with these specifications. Repairs, travel and mileage will be at no cost to the purchaser.
- b. Warranty claims rectified by the contractor will in turn hereby be warranted as stated in above for a period of one (1) year from date of completion. Purchaser shall receive PDF copy of service and/or work orders detailing parts and hours labor for any/all warranty work.
- c. The warranty shall be submitted in writing with the bid.

8. Silence of Specifications:

- a. The apparent silence of this specification, as to any detail or apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only best commercial practice is to prevail. Appurtenances and/or accessories not herein mentioned but necessary to furnish a complete unit, ready for use upon delivery, shall be included, conform to the best practice and workmanship known, and subject to these specifications in full. All interpretations of these specifications shall be construed as minimum.

REVISED - MAINTENANCE AND WARRANTY AGREEMENT
SPECIAL CONDITIONS

(Equipment Lease/Purchase with Stipulated **Re-Purchase** and Maintenance)

1. General:

- a. It is the intent of this contract to purchase certain equipment for use by Washington County; it is also intended to establish amounts and items at which the contractor will agree to repurchase the equipment contemplated herein as Items 1 and 2 (backhoes and loaders only); finally, guaranteed maintenance and service of the purchased equipment for the stipulated time and not-to-exceed amounts is intended.
- b. The contractor shall comply with all the conditions, provisions, and specifications contained here and which are hereby made a part of the contract. The submission of the proposal shall be considered as prima facie evidence that the bidder has familiarized himself with and understands the conditions under which the contract will be awarded.

2. Equipment Purchase:

- a. Equipment to be furnished:
 1. This portion of the contract consists of furnishing and delivering equipment for its intended manufactured use to Washington County.
- b. Submission of Equipment Description:
 1. Each bidder shall furnish two (2) copies of complete descriptive literature and specifications on all components as published by the manufacturer of the equipment upon which the bid is based. The bidder shall furnish a detailed listing of the components and accessories of the complete unit upon which the bid is based.
- c. Five -Year/2,000-hour Warranty
 1. The equipment furnished under these specifications shall be guaranteed against defective parts and/or workmanship for a period of five (5) years/2,000-hours from date of delivery. Repairs under this warranty are to be made by the contractor at no cost to the County.
- d. Five -Year Parts Availability:
 1. If the equipment is inoperative for a period of more than three (3) working days during the five-year warranty period due to the contractor's inability to affect immediate repairs under the above warranty or his inability to supply repair parts at normally quoted local factory list prices, then the contractor will, upon request, supply a substitute machine of similar type, size, and power for the County's use until the County's equipment is again in operating condition.

e. Reimbursement for Loss of Equipment Use:

1. A monetary penalty shall be imposed upon the contractor if the period of time in which the County is unable to use its own or substitute equipment exceeds three (3) working days. The penalty shall commence on the beginning of the fourth working day and shall be based on the most recent cost information obtained from the Rental Rate Blue Book.

f. Delivery of Equipment:

1. The equipment shall be delivered F.O.B. Destination and as required in the specifications herein. Refer to Specifications, pages 26 – 112, for further information.

g. Time of Delivery:

1. The contractor, upon receipt of the written notice of award of the contract or receipt of the purchase order, shall diligently execute the same so that it will be fully completed within the time frame stated in the specifications, time being of the essence.

h. Default in Delivery:

1. The County shall determine the number of calendar days that the contractor is in default in completing the contract delivery schedule submitted and shall certify the same to the contractor in writing. For each calendar day so certified, the contractor shall pay the County the sum of One Hundred Fifty (\$150.00) Dollars per calendar day for each piece of equipment not delivered by the delivery time specified herein, which sum is hereby agreed upon, not as a penalty but as liquidated damages which the County will suffer by reason of such default. The County shall be fully authorized and empowered to deduct and retain the amount of such damages, determined herein before stipulated, for each day that the contractor shall be in default.
2. If the bidder fails to make delivery within the time stated in the specifications herein, he/she shall supply suitable substitute equipment for use by the County free of charge until delivery of the equipment bid upon is made to the County.

i. Lease/Purchase

1. This portion of the specification defines a Lease/Purchase program under which the vendor will provide the County a finance program for five (5) years on the equipment described in this specification. The vendor will provide pricing for the

Lease/ Purchase option per unit bid. The five (5) year Lease/Purchase program provided will be for sixty (60) months with five (5) equal annual payments. Payments are to be made in advance with the first payment due within thirty (30) days from final acceptance of the units. All payments for all units are to be due

on the same date. The Lease/Purchase program will provide full ownership of the equipment at the end of the five (5) year program with no residuals or balloons at the end of the term. In addition, the Lease/Purchase option will contain no prepayment penalty and a non-appropriation of funds clause. All bidders shall provide with their bid a sample set of Lease/Purchase documents for review and approval by the County. The County reserves the right to accept or reject any or all bids on the Lease/Purchase and to take whatever action is in the best interest of Washington County, Maryland.

3. Stipulated Repurchase Agreement:

- a. The contractor shall submit, on the bid form, prices for which he/she guarantees to repurchase the equipment contemplated herein as Item Nos. **1, 2, 4, 5 and 6** such repurchase prices shall be guaranteed at the end of two (2) years from acceptance and five (5) years from acceptance. The County reserves the right to sell the equipment back to the contractor at the end of two (2) or five (5) years at the stipulated repurchase price or at any **time** between two (2) and five (5) years by proportioning the two repurchase prices on the basis of time or to make no resale whatsoever.
- b. The County warrants that equipment sold back to the contractor will be in operating condition at the time of repurchase. The term "Operating" means that the equipment will be performing its intended function.
- c. Performance Bond:
 1. The contractor shall furnish a faithful performance bond to run for five (5) years from delivery date in favor of the County in the amount of 100% of the two (2) year repurchase price to provide surety against all contract provisions. Bidders shall submit a separate price on the Form of Proposal for providing the bond. The County shall have the option of requiring same if it deems necessary.

4. Guaranteed Maintenance:

- a. This portion of this specification defines an equipment maintenance program in which the contractor will perform all service necessary to maintain the equipment described in these specifications in good operating condition during the agreement period and for a cost which is guaranteed not to exceed a specified sum. The agreement period shall mean either five (5) years or 2,000 hours of operation, (per County records) whichever occurs first. Repairs and service during the five (5) year agreement period shall be performed by the contractor at no cost to the County under the terms of the five (5) year warranty (Section 2.c above). The five (5) year and 2,000 hour operating period shall begin at the time of acceptance by the County.
- b. Contractor Performance Requirements:
 1. During the agreement period, five (5) years or 2,000 hours of operation, the contractor will supply all labor, repair parts and equipment necessary to keep the units and accessories in good repair and in an operating condition which is

acceptable to the County except as otherwise stated in this specification. This shall include, but not be limited to, overhaul and repair of engine, transmission, brakes, power drives, all housings, pumps, lines, repairs to accessories, etc.

c. Contractor Facility Requirements:

1. The contractor shall maintain professional and adequate facilities, personnel and equipment to perform the duties required by the specifications. Inspection of the apparent successful bidder's facilities will be made by an authorized representative of the County prior to making an award. An unsatisfactory Facilities Survey Report will be considered adequate cause for rejection of the apparent successful bidder's proposal.

d. Guaranteed Total Cost Requirements:

1. All expenses and other sums that the contractor estimates will be incurred while maintaining the County operated equipment during the agreement period will be submitted as the guaranteed maintenance bid price. This price is also called the total authorized charge and is the maximum price that the contractor will charge the County for maintenance during the entire term of the agreement period.
2. The contractor shall charge the County only for work that has been accomplished, but never more than the authorized charge.
3. If maintenance or repairs are performed on the equipment after the contractor has charged the County an amount equal to the total authorized charge, then all further maintenance work by the contractor during the agreement shall be without charge to the County.
4. If charges for work performed by the contractor during the term of the agreement are less than the authorized charge, then the contractor may not charge the County for the difference.
5. In the event that the cost of repairs, including the parts and labor as estimated by the County is less than Five Hundred (\$500.00) Dollars for an individual repair, the County shall have the right to make or have the repair made in the County shop and shall give notice to the Contractor prior to the repair being made.
6. If the cost of repairs is in excess of Five Hundred (\$500.00) Dollars as estimated by the County, then the contractor will be promptly notified so that he may prepare an estimate of the repairs and determine where the repairs are to be made.

e. Inoperative Equipment:

1. If, during the guaranteed maintenance period, the equipment is inoperative for a period of more than three (3) County working days due to the contractor's inability to satisfy the requirements of the contract, then the contractor will, upon request, supply a substitute machine of similar type, size and power for the County's use until the equipment is again in operation.

5. County Responsibility and Prerogatives:

- a. The County will pay for all services on a monthly basis which are performed in compliance with this specification. Payment will be made only upon receipt of properly submitted invoices, which shall contain fully itemized accounts, including penalty deductions, if any. Such penalty payments will not be deducted from the sum of the guaranteed maintenance cost. In the event the service is performed by the contractor on the site, a copy of the work order indicating "total hours" and approved by an authorized County representative will accompany the invoice. Accordingly, the Contractor acknowledges that under the Magnuson-Moss Warranty Act. 15 U.S.C. SS 2301-2312 (1982), and general principles of the Federal Trade Commission Act, a manufacturer may not require the use of any brand of filter (or any other article) unless the manufacturer provides the item free of charge under the terms of the warranty.
- b. The Contractor will perform preventive maintenance on the units according to the manufacturer's recommended schedule, such as adjustments, seat belt replacement, greasing, engine oil changes, hydraulic oil changes, transmission oil changes, any/all machine fluids, differential oil changes, application of anti-freeze and other additives, cleaning or replacement of all filters.
- c. The County will furnish all cutting edges and end bits and tires.
- d. The Contractor will make all minor adjustments and settings in accordance with the manufacturer's procedures and schedules.
- e. The County will assume responsibility for cost of repairs due to glass breakage, fire, theft, accidents, vandalism, and operator's negligence while the equipment is in the possession of the County, or any substitute machine.
- f. The County will assume full employer responsibility such as wages, insurance, etc., for all County personnel who operate, service or repair the equipment within the scope of Paragraph 2.h.2.
- g. The County upon receiving the equipment may at its option transfer title or lease the equipment to another party on the date that the County exercises the above option, unless agreed to the contrary in writing.
- h. Repairs shall be recommended, and work performed within normal time frame and shall not be governed or influenced by the nearness of the end of the agreement period or actual expenses in relation to the authorized charge. Neither party shall delay or accelerate repairs and/or maintenance to the disadvantage of the other party.
- i. The Contractor will furnish all oils, greases, fuels, additives, batteries, filters, hoses, belts, and replacement seat belts for Item Nos. 1, 2, 4, 5 and 6 .

j. Disputes:

1. Unless otherwise provided by this agreement, any disputes concerning any question of fact arising out of this agreement, which is not disposed of by mutual agreement, shall be decided by the County Commissioners who shall notify the contractor in writing of their determination which shall be final. The contractor shall be afforded an opportunity to be heard and offer evidence in support of its case prior to any decision. This provision does not preclude consideration of questions of law in connection with the aforesaid decision and nothing in this agreement shall be construed as making final any administrative decision regarding a question of law. Nothing herein shall be construed as a waiver by the parties of any rights or remedies provided by law. The laws of the State of Maryland govern the construction of this agreement.

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

REVISED - SPECIFICATIONS
ITEM NO. 1 (Form of Proposals 1A, 1B and 1C)
SIX (6) DIESEL ENGINE, BACKHOE / FRONT END LOADERS

INTENDED USE OF EQUIPMENT: These machines are being purchased for use by the Washington County Highway Department to be used for general and rural highway maintenance, construction and off highway operations.

ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide six (6) backhoe/front end loaders. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete backhoe/loader machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The unit shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machines are equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for completed units shall be before January 01, 2022.	
4	Six (6) U.S. manufactured, current 2022 production model, all-wheel drive, with the engine and mainframe built by same manufacturer, transmission and axles built by ZF per the following specification. These machines shall be in compliance with any applicable federal, state and local requirements.	
5	SAE operating weight configured with 19.5L-24, 10 PR R4 rear tires; 12.5/80-18, 12 PR I3 Traction Sure Grip lug front tires, 1.30-cubic yard loader bucket; 24-inch x 6.5-cubic foot backhoe bucket; cab; 175-pound operator, mechanical front wheel drive; extendable dipperstick; backhoe coupler; and three (3)** 480-pound counterweights (total 1,440-pounds) shall be approximately 19,500-pounds. **NOTE: Additional counterweights may be required on actual machine configuration detailed in this bid for mounting of existing 1,200-pound hydraulic hammer and allied mechanical quick-coupler.	
6	Machines shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	

ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
ENGINE:		
1	Engine type shall be EPA Final Tier 4, turbo-charged, 4-stroke, variable rpm governed, heavy-duty diesel, wet-sleeve lined, 4-cylinder, 2-valve per cylinder, electronically-controlled high-pressure common rail fuel system, electronic fuel injection pump, and minimum displacement of 4.5-liter. Engine electronic controls shall feature automatic derating when safe operating conditions are exceeded.	
2	Engine oil filter shall be vertically mounted, spin-on type.	
3	Turbo-charger shall be altitude compensating.	
4	Engine shall meet the latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
5	Engine rated net peak power shall be 100 horsepower (ISO9249) minimum at 2,240 rpm.	
6	Minimum engine net peak torque (ISO9249) shall be 312 pounds per foot at 1,400 rpm. Net torque rise shall be 31% minimum.	
7	The engine lubrication system shall be pressurized internally from the engine with full-flow spin-on type, 10-micron rated vertically mounted oil filter.	
8	Engine shall be supplied with a heavy-duty oil-to-water oil cooler.	
9	Engine shall be pressure water cooled and supplied with ethylene glycol anti-freeze protection (-40 degree F) including chemical nitrate inhibitors and spin-on filtration as required with sacrificial anodes.	
10	Underhood pre-screened air intake shall be supplied with dual stage air cleaner, radial sealed, dry-type elements with restriction indicator for servicing. Air cleaner shall also be provided with air pre-screener and evacuator valve.	
11	Engine shall be equipped with a dealer custom installed 1,000 watt, 120 volt AC water jacket block heater kit manufactured by J. Jeb Mfg. Co., Westville, NJ, and telephone (609) 845-4455. Installation kit part number PK1212 shall be completely installed with AC shoreline receptacle located close to the left side (street side) point of cab entry in proximity of the steps. Details shall be provided to successful bidder.	
12	Engine shall have all service and check points in easily accessed locations.	
13	Engine shall have a water/sediment bowl and a spin-on type replaceable vertical filter in the fuel system. Equipped with electric fuel shutoff, fuel/water separator and visual sediment bowl. 10-micron primary fuel filter shall be quick release, dual stage type equipped with primer pump and 2-micron secondary fuel filter.	
14	Fuel consumption for various duty-cycles shall be expected to range from 1.3 to 2.3 gallon per hour.	
15	All cooling system components, including radiator and fan, shall be heavy-duty designed for high ambient conditions. Fan shall be electronically controlled, variable-rate, suction type and radiator construction shall include minimum seven fins-per-inch and fan-guard.	

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ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
ENGINE:		
16	Coolant recovery reservoir shall be provided.	
17	Exhaust system muffler shall be provided, mounted under hood with large curved end exhaust stack facing side of machine (self-draining muffler with curved stack). Chrome exhaust outlet shall be designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine.	
18	Engine oil drain shall be designed environmentally friendly so as to not require removal of any external covers and/or guards in order to change or service.	
19	Engine shall be equipped with multi-function computerized electronic system monitoring and alarm system.	
20	Engine shall feature self-diagnostics with Diagnostic Trouble Code (DTC) and full text in display screen of monitor in operator's station.	
21	Engine mounts shall be rubber isolated to reduce noise and vibration.	
22	Electronically controlled, variable-rate suction type cooling fan with automatic tensioner and safety fan guard. Engine accessory drive belt shall be serpentine with automatic tensioner or heavy-duty industrial v-belt(s).	
23	Engine shall be equipped with electronic fuel lift pump.	
24	Self-cleaning exhaust aftertreatment system shall be provided.	
TRANSMISSION, FINAL DRIVES, STEERING and BRAKES:		
1	Transmission type shall be a hydraulically actuated; full-power-shift, electrically activated twist grip F-N-R for clutch-less shifting 1st through 5th gears. Auto shift from 4 th to 5 th .	
2	Transmission shall provide a minimum of 5-speeds forward and 3-speeds reverse.	
3	Transmission range selection interface shall provide range selection under any power condition by steering column mounted F-N-R shift lever. Shift control shall be electronically modulated, adaptive, load and speed dependent.	
4	Shift controls shall feature a neutral safety start interlock and electric clutch cutoff. Loader lever shall also include an electric clutch cutoff.	
5	Desirable minimum travel speeds with 19.5L-24 rear tires and autoshift transmission shall be Gear 1 forward @ 3.4-mph/reverse @ 4.2-mph, Gear 2 forward @ 6.2-mph/reverse @ 7.8-mph, Gear 3 forward @ 12.7-mph/reverse @ 12.6-mph, Gear 4 forward @ 23.1-mph, Gear 5 forward @ 24.9-mph. Autoshift shall be switchable On/Off with Powershift functioning when off.	
6	Transmission shall feature self-diagnostics with service code display on monitor in operator's station.	

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ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
7	Parking/Emergency brake shall be spring applied, hydraulically released by electrical on/off switch and conform to SAE J1473/ISO 3450. The electrically switched Park/Emergency brake system shall be spring applied, hydraulically released, wet, multi-disc, independent of service brakes.	
8	Mechanical front wheel drive (MFWD) axle shall be automatic with limited-slip traction control and be equipped with guard. MFWD and rear axle shall be heavy-duty, outboard planetary final drive designed to distribute shock loads over 3 gears.	
9	Service brake system design shall feature power assisted hydraulic conforming to SAE J1473/ISO 3450: mounted inboard, wet disc, self-adjusting and self-equalizing.	
10	Brakes pedals shall be foot operated, individually or simultaneously. A provision to mechanically lock/latch pedals together for roading shall be required.	
11	Rear axle shall include foot actuated, hydraulic engaged 100% mechanical locking with limited slip function. Front axle shall include limited slip function. Loader shall feature operator-controlled "on-the-go" differential lock/unlock foot pedal activation.	
12	Transmission shall be equipped with side frame guards and bottom guards shall be provided on the front frame and transmission.	
13	Steering shall be (ISO5010) controlled hydrostatically with an emergency manual steering mode.	
14	Maximum curb-turning radius shall be 12-foot with brakes and 14-foot without brakes.	
15	Maximum bucket-clearance circle shall be 34-foot with brakes and 37-foot without brakes.	
16	Steering wheel turns (lock to lock) shall not exceed 2.7 times.	
17	Machine shall be Four Wheel Drive (4WD) with front axle drive being a fully sealed mechanical-front-wheel drive with limited slip differential and electric on/off control equipped with MFWD driveshaft guard. Machines shall be equipped with driveline trash guards.	
18	Rear wheels shall be installed with spacers permitting the use of tire chains.	
19	Front axle weight rating minimum shall be 12,100-pound SAE J43, 54,000-pound static, 19,800-pound dynamic and 87,100-pound ultimate. Stop-to-stop oscillation shall be 22-degrees.	
20	Rear axle weight rating minimum shall be 15,400-pound SAE J43, 58,400-pound static, 22,000-pound dynamic and 91,500-pound ultimate.	
21	Torque converter shall be single stage, dual phase with 2.63:1 stall ratio, 11-inch diameter.	
COOLING SYSTEM:		
1	Cooling system shall be heavy-duty designed with high ambient cooling capability.	

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2	Cooling system shall be proportionally controlled (cools on demand).	
3	Engine radiator core shall be constructed with approximately 7.5-fins per inch of core.	
4	Engine oil to water cooler shall be integrally designed.	
5	Cooling system capacity shall be minimum 29-quart.	
6	Coolant recovery reservoir shall be provided with low level indicator.	
7	Cooling system shall incorporate heavy-duty transmission oil cooler.	
REFILL CAPACITIES (U.S.):		
1	Minimum diesel fuel tank capacity shall be 34-gallon (with ground level fueling capability).	
2	Hydraulic system capacity shall be approximately 34-gallon including 12-gallon reservoir.	
3	Engine oil system, including vertical full-flow spin-on filter shall be approximately fourteen (14) quart.	
4	Torque converter and transmission shall be approximately sixteen (16) quart.	
5	Mechanical-front-wheel-drive-axle shall be approximately seven (7) quart. Left and right planetaries shall be approximately one (1) quart each.	
6	Rear axle shall be approximately nineteen (19) quart.	
7	Diesel exhaust fluid (DEF) tank shall be approximately four (4) gallon.	
HYDRAULIC SYSTEM:		
1	Tandem mounted main gear pump for steering and hydraulic systems shall be open center, gear type with unloader.	
2	Minimum flow at 2,200-rpm shall be minimum 36-gallon per minute for backhoe/28-gpm for loader with pressure relief @ approximately 3,600-psig.	
3	Backhoe hydraulics shall include a 6-function (5 function with flow control) valve section and pilot-operated levers (joysticks) configurable for SAE excavator, John-Deere, Case patterns via changeable/selectable valve control patterns. Loader controls shall be via a single lever with return-to-dig, 2-function hydraulic valve section. Controls shall be ergonomically cab mounted for operator within the cab. Pilot towers shall be provided and pivot for operator control. Console shall be designed to include a convenient method to swivel seat position from backhoe to loader when desiring to move machine forward or backward when desired.	
4	Hydraulic system shall be equipped with an independent/dedicated hydraulic reservoir and swing-down hydraulic oil cooler.	
5	All hydraulic hose connections shall utilize the "O" ring faced seal connections. Multiple hose connections shall be appropriately mounted on a bulkhead.	

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6	One (1) 6-micron vertical spin-on hydraulic oil filter shall be provided.	
7	Hydraulic reservoir shall feature sight gauge for determining fluid level.	
8	All hydraulic system hoses shall be specifically engineered and manufactured for high abrasion resistance, excellent flexibility and easy installation. Hoses shall provide extended life, less downtime and reduced operating costs. Backhoe hydraulic hoses shall be routed in a manner to permit replacement of any single hose without the need to remove others for access. All related auxiliary hydraulic hoses and related plumbing and electrical systems must be securely mounted throughout the machine and boom to preclude hose and/or wire chaffing, stretching, snagging, bunching, festooning, etc.	
MACHINE CYLINDERS:		
1	Hydraulic cylinder type shall be heat-treated, chrome-plated, polished rods; hardened-steel (replaceable bushings) pivot pins. The following double-acting hydraulic cylinders shall be required with the basic minimum bore/stroke and rod diameter: a. Two (2) loader boom cylinders 3.15" x 31.1" x 1.97", b. One (1) loader bucket cylinder 3.54" x 29.29" x 1.97", c. One (1) backhoe boom cylinder 4.72" x 31.3" x 2.20", d. One (1) crowd cylinder 4.53" x 23.72" x 2.48", e. One (1) heavy-duty backhoe bucket cylinder 3.94" x 31.89" x 2.48", f. Two (2) backhoe swing cylinders 3.54" x 10.94" x 1.97", g. One (1) extendable dipperstick cylinder 2.76" x 41.8" x 1.57", h. Two (2) longer length backhoe stabilizer cylinders 3.94" x 19.69" x 1.97", i. One (1) mechanical front wheel drive steering cylinder 2.56" x 8.27" x 1.57".	
BACKHOE -- PERFORMANCE, DIMENSIONS & ATTACHMENTS:		
1	Bucket range shall be 12-30 inches.	
2	Digging force with heavy-duty bucket cylinder shall be approximately 15,000-pounds.	
3	Digging force of crowd cylinder shall be approximately 8,000-pounds.	
4	Backhoe swing arc shall be 180-degrees and bucket rotation shall be approximately 180-degrees.	
5	The following backhoe specifications are with an extendible dipperstick configured with a 24-inch x 7.5-cubic foot bucket:	
a	Loading height (truck loading position) shall be a maximum of 13-foot 8-inch extended, 11-foot 8-inches retracted.	
b	Reach from center of swing pivot shall be a maximum of 21-foot 9-inch extended, 18-foot 5-inches retracted. Machine shall feature hydraulic circuit mechanisms to prevent backhoe from wavering while digging trenches.	
c	Reach from center of rear axle shall be a maximum of 25-foot 2-inches extended, 21-foot 11-inch retracted.	

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d	Maximum (SAE) digging depth shall be approximately 18-foot 2-inches extended, 14-foot 8-inches retracted. Digging depth (SAE) with 24-inch flat bottom bucket shall be 18 foot extended, 14-foot 7-inches retracted.	
e	Minimum ground clearance shall be 13-inches.	
f	Maximum transport height shall be 11-foot 6-inches.	
g	Maximum overall transport length shall be 23-foot 11-inches	
h	Maximum stabilizer width (transport) shall be 7-foot 2-inches	
i	Maximum stabilizer spread (operating) with longer length stabilizers shall be 11-foot 4-inches.	
j	Maximum overall stabilizer width (operating) with longer length stabilizers shall be 13-foot 3-inches.	
k	Maximum width over tires, including wheel spacers for tire chains, shall be 90-inches.	
l	Maximum height to top of ROPS/cab shall be 9-foot 2-inches.	
m	Maximum length from front and rear axle centerlines shall be approximately 86-inches.	
n	Backhoe boom up/down shall include a lock lever and boom swing shall be equipped with a removable lock pin for securing in transport duty. Lock lever and pin shall be controlled/removed from inside cab. Cab shall have a storage pocket for pin inside cab.	
o	Backhoe shall be equipped with a stabilizer valve containing two-direction anti-drift valves.	
p	Stabilizer cylinders and hydraulic hoses shall be protected with cylinder guards. Stabilizer pads shall be pivotable with reversible dirt cleats and street rubber pads.	
q	Each machine shall be equipped with an extendible dipperstick outer box design that is greaseless and extension shall be approximately 3-foot 6-inches. Extendable dipperstick shall feature hydraulic plumbing for selective flow. Dipperstick extension/retraction shall be via a cab floor mounted right foot-pedal and associated hydraulic circuitry.	
r	Backhoe shall be equipped with longer length stabilizers fitted with pin lock reversible pads. Stabilizers shall also be equipped with cylinder guards (set of two).	
s	Backhoe boom guard shall be provided with a bolt-on protection plate.	

LOADER -- DIMENSIONS, PERFORMANCE:

1	Minimum loader breakout force shall be approximately 10,400-pounds.	
2	Minimum loader full height lifting capacity shall be approximately 7,000-pounds.	
3	Maximum loader height to bucket hinge pin shall be 11-foot 4-inches.	
4	Minimum dump clearance with bucket at 45-degree angle shall be 8-foot 8-inches.	
5	Minimum reach at full height with bucket at 45-degree angle shall be 32-inches.	

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6	Minimum digging depth below ground with bucket level shall be approximately 3-inches.	
7	Maximum length from front axle centerline to bucket cutting edge shall be 83-inches.	
8	Maximum length of time to raise bucket to full height shall be 5.0-seconds.	
9	Maximum time to dump bucket contents shall be approximately 1.0-second.	
10	Maximum length of time to lower loader bucket to ground shall be 2.0-seconds.	
11	Loader circuit shall be hydraulically self-leveling and feature return-to-dig function and bucket level indicator.	
12	Loader control shall be via a single lever control with electric clutch cutoff.	
13	Loader boom lock shall be furnished with each machine.	
14	Loader/Backhoe shall be equipped with ride control.	
15	Maximum bucket dump angle shall be 45-degrees.	
16	Maximum rollback angle at ground level shall be 40-degrees. System shall incorporate anti-spill (rollback).	
17	Loaders arms shall be highly visible.	
LIGHTING, ELECTRICAL, INSTRUMENTS, CAB, OPERATOR'S STATION, EXTERIOR COMPARTMENTS:		
1	12-volt electrical system shall be equipped with two (2) high-capacity batteries, 12-volt (parallel system) with 900/1,800 CCA, 180/360-minutes rated reserve. Positive battery terminals shall be covered and insulated for protection of accidental short.	
2	One (1) dual battery master electrical disconnect with remote jump posts shall be provided.	
3	Electrical distribution center shall incorporate circuit board technology, solid state switching and blade-type multi-fused circuits.	
4	One (1) high capacity alternator, minimum 150-amps, 12-volt DC shall be provided.	
5	All lighting and/or reflectors shall comply with SAE 99 and any applicable DOT and state of Maryland laws regarding vehicle lighting (driving type with guards / turn signals and 4-way flashers / stop, tail and license plate).	
6	LED designed stop, heavy-duty marker lamps, tail, turn, 4-way warning (turn and four-way located front and rear) shall be provided. Two (2) front, two (2) rear turn signal/flashing, two (2) rear stop and tail, two (2) reflectors.	

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7	Lighting package shall include the maximum work/driving lamp package requiring a minimum of four (4) LED lamps each at top of cab facing forward “driving/working” and four (4) LED rear of machine “working” and two (2) LED “docking” on each side of cab, ten (10) total. Minimum intensity of each LED lamp shall be approximately 32,000-candlepower.	
8	Exterior cab shall be designed to include the maximum package of auxiliary LED work lighting to maximize visibility during inclement weather emergency operations.	
9	Cab/canopy exterior lighting shall incorporate roof mounted modular and weather sealed LED amber mini lightbars at four (4) locations. The lightbar lamp group shall supplement the LED flush-mounted light group combination required for marker/clearance/stop/tail/turn signal and tag lamps. Lamp locations shall be roof mounted on the edges of canopy surrounding cab. Amber strobe locations of upper canopy shall be one (1) each on front and rear and one (1) on each side on outermost roof edges. Lighting shall be SoundOff Signal®, nROADS™ LED mini-size amber lightbar 17.2-inches x 7.95-inches x 2.83-inches, six (6) amber lamps, single color, one (1) amp per lightbar. All four (4) mini-size lightbar assemblies shall be controlled by one factory control switch inside cab. Lights mounted on cab/canopy shall be visible with work light circuit activated. Lamp flashing and mounting(s) shall not reflect into either rear view mirrors or cause operator distraction due to reflectivity inside cab. Exact detail shall be discussed with successful bidder.	
10	Cab shall be factory pre-wired to connect amber LED lightbars. Rocker switch type control shall be mounted inside cab at operator side console and shall be used to supply control circuit feed for LED lightbar circuit. Switch shall be appropriately re-labeled.	
11	Cab and operator station shall be modular in design including ROPS/FOPS conforming to SAE J1040, isolation mounted with molded roof and include a full headliner with maximum soundproof/reduction qualities.	
12	Operator's station shall be fully enclosed cab accessible from both the left and right sides.	
13	Entrance into operator's station shall be via 3-point contact, slip resistant steps and ergonomically located handholds (conform to SAE J185).	
14	Cab shall feature storage space for a Thermos-bottle size beverage holder, cooler and a minimum of three (3) 20-amp 12vDC fused female power tap ports, i.e., cigarette lighter [2-cab, 1 canopy] for supplying power for portable devices such as cell-phone, etc. with USB adapter.	
15	Heavy-duty black synthetic oil-resistant floor mat shall be provided.	
16	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	

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ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
17	A minimum of one coat hook shall be provided for operator convenience.	
18	Cab shall include one wide angle rear view mirror on the interior and one combination standard rear view mirror/convex combination lens one (1) each on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
19	One (1) electric city horn shall be provided and mounted center of steering wheel OR console mounted minimum SAE J994 and J1446 standards. Steering wheel shall have a textured grip and include a spinner knob. Steering wheel turns stop to stop shall be completed in no more than 2.5 turns.	
20	One (1) reverse (backup) warning alarm meeting SAE J994, J1446 standards.	
21	Hand throttle shall be supplied and feature a fuel-economy setting at approximately 2,100-rpm. Throttle lock shall be provided for long term constant engine RPM.	
22	Throttle pedal design shall feature a suspended pedal.	
23	Cab console shall include a keyless electronic anti-theft start enabled through monitor requiring a 4-digit PIN via a sealed switch module. The anti-theft system shall prevent the operation of the OFF-RUN-START switch unless correct PIN is entered at the monitor. Start switch circuit shall include an electric fuel shutoff.	
24	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	
25	Cab shall be factory pre-wired with a 12-volt power, 30-amp with fused circuitry for County installed two-way radio. Radio installation shall be performed by the County. Radio mounting location will be overhead of the operator's seat on the headliner.	
26	Overhead storage including headliner shall include space required to mount County supplied two-way radio.	
27	Instrument panel monitor shall have LCD, analog type gauges and LED indicators to illuminate vital operating information easily at a glance. All instruments and gauges shall be lighted. Monitor shall feature ability to display stored diagnostic codes, as well as the ability to display the readings of sensors and switches via 4-push button/LCD operator interface to further aid in troubleshooting problems. Audible and visual warnings shall be provided in the operator's station illuminating amber for caution and red for stop with analog gauges for engine coolant temperature, torque converter/transmission fluid temperature, fuel level, hydraulic oil temperature, hydraulic oil restriction, engine oil pressure, engine air restriction, exhaust aftertreatment temperature, Digital instruments shall be provided for engine RPM, odometer, transmission gear indicator, speedometer, hour meter and charging system voltage.	

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ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
	Operator warning lights shall be provided for check engine, engine oil pressure, engine coolant temperature, engine air filter restriction, battery voltage, parking brake on/off, low brake pressure, diesel exhaust fluid (DEF) concentration sensor, torque converter oil temperature, hydraulic oil filter restriction, fasten seat belt, transmission fault, hydraulic oil temperature. Indicator lights shall be provided for park brake on/off, ride control, heated mirrors on, turn and warning signal flashers, differential lock engaged; wait to start (cold), engine preheat grid and work lights.	
28	Machine powertrain shall include computerized malfunction monitors with built-in diagnostics and fault code retrieval without the need for scan tools.	
29	Cab shall include one wide angle rear view mirror on the interior and one combination standard mirror with convex lens on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
30	AM/FM/WB stereo radio with CD and digital clock shall be provided.	
31	All exterior electrical connections shall be Weatherpak type sealed to prevent moisture and contaminants from entering terminals.	
32	Instrument console shall be fully adjustable forward and back to permit operator maximum comfort. Tilt steering wheel shall be provided.	
33	Cab shall have HVAC system and pressurized filtered interior atmosphere.	
34	Operator seat shall be posture-contoured heavy-duty cloth high-back with deep foam, heated seat, air suspension and adjustable armrest angle, headrests and adjustable for weight/height, fore and aft position and backrest tilt and extension. Operator's seat shall include one (1) 3-inch seat belt SAE J386.	
35	Roofline shall be extended slightly in front and rear to reduce sun glare. The front and rear cab glazing shall also be equipped with shade bands and front window adjustable sun visor to further help reduce glare. All glazing shall be tinted to minimize transfer of heat to cab interior. Tinting shall not violate the 35% light transmittancy laws for on-highway motor vehicles. All front glass glazing shall be safety laminated type and all side and rear glazing shall exceed or be equal to type AS2. All door glazing shall be fixed. Cab rear and side windows, including door windows shall be capable of being opened if desired. Hold open position for rear glass shall be secured from inside the cab and held in place with heavy-duty designed latches. Glazing on the rear glass shall have a two section vertically sliding capability for easy lowering and raising while performing backhoe operations	
36	Cab shall be equipped with ride-control and maximum sound suppression/reduction package.	

ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
37	Cab interior shall be equipped with headliner, dome light and console switch, left and right cab doors, tinted safety glass, one front and one rear windshield wiper with washers, fresh air intake heater/ defroster/ pressurizer minimum 40,000-Btu/hr heater and 26,000-Btu-hr. air conditioner.	
38	Defrosters shall be provided for all cab glazing including front, rear, sides.	
39	Intermittent windshield wipers and washers shall be provided on the front and rear windows.	
40	HVAC system shall be provided with a maximum amount of directional window vents in order to preclude the necessity of individually controlled variable speed 6-inch bus fans.	
41	Machines shall be equipped with vandal and theft protection including lockable engine access, fluid fill locations and tool box. Cab doors shall be lockable from the exterior and windows shall be securable from the interior. 5/16-inch diameter shackled all keyed alike type padlocks shall be provided for all exterior access points. Successful bidder will be informed of part number for locks. Each lock shall be provided with two (2) keys.	
42	Machines shall be equipped with illuminated rear mounted license plate bracket.	
43	One (1), minimum 5-pound fire extinguisher class ABC, Ansul part number SY0517 or approved equal.	
44	One Slow Moving Vehicle (SMV) triangle shall be provided and mounted on rear of machine.	
45	All exterior compartments shall, including fluid fill points shall be lockable and be capable of swinging open for convenient accessibility. Fluid fill points shall be equipped with sight gauges to verify levels at a glance.	
46	All grease points shall feature centralized lube banks for convenient lubrication access.	
47	Access points shall include diagnostic and fluid sampling ports for technical troubleshooting and preventive maintenance.	
48	One (1) lockable toolbox with padlock hasp shall be mounted on machine (opposite the batteries). Toolbox shall be accessible from ground level.	
49	Front bumper shall be heavy-duty, rigid mounted. Hood shall be two-position, easy tilting for access.	
50	Backhoe shall be equipped with the extended grill frame and front grill shall be protected by trash and debris screen.	
51	Dent resistant, full coverage rear fenders shall be provided. NO FRONT FENDERS.	
52	Machine mainframe foundation shall be of one-piece unitized construction.	

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ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
53	Machine shall be equipped with cab lifting hooks and a minimum of four (4) anchoring tie down points, two (2) each, front and rear.	
54	Shift controls shall feature a neutral safety start interlock. Starter shall be equipped with a by-pass start safety cover located at the starter.	
55	Machine shall be equipped with telematics system featuring a wireless communication system for tracking location and preventive maintenance. System shall interface with existing electronic vehicle maintenance information system (MIS). System shall cover machine during the five-year term lease.	
BUCKETS, ATTACHMENTS, TIRES and WHEELS:		
1	Heavy-duty loader bucket shall be 1.00-cubic yard capacity (excluding cutting edge) and be equipped with long lip and reversible type bolt-on cutting edge, skid plates and lifting loops. Bucket width shall be approximately 86 inches weighing approximately 890-pounds.	
2	One (1) spare loader bucket reversible cutting edge per machine (6 total) shall be supplied and included with this bid.	
3	Two (2), five (5)-ton Gunnebo © weld-on hooks, part number UKN-5 shall be required, one (1) mounted on center of bucket of each machine PLUS one (1) on center of each of the six (6) hydraulic swingers as specified herein.	
4	Each machine shall be equipped with new WainRoy STX mechanical bucket coupler AND auxiliary hydraulic valving for WainRoy hydraulic swinger attachment. Cab controls for the swinger shall be individually available on all six (6) machines via foot pedal and capable of fine feathering hydraulic function enabling smooth control of hoe attachment(s). The required coupler on each machine shall be capable of attaching brand new and existing buckets.	
5	Each machine shall be delivered and equipped with one (1) brand new, Wain-Roy twenty-four inch (24") high-capacity, coupler-attached heavy-duty ditching bucket w/minimum of five (5) shanks and teeth with lift loops and One (1) ridged coupler per machine for a total of six (6).	
6	In addition to the WainRoy STX mechanical bucket coupler, a WainRoy universal rigid coupler shall be provided to fit existing old and new style backhoe buckets, e.g., the county bought WainRoy couplers model 1001940 in 2017 because all existing county buckets did not fit the STX coupler.	
7	Five (5) machines shall be equipped with hydraulic thumb adapted for length extension to operate over coupler. Thumb stow/deploy actuation shall be controlled from inside cab at backhoe controls.	

ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
8	Each backhoe shall require the installation of auxiliary hydraulic valving inclusive of any/all related controls, lines and hoses, as may be associated to operate one (1) new hammer and three (3) existing county hydraulic hammers. Installation of any/all hydraulic hammers (new and existing) specified herein requires “flow rating” the hydraulic control firing circuit of all backhoes in this bid. The installation of the hammer hydraulic circuit hoses shall include break-away type hydraulic hose connections that either disconnect or prevent being connected in the event the dipperstick is extended. For maintenance interval purposes, hammer hydraulic circuit installation shall require a factory installed electric hammer firing pedal which shall be required to activate hour meter only when hammer is fired. Hour meter shall trigger ONLY when hammer is fired and count positive 1/10-hour increments. NOTE: Each machine shall also be equipped with band new WainRoy STX hydraulic swinger including a mechanical locking kit. Each machine will be tested and tuned accordingly.	
9	One (1) total new minimum 1,200-pound-rated Rammer model BR-9999 hydraulic hammer and one (1) short-pointed tools (conically pointed) shall be included with this bid. Hammer model shall be of the slim-profile design so as to be more efficient working in close spaces. Bidder shall ensure that the hammer model being offered are fully allied for the backhoe machines specified in this bid, i.e. NPK, Stanley, Kent, Huskie, Rammer (aka Allied), etc. NOTE: The size of the hammer shall not exceed the maximum limits of machine capability as established by the backhoe and hammer manufacturers. Bidder shall list the make/model of the hydraulic hammer offered for this bid. One (1) new hammer shall be installed on one (1) of the five (5) backhoes equipped with thumb. Make _____ Model _____	
10	The new hammer and three (3) existing county hammers shall interchange on to/from the mechanical couplers on any of the backhoes in this bid.	
11	The one (1) backhoe <u>without thumb</u> attachment shall have the hydraulic system tuned and tested to operate existing County owned McMillen 12-inch earth auger. The nomenclature for the auger is a model X3450H2, serial number 30281. Requires one (1) auxiliary hydraulic backhoe valve and related 2-way line circuitry and hydraulic line quick disconnect couplers for County supplied McMillen(c) earth auger model X3450H2. Auxiliary hydraulic system shall be high-flow designed to handle swinger, hammer, and auger. Provisions shall be made to changeover to the auger from the WainRoy coupler.	
12	All machines shall be delivered with attached 1.00 cubic yard pin-on loader bucket with bolt-on replaceable cutting edges.	

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13	Three (3) of the five (5) machines with thumb and the one (1) machine without thumb shall be equipped with four (4) non-radial type tires installed on multi-piece wheels. Rear tires shall be 19.5L-24, 12 PR R4; front tires shall be 12.5/80-18, 12 PR R4 Traction Sure Grip lug. Tire rubber compounding specification shall be 6S.	
14	Two (2) of the machines with thumb shall be equipped with Michelin radial type tires installed on multi-piece wheels. Rear tires shall be 500/70 R24 XMCL; front tires shall be 340/80 R18 XMCL.	
15	All machines shall be equipped with new WainRoy hydraulic swinger, model STX, model number 1001941 with mechanical locking kit. The hydraulic system on each of the six (6) machines shall be tested and tuned to be able to attach the new swingers as desired.	
16	If existing wheel and rim sizes on the current model backhoe wheels listed in this bid for trade/buyback would not be the same to fit the new machines specified in this bid, a grand total of eight (8) new spare wheels (four (4) rear wheels and 4 front wheels, without tires, rim/wheel only) shall be provided.	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 5-years/2,000-hours shall be provided.	
2	Machine shall be factory painted manufacturer's standard safety yellow.	
3	Machine shall be delivered in ready to run condition on or before January 01, 2022.	
4	Existing County-owned machines shall not be relinquished for buyback or trade until after twenty-one (21) business days immediately following delivery date of new machines. Invoicing for new machines shall NOT be dated prior to January 2022.	
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Eight (8) total complete Operators Manuals shall be supplied.	
8	One (1) total complete parts manual or CD, DVD shall be required for all six (6) machines.	
9	One (1) total complete technical repair manual and/or Compact Disk and/or DVD set shall be provided for all six (6) machines. Volumes must be inclusive of all sub-systems, i.e. engine, transmission, air conditioning, hydraulic, braking, steering, etc.	
10	One (1) total complete set of safety and training videos shall be required.	

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	ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders	Remarks/Exceptions
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation before and after delivery of backhoes to the County.	
12	Successful bidder shall provide for each location a minimum of one workday of on-site safety, maintenance and operator training at four (4) separate locations. The bidder shall make arrangements to schedule such training so as to have it coordinated with delivery.	
13	Any/all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
14	Bidders shall furnish attached to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD, 21742-2721	
18	Acceptance period shall be within twenty-one (21) business days following a post-delivery inspection by the Purchaser.	
19	MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Fleet Administration Office of the Highway Department. Contact telephone number 240-313-2720.	
20	Manufacturers Certificate of Origin (MCO) shall be assigned to "Board of Commissioners of Washington County, Maryland", 100 West Washington Street, Hagerstown, Maryland 21740-4735. The MCO/MSO shall be transferred and delivered to: Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD, 21742-2721	

ITEM NO. 1 Six (6) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
BUYBACK, TRADE-IN, OF EXISTING WASHINGTON COUNTY HIGHWAY MACHINES:		
1	<p>The following machines shall be made available for appraisal by appointment only during normal hours of operation by contacting Jack Reynard, Fleet Manager, Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD 21742-2721. Please telephone to make arrangements at (240) 313-2722. All bidders offering to bid this proposal for new machines to the County as described herein are required to bid on the following units being offered and indicate trade value on the bid form. The following machines are offered on an as-is, where-is condition completely void of any conditional guarantees or warranty expressed or implied. These machines shall not be available by the County until the new machines are placed in-service during the twenty-one (21) day inspection and acceptance period immediately following the delivery date of the new machines expected to be during the month of January 2022. The used machines considered in this bid were included in a contract from a prior bid award in FY2017 (PUR-1327) with guaranteed buyback amount at \$62,000.00-each. NOTE: Original invoice numbers and dates as printed on the John Deere Manufacturers Certificate of Origin (MCO) for six (6) loader/backhoes during the FY2017, 5-year lease program are:</p> <p>897925 dated 21Mar2017 897927 dated 24Mar2017 897926 dated 24Mar2017 897928 dated 24Mar2017 897931 dated 22Mar2017 897930 dated 22Mar2017 (end of list)</p>	
2	<p>The WCHD equipment identification numbers, year, make, model serial number and hours of the used machines are as follows. Each machine shall be equipped with one (1) WainRoy mechanical coupler, one (1) hydraulic swinger and one (1) 24-inch heavy-duty, 5-tooth ditching bucket:</p>	
a	772099c, model year 2017, John-Deere 310SL, with thumb and Rammer Hammer BR-9999, serial number 1T0310SLCHF309818. Machine hour meter as of 28Jun2021 is 1,396.	
b	772100w, model year 2017, John-Deere 310SL, with thumb, serial number 1T0310SLJHF309946. Machine hour meter as of 28Jun2021 is 1,039.	
c	772101e, model year 2017, John-Deere 310SL, with thumb, serial number 1T0310SLCHF309950. Machine hour meter as of 28Jun2021 is 1,247.	
d	772102s, model year 2017, John-Deere 310SL, with thumb, serial number 1T0310SLKHF309962. Machine hour meter as of 28Jun2021 is 2,265.	

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ITEM NO. 1		Remarks/Exceptions
Six (6) Diesel Engine, Backhoe / Front End Loaders		
e	772103c, model year 2017, John-Deere 310SL, <u>without thumb</u> , serial number 1T0310SLPHF309975. Machine hour meter as of 28Jun2021 is 1,317.	
f	772104w, model year 2017, John-Deere 310SL, <u>without thumb</u> , serial number 1T0310SLCHF309981. Machine hour meter as of 28Jun2021 is 0919.	

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

REVISED - SPECIFICATIONS
ITEM NO. 2 (Form of Proposals 2A and 2B)
SIX (6) DIESEL ENGINE, RUBBER TIRED WHEEL LOADERS

INTENDED USE OF EQUIPMENT: These machines are being purchased for use by the Washington County Highway Department to be used for general and rural highway maintenance, construction and off highway operations.

ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide six (6) rubber-tires wheel loaders. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete wheel loader machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The unit shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machines are equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for completed units shall be before January 01, 2022.	
4	Six (6) U.S. manufactured, current 2022 production model, all-wheel drive, articulating machine with the engine, mainframe, transmission and axles built by same manufacturer per the following specification. These machines shall be in compliance with any applicable federal, state and local requirements.	
5	SAE operating weight excluding additional equipment shall be approximately 31,100-pounds. SAE operating weight with standard equipment, i.e. front mounted V-blade plow, shall be shall be approximately 33,000-pounds.	
6	Machines shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	

ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
ENGINE:		
1	Engine type shall be turbo-charged, charge air cooled, 4-stroke, variable rpm governed, heavy-duty diesel, wet-sleeve liners, 6-cylinder, 4-valve per cylinder, electronically-controlled high-pressure common rail fuel system, minimum displacement of 414 cubic inch. Engine electronic controls shall feature automatic derating when safe operating temps are exceeded. Controls shall also feature monitor selected high altitude compensation.	
2	Engine oil filter shall be vertically mounted, spin-on type.	
3	Turbo-charger shall be altitude compensating with charge air cooler.	
4	Engine shall meet Final Tier 4 latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
5	Engine rated net peak power shall be 166 net horsepower minimum at 1,700 rpm (ISO 9249).	
6	Engine rated net peak torque shall be net 546-lb. ft. net minimum at 1,100 rpm (ISO 9249). Minimum net torque rise shall be 47%.	
7	The engine lubrication system shall be pressurized internally from the engine with full-flow spin-on type vertical oil filter.	
8	Engine shall be supplied with heavy-duty integral cooler.	
9	Engine shall be pressure water cooled and supplied with ethylene glycol anti-freeze protection (-40 degree F) including chemical nitrate inhibitors and spin-on filtration as required with sacrificial anodes.	
10	Under hood pre-screened air intake shall be supplied with dual stage air cleaner, dry type dual element with air restriction indicator on housing for servicing and in-cab restriction indicator. Air cleaner shall also be provided with centrifugal engine pre-air cleaner.	
11	Engine shall be equipped with cold weather starting aid with either intake heater grid element or automatic cold weather starting aid with glow plugs and "wait to start" glow plug activation lamp in-cab.	
12	Engine shall be equipped with a dealer custom installed 1,000 watt, 120 volt AC water jacket block heater kit with shore line receptacle manufactured by J. Jeb Mfg. Co., Westville, NJ. Contact J. Jeb Mfg. Co. at telephone (609) 845-4455. Installation kit part number PK1212 shall be completely installed and located close to the left side point of cab entry in close proximity of the left side (street side) cab steps. Details shall be provided to successful bidder.	
13	Engine shall have all service and check points in one location.	
14	Engine shall have a water/sediment bowl and a spin-on type replaceable vertical filter in the fuel system. Equipped with electric fuel shutoff, fuel/water separator and visual sediment bowl. 10-micron primary fuel filter shall be quick release, dual stage type equipped with primer pump and 2-micron secondary fuel filter.	
15	Fuel consumption for various duty-cycles shall be expected to range from 4.0 to 7.5 gallon per hour.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
16	All cooling system components, including radiator, shall be heavy-duty designed for high ambient conditions. Cooling fan shall be blower type, hydraulically driven, proportionally controlled and enclosed in swing-out safety fan guard in the rear of machine. Fan shall be mounted aft of coolers. Cooling system shall feature a programmable reversing fan feature for clearing debris as required. Radiator construction shall be heavy-duty, trash resistant, high ambient cooling package and include seven fins-per-inch and construction of heat exchanging oil coolers shall be eight fins-per-inch.	
17	Coolant recovery reservoir shall be provided.	
18	Exhaust system muffler shall be provided, mounted rear of cab either inside or outside the hood with large, curved end exhaust stack facing rearward of machine (self-draining muffler with chrome curved stack). Exhaust outlet shall be chrome and designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine.	
19	Environmental oil drains and fluid sampling ports and quick fluid service locations such as engine, transmission, hydraulic fluids and engine coolant shall be designed environmentally friendly and shall not require removal of any external covers and/or guards in order to change or service.	
20	Engine shall be equipped with multi-function computerized electronic system monitoring and alarm system. Engine system shall provide derating for exceeded coolant temperatures.	
21	Engine shall feature on-board self-diagnostics with service code display on monitor in operator's station.	
22	Engine mounts shall be rubber isolated to reduce noise and vibration.	
23	Engine shall be equipped with air-to-air aftercooler for low-engine-speed lugging.	
24	Dual air cleaner elements, radial seal, dry type with under-hood prescreened air intake.	
25	Blower type cooling fan with automatic tensioner and safety fan guard. Engine accessory drive belt shall be serpentine type with automatic tensioner.	
TRANSMISSION, FINAL DRIVES and BRAKES:		
1	Transmission type shall be countershaft power shift. Lockup type torque converter shall be single stage, single phase.	
2	Transmission shall provide a minimum of five (5) speeds forward and three (3) reverse. Maximum high gear shall be programmable.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
3	Operator interface for transmission range selection shall provide range selection under any power condition by an F-N-R shift button made integral with the loader joystick. The joystick will also feature kick-down control. Shift control shall be electronically modulated, adaptive, load and speed dependent. Quick-shift button with 2 selectable modes: kick-down of kick-up/down; and four clutch cutoff settings with kick-down button on the hydraulic lever, electronic soft shift, two (2) automatic soft shifts and quick-shift feature shall be selectable between gears 1-4 or 2-4.	
4	Transmission shift modes shall be auto/manual, auto to 1 st -D or 2 nd -D, kick down or kick up/down, four (4) clutch cutoff settings adjustable on the switch pad.	
5	Shift controls shall be electronically modulated, adaptive, load and speed dependent and feature a neutral safety start interlock. Starter shall be equipped with a by-pass start safety cover located at the starter.	
6	Desirable minimum travel speeds with 20.5-25 radial Michelin L2 tires shall be Gear 1 forward @ 3.7-mph/reverse @ 3.6-mph, Gear 2 forward @ 7.4-mph/reverse @ 7.8-mph, Gear 3 forward @ 11.5-mph/reverse @ 18.3-mph, Gear 4 forward @ 17.3-mph, Gear 5 forward @ 24.8-mph.	
7	Transmission shall feature on-board self-diagnostics with service code display on monitor in operator's station.	
8	Transmission shall be equipped with 1,000-hour, vertical spin-on filter and integral sight gauge/fill tube.	
9	Parking brake system shall be automatically spring applied, hydraulically released, driveline mounted, oil cooled, sealed wet multi-disc design (ISO 3450).	
10	Final drives shall be heavy-duty inboard-mounted planetary designed.	
11	Service brakes system design shall feature hydraulically actuated, spring retracted, self-adjusting inboard sun-shaft mounted, pressure oil-cooled, single-disc design. Service and park brake systems shall conform to SAE J1473, ISO3450.	
12	Axle fill shall be top mounted with dipstick port.	
13	Front and rear axles shall include dual hydraulic differential locking with limited slip function and remote-mounted axle breathers. Loader shall feature operator-controlled differential lock/unlock foot pedal activation. To increase tire life throughout the life of the machine during roading, all machines shall be equipped with integral rear drive automatic axle disconnect.	
14	Rear axle oscillation, (with 20.5 R 25 Michelin L2 radial tires) stop to stop shall be 24-degrees minimum (12-degree each direction).	
15	Front and rear differentials shall be equipped with individual auxiliary lube oil circuits complete with separate oil coolers. The separate axle coolers shall be constructed with approximately 6.5 fins per inch core.	
16	Transmission shall be equipped with side frame guards and bottom guards shall be provided on the front frame and transmission.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
COOLING SYSTEM:		
1	Cooling system shall be heavy-duty designed with trash resistant high ambient cooling capability.	
2	Access to oil coolers shall be two-sided.	
3	Cooling system shall be isolated from engine compartment.	
4	Cooling system shall be proportionally controlled (cools on demand), hydraulically driven with swing-out access fan unit and shroud. Fan mounted aft of coolers and enclosed fan safety guard.	
5	Separate air-to-air intercooler, transmission cooler and hydraulic coolers shall be provided and constructed with approximately 6.5-fins per inch of core. Two (2) sided access shall be provided to all coolers.	
6	Engine radiator core shall be constructed with approximately 7.5-fins per inch of core.	
7	Engine oil cooler shall be integrally designed.	
8	Coolant recovery reservoir shall be provided.	
9	Cooling system shall incorporate heavy-duty transmission cooler.	
10	Cooling system shall feature programmable cooling fan with reversing mode featuring auto and/or manual controls. Cooling fan shall automatically or manually blow back heavy dust and airborne debris from cooling package so the operator can remain seated.	
HYDRAULIC SYSTEM and STEERING:		
1	Hydraulic system for loader and steering shall be closed-center, pressure-compensating load-sensing with variable displacement, axial-piston pump.	
2	Maximum flow at 2,200-rpm shall be minimum 58-gallon per minute @ 1,000-psig with loader and steering system pressure relief @ 3,650-psig.	
3	Loader controls shall be via multi-function hydraulic valve(s) with cab mounted operator single lever joystick control w/integral F-N-R transmission shift with auxiliary lever(s) as required for hydraulic bucket coupler. All six (6) machines require hydraulic function control for bucket couplers and Henke H-SDDDB Severe Duty Dozer Blade.	
4	Steering type shall conform to ISO 5010 and be fully hydraulic powered. Pressure relief shall be 3,650-psig maximum and articulation angle shall be a full 80-degree arc (40-degrees each direction left/right)	
5	Maximum hydraulic cycle times with standard Z-bar linkage configurations shall be: Raise @ 5.5-sec, Dump @ 2.2-sec, Lower (power down) @ 3.5-sec. Total cycle time shall not exceed 11.5-seconds.	
6	Maximum turning radius measured at centerline of outside tire shall be 16.5-feet, + or - 4-inches.	
7	In-cab controls shall include automatic bucket positioner featuring auto bucket vibrate to empty and auto return to dig from dump and curl positions for quick and easy leveling.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
8	In-cab controls shall provide adjustable automatic boom height kickout.	
9	In-cab controls shall include automatic return-to-carry.	
10	Hydraulic reservoir shall feature sight gauge for determining fluid level and contain fill strainer.	
11	Hydraulic system shall be provided with vertically mounted spin-on filters.	
12	In-cab controls shall include hydraulic lever lockout and configurable hydraulic controls for attachment.	
13	All six (6) machines shall be equipped with additional hydraulic function control system for hydraulic quick-coupler locking pins via loader hydraulics ON/OFF rocker switch located on the in-cab console	
14	Hydraulic system shall include diagnostic port connections.	
15	All six (6) machines shall be equipped with additional hydraulic function to control power reversing Henke model H-SDDDB Severe Duty Dozer/Loader Blade.	
16	One (1) machine shall include a mounted Henke model H-SDDDB Severe Duty Dozer/Loader Blade (see additional specifications for dozer/loader blade). NOTE: Loader bucket and or Henke plow may be shipped to purchaser separately.	
17	All hydraulic system hoses shall be specifically engineered and manufactured for high abrasion resistance, excellent flexibility and easy installation. Hoses shall provide extended life, less downtime and reduced operating costs. Hydraulic hoses shall be routed in a manner to permit replacement of any single hose without the need to remove others for access. Auxiliary hydraulic hoses and related plumbing and electrical systems, if any, must be securely mounted throughout the machine and boom to preclude hose and/or wire chaffing, stretching, snagging, bunching, festooning, etc.	
MACHINE CYLINDERS:		
1	The following hydraulic cylinders, double-acting, heat treated, chrome-plated, polished cylinder rods, hardened steel (replaceable bushings) pivot pins shall be required with the basic minimum bore/stroke and rod diameter: a. Two (2) loader arm boom cylinders 4.7244"-inside diameter x 2.4803"-rod outside diameter x 32.0866"-stroke x 49.6063"-closed cylinder length, b. One (1) bucket tilt cylinder 5.5118"-inside diameter x 3.1496"-rod outside diameter x 26.1811"-stroke x 43.8976"-closed cylinder length, c. Two (2) steering cylinders 3.00" x 17.18".	
REFILL CAPACITIES (U.S.):		
1	Minimum diesel fuel tank capacity shall be 79-gallon. Tank fill neck shall be oversized, accessible from ground level and contain a fill strainer. Fuel tank shall be equipped with heavy-duty fuel tank guard and lockable fill cap.	
2	Cooling system capacity shall be approximately 32-quart.	

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3	Engine oil capacity, including vertically mounted, full-flow, spin-on filter shall be approximately 21-quart.	
4	Transmission reservoir, including vertical spin-on filter shall be approximately 22-quart. Transmission shall be equipped with fill tube and sight gauge.	
5	Differential axle oil (each axle): Front shall be approximately 17-quart, Rear shall be approximately 19-quart.	
6	Loader hydraulic reservoir and filter shall be approximately 23-gallons. Hydraulic reservoir shall be equipped with sight gauge and fill strainer.	
7	Fluid reservoirs for transmission, hydraulic, coolant and windshield washer fluid shall be provided with easy-to-read sight gauges and/or see-through material.	
8	Wet-Disc (oil) parking brake shall be approximately 10-ounces.	
9	Refill capacity for Diesel Exhaust Fluid (DEF) shall be approximately 17-quart.	

CAPACITIES and/or DIMENSIONS with COUPLER HOOK-ON BUCKET & STANDARD Z-BAR LINKAGE:

1	Lift capacity with a 3.0-cubic yard excavating bucket and coupler with bolt-on edge shall be: 30,950-pounds at ground level and 17,300-pounds at maximum lift height.	
2	Maximum height to top of cab and canopy shall be 10.0-ft. 11.0-inches.	
3	Maximum height to top of exhaust stack shall be 10.0-ft. 7-inches.	
a	Maximum hood height from ground shall be 7.0-ft 9-inch.	
4	Minimum ground clearance shall be 15.0-inches.	
5	Maximum length from centerline to front axle shall be 57.0-inches.	
6	Maximum wheelbase length shall be 115.0-inches.	
7	Minimum dump clearance, 45-degree, full height with standard Z-bar linkage, quick-coupler and 3.0-cubic yard general purpose hook-on bucket with bolt-on edge shall be minimum 109-inches.	
8	Minimum bucket capacities shall be: Heaped SAE @ 3.0-cubic yard, Struck SAE @ 2.7-cubic yard.	
9	Maximum bucket cylinder dump angle fully raised measured at hinge pin pivot shall be 48-degrees and Carry load position at 55-degrees.	
10	Bucket weight with coupler and bolt-on cutting edge shall be maximum 3,300-pounds.	
11	Bucket width shall be maximum 106-inches.	
12	Minimum breakout force per SAE J732C shall be 27,000-pounds.	
13	Minimum tipping load, machine configured straight shall be 22,800-pounds (no tire deflection) and 21,500-pounds (with tire deflection).	
14	Minimum tipping load, machine configured full turn at 40-degrees shall be 19,690-pounds (no tire deflection), 18,000-pounds (with tire deflection).	
15	Minimum reach with bucket configured at 45-degree dump, full height 42-inches, clearance shall be 62-inches.	

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a	Minimum 50-percent full-turn tipping load at rated operating load shall be 9,845-pounds (ISO 14397-1) (no tire deflection), 9,081-pounds (with tire deflection).	
16	Maximum overall length of machine with bucket on ground shall be 24- 7-inches.	
17	Maximum loader clearance circle with bucket in carry position shall be 38-feet, 1-inch.	
18	Maximum operating weight shall be approximately 30,500-pounds.	
19	Maximum height to hinge pin, fully raised shall be 12-feet 9-inches.	
20	Maximum digging depth shall be 4-inches.	
21	Maximum rollback at: ground level shall be 44-degrees; boom fully raised shall be 60-degrees.	
22	Loader shall be equipped with a rear cast bumper/counterweight with integral drawbar (hitch and pin). Counterweight shall be built-in with rear bumper design.	
23	If existing wheel and rim sizes on the current model rubber tired wheel listed in this bid for trade/buyback would not be the same to fit the new machines offered in this bid, a grand total of (4) new spare wheels (no tire, rim/wheel only) shall be provided.	
24	Machine shall be configured to accept EXISTING 48-inch tine construction loader forks John-Deere part number AT300238 and shall be interchangeable with the coupler for handling palletized skid loads and culvert pipe, etc. If machine cannot be configured to accept EXISTING pallet forks, one (1) total new pair per machine shall be provided.	
LIGHTING, ELECTRICAL, INSTRUMENTS, CAB, OPERATOR'S STATION, EXTERIOR COMPARTMENTS:		
1	24-volt electrical system shall be equipped with two (2) high-capacity Group 31 batteries, 12-volt (series, 24-volt system) with 950/1,900 CCA, 200/400-minutes rated reserve. Batteries shall be equipped with terminal safety covers.	
2	Electrical distribution center shall incorporate circuit board technology, solid state switching and blade-type multi-fused circuits. Electrical panels shall be equipped with corrosion-prevention package.	
3	One (1) lockable master electrical disconnect shall be provided.	
4	One (1) high capacity alternator, minimum 140-amps, 24-volts shall be provided.	
5	All lighting and/or reflectors shall comply with SAE 99 and any applicable DOT and state of Maryland laws regarding vehicle lighting (driving type with guards, heavy-duty electronic flasher / turn signals and flashers / stop, tail and license plate). All driving lights shall be provided with guards.	

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6	LED designed stop, heavy-duty marker lamps, tail, turn, 4-way warning (turn and four-way located front and rear) shall be provided. Two (2) front, two (2) rear turn signal/flashing, two (2) rear stop and tail, two (2) reflectors.	
7	Lighting package shall include the maximum work lamp package requiring a minimum of two (2) LED lamps each at top of cab facing forward and rear of machine.	
8	One (1) electric city horn shall be provided and mounted center of steering wheel or console mounted minimum SAE J994 and J1446 standards. Steering wheel shall have a textured grip and include a spinner knob.	
9	One (1) reverse (backup) warning alarm meeting SAE J994, J1446 standards.	
10	Machine powertrain shall include computerized malfunction LCD monitor with built-in/on-board menu selection for diagnostics and fault code retrieval without the need for specialized scan tools.	
11	Multi-function LCD color monitor shall display digital instruments -- analog display type gauge indicators to illuminate vital operating information easily at a glance. All instruments and gauges shall be lighted. Monitor shall feature ability to display stored diagnostic codes, as well as, the ability to display the readings of sensors and switches to further aid in troubleshooting problems. Audible and visual warnings shall be provided in the operator's station illuminating amber for caution and red for stop with analog gauges for engine coolant temperature, transmission oil temperature, hydraulic oil temperature, engine oil pressure, charging system voltage. Digital instruments shall be provided for engine RPM, odometer, transmission gear/direction indicator, fuel level, speedometer, odometer, outside temperature and hour meter. Operator warning lights shall be provided for check engine, engine oil pressure, engine air filter restriction, battery voltage, transmission filter restriction, brake pressure, parking brake on/off, hydraulic oil filter, fasten seat belt, transmission fault, hydraulic oil temperature. Indicator lights shall be provided for park brake, ride control, heated mirrors on, turn and warning signal flashers, coupler pin disconnected, differential lock engaged; wait to start (cold), engine preheater, clock and work lights. Integrated cycle counter with five (5) categories shall be provided. Electrical components shall incorporate sealed-switch modules with function indicators.	
12	Brakes and throttle pedal design shall feature suspended pedals to minimize corrosion from salt and be designed to allow additional legroom.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
13	Cab console shall include a keyless electronic anti-theft start enabled through monitor requiring a 4-digit PIN. The anti-theft system shall prevent the operation of the OFF-RUN-START switch unless correct PIN is entered at the monitor. Start switch circuit shall include an electric fuel shutoff.	
14	AM/FM/WB stereo radio with CD and digital clock shall be provided.	
15	Cab shall be factory pre-wired with a 24-volt to 12-volt power, 30-amp converter with 30-amp fused circuitry for County installed two-way radio.	
16	Cab/canopy exterior lighting shall incorporate roof mounted modular and weather sealed LED amber mini lightbars at four (4) locations. The lightbar lamp group shall supplement the LED flush-mounted light group combination required for marker/clearance/stop/tail/turn signal and tag lamps. Lamp locations shall be roof mounted on the edges of canopy surrounding cab. Amber strobe locations of upper canopy shall be one (1) each on front and rear and one (1) on each side on outermost roof edges. Lighting shall be SoundOff Signal®, nROADS™ LED mini-size amber lightbar 17.2-inches x 7.95-inches x 2.83-inches, six (6) amber lamps, single color, one (1) amp per lightbar. All four (4) mini-size lightbar assemblies shall be controlled by one factory control switch inside cab. Lights mounted on cab/canopy shall be visible with work light circuit activated. Lamp flashing and mounting(s) shall not reflect into either rear view mirrors or cause operator distraction due to reflectivity inside cab. Exact detail shall be discussed with successful bidder.	
17	Cab shall be factory pre-wired to connect amber LED lightbars. Rocker switch type control shall be mounted inside cab at operator side console and shall be used to supply control circuit feed for LED lightbar circuit. Switch shall be appropriately re-labeled.	
18	All exterior electrical connections shall be Weatherpak type sealed to prevent moisture and contaminants from entering terminals.	
19	Exterior cab shall be designed to include the maximum package of auxiliary halogen work lighting to maximize visibility during inclement weather emergency operations.	
20	Premium cab package and canopy shall conform to SAE J1040 APR88: ROPS/FOPS, isolation mounted, heater, ventilation, defroster air-conditioning, multiplane isolation mounted for noise and vibration reduction. Pressurized cab shall be equipped with powered air pre-cleaner filtration and be equipped with adjustable automotive style louvers for keeping cab glazing clear and defrosted. Intermittent control for front and rear windshield wipers including washer system and reservoir. All cab glazing shall be tinted to within State of Maryland limits of 35% light transmittancy. Canopy shall include rear window.	

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21	Roofline shall be extended slightly in front and rear to reduce sun glare. The front and rear cab glazing shall also be equipped with shade bands and front window adjustable sun visor to further help reduce glare. All glazing shall be tinted to minimize transfer of heat to cab interior. Tinting shall not violate the 35% light transmittancy laws for on-highway motor vehicles. All front glass glazing shall be safety laminated type and all side and rear glazing shall exceed or be equal to type AS2.	
22	Cab shall have HVAC system and pressurized filtered interior atmosphere.	
23	Premium cab with heated operator seat shall be ventilated with high wide back posture-contoured heavy-duty cloth high-back with deep foam, air suspension and adjustable armrest angles, headrests and adjustable for weight/height, fore and aft position and backrest tilt and extension. Operator's seat shall include one (1) 3-inch seat belt SAE J386.	
24	Cab shall feature storage space for a beverage, cooler and a minimum 30-amp 24/12vDC converter for supplying 12-volt power at the fuse panel plus female power tap(s) in-cab for cell-phone, etc. Cab room shall be sufficient to include space for cooler sized lunch boxes.	
25	A minimum of one coat hook shall be provided for operator convenience.	
26	Heavy-duty black synthetic oil-resistant floor mat shall be provided.	
27	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	
28	Instrument console shall be fully adjustable forward and back to permit operator maximum comfort. Tilt steering wheel shall be provided.	
29	Machines shall be equipped with ride control feature.	
30	Cab shall include one (1) wide angle rear view mirror on the interior and two (2) combination remote power operated mirrors with convex lens on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
31	Ergonomic, self-cleaning, slip-resistant composite rubber steps conforming to SAE J185 shall be required from ground up to ladder with steps and handhold grab bars extending into cab and ensuring three (3) point contact into and off cab level platform. Cab steps required only on left side (street side) of machine. Other exterior compartments requiring service shall be accessible via self-cleaning, slip-resistant composite rubber step material. Step(s) design shall be close-mounted.	
32	Premium cab shall be equipped with ride-control and maximum sound suppression package.	

ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
33	Machines shall be equipped with vandal and theft protection including lockable engine access and fluid fill locations. Cab door shall be lockable from the left side exterior and windows shall be securable from the interior. 5/16-inch diameter shackled all keyed alike type padlocks shall be provided for all exterior access points. Successful bidder will be informed of part number for locks. Each lock shall be provided with two (2) keys.	
34	Machines shall be equipped with illuminated rear mounted license plate bracket.	
35	HVAC system shall be provided with a maximum amount of directional window vents in order to preclude the necessity of individually controlled variable speed 6-inch bus fans.	
36	All exterior compartments shall, including fluid fill points shall be lockable and be capable of swinging open for convenient accessibility. Fluid fill points shall be equipped with sight gauges to verify levels at a glance.	
37	All grease points shall feature centralized lube banks for convenient lubrication access. Rear-axle oscillation and steering-cylinder joints shall be equipped with permanently greased bushings.	
38	Overhead storage including headliner shall include space required to mount County supplied two-way radio.	
39	Intermittent windshield wipers and washers shall be provided on the front and rear windows.	
40	Defrosters shall be provided for all cab glazing including front, rear, sides.	
41	Interior lamps and control switches for interior lighting shall be provided. Interior dome and reading lamps shall be provided.	
42	Access points shall include diagnostic and fluid sampling ports for technical troubleshooting and preventive maintenance.	
43	One (1), minimum 5-pound fire extinguisher class ABC, Ansul part number SY0517 or approved equal.	
44	Machine shall be equipped with programmable clutch cutoff. This shall be controlled with left brake pedal and programmable at varying slopes.	
45	One Slow Moving Vehicle (SMV) triangle shall be provided and mounted on rear of machine.	
46	Machine operator console shall be provided with rearview camera system complete with rear object detection, color LCD monitor, rear mounted HD color camera and be controlled to switch on or off at operator discretion or on full automatic switching when machine is in reverse. Radar senses distance to the object and alerts operator through audible chirps.	

ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
47	Machine shall be equipped with telemetric system featuring a wireless communication system for tracking location and preventive maintenance. System shall interface with existing electronic vehicle maintenance information system (MIS). System shall cover machine during the five-year term lease.	
48	Machine shall provide operator with radar object-detection system providing "eyes-in-the-back" visibility. Advance warning detection system complete with proximity sensing radar and capable of providing audio/visual alerts to machine operator in tight quarters, high-traffic areas and anytime machine is within close range of a stationary object.	
LOADER LINKAGE, BUCKETS, ATTACHMENTS and TIRES:		
1	Loader boom service locking bar shall be supplied and conform to SAE J38 standard.	
2	Loaders shall be equipped with Z-bar linkage.	
3	All machines shall be equipped with quick coupler capable of attaching existing county owned construction forks, jib boom (stinger) and V-plows plus the Henke H-SDDDB Severe Duty Dozer/Loader Blade.	
4	Loaders shall be equipped with 3.0-cubic yard excavating coupler attached bucket complete with bolt-on cutting edges, end bits and lift loops/eyes suitable for connection to quick coupler.	
5	Loader buckets on each machine shall be equipped with one (1), ten (10) ton Gunnebo © weld-on hook, part number UKN-10 rated a minimum of 10-ton. Mounting location shall be top center edge of bucket. Placement shall not permit any part of hook to protrude beyond top edge of bucket that may cause undesirable appearance or unwanted mark in grade surface being struck by top edge of bucket. Exact details shall be discussed with successful bidder.	
6	Loaders shall be equipped with JRB or John-Deere quick coupler equipped with hydraulic control system for locking pins including lines, valves and controls on machine and within the operator's station. Quick coupler shall accommodate connection of existing County owned telescopic (stinger) booms, V-snow plows, construction forks and/or any other allied JRB, Henke or John-Deere attachments.	
7	Four (4) Michelin radial tires shall be provided on multi-piece wheels. Tires shall be 20.5R-25, PR16, Tread Type L2 Michelin. Minimum tire rubber compounding specification shall be 6S.	
8	Dent resistant fenders or fenderettes complete with mud flaps shall be supplied on the front only (<u>no rear fenders on machine</u>). Fender mounting shall compensate for the additional clearance required for tire chains and shall be easily removable no more than six (6) threaded fasteners.	
9	Loaders shall be equipped with 8-degree rear axle stops with rubber-cushions for tires with chains.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
10	Existing County tire chains must fit tires equipped as specified herein. Tire chains currently in use by the County for tire sizes specified herein are the Pewag Universal UNE20525-10. Should existing Pewag tire chains not fit the radial tires delivered with the machine, bidder shall supply two (2) new pair of Pewag Universal size 10 tire chains for each wheel loader (total four (4) chains per machine). Chains shall be nickel-manganese alloy manufactured by Pewag Chain featuring the Universal pattern fitted with the "E" wear cross bars.	
11	Articulation locking bars shall be provided for securing machine when trailering and conform to SAE J276. Loader boom service locking bar shall also be provided.	
12	One (1) Henke 12-foot length, 48-inch height severe duty power reversing dozer/loader blade model number H-SDDDB shall be installed on one (1) of the four (4) machines with the additional hydraulic function. Plow shall be equipped with non-trip moldboard and skid shoes to keep plow off grade. <u>Plow shall not be included in the buyback.</u>	
OTHER:		
1	Total of six (6) total spare cutting edges shall be provided one (1) for each machine).	
2	Machine shall be equipped with cab lifting hooks and a minimum of four (4) anchoring tie down points, two (2) each, front and rear.	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 5-years/2,000-hours shall be provided.	
2	Machine shall be factory painted manufacturer's standard safety yellow.	
3	Machine shall be delivered in ready to run condition on or before January 01, 2022.	
4	Existing County-owned machines shall not be relinquished for buyback or trade until twenty-one (21) business days following delivery of new machines. Invoicing for new machines shall NOT be dated prior to January 2022.	
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Total of eight (8) complete operators' manuals shall be supplied for all six (6) machines.	
8	Total of one (1) complete parts manual or CD or DVD required for all six (6) machines.	
9	Total of one (1) complete set of technical repair manuals (or DVD/CD) set shall be provided for all six (6) machines. Technical volumes shall be inclusive of all sub-systems, i.e., engine, transmission, air conditioning, hydraulic, braking, steering, etc.	

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ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
10	Total of one (1) complete set of safety and training videos shall be required for all six (6) machines.	
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation before and after delivery of wheel loaders to the County.	
12	Successful bidder shall provide for each location a minimum of one workday of on-site safety, maintenance and operator training at four (4) separate locations. The bidder shall make arrangements to schedule such training so as to have it coordinated with delivery.	
13	Any/all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
14	Bidders shall furnish attached to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD, 21742-2721	
18	Acceptance period shall be within twenty one (21) business days following a post-delivery inspection by the Purchaser.	
19	MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Fleet Administration Office of the Highway Department. Contact telephone number 240-313-2720.	
20	Manufacturers Statement/Certificate of Origin (MSO/MCO) shall be assigned to "Board of Commissioners of Washington County, Maryland", 100 West Washington Street, Hagerstown, Maryland 21740-4735. The MSO/MCO shall be transferred and delivered to: Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD, 21742-2721	

ITEM NO. 2 Six (6) Diesel Engine, Rubber Tired Wheel Loaders		Remarks/Exceptions
BUYBACK, TRADE-IN, OF EXISTING COUNTY MACHINES:		
1	<p>The following machines shall be made available for appraisal by appointment only during normal hours of operation by contacting Jack Reynard, Fleet Manager, Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD 21742-2721. Please telephone to make arrangements at (240) 313-2722. All bidders offering to bid this proposal for new machines to the County as described herein are required to bid on the following units being offered and indicate trade value on the bid form. The following machines are offered on an as-is, where-is condition completely void of any conditional guarantees or warranty expressed or implied. These machines shall not be available by the County until the new machines are placed in-service sometime during a period of twenty-one (21) business days following the delivery date of the new machines. The used machines considered in this bid were included in a contract from a prior bid award in FY2017 (PUR-1327) with guaranteed buyback amount at \$105,000.00-each. NOTE: Original invoice numbers and dates as printed on the John Deere Manufacturers Certificate of Origin (MCO) for six (6) rubber-tired loaders during the FY2017, 5-year lease program are:</p> <p>897995 dated 21Mar2017 897996 dated 23Mar2017 897997 dated 23Mar2017 897998 dated 23Mar2017 897999 dated 23Mar2017 898000 dated 23Mar2017 (end of list)</p>	
2	The WCHD equipment identification numbers of the used machines are as follows:	
a	762093w, model year 2017, John-Deere 624K-II, serial number 1DW624KZLHF679962. Machine hour meter as of 28Jun2021 is 0999.	
b	762094w, model year 2017, John-Deere 624K-II, serial number 1DW624KZCHF679973. Machine hour meter as of 28Jun2021 is 1,023.	
c	762095e, model year 2017, John-Deere 624K-II, serial number 1DW624KZAHF679975. Machine hour meter as of 28Jun2021 is 0990.	
d	762096s, model year 2017, John-Deere 624K-II, serial number 1DW624KZHHF679977. Machine hour meter as of 28Jun2021 is 1,589.	
e	762097c, model year 2017, John-Deere 624K-II, serial number 1DW624KZPHF680018. Machine hour meter as of 28Jun2021 is 0879.	
f	762098c, model year 2017, John-Deere 624K-II, serial number 1DW624KZTHF680020. Machine hour meter as of 28Jun2021 is 0856.	

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

REVISED - SPECIFICATIONS

ITEM NO. 3

TWO (2) DIESEL ENGINE, MINI HYDRAULIC EXCAVATORS

INTENDED USE OF EQUIPMENT: These Mini Hydraulic Excavators are being purchased for use by the Washington County Highway Department to be used for general and rural highway maintenance, construction and off highway operations.

ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide two (2) Diesel Engine, mini hydraulic excavators with compact radius. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete compact mini hydraulic excavator machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The units shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machine is equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for delivery of completed units shall be before January 01, 2022.	
4	Two (2) U.S. manufactured, current 2022 production model, mini hydraulic excavator machines with the engine, mainframe, transmission and axles built by same manufacturer per the following specification. These machines manufacture shall follow any applicable federal, state, and local requirements.	
5	Minimum operating weight including steel tracks with rubber pads without counterweight shall be approximately 19,300-pounds. Maximum operating weight excluding attachments shall be 20,700-pounds.	
6	Machine shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	
7	Operator's manual shall be provided and permanently attached to the machine and stored in a lockable compartment.	

ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
ENGINE / TRANSMISSION:		
1	Engine type shall be turbo-charged, 4-stroke, variable rpm governed, heavy-duty diesel, 4-cylinder, direct fuel injected, displacement shall be minimum 203 cubic inch.	
2	Engine oil filter shall be full-flow, vertically mounted, spin-on type.	
3	Engine shall be Tier 4 Final/Stage IV compliant and meet the latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
4	Engine rated net power shall be 70-horsepower (ISO 9249) at 2,200-rpm. Minimum engine rated gross power shall be 74 horsepower (ISO 14396).	
5	The engine lubrication system shall be pressurized internally from the engine.	
6	Engine shall be pressure water cooled and supplied with 3-year extended life coolant anti-freeze protection (-40 degree F) including chemical nitrate inhibitors, and sacrificial anodes incorporated within the vertically mounted spin-on filtration as required.	
7	Air cleaner shall be dual dry type element with radial seal.	
8	Engine shall be equipped with cold weather starting aid with glow plugs and/or intake heater grid with activation lamp in-cab.	
9	Engine shall be equipped with 120-volt AC water jacket block heater.	
10	Engine shall have all service and check points in one location.	
11	Engine shall have cartridge type fuel filtration with water/sediment separator bowl and water-in-fuel sensor and be equipped with fuel shutoff and in-cab water-in-fuel warning indicator.	
12	The machine shall have an electronic torque management system that automatically destrokes the hystat pump (auto idle) to reduce the chance of stalling the engine during lugging.	
13	The cooling fan shall be powered by a hydraulic motor that is demand driven via an electrical solenoid based on climate and heat loads. When fan is active it shall maintain constant airflow and fan speed, especially under a load that would cause the engine to lug.	
14	The cooling fan shall incorporate a 360-degree guard/shroud.	
15	Coolant expansion/recovery reservoir shall be provided and be equipped with coolant level sight gauge.	
16	Exhaust system muffler shall be provided, mounted rear of cab either with large, curved end exhaust stack facing rearward of machine (self-draining muffler with curved stack). Single exhaust outlet shall be designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine. Design shall not require use of rain cap. Exhaust flow and cooling package airflow should be mixed to reduce temperature of exhaust gases leaving the exhaust stack.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
17	Engine oil drain shall be designed with ecology drain to not require removal of any external covers and/or guards to change or service.	
18	Engine shall be equipped with multi-function onboard computerized electronic system remote monitoring, alarm system and 5-year product link permitting remote diagnostics and maintenance reviews.	
19	Engine shall feature self-diagnostics with service code display on color monitor in operator's station.	
20	Engine mounts shall be rubber isolated to reduce noise and vibration.	
21	Shall be equipped with primary and safety elements to include dual engine air cleaner elements, radial seal, dry type.	
22	Shall be equipped with automatic engine idle control.	
23	Shall be equipped with automatic swing brake.	
24	Shall be equipped with adjustable travel cruise control.	
25	An electronic torque management feature shall allow maximum power to the tracks while minimizing engine stalling.	
26	Maximum forward and reverse speeds shall be 3.1-mph in high and 1.6-mph low.	
27	Machine shall have planetary gear reduction final drive with two (2) speeds. Traction force shall be minimum 19,064-lb foot in low range and 6,497-lb foot in high range.	
28	Machine shall have factory installed auto two-speed enabling automatic shift to higher power/torque only when system senses that it is required while dozing, center rotating and traveling uphill.	
29	Electronic priming fuel pump shall be provided.	
HYDRAULIC SYSTEM:		
1	Electronic hydraulic pumps shall be provided with variable displacement, load sensing/flow sharing hydraulics with power on-demand. The electronic pump system shall be equipped with technology to monitor hydraulic flow, pressure, temperature, and ambient temperature to maintain optimum efficiency.	
2	Hydraulic temperature monitoring shall be provided.	
3	Shall be equipped with certified hydraulic accumulator and hydro advanced hydraulic oil.	
4	Rotary dial throttle control shall be provided to allow the operator to match engine speed to a task. The rotary throttle shall allow the operator to maintain consistent engine speed <u>without need for a foot throttle</u> to allow the operator to vary engine speed and minimize fuel consumption.	
5	Machine shall be equipped with abrasion resistant hoses with O-ring face seals to assure a leak free system.	
6	One (1) variable displacement piston pump capable of supplying 62-gallon minute minimum at 2,400-rpm designed with primary and secondary circuits shall be provided. Primary circuit shall run travel, boom, stick and bucket.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
7	Auxiliary (high flow) pump section shall run hydromechanical attachments. Equipment and travel operating pressures shall be 4,134-psig.	
8	Operating swing operating pressure shall be minimum 3,600-psig.	
9	Primary high flow rate shall be 37-gal minute minimum.	
10	Auxiliary, secondary rate shall be 9-gal minute minimum.	
11	Digging force for long stick control shall be minimum 8,000-lb foot.	
12	Digging force for bucket shall be 13,940-lbs foot minimum.	
13	Machine swing system, swing speed shall be minimum 10-rpm.	
14	Hydraulic auxiliary with case drain required for running mulch head.	
15	The boom cylinder circuit shall be designed with a zero (0) leak boom section valve for zero (0) boom drift.	
16	Accumulator shall be provided to allow the boom and stick to be lowered to the ground in the event of a stalled engine. Design shall also permit depressurization of hydraulic system to attach work tools/mounted equipment.	
17	The bucket cylinder shall be equipped with a relief valve to protect against shock loading.	
18	Machine shall be equipped with an adjustable trim feature permitting a correction to machine travel if abnormal wear of tracks or other components occurs.	
19	The design of the travel and throttle hydraulic functions shall be electro over hydraulic controlled to maintain modulation.	
20	Boom and stick cylinders shall be designed with end-damping to minimize spoil loss when loading at height and reduce shock to the machine structure.	
21	Boom and upper body swing shall be designed to operate simultaneously to maximize versatility and productivity.	
22	Machine design shall incorporate multi-function capability of boom and upper body swing to improve productivity in tight work areas.	
23	Auxiliary hydraulic valve shall be standard with standard hydraulic disconnects on the stick.	
24	Factory installed combined function (one-way/two-way) auxiliary high pressure hydraulic circuit shall be provided.	
25	Factory installed hydraulic controls shall be provided to operate a hydraulic quick coupler shall be provided.	
BOOM, STICK AND LINKAGES:		
1	One (1) piece boom design minimum 133-inches.	
2	Long stick minimum 92-inches.	
3	Machine shall be equipped with a swing boom.	
4	Bucket rotation angle shall be 180-degrees.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
CAB:		
1	Cab shall be provided and sealed and pressurized with reduced operator sound pressure 72-db (ISO 6396:2008)	
2	Certified cab ROPS ISO 12117-2:2008, TOPS ISO 12117:1997, top guard ISO 10262:1998 (Level II)	
3	Cab exterior shall have forward LED work lights and be adjustable to suit operator.	
4	Additional factory installed counterweight shall be provided if required for optional mounted equipment. Counterweight shall have threaded lifting eyes.	
5	Cab guarding shall be provided for mulch head attachment.	
ELECTRICAL SYSTEM:		
1	Shall be equipped with 12-volt DC electrical system.	
2	Shall be equipped with minimum 90-ampere alternator.	
3	Shall be equipped with 850 CCA maintenance free battery.	
4	Shall be equipped with circuit breaker protection.	
5	Shall be equipped with ignition key stop switch.	
6	Shall be equipped with signaling/warning horn and/or backup alarm to meet applicable OSHA regulations.	
7	Shall be equipped with travel alarm.	
8	Cab exterior shall be equipped with amber rotating beacon.	
9	Cab shall be equipped with factory installed rearview camera system and monitor.	
10	All wiring harnesses shall be encased in nylon mesh bindings at applicable SAE rated temperature ratings.	
11	All wiring connections shall be sealed and color coded.	
12	Battery shall be equipped with disconnect switch.	
13	Fuse box shall be accessible without tools.	
14	Proportional auxiliary and boom swing controls shall be on the joystick.	
15	Joystick mounted controls shall provide operator fingertip control.	
16	Joystick shall be switchable.	
17	All controls shall be isolated when the control consoles are raised for entrance or exit of the operator station and cab.	
UNDERCARRIAGE:		
1	Long undercarriage shall be supplied and equipped with a fully greased and lubricated track.	
2	Hydraulic track adjusters shall be provided.	
3	Multiple tie down eyes shall be provided on track frame to meet DOT transport regulations.	
4	Dozer blade minimum 97-inches wide, 17-inches high shall be provided with dozer float function.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
5	Machine shall be equipped with 18-inch triple grouser shoes with holes for bolt-on synthetic street pads.	
6	Steel tracks shall be provided maximum 18-inches wide.	
7	Minimum and maximum machine ground pressure shall not exceed 6.0 psi with 18-inch track shoe width.	
8	Gradeability shall be maximum 30-degrees.	
9	Track rollers and carrier rollers shall be lifetime lubricated.	
10	Machine weight shall be evenly distributed across the entire width and length of the track via multiple sets of rollers to disperse pressure and maximize traction and flotation.	
11	Undercarriage shall consist of an open design that allows easy cleaning of components.	
12	Elevated positive track shall keep drive components away from ground debris.	
13	Track shall be designed with a split-pin type master pin that permits easier track attachment and removal.	
14	Dozer blade shall be equipped with bolt-on reversible cutting edge.	
15	Dozer blade lift height shall be minimum 13-inches.	
16	An idler guard shall be provided to maintain track alignment while traveling or working on slopes.	
OPERATOR STATION:		
1	The machine shall be equipped with deep skid-resistant, self-cleaning steps.	
2	Shall be equipped with high velocity, automatic temperature controlled HVAC system utilizing R134a refrigerant.	
3	The machine shall be equipped with high-back, heated, air-ride suspension seat with 3-inch retractable florescent seat belt, lumbar and recline adjustments.	
4	The machine must include sealed & pressurized cab.	
5	The machine shall be equipped with adjustable throttle by means of a dial.	
6	Shall be equipped with adjustable wrist rests.	
7	Shall be equipped with removeable, washable floor mat.	
8	Shall be equipped with control pattern changer between ISO and SAE stick steer modes visible within the LCD monitor.	
9	Shall be equipped with travel pedals and hand levers. Travel pedals shall be removeable for ease of operation.	
10	Shall be equipped with security system and key to start and include passcode option. Starting system shall be designed to incorporate a safety interlock to prevent starting when controls are "live".	
11	Shall be equipped with integrated lower front window. Window shall be easily removed for storage inside cab.	
12	The machine shall have a heater core rated capacity a minimum of 17,000-Btu.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
13	The machine shall have audible warning alarms for engine coolant temperature, engine oil pressure and hydraulic oil temperature.	
14	Machines shall be equipped with a hydraulic lockout mechanism. The upper body swing lock shall be automatically applied upon travel or lowering the arm bar.	
15	Machine shall be equipped with a two (2) cab-mounted convex, rearview mirrors for visibility to the rear and sides of the machine.	
16	Shall be equipped with rear window emergency exit and polycarbonate skylight.	
17	Shall be equipped with coat hook and cup holder.	
18	Cab interior shall be equipped with LED interior light.	
19	Machine shall be equipped with a 12-volt electrical accessory socket.	
20	Air conditioning condenser shall not be mounted on any other cooling core(s).	
21	The machine shall have a full color, LCD display incorporating display from a color rearview camera.	
22	The machine shall have up to a minimum of 50 individual security codes where the operator preferences are retained for each code. The master code provides the capability to monitor each individual code/operator for fuel usage, hours of operation, as well as events and diagnostics.	
23	Machine shall have a rear-view camera with color image output to in-cab LCD display.	
24	Shall be equipped with hour meter.	
25	Machine shall have cellular based tracking providing machine hours and machine location.	
26	Machine shall be equipped with an anti-theft security system with a 6 button keypad.	
27	Machine shall be equipped with Bluetooth capability and integral microphone, cellular link with an AM/FM/Weather Band Radio with travel alarm, USB and auxiliary input jack.	
28	Machine shall have windshield wiper mounted in such a way that the wires do not have to be disconnected.	
29	Cab shall be equipped with hinged door design that incorporates a mechanism permitting capability to lock the door in the open position.	
30	The color LCD monitor system shall include fuel level and coolant temperature gauges, maintenance and machine monitoring, performance and machine adjustments, numeric security code, English language, camera ready, hour meter with wake up switch, and jog dial control with interface.	
31	Hydraulic control for quick coupler shall be provided.	
32	Cab air conditioner shall be provided with a removeable primary filter that does not require tools for removal.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
LONG STICK EXCAVATOR DIMENSIONS:		
1	Digging depth shall be minimum 183-inches.	
2	Vertical wall shall be minimum 134-inches.	
3	Maximum reach at ground level minimum 293-inches.	
4	Maximum reach shall be 300-inches minimum.	
5	Maximum digging height shall be 276-inches minimum.	
6	Maximum dump clearance shall be 199-inches minimum.	
7	Boom reach shall be 126-inch minimum.	
8	Tail swing with counterweight shall be maximum 65-inches.	
9	Maximum blade height shall be 14-inches.	
10	Maximum blade digging depth shall be 27-inches.	
11	Transport height shall be maximum 99-inches.	
12	Cab height shall be maximum 99-inches.	
13	Swing bearing height shall be maximum 29-inches.	
14	Overall undercarriage length for long stick shall be 126-inches maximum.	
15	Overall shipping length shall be 263-inches maximum.	
16	Boom swing right shall be minimum 50-degrees.	
17	Boom swing left without stop shall be minimum 80-degrees.	
18	Boom swing left with stop shall be minimum 60-degrees.	
19	Track belt/shoe width shall be 18-inch maximum.	
20	Overall track width shall be 97-inch maximum.	
21	Ground clearance shall be 13-inch minimum.	
22	Long stick length shall be minimum 92-inches.	
23	Machine shall have a spring applied, hydraulic release automatic swing break.	

ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
MOUNTED EQUIPMENT:		
1	One (1) 48-inch AMI tilt ditch cleaning bucket shall be provided. NOTE: Powertilt swivel head/coupler remains attached to bucket.	
2	One (1) 48-inch hydraulic mulcher head shall be provided. NOTE: Mulcher head requires hydraulic case drain, electrical switching function, and guarding on machine. Related mulch head specifications: <ul style="list-style-type: none"> a. Overall width 48-inches maximum. b. Working width 40-inches maximum. c. Length 28-inch maximum. d. Overall height 42-inches. e. Weight 1,200-lbs. plus or minus 30-lbs. f. Drive method shall be V-belt. g. Motor shall be axial piston dual speed. h. Hydraulic flow rating 18-24-gpm. i. Hydraulic pressure rating 2,200 to 3,600-psig nominal. j. Drum speed range 2,800 to 2,900-rpm nominal. k. Fixed teeth per drum minimum 18. l. Maximum cutting diameter 5 to 8-inches. 	
3	One (1) heavy-duty 13-inch ditch bucket (3.5 cu.ft) shall be provided.	
4	One (1) 24-inch heavy-duty digging bucket shall be provided.	
5	One (1) heavy-duty 36-inch ditch bucket (13.8 cu.ft.) shall be provided.	
6	One (1) straight head coupler shall be provided. NOTE: Straight head coupler shall remain attached to machine.	
SERVICEABILITY:		
1	Maintenance points shall be grouped in easily accessible, ground level locations.	
2	The machine shall be equipped with grouped filter configuration with fuel/water separator filter and hydraulic oil filter being cartridge style.	
3	The engine shall be mounted transverse.	
4	The machine shall be equipped with sight gauges on the hydraulic tank and the radiator.	
5	The machine shall be equipped with standard system pressure and fluid analysis test ports.	
6	The machine shall have an electronic port allowing electronic machine diagnostics.	
7	Routine daily maintenance of the machine shall be accessible from ground level.	
8	All filters shall be easily accessible from the ground.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
CAPACITIES:		
1	Cooling system capacity shall be 2-1/2-gallon minimum.	
2	Engine oil capacity shall be 3-gallon minimum.	
3	Fuel tank capacity shall be 39-gallon minimum.	
4	Hydraulic reservoir capacity shall be 14-gallon minimum.	
5	Hydraulic system capacity shall be 28-gallon minimum.	
6	Each final drive shall have a capacity of 32-ounces minimum.	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 5-years/2,000-hours shall be provided.	
3	Machine shall be factory painted manufacturer's standard safety yellow.	
4	Machine shall be delivered in ready to run condition on or before January 01, 2022. Invoicing for new machine shall NOT be dated prior to January, 2022.	
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Total of four (4) complete operator's manuals shall be supplied.	
8	Total of two (2) complete parts manuals.	
9	Total of one (1) complete set of technical repair manuals (or DVD or CD) shall be provided. Technical volumes must be inclusive of all sub-systems, i.e., engine, transmission, air conditioning, hydraulic, braking, steering, etc.	
10	Total of one (1) complete set of safety and training videos (or DVD or CD).	
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation prior to delivery of mini hydraulic excavators to the County.	
12	Successful bidder shall provide a minimum of one workday of on-site safety, maintenance, and operator training at two (2) separate County locations. The bidder shall make arrangements to schedule such training so as to have it coordinated with the County after delivery.	
13	Any/all attachments must be pre-approved by the machine manufacturer and the attachment manufacturer as being allied and compatible.	
14	Bidders shall attach to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	

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ITEM NO. 3 Two (2) Diesel Engine, Mini Hydraulic Excavators		Remarks/Exceptions
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Highway Department, 601 Northern Avenue, Hagerstown, MD, 21742-2721	
18	Acceptance period shall be within 30-days following a post-delivery inspection by the Purchaser.	
19	If applicable, MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Fleet Administration Office of the Highway Department. Contact telephone number 240-313-2720.	

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN**

REVISED - SPECIFICATIONS

ITEM NO.4

ONE (1) DIESEL ENGINE, BACKHOE / FRONT END LOADER

INTENDED USE OF EQUIPMENT: The machine is being purchased for use by the Washington County Buildings, Grounds and Facilities Department to be used for general maintenance and construction for county owned properties.

ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide one (1) backhoe/front end loader. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete backhoe/loader machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The unit shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machines are equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for completed unit shall be before January 1, 2022	
4	One (1) U.S. manufactured, current 2022 production model, all-wheel drive, with the engine and mainframe built by same manufacturer, transmission and axles built by ZF per the following specification. These machines shall be in compliance with any applicable federal, state and local requirements.	
5	SAE operating weight configured with 19.5L-24, 10 PR R4 rear tires; 12.5/80-18, 10 PR I3 Traction Sure Grip lug front tires, 1.30-cubic yard loader bucket; 24-inch x 6.5-cubic foot backhoe bucket; cab; 175-pound operator, mechanical front wheel drive; extendable dipperstick; backhoe coupler; and three (3)** 480-pound counterweights (total 1,440-pounds) shall be approximately 18,000-pounds. **NOTE: Additional counterweights may be required on actual machine detailed in this bid for mounting of a 1,200-pound hydraulic hammer and allied mechanical quick-coupler.	

ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
6	Machines shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	
ENGINE:		
1	Engine type shall be EPA Final Tier 4, turbo-charged, 4-stroke, variable rpm governed, heavy-duty diesel, wet-sleeve lined, 4-cylinder, 2-valve per cylinder, electronically-controlled high-pressure common rail fuel system, electronic fuel injection pump, and minimum displacement of 4.5-liter. Engine electronic controls shall feature automatic derating when safe operating conditions are exceeded.	
2	Engine oil filter shall be vertically mounted, spin-on type.	
3	Turbo-charger shall be altitude compensating.	
4	Engine shall meet the latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
5	Engine rated net peak power shall be 99 horsepower (ISO9249) minimum at 2,200 rpm.	
6	Minimum engine net peak torque (ISO9249) shall be 307 pounds per foot at 1,400 rpm. Net torque rise shall be 30% minimum.	
7	The engine lubrication system shall be pressurized internally from the engine with full-flow spin-on type, 10-micron rated vertically mounted oil filter.	
8	Engine shall be supplied with a heavy-duty oil-to-water oil cooler.	
9	Engine shall be pressure water cooled and supplied with ethylene glycol anti-freeze protection (-40 degree F) including chemical nitrate inhibitors and spin-on filtration as required with sacrificial anodes.	
10	Underhood pre-screened air intake shall be supplied with dual stage air cleaner, radial sealed, dry-type elements with restriction indicator for servicing. Air cleaner shall also be provided with air pre-screener and evacuator valve.	
11	Engine shall be equipped with a custom installed 1,000 watt, 120 volt AC water jacket block heater kit manufactured by J. Jeb Mfg. Co., Westville, NJ, and telephone (609) 845-4455. Installation kit part number PK1212 shall be completely installed with AC shoreline receptacle located close to the left side point of cab entry in proximity of the steps. Details shall be provided to successful bidder.	
12	Engine shall have all service and check points in easily accessed locations.	
13	Engine shall have a water/sediment bowl and a spin-on type replaceable vertical filter in the fuel system. Equipped with electric fuel shutoff, fuel/water separator and visual sediment bowl. 10-micron primary fuel filter shall be quick release, dual stage type equipped with primer pump and 2-micron secondary fuel filter.	
14	Fuel consumption for various duty-cycles shall be expected to range from 1.3 to 2.3 gallon per hour.	

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ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
15	All cooling system components, including radiator and fan, shall be heavy-duty designed for high ambient conditions. Fan shall be electronically controlled, variable-rate, suction type and radiator construction shall include minimum seven fins-per-inch and fan-guard.	
16	Coolant recovery reservoir shall be provided.	
17	Exhaust system muffler shall be provided, mounted under hood with large curved end exhaust stack facing side of machine (self-draining muffler with curved stack). Exhaust outlet shall be designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine.	
18	Engine oil drain shall be designed environmentally friendly so as to not require removal of any external covers and/or guards in order to change or service.	
19	Engine shall be equipped with multi-function computerized electronic system monitoring and alarm system.	
20	Engine shall feature self-diagnostics with Diagnostic Trouble Code (DTC) and full text in display screen of monitor in operator's station.	
21	Engine mounts shall be rubber isolated to reduce noise and vibration.	
22	Suction type cooling fan with automatic tensioner and safety fan guard. Engine accessory drive belt shall be serpentine with automatic tensioner or heavy-duty industrial v-belt(s).	
TRANSMISSION, FINAL DRIVES, STEERING and BRAKES:		
1	Transmission type shall be a hydraulically actuated; full-power-shift, electrically activated twist grip F-N-R for clutch-less shifting 1st through 5th gears. Auto shift from 4 th to 5 th .	
2	Transmission shall provide a minimum of 5-speeds forward and 3-speeds reverse.	
3	Transmission range selection interface shall provide range selection under any power condition by steering column mounted F-N-R shift lever. Shift control shall be electronically modulated, adaptive, load and speed dependent.	
4	Shift controls shall feature a neutral safety start interlock and electric clutch cutoff. Loader lever shall also include an electric clutch cutoff.	
5	Desirable minimum travel speeds with 19.5L-24 rear tires and powershift transmission shall be Gear 1 forward @ 3.5-mph/reverse @ 4.3-mph, Gear 2 forward @ 6.3-mph/reverse @ 8.0-mph, Gear 3 forward @ 12.8-mph/reverse @ 12.7-mph, Gear 4 forward @ 12.4-mph, Gear 5 forward @ 24.9-mph.	
6	Transmission shall feature self-diagnostics with service code display on monitor in operator's station.	

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ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
7	Parking/Emergency brake shall be spring applied, hydraulically released by electrical on/off switch and conform to SAE J1473/ISO 3450. The electrically switched Park/Emergency brake system shall be spring applied, hydraulically released, wet, multi-disc, independent of service brakes.	
8	Mechanical front wheel drive (MFWD) axle shall be automatic with limited-slip traction control and be equipped with guard. MFWD and rear axle shall be heavy-duty, outboard planetary final drive designed to distribute loads over all gears.	
9	Service brake system design shall feature power assisted hydraulic conforming to SAE J1473/ISO 3450: mounted inboard, wet disc, self-adjusting and self-equalizing.	
10	Brakes pedals shall be foot operated, individually or simultaneously. A provision to mechanically lock/latch pedals together for roading shall be required.	
11	Rear axle shall include foot actuated, hydraulic engaged 100% mechanical locking differential with limited slip function. Front axle shall include limited slip function. Loader shall feature operator-controlled "on-the-go" differential lock/unlock foot pedal activation.	
12	Transmission shall be equipped with side frame guards and bottom guards shall be provided on the front frame and transmission.	
13	Steering shall be (ISO5010) controlled hydrostatically with an emergency manual steering mode.	
14	Maximum curb-turning radius shall be 12-foot with brakes and 14-foot 3-inches without brakes.	
15	Maximum bucket-clearance circle shall be 33-foot 8-inches with brakes and 37-foot without brakes.	
16	Steering wheel turns (lock to lock) shall not exceed 2.7 times.	
17	Machine shall be Four Wheel Drive (4WD) with front axle drive being a fully sealed mechanical-front-wheel drive with limited slip differential and electric on/off control equipped with MFWD driveshaft guard. Machines shall be equipped with driveline trash guards.	
18	Rear wheels shall be installed with spacers permitting the use of tire chains.	
19	Front axle weight rating minimum shall be 11,000-pound SAE J43, 51,800-pound static, 18,700-pound dynamic and 81,500-pound ultimate. Stop-to-stop oscillation shall be 22-degrees.	
20	Rear axle weight rating minimum shall be 15,400-pound SAE J43, 57,300-pound static, 20,900-pound dynamic and 87,000-pound ultimate.	
COOLING SYSTEM:		
1	Cooling system shall be heavy-duty designed with high ambient cooling capability.	
2	Cooling system shall be proportionally controlled (cools on demand).	

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ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
3	Engine radiator core shall be constructed with approximately 7.5-fins per inch of core.	
4	Engine oil to water cooler shall be integrally designed.	
5	Cooling system capacity shall be minimum 37-quart.	
6	Coolant recovery reservoir shall be provided.	
7	Cooling system shall incorporate heavy-duty transmission cooler.	
REFILL CAPACITIES (U.S.):		
1	Minimum diesel fuel tank capacity shall be 37-gallon (with ground level fueling capability).	
2	Hydraulic system capacity shall be approximately 29-gallon including 11-gallon reservoir.	
3	Engine oil system, including vertical full-flow spin-on filter shall be approximately fourteen (14) quart.	
4	Torque converter and transmission shall be approximately sixteen (16) quart.	
5	Mechanical-front-wheel-drive-axle shall be approximately seven (7) quart. Left and right planetaries shall be approximately one (1) quart each.	
6	Rear axle shall be approximately nineteen (19) quart.	
7	Diesel exhaust fluid (DEF) tank shall be approximately four (4) gallon.	
HYDRAULIC SYSTEM:		
1	Tandem mounted main gear pump for steering and hydraulic systems shall be open center, gear type with unloader.	
2	Minimum flow at 2,200-rpm shall be minimum 36-gallon per minute for backhoe/28-gpm for loader with pressure relief @ approximately 3,600-psig.	
3	Backhoe hydraulics shall include a 6-function (5 functions with flow control) valve section and pilot-operated levers (joysticks) configurable for SAE excavator, John-Deere, Case patterns via changeable/selectable valve control patterns. Loader controls shall be via a single lever with return-to-dig, 2-function hydraulic valve section. Controls shall be ergonomically cab mounted for operator within the cab. Pilot towers shall be provided and pivot for operator control. Console shall be designed to include a convenient method to swivel seat position from backhoe to loader when desiring to move machine forward or backward when desired.	
4	Hydraulic system shall be equipped with an independent hydraulic reservoir and swing-down hydraulic oil cooler.	
5	All hydraulic hose connections shall utilize the "O" ring faced seal connections. Multiple hose connections shall be appropriately mounted on a bulkhead.	

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6	One (1) 6-micron vertical spin-on hydraulic oil filter shall be provided.	
7	Hydraulic reservoir shall feature sight gauge for determining fluid level.	
8	All hydraulic system hoses shall be specifically engineered and manufactured for high abrasion resistance, excellent flexibility and easy installation. Hoses shall provide extended life, less downtime and reduced operating costs. Backhoe hydraulic hoses shall be routed in a manner to permit replacement of any single hose without the need to remove others for access. All related auxiliary hydraulic hoses and related plumbing and electrical systems must be securely mounted throughout the machine and boom to preclude hose and/or wire chaffing, stretching, snagging, bunching, festooning, etc.	
MACHINE CYLINDERS:		
1	Hydraulic cylinder type shall be heat-treated, chrome-plated, polished rods; hardened-steel (replaceable bushings) pivot pins. The following double-acting hydraulic cylinders shall be required with the basic minimum bore/stroke and rod diameter: a. Two (2) loader boom cylinders 3.15" x 31.1" x 1.97", b. One (1) loader bucket cylinder 3.54" x 29.29" x 1.97", c. One (1) backhoe boom cylinder 4.72" x 31.3" x 2.20", d. One (1) crowd cylinder 4.53" x 23.72" x 2.48", e. One (1) heavy-duty backhoe bucket cylinder 3.94" x 31.89" x 2.48", f. Two (2) backhoe swing cylinders 3.54" x 10.94" x 1.97", g. One (1) extendable dipperstick cylinder 2.76" x 42.01" x 1.57", h. Two (2) longer length backhoe stabilizer cylinders 3.54" x 19.69" x 1.97", i. One (1) mechanical front wheel drive steering cylinder 2.64" x 8.27" x 1.65".	
BACKHOE -- PERFORMANCE, DIMENSIONS & ATTACHMENTS:		
1	Bucket range shall be 12-36 inches.	
2	Digging force with heavy-duty bucket cylinder shall be approximately 15,000-pounds.	
3	Digging force of crowd cylinder shall be approximately 8,000-pounds.	
4	Backhoe swing arc shall be 180-degrees and bucket rotation shall be approximately 190-degrees.	
5	The following backhoe specifications are with an extendible dipper stick configured with a 24-inch x 6.5-cubic foot bucket:	
a	Loading height (truck loading position) shall be a maximum of 13-feet 8-inch extended, 11-feet 8-inches retracted.	
b	Reach from center of swing pivot shall be a maximum of 21-foot 9-inch extended, 18-feet 5-inches retracted. Machine shall feature hydraulic circuit mechanisms to prevent backhoe from wavering while digging trenches.	
c	Reach from center of rear axle shall be a maximum of 25-foot 2-inches extended, 21-foot 11-inch retracted.	

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d	Maximum (SAE) digging depth shall be approximately 18-foot 2-inches extended, 14-foot 8-inches retracted. Digging depth (SAE) with 24-inch flat bottom bucket shall be 18 foot extended, 14-foot 7-inches retracted.	
e	Minimum ground clearance shall be 13-inches.	
f	Maximum transport height shall be 11-foot 6-inches.	
g	Maximum overall transport length shall be 23-foot 11-inches	
h	Maximum stabilizer width (transport) shall be 7-foot 2-inches	
i	Maximum stabilizer spread (operating) with longer length stabilizers shall be 11-foot 4-inches.	
j	Maximum overall stabilizer width (operating) with longer length stabilizers shall be 13-foot 3-inches.	
k	Maximum width over tires, including wheel spacers for tire chains, shall be 90-inches.	
l	Maximum height to top of ROPS shall be 9-foot 2-inches.	
m	Maximum length from front and rear axle centerlines shall be approximately 86-inches.	
n	Backhoe boom up/down shall include a lock lever and boom swing shall be equipped with a removable lock pin for securing in transport duty. Lock lever and pin shall be controlled/removed from inside cab. Cab shall have a storage pocket for pin inside cab.	
o	Backhoe shall be equipped with a stabilizer valve containing two-direction anti-drift valves.	
p	Stabilizer cylinders and hydraulic hoses shall be protected with cylinder guards. Stabilizer pads shall be pivot-able with reversible dirt cleats and street rubber pads.	
q	Each machine shall be equipped with an extendible dipper stick outer box design that is greaseless and extension shall be approximately 3-foot 6-inches. Extendable dipper stick shall feature hydraulic plumbing for selective flow. Dipper stick extension/ retraction shall be via a cab floor mounted right foot-pedal and associated hydraulic circuitry.	
r	Backhoe shall be equipped with longer length stabilizers fitted with pin lock reversible pads. Stabilizers shall also be equipped with cylinder guards (set of two).	
s	Backhoe boom guard shall be provided with a bolt-on protection plate.	
LOADER -- DIMENSIONS, PERFORMANCE:		
1	Minimum loader breakout force shall be approximately 10,400-pounds.	
2	Minimum loader full height lifting capacity shall be approximately 7,000-pounds.	
3	Maximum loader height to bucket hinge pin shall be 11-foot 4-inches.	
4	Minimum dump clearance with bucket at 45-degree angle shall be 8-foot 8-inches.	
5	Minimum reach at full height with bucket at 45-degree angle shall be 32-inches.	

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6	Minimum digging depth below ground with bucket level shall be approximately 3-inches.	
7	Maximum length from front axle centerline to bucket cutting edge shall be 83-inches.	
8	Maximum length of time to raise bucket to full height shall be 5.0-seconds.	
9	Maximum time to dump bucket contents shall be approximately 1.0-second.	
10	Maximum length of time to lower loader bucket to ground shall be 2.0-seconds.	
11	Loader circuit shall be hydraulically self-leveling and feature return-to-dig function and bucket level indicator.	
12	Loader control shall be via a single lever control with electric clutch cutoff.	
13	Loader boom lock shall be furnished with each machine.	
14	Loader/Backhoe shall be equipped with ride control.	
15	Maximum bucket dump angle shall be 45-degrees.	
16	Maximum rollback angle at ground level shall be 40-degrees. System shall incorporate anti-spill (rollback).	
17	Loader arms shall be highly visible.	
LIGHTING, ELECTRICAL, INSTRUMENTS, CAB, OPERATOR'S STATION, EXTERIOR COMPARTMENTS:		
1	12-volt electrical system shall be equipped with two (2) high-capacity batteries, 12-volt (parallel system) with 950/1,900 CCA, 190/380-minutes rated reserve. Positive battery terminals shall be covered and insulated for protection of accidental short.	
2	One (1) dual battery master electrical disconnect shall be provided.	
3	Electrical distribution center shall incorporate circuit board technology, solid state switching and blade-type multi-fused circuits.	
4	One (1) high capacity alternator, minimum 150-amps, 12-volt DC shall be provided.	
5	All lighting and/or reflectors shall comply with SAE 99 and any applicable DOT and state of Maryland laws regarding vehicle lighting (driving type with guards / turn signals and flashers / stop, tail and license plate).	
6	LED designed stop, heavy-duty marker lamps, tail, turn, 4-way warning (turn and four-way located front and rear) shall be provided. Two (2) front, two (2) rear turn signal/flashing, two (2) rear stop and tail, two (2) reflectors.	

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7	Lighting package shall include the maximum work/driving lamp package requiring a minimum of four (4) LED lamps each at top of cab facing forward “driving/working” and four (4) LED rear of machine “working” and two (2) LED “docking” on each side of cab, ten (10) total. Minimum intensity of each LED lamp shall be approximately 32,000-candlepower.	
8	Exterior cab shall be designed to include the maximum package of auxiliary LED work lighting to maximize visibility during inclement weather emergency operations.	
9	Cab/canopy exterior lighting shall incorporate roof mounted modular and weather sealed LED amber mini lightbars at four (4) locations. The lightbar lamp group shall supplement the LED flush-mounted light group combination required for marker/clearance/stop/tail/turn signal and tag lamps. Lamp locations shall be roof mounted on the edges of canopy surrounding cab. Amber strobe locations of upper canopy shall be one (1) each on front and rear and one (1) on each side on outermost roof edges. Lighting shall be SoundOff Signal®, nROADS™ LED mini-size amber lightbar 17.2-inches x 7.95-inches x 2.83-inches, six (6) amber lamps, single color, one (1) amp per lightbar. All four (4) mini-size lightbar assemblies shall be controlled by one factory control switch inside cab. Lights mounted on cab/canopy shall be visible with work light circuit activated. Lamp flashing and mounting(s) shall not reflect into either rear view mirrors or cause operator distraction due to reflectivity inside cab. Exact detail shall be discussed with successful bidder.	
10	Cab shall be factory pre-wired to connect amber LED lightbars. Rocker switch type control shall be mounted inside cab at operator side console and shall be used to supply control circuit feed for LED lightbar circuit. Switch shall be appropriately re-labeled.	
11	Cab and operator station shall be modular in design including ROPS/FOPS conforming to SAE J1040, isolation mounted with molded roof and include a full headliner with maximum soundproof/reduction qualities.	
12	Operator's station shall be fully enclosed cab accessible from both the left and right sides.	
13	Entrance into operator's station shall be via 3-point contact, slip resistant steps and ergonomically located handholds (conform to SAE J185).	
14	Cab shall feature storage space for a Thermos-bottle size beverage holder, cooler and a minimum of three (3) 20-amp 12vDC fused female power tap ports, i.e., cigarette lighter [2-cab, 1 canopy] for supplying power for portable devices such as cell-phone, etc.	
15	Heavy-duty black synthetic oil-resistant floor mat shall be provided.	

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16	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	
17	A minimum of one coat hook shall be provided for operator convenience.	
18	Cab shall include one wide angle rear view mirror on the interior and one combination standard rear view mirror/convex combination lens one (1) each on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
19	One (1) electric city horn shall be provided and mounted center of steering wheel OR console mounted minimum SAE J994 and J1446 standards. Steering wheel shall have a textured grip and include a spinner knob. Steering wheel turns stop to stop shall be completed in no more than 2.5 turns.	
20	One (1) reverse (backup) warning alarm meeting SAE J994, J1446 standards.	
21	Hand throttle shall be supplied and feature a fuel-economy setting at approximately 2,100-rpm.	
22	Throttle pedal design shall feature a suspended pedal.	
23	Cab console shall include a keyless electronic anti-theft start enabled through monitor requiring a 4-digit PIN. The anti-theft system shall prevent the operation of the OFF-RUN-START switch unless correct PIN is entered at the monitor. Start switch circuit shall include an electric fuel shutoff.	
24	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	

ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
25	Instrument panel monitor shall have LCD, analog type gauges and LED indicators to illuminate vital operating information easily at a glance. All instruments and gauges shall be lighted. Monitor shall feature ability to display stored diagnostic codes, as well as, the ability to display the readings of sensors and switches to further aid in troubleshooting problems. Audible and visual warnings shall be provided in the operator's station illuminating amber for caution and red for stop with analog gauges for engine coolant temperature, torque converter oil temperature, fuel level, hydraulic oil temperature, engine oil pressure. Digital instruments shall be provided for engine RPM, odometer, transmission gear indicator, speedometer, hour meter and charging system voltage. Operator warning lights shall be provided for check engine, engine oil pressure, engine coolant temperature, engine air filter restriction, battery voltage, parking brake on/off, low brake pressure, torque converter oil temperature, hydraulic oil filter restriction, fasten seat belt, transmission fault, hydraulic oil temperature. Indicator lights shall be provided for park brake, ride control, heated mirrors on, turn and warning signal flashers, differential lock engaged; wait to start (cold), engine preheater and work lights.	
26	Machine powertrain shall include computerized malfunction monitors with built-in diagnostics and fault code retrieval without the need for scan tools.	
27	Cab shall include one wide angle rear view mirror on the interior and one combination standard mirror with convex lens on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
28	AM/FM/WB stereo radio with CD and digital clock shall be provided.	
29	All exterior electrical connections shall be Weatherpak type sealed to prevent moisture and contaminants from entering terminals.	
30	Instrument console shall be fully adjustable forward and back to permit operator maximum comfort. Tilt steering wheel shall be provided.	
31	Cab shall have HVAC system and pressurized filtered interior atmosphere.	
32	Operator seat shall be posture-contoured heavy-duty cloth high-back with deep foam, air suspension and adjustable armrest angle, headrests and adjustable for weight/height, fore and aft position and backrest tilt and extension. Operator's seat shall include one (1) 3-inch seat belt SAE J386.	

ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
33	Roofline shall be extended slightly in front and rear to reduce sun glare. The front and rear cab glazing shall also be equipped with shade bands and front window adjustable sun visor to further help reduce glare. All glazing shall be tinted to minimize transfer of heat to cab interior. Tinting shall not violate the 35% light transmittancy laws for on-highway motor vehicles. All front glass glazing shall be safety laminated type and all side and rear glazing shall exceed or be equal to type AS2. All door glazing shall be fixed. Cab rear and side windows, including door windows shall be capable of being opened if desired. Hold open position for rear glass shall be secured from inside the cab and held in place with heavy-duty designed latches. Glazing on the rear glass shall have a two section vertically sliding capability for easy lowering and raising while performing backhoe operations	
34	Cab shall be equipped with ride-control and maximum sound suppression/reduction package.	
35	Cab interior shall be equipped with headliner, dome light and console switch, left and right cab doors, tinted safety glass, one front and one rear windshield wiper with washers, fresh air intake heater/defroster/pressurizer minimum 40,000-Btu/hr. heater and 26,000-Btu-hr. air conditioner.	
36	Defrosters shall be provided for all cab glazing including front, rear, sides.	
37	Intermittent windshield wipers and washers shall be provided on the front and rear windows.	
38	HVAC system shall be provided with a maximum amount of directional window vents in order to preclude the necessity of individually controlled variable speed 6-inch bus fans.	
39	Machines shall be equipped with vandal and theft protection including lockable engine access, fluid fill locations and toolbox. Cab doors shall be lockable from the exterior and windows shall be securable from the interior. 5/16-inch diameter shackled all keyed alike type padlocks shall be provided for all exterior access points. Successful bidder will be informed of part number for locks. Each lock shall be provided with two (2) keys.	
40	Machines shall be equipped with illuminated rear mounted license plate bracket.	
41	One (1), minimum 5-pound fire extinguisher class ABC, Ansul part number SY0517 or approved equal.	
42	One Slow Moving Vehicle (SMV) triangle shall be provided and mounted on rear of machine.	
43	All exterior compartments shall, including fluid fill points shall be lockable and be capable of swinging open for convenient accessibility. Fluid fill points shall be equipped with sight gauges to verify levels at a glance.	

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44	All grease points shall feature centralized lube banks for convenient lubrication access.	
45	Access points shall include diagnostic and fluid sampling ports for technical troubleshooting and preventive maintenance.	
46	One (1) lockable toolbox shall be mounted on machine (opposite the batteries). Toolbox shall be accessible from ground level.	
47	Front bumper shall be heavy-duty, rigid mounted. Hood shall be two-position, easy tilting for access.	
48	Backhoe shall be equipped with the extended grill frame and front grill shall be protected by trash and debris screen.	
49	Dent resistant, full coverage rear fenders shall be provided. NO FRONT FENDERS.	
50	Machine mainframe foundation shall be of one-piece unitized construction.	
51	Machine shall be equipped with cab lifting hooks and a minimum of four (4) anchoring tie down points, two (2) each, front and rear.	
52	Shift controls shall feature a neutral safety start interlock. Starter shall be equipped with a by-pass start safety cover located at the starter.	
53	Machine shall be equipped with telematics system featuring a wireless communication system for tracking location and preventive maintenance. System shall interface with existing electronic vehicle maintenance information system (MIS). System shall cover machine during the five-year term lease.	
BUCKETS, ATTACHMENTS, TIRES and WHEELS:		
1	Heavy-duty loader bucket shall be 1.30-cubic yard capacity (excluding cutting edge) and be equipped with long lip and reversible type bolt-on cutting edge, skid plates and lifting loops. Bucket width shall be approximately 86 inches weighing approximately 890-pounds.	
2	One (1) spare loader bucket reversible cutting edge per machine (1 total) shall be supplied and included with this bid.	
3	Two (2), five (5)-ton Gunnebo © weld-on hooks, part number UKN-5 shall be required, one (1) mounted on center of bucket of each machine PLUS one (1) on center of each of the six (6) hydraulic swingers as specified herein.	
4	The machine shall be equipped with WainRoy STX mechanical bucket coupler AND auxiliary hydraulic valving for WainRoy hydraulic swinger attachment. Cab controls for the swinger shall be individually available on the machine via foot pedal and capable of fine feathering hydraulic function enabling smooth control of hoe attachment(s). The required coupler on each machine shall be capable of attaching brand new and existing buckets.	

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ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
5	The machine shall be delivered and equipped with a brand new, Wain-Roy twenty-four inch (24") high-capacity, coupler-attached heavy-duty ditching bucket w/minimum of five (5) shanks and teeth with lift loops.	
6	One (1) Wain-Roy thirty-six inch (36") high capacity (SAE J/ISO 7451 @ 13.4 cubic foot), heavy-duty bucket with lift loops, six (6) pin-on teeth, weld-on shanks and heavy-duty cutting edge shall be provided for the Parks and Facilities Department.	
7	The machine shall require the installation of auxiliary hydraulic valving inclusive of any/all related controls, lines and hoses, as may be associated to operate existing County hydraulic. Installation requires "flow rating" the hydraulic control firing circuit of the machine. The installation of the hammer hydraulic circuit hoses shall include break-away type hydraulic hose connections that either disconnect, or prevent being connected in the event the dipperstick is extended. For maintenance interval purposes, hammer hydraulic circuit installation shall require a factory installed electric hammer firing pedal which shall be required to activate hour meter only when hammer is fired. Hour meter shall trigger ONLY when hammer is fired and count positive 1/10-hour increments. NOTE: Each machine shall be equipped with WainRoy STX swinger and each machine will be tested and tuned accordingly.	
8	Make _____ Model _____	
9	The existing hammers (Rammer 999) shall interchange on to/from the mechanical couplers. Couplers and hammer specified herein.	
10	The machine shall be delivered with attached 1.30 cubic yard G.P. pin-on loader bucket with bolt-on replaceable cutting edges.	
11	Four (4) tires shall be provided on multi-piece wheels. Rear tires shall be 19.5L-24, 10 PR R4; front tires shall be 12.5/80-18, 10 PR I3 Traction Sure Grip lug. Tire rubber compounding specification shall be 6S.	
12	The machine shall be equipped with new WainRoy hydraulic swinger, model STX, model number 1001941. The hydraulic system on each of the machine shall be tested and tuned to be able to attach the new swingers as desired.	
13	A total of one (1) spare front wheels and one (1) rear wheels (no tire, rim only) shall be provided. DELETED	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 5-years/unlimited-hours shall be provided.	
2	Machine shall be factory painted manufacturer's standard safety yellow.	
3	Machine shall be delivered in ready to run condition on or before January 1, 2022	

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4	Existing County-owned machines shall not be relinquished for buyback or trade until after twenty-one (21) business days immediately following delivery date of new machines. Invoicing for new machine shall NOT be dated prior to. January 2022	
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Two (2) complete operators' manuals shall be supplied with the machine.	
8	One (1) complete part manual shall be required for each machine.	
9	One (1) complete set of technical repair manuals AND Compact Disk set shall be provided. Volumes must be inclusive of all sub-systems, i.e. engine, transmission, air conditioning, hydraulic, braking, steering, etc.	
10	One (1) complete set of safety and training videos shall be required for the machine.	
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation before and after delivery of the backhoe to the County.	
12	Successful bidder shall provide for a minimum of one workday of on-site safety, maintenance and operator training at the department's location. The bidder shall make arrangements to schedule such training so as to have it coordinated with delivery.	
13	Any/all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
14	Bidders shall furnish attached to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Buildings, Grounds and Facilities Department, 1307 South Potomac Street, Hagerstown, MD, 21740	
18	Acceptance period shall be within twenty one (21) business days following a post-delivery inspection by the Purchaser.	
19	MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Fleet Administration Office of the Highway Department. Contact telephone number 240-313-2720.	

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ITEM NO. 4 One (1) Diesel Engine, Backhoe / Front End Loader		Remarks/Exceptions
20	Manufacturers Certificate of Origin (MCO) shall be assigned to "Board of Commissioners of Washington County, Maryland", 100 West Washington Street, Hagerstown, Maryland 21740-4735. The MCO/MSO shall be transferred and delivered to: Washington County Buildings, Grounds and Facilities Department, 1307 South Potomac Street, Hagerstown, MD, 21740	
BUYBACK, TRADE-IN, OF EXISTING WASHINGTON COUNTY HIGHWAY MACHINES:		
1	The following machine shall be made available for appraisal by appointment only during normal hours of operation by contacting Daniel Hixon, Deputy Director, Washington County Buildings, Grounds and Facilities Department, 1307 South Potomac Street, Hagerstown, MD 21740. Please telephone to make arrangements at (240) 313-2700. All bidders offering to bid this proposal for new machines to the County as described herein are required to bid on the following units being offered and indicate trade value on the bid form. The following machines are offered on an as-is, where-is condition completely void of any conditional guarantees or warranty expressed or implied. These machines shall not be available by the County until the new machines are placed in-service during the twenty one (21) day inspection and acceptance period immediately following the delivery date of the new machines expected to be during the month of. The used machines considered in this bid are currently under contract from a previous FY2017 guaranteed buyback bid (PUR-1327), of existing value of \$60,000.00.	
2	The WCPFD equipment identification number, year, make, model serial number and hours of the used machines are as follows. Each machine shall be equipped with one (1) WainRoy mechanical coupler and one (1) 24-inch heavy-duty, 5-tooth ditching bucket:	
a	Model year 2017, John-Deere 310SL, serial number 1T0310SLAHF310051. Machine hour meter as of August 2021 is 699	

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

REVISED - SPECIFICATIONS

ITEM NO. 5

ONE (1) DIESEL ENGINE, MULTI-TERRAIN LOADER

INTENDED USE OF EQUIPMENT: This Multi Terrain Loader is being purchased for use by the Washington County Buildings, Grounds and Facilities Department to be used for general maintenance and construction on county owned properties.

ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide one (1) Diesel Engine, multi terrain loader. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete MT Loader machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The unit shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machine is equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for completed unit shall be before January 1, 2022	
4	One (1) U.S. manufactured, current 2021 production model, multi terrain loader machine with the engine, mainframe, transmission and axles built by same manufacturer per the following specification. This machine shall be in compliance with any applicable federal, state and local requirements.	
5	Operating weight excluding additional equipment shall be approximately 10,700-pounds when equipped with 17.7-inch wide tracks. Maximum operating weight shall be 11,000-pounds and operating weight with cold planer equipment mounted shall be approximately 13,000-pounds.	
6	Machine shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	
ENGINE:		
1	Engine type shall be turbo-charged, 4-stroke, variable rpm governed, heavy-duty diesel, 4-cylinder, direct fuel injected, displacement shall be minimum 232 cubic inch.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
2	Engine oil filter shall be full-flow, vertically mounted, spin-on type.	
4	Engine shall be Tier 4 Final/Stage IV compliant and meet the latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
5	Engine rated net power shall be 95 horsepower (SAE 1349) minimum at maximum governed operating rpm. Minimum engine rated gross power shall be 98 horsepower (SAE J1995).	
6	The engine lubrication system shall be pressurized internally from the engine.	
8	Engine shall be pressure water cooled and supplied with ethylene glycol anti-freeze protection (-40 degree F) including chemical nitrate inhibitors, and sacrificial anodes incorporated within the vertically mounted spin-on filtration as required.	
9	Air cleaner shall be dual dry type element with radial seal.	
10	Engine shall be equipped with cold weather starting aid with glow plugs and glow plug activation lamp in-cab.	
11	Engine shall be equipped with 120 volt AC water jacket block heater.	
12	Engine shall have all service and check points in one location.	
13	Engine shall have cartridge type fuel filtration with water/sediment bowl and water-in-fuel sensor and be equipped with fuel shutoff and in-cab water-in-fuel warning indicator.	
14	The machine shall have an electronic torque management system that automatically destrokes the hystat pump to reduce the chance of stalling the engine during lugging.	
15	The cooling fan shall be powered by a hydraulic motor that is demand driven via an electrical solenoid based on climate and heat loads. When fan is active it shall maintain constant airflow and fan speed, especially under a load that would cause the engine to lug.	
16	The cooling system shall pull air in from the rear of the machine and exhausted through the top of the cooling package, directing it away from the operator and site bystanders.	
17	Coolant expansion/recovery reservoir shall be provided and be equipped with coolant level sight gauge.	
18	Exhaust system muffler shall be provided, mounted rear of cab either with large curved end exhaust stack facing rearward of machine (self-draining muffler with curved stack). Single exhaust outlet shall be designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine. Design shall not require use of rain cap.	
19	Engine oil drain shall be designed so as to not require removal of any external covers and/or guards in order to change or service.	
a	Exhaust flow and cooling package airflow should be mixed to reduce temperature of exhaust gases leaving the exhaust stack.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
20	Engine shall be equipped with multi-function computerized electronic system monitoring and alarm system.	
21	Engine shall feature self-diagnostics with service code display on monitor in operator's station.	
22	Engine mounts shall be rubber isolated to reduce noise and vibration.	
24	Shall be equipped with dual engine air cleaner elements, radial seal, dry-type.	
POWERTRAIN / TRANSMISSION:		
1	Two hydrostatic axial piston drive pumps shall be splined directly to the engine via a flexible coupling for maximum efficiency, reliability and serviceability and shall power the final drive motors, driving the tracks. Chain drive shall not be acceptable.	
2	Hydrostatic drive pumps shall be contained in a mono-block housing for maximum reliability and durability.	
3	The drive system shall be of an external positive drive with steel on steel contact of tooth and sprocket engagement.	
4	Hand and foot throttles shall be provided to allow the operator to match engine speed to a task. The hand throttle shall allow the operator to maintain consistent engine speed and the foot throttle shall allow the operator to vary engine speed and minimize fuel consumption.	
5	Electronic hand throttle (dial) shall be provided to allow the operator to match engine speed to a task. The hand throttle shall allow the operator to maintain consistent engine speed when desired. Hand throttle (dial) will have capability to provide 'decel' functionality when hand throttle (dial) is placed in the High Idle position.	
6	Electronic foot throttle shall be provided to allow the operator to match engine speed to a task. The foot throttle shall allow the operator to vary engine speed and minimize fuel consumption. The machine will have the capability to electronically smooth foot throttle control while operating over rough ground.	
7	An electronic torque management feature shall allow maximum power to the tracks while minimizing engine stalling.	
8	Maximum forward and reverse travel speeds shall be 9.4 mph.	
9	Machine shall have planetary gear reduction final drive with two (2) speeds.	
STEERING:		
1	The machine shall be equipped with a single, electrically operated joystick that controls the forward/reverse and steering directions.	
2	Machine shall be equipped with a selectable pattern control changer to operate in either "S" Pattern or "H" Pattern.	
3	Machine shall have an air ride seat with seat mounted / adjustable joystick controls.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
4	Machine shall be delivered with joysticks configured using an "S" control pattern.	
BRAKES:		
1	Machine shall have a spring applied, hydraulically released parking brake that shall automatically engage when arm bar is raised, and shall be designed to hold machine static at any point on a 2 to 1 slope.	
HYDRAULIC SYSTEMS:		
1	Machine shall be equipped with high flow hydraulics capable of handling cold planer attachment model PC310 rated at minimum 33 gal/min at 4,061 psig at maximum governed engine rpm.	
2	Machine shall provide minimum high flow hydraulic horsepower equivalent to 76-horsepower	
3	Machine shall provide high flow hydraulic pump flow via a load sensing piston pump.	
4	Machine shall include dual, variable-displacement, axial piston pumps driven off the engine and provide hydraulic flow to the drive motors via a closed loop system.	
5	Machine shall be equipped with abrasion resistant hoses with O-ring face seals to assure a leak free system.	
6	Standard auxiliary hydraulics to power tools shall be available through self-relieving quick connect hydraulic couplings that are rigidly mounted to the loader arm.	
7	The drive and implement/attachment hydraulic pumps shall be electrically actuated. Mechanical linkages not acceptable.	
AXLES:		
1	Machine shall have heavy duty torsion axles to suspend each side of the undercarriage from the machine frame and shall be shock absorbing.	
UNDERCARRIAGE:		
1	The track shall consist of molded rubber with embedded steel bars that span the width of the track.	
2	The track shall consist of continuous wound steel cables that provide tensile strength so that the track does not stretch.	
3	The undercarriage shall not be directly mounted to the machine frame, but shall instead be suspended via four independent torsion axles in order to minimize machine stresses and maximize traction.	
4	The undercarriage shall contain a single flange steel rear idler in order to reduce material buildup and improve clean cut.	
5	The undercarriage shall contain dual flange steel front idlers in order to provide a smoother ride.	
6	Machine shall have a minimum ground clearance 8.8-inches	

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7	Machine ground pressure shall not exceed 4.2 psi with 17.7-inch tracks.	
8	Overall length of track shall not exceed 90.0 inches	
9	Length of track on the ground shall not exceed be 71.1 inches	
10	Machine weight shall be evenly distributed across the entire width and length of the track via multiple sets of rollers to disperse pressure, and maximize traction and flotation.	
11	Undercarriage shall consist of an open design that allows easy cleaning of components.	
12	Elevated positive track shall keep drive components away from ground debris.	
OPERATOR STATION:		
1	The machine shall be equipped with deep skid-resistant, self-cleaning steps.	
2	The machine shall have no foot controls used to operate loader arm, tilt function or auxiliary hydraulics.	
3	The machine shall be equipped with high-back, heated, air-ride suspension seat with lumbar and recline adjustments.	
4	The machine must have a sealed & pressurized cab.	
5	The machine shall be equipped with both a hand and a foot throttle.	
6	The machine shall be equipped with adjustable boom / bucket response control, adjustable drive response control as well as travel speed control (creeper).	
7	The machine shall be equipped with a single, electrically operated joystick that controls the lift, lower and tilt functions.	
8	The machine shall have a retractable seat belt.	
9	The machine shall come standard with an arm bar that when lifted, automatically engages the machine parking brake for added operator comfort and safety.	
10	The machine shall be equipped with ROPS/FOPS protective structures rated to a minimum of 14,771-pounds.	
11	Cab door must be equipped with a 2 quick release handles to remove front door that require no use of tools to remove.	
12	The machine shall have a heater core rated capacity a minimum of 17,000-Btu.	
13	The machine shall have audible warning alarms for engine coolant temperature, engine oil pressure and hydraulic oil temperature.	
14	Machines shall be equipped with a hydraulic lockout mechanism that prevents loader arm movement when door in open position.	
15	Machine shall be equipped with a convex, rearview mirror for visibility to the rear and sides of the machine.	
16	Machine shall have removable side windows that require no use of tools to remove for easy cleaning.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
17	Machine shall be equipped with side windows each having two sliding panes, front and rear, to provide protection from the elements and allow fresh air ventilation.	
18	Machine shall have forward LED work lights and be adjustable to suit operator.	
19	Machine shall be equipped with a 12-volt electrical accessory socket.	
20	Air conditioning condenser shall not be mounted on any other cooling core(s).	
21	The machine shall have a 5-inch, full color, LCD display incorporating display from a color rearview camera.	
22	The machine shall have up to 50 individual security codes where the operator preferences are retained for each code. The master code provides the capability to monitor each individual code/operator for fuel usage, hours of operation, as well as events and diagnostics.	
23	Machine shall have a rear view camera with color image output to LCD display.	
24	The machine shall be equipped with speed-sensitive-ride-control, which shall engage and disengage automatically, to cushion the loader arms during carry and travel operation.	
25	Machine shall have cellular based tracking providing machine hours and machine location.	
26	Machine shall be equipped with an anti-theft security system with a 6 button keypad.	
27	Machine shall be equipped with Bluetooth capability and integral microphone with an AM/FM/Weather Band Radio with USB and auxiliary input jack.	
LOADER LINKAGES / STRUCTURES:		
1	Loader linkage design and function shall feature radial lift style.	
2	Loader linkage shall be equipped with a split style D-ring for securing work tool auxiliary hoses.	
3	Loader linkage pins shall have countersunk grease fittings to protect them from damage.	
4	The machine shall be equipped with two tilt cylinders, protected by a heavy-duty torque tube.	
5	The machine shall have a minimum tipping capacity of 9,400-pounds.	
6	Minimum rated operating capacity at 35% tipping load shall be approximately 3,300-pounds.	
7	Minimum rated operating capacity at 50% tipping load shall be approximately 4,700-pounds.	
8	Minimum rated operating capacity with counterweight shall be approximately 5,000-pounds.	
9	Minimum dump angle of machine shall be 39-degrees.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
10	Radial lift linkage shall provide visibility under the loader arm to left & right sides when bucket is in the carry position.	
11	Cantilevered pins in the loader linkage shall be forged and induction hardened, and shall be the same diameter all the way through using a flagged end to secure them to one side, allowing them to rotate in the corresponding bore.	
12	The machine shall have a maximum hinge pin height of approximately 128-inches.	
13	Maximum reach for lift and dump function shall be approximately 31-inches.	
14	Maximum clearance for lift and dump shall be approximately 96-inches.	
15	Maximum rock back angle at full height shall be 83-degrees.	
16	Maximum reach with arms parallel to the ground shall be approximately 50-inches.	
17	Minimum tilt cylinder breakout force shall be approximately 7,500-pounds.	
18	Minimum lift cylinder breakout force shall be approximately 6,100-pounds.	
19	Electronic work tool return to dig feature and electronic work tool positioner shall be provided.	
WORK TOOL OPTIONS:		
1	Machine shall have a universal coupler interface for easy work tool changing.	
2	Coupler shall have a low profile side plate design for optimum match to work tools and minimal material packing, opposing wedges to ensure a tight tool fit, large contact area to absorb loads and minimize stress, chrome plated and lubricated vertical pins for smooth engagement and prevention of corrosion.	
3	An electric quick coupler shall be available to allow engagement and disengagement of any/all work tools without needing the operator to exit the machine, i.e., utility broom, cold planer, bucket and root grapple.	
4	Machine shall be provided with self relieving auxillary quick disconnects that connect under pressure for easier connection to work tools.	
SERVICEABILITY:		
1	Maintenance points shall be grouped in easily accessible, ground level locations.	
2	The machine shall be equipped with grouped filter configuration with fuel/water separator filter and hydraulic oil filter being cartridge style.	
3	The engine shall be mounted longitudinally for convenient access.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
4	The radiator and hydraulic oil cooler shall be protected by a guard/grill which shall tilt up to gain access to the cores.	
5	The machine shall be equipped with sight gauges on the hydraulic tank and the radiator.	
6	The machine shall be equipped with standard system pressure and fluid analysis test ports.	
7	The machine shall have an electronic port allowing electronic machine diagnostics.	
8	The cab design of machine shall permit tilting to the rear by an individual using hand tools and shall expose all pumps, motors, valves and lines. Cab shall be held in place when tilted by a self-latching mechanism.	
9	Routine daily maintenance of the machine shall not lifting of the cab structure.	
10	In order to prevent damage to engine compartment components, machine shall have a vented, steel, rear door, with a bumper that slightly protrudes beyond the door,	
11	Rear door shall open 90-degrees for access to both sides of the longitudinally mounted engine.	
12	A removable belly pan section in the floor of the machine's lower frame shall be provided for periodic cleaning.	
13	All filters shall be easily accessible from the ground.	
CAPACITIES:		
1	Minimum hydraulic oil tank capacity shall be approximately 10-gallon.	
2	Hydraulic system shall hold 14 ½-gallon.	
3	Minimum fuel tank capacity shall be approximately 32-gallon.	
4	Minimum engine crankcase capacity shall be 3 ½-gallon.	
5	Minimum engine cooling system capacity shall be approximately 4-gallon.	
WORK TOOL ATTACHMENTS:		
1	The machine shall have a bolt-on tooth bar	
2	The machine shall be provided with one (1) 84-inch heavy-duty construction bucket.	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 3-years/unlimited-hours shall be provided.	
3	Machine shall be factory painted manufacturer's standard safety yellow.	
4	Machine shall be delivered in ready to run condition on or before January 1, 2022. Invoicing for new machine shall NOT be dated prior to January 2022.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Two (2) complete operator's manuals shall be supplied with the machine.	
8	One (1) complete parts manual required with the machine.	
9	One (1) complete set of technical repair manuals (or CD) shall be provided. Volumes must be inclusive of all sub-systems, i.e. engine, transmission, air conditioning, hydraulic, braking, steering, etc.	
10	One (1) complete set of safety and training videos shall be required for each machine.	
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation prior to delivery of CT loader to the County.	
12	Successful bidder shall provide a minimum of one workday of on-site safety, maintenance and operator training at the Buildings, Grounds and Facilities Department. The bidder shall make arrangements to schedule such training so as to have it coordinated with the County after delivery.	
13	Any/all attachments must be pre-approved by the machine manufacturer and the attachment manufacturer as being allied and compatible.	
14	Bidders shall attach to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Buildings, Grounds and Facilities Department, 1307 South Potomac Street, Hagerstown, MD, 21740	
18	Acceptance period shall be within 30-days following a post-delivery inspection by the Purchaser.	
19	If applicable, MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Fleet Administration Office of the Highway Department. Contact telephone number 240-313-2720.	

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ITEM NO. 5 One (1) Diesel Engine, Multi Terrain Loader (MTL)		Remarks/Exceptions
1	<p>The following machine shall be made available for appraisal by appointment only during normal hours of operation by contacting Daniel Hixon, Deputy Director, Washington County Buildings, Grounds and Facilities Department, 1307 South Potomac Street, Hagerstown, Maryland 21740. Please telephone to make arrangements at (240) 313-2700. All bidders offering to bid this proposal for new machines to the County as described herein are required to bid on the following units being offered and indicate trade value on the bid form. The following machines are offered on an as-is, where-is condition completely void of any conditional guarantees or warranty expressed or implied. These machines shall not be available by the County until the new machines are placed in-service during the twenty one (21) day inspection and acceptance period immediately following the delivery date of the new machines expected to be during the month of. The used machines considered in this bid are currently under contract from a previous FY2016 (PUR-1327)</p> <p>NOTE: Original invoicing detail dated for one (1) Multi Terrain Loader during the FY2016 5-year lease program is Alban Tractor Co. Inc.,</p>	
2	<p>The WCBGFD equipment identification number, year, make, model serial number and hours of the used machines are as follows. Each machine shall be equipped with one (1) 84-inch heavy duty construction bucket:</p>	
a	<p>Model year 2017, Caterpillar 297, serial number CAT0297DABL700311. Machine hour meter as of August 2021 is 784</p>	

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INDUSTRIAL LEASE/PURCHASE EQUIPMENT AND TRADE-IN

REVISED - SPECIFICATIONS

ITEM NO. 6

ONE (1) DIESEL ENGINE, BACKHOE / FRONT END LOADERS

INTENDED USE OF EQUIPMENT: These machines are being purchased for use by the Washington Department of Water Quality to be used for general and rural highway maintenance, construction and off highway operations.

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
GENERAL:		
1	The intent of these specifications shall cover the requirements to provide one (1) backhoe/front end loaders. Design shall use the latest technology, engineering capabilities and first quality materials. All parts not specifically mentioned, which are necessary to provide complete backhoe/loader machines shall be included in the bid and shall conform in strength, quality of material and workmanship to the same standards as what is provided the trade in general. The unit shall meet or exceed any OSHA/MOSH, Federal and State regulations and/or requirements.	
2	Bidders shall ensure machines are equipped with compatibly allied mounted hardware and attachments. Advance copy of a fully engineered machine in the form of a blueprint or elevation drawing shall be submitted with bid. Document shall illustrate all four sides including related mounted components.	
3	Deadline date for completed units shall be before January 01, 2022.	
4	One (1) U.S. manufactured, current 2022 production model, all-wheel drive, with the engine and mainframe built by same manufacturer, transmission and axles built by ZF per the following specification. These machines shall be in compliance with any applicable federal, state and local requirements.	
5	SAE operating weight configured with 19.5L-24, 10 PR R4 rear tires; 12.5/80-18, 12 PR I3 Traction Sure Grip lug front tires, 1.30-cubic yard loader bucket; 24-inch x 6.5-cubic foot backhoe bucket; cab; 175-pound operator, mechanical front wheel drive; extendable dipperstick; backhoe coupler; and three (3)** 480-pound counterweights (total 1,440-pounds) shall be approximately 19,500-pounds. **NOTE: Additional counterweights may be required on actual machine configuration detailed in this bid for mounting of existing 1,200-pound hydraulic hammer and allied mechanical quick-coupler.	
6	Machines shall be designed to adequately control all mounted and/or auxiliary equipment as specified herein.	

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
ENGINE:		
1	Engine type shall be EPA Final Tier 4, turbo-charged, 4-stroke, variable rpm governed, heavy-duty diesel, wet-sleeve lined, 4-cylinder, 2-valve per cylinder, electronically-controlled high-pressure common rail fuel system, electronic fuel injection pump, and minimum displacement of 4.5-liter. Engine electronic controls shall feature automatic derating when safe operating conditions are exceeded.	
2	Engine oil filter shall be vertically mounted, spin-on type.	
3	Turbo-charger shall be altitude compensating.	
4	Engine shall meet the latest applicable North American EPA and CARB non-road diesel engine emission regulations.	
5	Engine rated net peak power shall be 100 horsepower (ISO9249) minimum at 2,240 rpm.	
6	Minimum engine net peak torque (ISO9249) shall be 312 pounds per foot at 1,400 rpm. Net torque rise shall be 31% minimum.	
7	The engine lubrication system shall be pressurized internally from the engine with full-flow spin-on type, 10-micron rated vertically mounted oil filter.	
8	Engine shall be supplied with a heavy-duty oil-to-water oil cooler.	
9	Engine shall be pressure water cooled and supplied with ethylene glycol anti-freeze protection (-40 degree F) including chemical nitrate inhibitors and spin-on filtration as required with sacrificial anodes.	
10	Underhood pre-screened air intake shall be supplied with dual stage air cleaner, radial sealed, dry-type elements with restriction indicator for servicing. Air cleaner shall also be provided with air pre-screener and evacuator valve.	
11	Engine shall be equipped with a dealer custom installed 1,000 watt, 120 volt AC water jacket block heater kit manufactured by J. Jeb Mfg. Co., Westville, NJ, and telephone (609) 845-4455. Installation kit part number PK1212 shall be completely installed with AC shoreline receptacle located close to the left side (street side) point of cab entry in proximity of the steps. Details shall be provided to successful bidder.	
12	Engine shall have all service and check points in easily accessed locations.	
13	Engine shall have a water/sediment bowl and a spin-on type replaceable vertical filter in the fuel system. Equipped with electric fuel shutoff, fuel/water separator and visual sediment bowl. 10-micron primary fuel filter shall be quick release, dual stage type equipped with primer pump and 2-micron secondary fuel filter.	
14	Fuel consumption for various duty-cycles shall be expected to range from 1.3 to 2.3 gallon per hour.	

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ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
15	All cooling system components, including radiator and fan, shall be heavy-duty designed for high ambient conditions. Fan shall be electronically controlled, variable-rate, suction type and radiator construction shall include minimum seven fins-per-inch and fan-guard.	
16	Coolant recovery reservoir shall be provided.	
17	Exhaust system muffler shall be provided, mounted under hood with large, curved end exhaust stack facing side of machine (self-draining muffler with curved stack). Chrome exhaust outlet shall be designed to prevent rain and snow ingestions and route exhaust emissions upward away from ground level away from the machine.	
18	Engine oil drain shall be designed environmentally friendly so as to not require removal of any external covers and/or guards in order to change or service.	
19	Engine shall be equipped with multi-function computerized electronic system monitoring and alarm system.	
20	Engine shall feature self-diagnostics with Diagnostic Trouble Code (DTC) and full text in display screen of monitor in operator's station.	
21	Engine mounts shall be rubber isolated to reduce noise and vibration.	
22	Electronically controlled, variable-rate suction type cooling fan with automatic tensioner and safety fan guard. Engine accessory drive belt shall be serpentine with automatic tensioner or heavy-duty industrial v-belt(s).	
23	Engine shall be equipped with electronic fuel lift pump.	
24	Self-cleaning exhaust aftertreatment system shall be provided.	
TRANSMISSION, FINAL DRIVES, STEERING and BRAKES:		
1	Transmission type shall be a hydraulically actuated; full-power-shift, electrically activated twist grip F-N-R for clutch-less shifting 1st through 5th gears. Auto shift from 4 th to 5 th .	
2	Transmission shall provide a minimum of 5-speeds forward and 3-speeds reverse.	
3	Transmission range selection interface shall provide range selection under any power condition by steering column mounted F-N-R shift lever. Shift control shall be electronically modulated, adaptive, load and speed dependent.	
4	Shift controls shall feature a neutral safety start interlock and electric clutch cutoff. Loader lever shall also include an electric clutch cutoff.	
5	Desirable minimum travel speeds with 19.5L-24 rear tires and autoshift transmission shall be Gear 1 forward @ 3.4-mph/reverse @ 4.2-mph, Gear 2 forward @ 6.2-mph/reverse @ 7.8-mph, Gear 3 forward @ 12.7-mph/reverse @ 12.6-mph, Gear 4 forward @ 23.1-mph, Gear 5 forward @ 24.9-mph. Autoshift shall be switchable On/Off with Powershift functioning when off.	
6	Transmission shall feature self-diagnostics with service code display on monitor in operator's station.	

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7	Parking/Emergency brake shall be spring applied, hydraulically released by electrical on/off switch and conform to SAE J1473/ISO 3450. The electrically switched Park/Emergency brake system shall be spring applied, hydraulically released, wet, multi-disc, independent of service brakes.	
8	Mechanical front wheel drive (MFWD) axle shall be automatic with limited-slip traction control and be equipped with guard. MFWD and rear axle shall be heavy-duty, outboard planetary final drive designed to distribute shock loads over 3 gears.	
9	Service brake system design shall feature power assisted hydraulic conforming to SAE J1473/ISO 3450: mounted inboard, wet disc, self-adjusting and self-equalizing.	
10	Brakes pedals shall be foot operated, individually or simultaneously. A provision to mechanically lock/latch pedals together for roading shall be required.	
11	Rear axle shall include foot actuated, hydraulic engaged 100% mechanical locking with limited slip function. Front axle shall include limited slip function. Loader shall feature operator-controlled "on-the-go" differential lock/unlock foot pedal activation.	
12	Transmission shall be equipped with side frame guards and bottom guards shall be provided on the front frame and transmission.	
13	Steering shall be (ISO5010) controlled hydrostatically with an emergency manual steering mode.	
14	Maximum curb-turning radius shall be 12-foot with brakes and 14-foot without brakes.	
15	Maximum bucket-clearance circle shall be 34-foot with brakes and 37-foot without brakes.	
16	Steering wheel turns (lock to lock) shall not exceed 2.7 times.	
17	Machine shall be Four Wheel Drive (4WD) with front axle drive being a fully sealed mechanical-front-wheel drive with limited slip differential and electric on/off control equipped with MFWD driveshaft guard. Machines shall be equipped with driveline trash guards.	
18	Rear wheels shall be installed with spacers permitting the use of tire chains.	
19	Front axle weight rating minimum shall be 12,100-pound SAE J43, 54,000-pound static, 19,800-pound dynamic and 87,100-pound ultimate. Stop-to-stop oscillation shall be 22-degrees.	
20	Rear axle weight rating minimum shall be 15,400-pound SAE J43, 58,400-pound static, 22,000-pound dynamic and 91,500-pound ultimate.	
21	Torque converter shall be single stage, dual phase with 2.63:1 stall ratio, 11-inch diameter.	
COOLING SYSTEM:		
1	Cooling system shall be heavy-duty designed with high ambient cooling capability.	

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ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
2	Cooling system shall be proportionally controlled (cools on demand).	
3	Engine radiator core shall be constructed with approximately 7.5-fins per inch of core.	
4	Engine oil to water cooler shall be integrally designed.	
5	Cooling system capacity shall be minimum 29-quart.	
6	Coolant recovery reservoir shall be provided with low level indicator.	
7	Cooling system shall incorporate heavy-duty transmission oil cooler.	
REFILL CAPACITIES (U.S.):		
1	Minimum diesel fuel tank capacity shall be 34-gallon (with ground level fueling capability).	
2	Hydraulic system capacity shall be approximately 34-gallon including 12-gallon reservoir.	
3	Engine oil system, including vertical full-flow spin-on filter shall be approximately fourteen (14) quart.	
4	Torque converter and transmission shall be approximately sixteen (16) quart.	
5	Mechanical-front-wheel-drive-axle shall be approximately seven (7) quart. Left and right planetaries shall be approximately one (1) quart each.	
6	Rear axle shall be approximately nineteen (19) quart.	
7	Diesel exhaust fluid (DEF) tank shall be approximately four (4) gallon.	
HYDRAULIC SYSTEM:		
1	Tandem mounted main gear pump for steering and hydraulic systems shall be open center, gear type with unloader.	
2	Minimum flow at 2,200-rpm shall be minimum 36-gallon per minute for backhoe/28-gpm for loader with pressure relief @ approximately 3,600-psi.	
3	Backhoe hydraulics shall include a 6-function (5 function with flow control) valve section and pilot-operated levers (joysticks) configurable for SAE excavator, John-Deere, Case patterns via changeable/selectable valve control patterns. Loader controls shall be via a single lever with return-to-dig, 2-function hydraulic valve section. Controls shall be ergonomically cab mounted for operator within the cab. Pilot towers shall be provided and pivot for operator control. Console shall be designed to include a convenient method to swivel seat position from backhoe to loader when desiring to move machine forward or backward when desired.	
4	Hydraulic system shall be equipped with an independent/dedicated hydraulic reservoir and swing-down hydraulic oil cooler.	
5	All hydraulic hose connections shall utilize the "O" ring faced seal connections. Multiple hose connections shall be appropriately mounted on a bulkhead.	

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ITEM NO. 6		Remarks/Exceptions
One (1) Diesel Engine, Backhoe / Front End Loaders		
6	One (1) 6-micron vertical spin-on hydraulic oil filter shall be provided.	
7	Hydraulic reservoir shall feature sight gauge for determining fluid level.	
8	All hydraulic system hoses shall be specifically engineered and manufactured for high abrasion resistance, excellent flexibility and easy installation. Hoses shall provide extended life, less downtime and reduced operating costs. Backhoe hydraulic hoses shall be routed in a manner to permit replacement of any single hose without the need to remove others for access. All related auxiliary hydraulic hoses and related plumbing and electrical systems must be securely mounted throughout the machine and boom to preclude hose and/or wire chaffing, stretching, snagging, bunching, festooning, etc.	
MACHINE CYLINDERS:		
1	Hydraulic cylinder type shall be heat-treated, chrome-plated, polished rods; hardened-steel (replaceable bushings) pivot pins. The following double-acting hydraulic cylinders shall be required with the basic minimum bore/stroke and rod diameter: a. Two (2) loader boom cylinders 3.15" x 31.1" x 1.97", b. One (1) loader bucket cylinder 3.54" x 29.29" x 1.97", c. One (1) backhoe boom cylinder 4.72" x 31.3" x 2.20", d. One (1) crowd cylinder 4.53" x 23.72" x 2.48", e. One (1) heavy-duty backhoe bucket cylinder 3.94" x 31.89" x 2.48", f. Two (2) backhoe swing cylinders 3.54" x 10.94" x 1.97", g. One (1) extendable dipperstick cylinder 2.76" x 41.8" x 1.57", h. Two (2) longer length backhoe stabilizer cylinders 3.94" x 19.69" x 1.97", i. One (1) mechanical front wheel drive steering cylinder 2.56" x 8.27" x 1.57".	
BACKHOE -- PERFORMANCE, DIMENSIONS & ATTACHMENTS:		
1	Bucket range shall be 12-30 inches.	
2	Digging force with heavy-duty bucket cylinder shall be approximately 15,000-pounds.	
3	Digging force of crowd cylinder shall be approximately 8,000-pounds.	
4	Backhoe swing arc shall be 180-degrees and bucket rotation shall be approximately 180-degrees.	
5	The following backhoe specifications are with an extendible dipperstick configured with a 24-inch x 7.5-cubic foot bucket:	
a	Loading height (truck loading position) shall be a maximum of 13-feet 8-inch extended, 11-feet 8-inches retracted.	
b	Reach from center of swing pivot shall be a maximum of 21-foot 9-inch extended, 18-feet 5-inches retracted. Machine shall feature hydraulic circuit mechanisms to prevent backhoe from wavering while digging trenches.	
c	Reach from center of rear axle shall be a maximum of 25-foot 2-inches extended, 21-foot 11-inch retracted.	

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d	Maximum (SAE) digging depth shall be approximately 18-foot 2-inches extended, 14-foot 8-inches retracted. Digging depth (SAE) with 24-inch flat bottom bucket shall be 18 foot extended, 14-foot 7-inches retracted.	
e	Minimum ground clearance shall be 13-inches.	
f	Maximum transport height shall be 11-foot 6-inches.	
g	Maximum overall transport length shall be 23-foot 11-inches	
h	Maximum stabilizer width (transport) shall be 7-foot 2-inches	
i	Maximum stabilizer spread (operating) with longer length stabilizers shall be 11-foot 4-inches.	
j	Maximum overall stabilizer width (operating) with longer length stabilizers shall be 13-foot 3-inches.	
k	Maximum width over tires, including wheel spacers for tire chains, shall be 90-inches.	
l	Maximum height to top of ROPS/cab shall be 9-foot 2-inches.	
m	Maximum length from front and rear axle centerlines shall be approximately 86-inches.	
n	Backhoe boom up/down shall include a lock lever and boom swing shall be equipped with a removable lock pin for securing in transport duty. Lock lever and pin shall be controlled/removed from inside cab. Cab shall have a storage pocket for pin inside cab.	
o	Backhoe shall be equipped with a stabilizer valve containing two-direction anti-drift valves.	
p	Stabilizer cylinders and hydraulic hoses shall be protected with cylinder guards. Stabilizer pads shall be pivotable with reversible dirt cleats and street rubber pads.	
q	Each machine shall be equipped with an extendible dipperstick outer box design that is greaseless and extension shall be approximately 3-foot 6-inches. Extendable dipperstick shall feature hydraulic plumbing for selective flow. Dipperstick extension/retraction shall be via a cab floor mounted right foot-pedal and associated hydraulic circuitry.	
r	Backhoe shall be equipped with longer length stabilizers fitted with pin lock reversible pads. Stabilizers shall also be equipped with cylinder guards (set of two).	
s	Backhoe boom guard shall be provided with a bolt-on protection plate.	

LOADER -- DIMENSIONS, PERFORMANCE:

1	Minimum loader breakout force shall be approximately 10,400-pounds.	
2	Minimum loader full height lifting capacity shall be approximately 7,000-pounds.	
3	Maximum loader height to bucket hinge pin shall be 11-foot 4-inches.	
4	Minimum dump clearance with bucket at 45-degree angle shall be 8-foot 8-inches.	
5	Minimum reach at full height with bucket at 45-degree angle shall be 32-inches.	

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6	Minimum digging depth below ground with bucket level shall be approximately 3-inches.	
7	Maximum length from front axle centerline to bucket cutting edge shall be 83-inches.	
8	Maximum length of time to raise bucket to full height shall be 5.0-seconds.	
9	Maximum time to dump bucket contents shall be approximately 1.0-second.	
10	Maximum length of time to lower loader bucket to ground shall be 2.0-seconds.	
11	Loader circuit shall be hydraulically self-leveling and feature return-to-dig function and bucket level indicator.	
12	Loader control shall be via a single lever control with electric clutch cutoff.	
13	Loader boom lock shall be furnished with each machine.	
14	Loader/Backhoe shall be equipped with ride control.	
15	Maximum bucket dump angle shall be 45-degrees.	
16	Maximum rollback angle at ground level shall be 40-degrees. System shall incorporate anti-spill (rollback).	
17	Loaders arms shall be highly visible.	
LIGHTING, ELECTRICAL, INSTRUMENTS, CAB, OPERATOR'S STATION, EXTERIOR COMPARTMENTS:		
1	12-volt electrical system shall be equipped with two (2) high-capacity batteries, 12-volt (parallel system) with 900/1,800 CCA, 180/360-minutes rated reserve. Positive battery terminals shall be covered and insulated for protection of accidental short.	
2	One (1) dual battery master electrical disconnect with remote jump posts shall be provided.	
3	Electrical distribution center shall incorporate circuit board technology, solid state switching and blade-type multi-fused circuits.	
4	One (1) high capacity alternator, minimum 150-amps, 12-volt DC shall be provided.	
5	All lighting and/or reflectors shall comply with SAE 99 and any applicable DOT and state of Maryland laws regarding vehicle lighting (driving type with guards / turn signals and 4-way flashers / stop, tail and license plate).	
6	LED designed stop, heavy-duty marker lamps, tail, turn, 4-way warning (turn and four-way located front and rear) shall be provided. Two (2) front, two (2) rear turn signal/flashing, two (2) rear stop and tail, two (2) reflectors.	

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7	Lighting package shall include the maximum work/driving lamp package requiring a minimum of four (4) LED lamps each at top of cab facing forward “driving/working” and four (4) LED rear of machine “working” and two (2) LED “docking” on each side of cab, ten (10) total. Minimum intensity of each LED lamp shall be approximately 32,000-candlepower.	
8	Exterior cab shall be designed to include the maximum package of auxiliary LED work lighting to maximize visibility during inclement weather emergency operations.	
9	Cab/canopy exterior lighting shall incorporate roof mounted modular and weather sealed LED amber mini lightbars at four (4) locations. The lightbar lamp group shall supplement the LED flush-mounted light group combination required for marker/clearance/stop/tail/turn signal and tag lamps. Lamp locations shall be roof mounted on the edges of canopy surrounding cab. Amber strobe locations of upper canopy shall be one (1) each on front and rear and one (1) on each side on outermost roof edges. Lighting shall be SoundOff Signal®, nROADS™ LED mini-size amber lightbar 17.2-inches x 7.95-inches x 2.83-inches, six (6) amber lamps, single color, one (1) amp per lightbar. All four (4) mini-size lightbar assemblies shall be controlled by one factory control switch inside cab. Lights mounted on cab/canopy shall be visible with work light circuit activated. Lamp flashing and mounting(s) shall not reflect into either rear view mirrors or cause operator distraction due to reflectivity inside cab. Exact detail shall be discussed with successful bidder.	
10	Cab shall be factory pre-wired to connect amber LED lightbars. Rocker switch type control shall be mounted inside cab at operator side console and shall be used to supply control circuit feed for LED lightbar circuit. Switch shall be appropriately re-labeled.	
11	Cab and operator station shall be modular in design including ROPS/FOPS conforming to SAE J1040, isolation mounted with molded roof and include a full headliner with maximum soundproof/reduction qualities.	
12	Operator's station shall be fully enclosed cab accessible from both the left and right sides.	
13	Entrance into operator's station shall be via 3-point contact, slip resistant steps and ergonomically located handholds (conform to SAE J185).	
14	Cab shall feature storage space for a Thermos-bottle size beverage holder, cooler and a minimum of three (3) 20-amp 12vDC fused female power tap ports, i.e., cigarette lighter [2-cab, 1 canopy] for supplying power for portable devices such as cell-phone, etc. with USB adapter.	
15	Heavy-duty black synthetic oil-resistant floor mat shall be provided.	

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
16	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	
17	A minimum of one coat hook shall be provided for operator convenience.	
18	Cab shall include one wide angle rear view mirror on the interior and one combination standard rear view mirror/convex combination lens one (1) each on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
19	One (1) electric city horn shall be provided and mounted center of steering wheel OR console mounted minimum SAE J994 and J1446 standards. Steering wheel shall have a textured grip and include a spinner knob. Steering wheel turns stop to stop shall be completed in no more than 2.5 turns.	
20	One (1) reverse (backup) warning alarm meeting SAE J994, J1446 standards.	
21	Hand throttle shall be supplied and feature a fuel-economy setting at approximately 2,100-rpm. Throttle lock shall be provided for long term constant engine RPM.	
22	Throttle pedal design shall feature a suspended pedal.	
23	Cab console shall include a keyless electronic anti-theft start enabled through monitor requiring a 4-digit PIN via a sealed switch module. The anti-theft system shall prevent the operation of the OFF-RUN-START switch unless correct PIN is entered at the monitor. Start switch circuit shall include an electric fuel shutoff.	
24	A storage compartment for daily inspection logs shall be provided inside cab. Operator Manual shall be permanently attached to a vinyl protected cable tether and be mounted within convenient reach of seated operator with seat height configured either at either the highest or lowest vertical position or the most forward or rearward position	
25	Cab shall be factory pre-wired with a 12-volt power, 30-amp with fused circuitry for County installed two-way radio. Radio installation shall be performed by the County. Radio mounting location will be overhead of the operator's seat on the headliner.	
26	Overhead storage including headliner shall include space required to mount County supplied two-way radio.	

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
27	Instrument panel monitor shall have LCD, analog type gauges and LED indicators to illuminate vital operating information easily at a glance. All instruments and gauges shall be lighted. Monitor shall feature ability to display stored diagnostic codes, as well as the ability to display the readings of sensors and switches via 4-push button/LCD operator interface to further aid in troubleshooting problems. Audible and visual warnings shall be provided in the operator's station illuminating amber for caution and red for stop with analog gauges for engine coolant temperature, torque converter/transmission fluid temperature, fuel level, hydraulic oil temperature, hydraulic oil restriction, engine oil pressure, engine air restriction, exhaust aftertreatment temperature, Digital instruments shall be provided for engine RPM, odometer, transmission gear indicator, speedometer, hour meter and charging system voltage. Operator warning lights shall be provided for check engine, engine oil pressure, engine coolant temperature, engine air filter restriction, battery voltage, parking brake on/off, low brake pressure, diesel exhaust fluid (DEF) concentration sensor, torque converter oil temperature, hydraulic oil filter restriction, fasten seat belt, transmission fault, hydraulic oil temperature. Indicator lights shall be provided for park brake on/off, ride control, heated mirrors on, turn and warning signal flashers, differential lock engaged; wait to start (cold), engine preheat grid and work lights.	
28	Machine powertrain shall include computerized malfunction monitors with built-in diagnostics and fault code retrieval without the need for scan tools.	
29	Cab shall include one wide angle rear view mirror on the interior and one combination standard mirror with convex lens on the exterior right and left upper sides of the cab. Meeting SAE J985. Exterior mirrors shall be heated with control on switch console.	
30	AM/FM/WB stereo radio with CD and digital clock shall be provided.	
31	All exterior electrical connections shall be Weatherpak type sealed to prevent moisture and contaminants from entering terminals.	
32	Instrument console shall be fully adjustable forward and back to permit operator maximum comfort. Tilt steering wheel shall be provided.	
33	Cab shall have HVAC system and pressurized filtered interior atmosphere.	
34	Operator seat shall be posture-contoured heavy-duty cloth high-back with deep foam, heated seat, air suspension and adjustable armrest angle, headrests and adjustable for weight/height, fore and aft position and backrest tilt and extension. Operator's seat shall include one (1) 3-inch seat belt SAE J386.	

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
35	Roofline shall be extended slightly in front and rear to reduce sun glare. The front and rear cab glazing shall also be equipped with shade bands and front window adjustable sun visor to further help reduce glare. All glazing shall be tinted to minimize transfer of heat to cab interior. Tinting shall not violate the 35% light transmittancy laws for on-highway motor vehicles. All front glass glazing shall be safety laminated type and all side and rear glazing shall exceed or be equal to type AS2. All door glazing shall be fixed. Cab rear and side windows, including door windows shall be capable of being opened if desired. Hold open position for rear glass shall be secured from inside the cab and held in place with heavy-duty designed latches. Glazing on the rear glass shall have a two section vertically sliding capability for easy lowering and raising while performing backhoe operations	
36	Cab shall be equipped with ride-control and maximum sound suppression/reduction package.	
37	Cab interior shall be equipped with headliner, dome light and console switch, left and right cab doors, tinted safety glass, one front and one rear windshield wiper with washers, fresh air intake heater/ defroster/ pressurizer minimum 40,000-Btu/hr heater and 26,000-Btu-hr. air conditioner.	
38	Defrosters shall be provided for all cab glazing including front, rear, sides.	
39	Intermittent windshield wipers and washers shall be provided on the front and rear windows.	
40	HVAC system shall be provided with a maximum amount of directional window vents in order to preclude the necessity of individually controlled variable speed 6-inch bus fans.	
41	Machines shall be equipped with vandal and theft protection including lockable engine access, fluid fill locations and tool box. Cab doors shall be lockable from the exterior and windows shall be securable from the interior. 5/16-inch diameter shackled all keyed alike type padlocks shall be provided for all exterior access points. Successful bidder will be informed of part number for locks. Each lock shall be provided with two (2) keys.	
42	Machines shall be equipped with illuminated rear mounted license plate bracket.	
43	One (1), minimum 5-pound fire extinguisher class ABC, Ansul part number SY0517 or approved equal.	
44	One Slow Moving Vehicle (SMV) triangle shall be provided and mounted on rear of machine.	
45	All exterior compartments shall, including fluid fill points shall be lockable and be capable of swinging open for convenient accessibility. Fluid fill points shall be equipped with sight gauges to verify levels at a glance.	

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46	All grease points shall feature centralized lube banks for convenient lubrication access.	
47	Access points shall include diagnostic and fluid sampling ports for technical troubleshooting and preventive maintenance.	
48	One (1) lockable toolbox with padlock hasp shall be mounted on machine (opposite the batteries). Toolbox shall be accessible from ground level.	
49	Front bumper shall be heavy-duty, rigid mounted. Hood shall be two-position, easy tilting for access.	
50	Backhoe shall be equipped with the extended grill frame and front grill shall be protected by trash and debris screen.	
51	Dent resistant, full coverage rear fenders shall be provided. NO FRONT FENDERS.	
52	Machine mainframe foundation shall be of one-piece unitized construction.	
53	Machine shall be equipped with cab lifting hooks and a minimum of four (4) anchoring tie down points, two (2) each, front and rear.	
54	Shift controls shall feature a neutral safety start interlock. Starter shall be equipped with a by-pass start safety cover located at the starter.	
55	Machine shall be equipped with telematics system featuring a wireless communication system for tracking location and preventive maintenance. System shall interface with existing electronic vehicle maintenance information system (MIS). System shall cover machine during the five-year term lease.	
BUCKETS, ATTACHMENTS, TIRES and WHEELS:		
1	Heavy-duty loader bucket shall be 1.00-cubic yard capacity (excluding cutting edge) and be equipped with long lip and reversible type bolt-on cutting edge, skid plates and lifting loops. Bucket width shall be approximately 86 inches weighing approximately 890-pounds.	
2	One (1) spare loader bucket reversible cutting edge per machine (1 total) Shall be supplied and included with this bid.	
3	Two (2), five (5)-ton Gunnebo © weld-on hooks, part number UKN-5 shall be required, one (1) mounted on center of bucket of each machine PLUS one (1) on center of hydraulic swingers as specified herein.	
4	Each machine shall be equipped with new WainRoy STX mechanical bucket coupler AND auxiliary hydraulic valving for WainRoy hydraulic swinger attachment. Cab controls for the swinger shall be individually available on a one (1) machine via foot pedal and capable of fine feathering hydraulic function enabling smooth control of hoe attachment(s). The required coupler on each machine shall be capable of attaching brand new and existing buckets.	

ITEM NO. 6 One (1) Diesel Engine, Backhoe / Front End Loaders		Remarks/Exceptions
5	Each machine shall be delivered and equipped with one (1) brand new, Wain-Roy twenty-four inch (24") high-capacity, coupler-attached heavy-duty ditching bucket w/minimum of five (5) shanks and teeth with lift loops.	
6	In addition to the WainRoy STX mechanical bucket coupler, a WainRoy universal rigid coupler shall be provided to fit existing old and new style backhoe buckets, e.g., the county bought WainRoy couplers model 1001940 in 2017 because all existing county buckets did not fit the STX coupler.	
7	Machines shall be equipped with hydraulic thumb adapted for length extension to operate over coupler. Thumb stow/deploy actuation shall be controlled from inside cab at backhoe controls.	
8	Each backhoe shall require the installation of auxiliary hydraulic valving inclusive of any/all related controls, lines and hoses, as may be associated to operate one (1) existing county hydraulic hammers. Installation of any/all hydraulic hammers (new and existing) specified herein requires "flow rating" the hydraulic control firing circuit of all backhoes in this bid. The installation of the hammer hydraulic circuit hoses shall include break-away type hydraulic hose connections that either disconnect or prevent being connected in the event the dipperstick is extended. For maintenance interval purposes, hammer hydraulic circuit installation shall require a factory installed electric hammer firing pedal which shall be required to activate hour meter only when hammer is fired. Hour meter shall trigger ONLY when hammer is fired and count positive 1/10-hour increments. NOTE: Each machine shall also be equipped with band new WainRoy STX hydraulic swinger including a mechanical locking kit. Each machine will be tested and tuned accordingly.	
9	The existing county hammers shall interchange on to/from the mechanical couplers on any of the backhoes in this bid.	
10	All machines shall be delivered with attached 1.00 cubic yard pin-on loader bucket with bolt-on replaceable cutting edges.	
11	All machines shall be equipped with new WainRoy hydraulic swinger, model STX, model number 1001941 with mechanical locking kit. The hydraulic system on the one (1) machine shall be tested and tuned to be able to attach the new swingers as desired.	
SPECIAL PROVISIONS:		
1	A minimum full-machine warranty term for 5-years/2,000-hours shall be provided.	
2	Machine shall be factory painted manufacturer's standard safety yellow.	
3	Machine shall be delivered in ready to run condition on or before January 01, 2022.	

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4	Existing County-owned machines shall not be relinquished for buyback or trade until after twenty-one (21) business days immediately following delivery date of new machines. Invoicing for new machines shall NOT be dated prior to January 2022.	
5	All equipment must be factory installed unless approved by the County. Further, all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
6	All specifications are based on the machine in operating condition.	
7	Two (2) total complete Operators Manuals shall be supplied.	
8	One (1) total complete parts manual or CD, DVD shall be required.	
9	One (1) total complete technical repair manual and/or Compact Disk and/or DVD set shall be provided. Volumes must be inclusive of all sub-systems, i.e. engine, transmission, air conditioning, hydraulic, braking, steering, etc.	
10	One (1) total complete set of safety and training videos shall be required.	
11	Operator and technician training/orientation shall be provided at the convenience of the County. Bidder shall coordinate the training/orientation before and after delivery of backhoes to the County.	
12	Successful bidder shall provide for each location a minimum of one workday of on-site safety, maintenance and operator training at four (4) separate locations. The bidder shall make arrangements to schedule such training so as to have it coordinated with delivery.	
13	Any/all attachments that require County approval must be pre-approved by the machine manufacturer as being allied and compatible.	
14	Bidders shall furnish attached to the proposal a complete set of descriptive literature and specifications of the equipment upon which the bid is based.	
15	All welding shall be performed according to applicable AWS standards and/or the American Society of Mechanical Engineers standards and be accomplished with certified welders in possession of valid certification.	
16	Machine shall be delivered void of any advertising placards, stickers, and dealer logo.	
17	Delivery: The equipment shall be delivered F.O.B. Destination, and delivery cost and charges included in the bid. Also, the invoice shall be submitted to the following address: Washington County Department of Water Quality, 16232 Elliott Parkway Williamsport, MD, 21795	
18	Acceptance period shall be within twenty-one (21) business days following a post-delivery inspection by the Purchaser.	
19	MVA titling, registration and/or special mobile equipment requirements, if any, shall be processed by the Washington County Department of Water Quality, 16232 Elliott Parkway Williamsport, MD, 21795. Contact telephone number 240-313-2652.	

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20	Manufacturers Certificate of Origin (MCO) shall be assigned to "Board of Commissioners of Washington County, Maryland", 100 West Washington Street, Hagerstown, Maryland 21740-4735. The MCO/MSO shall be transferred and delivered to: Washington County Department of Water Quality, 16232 Elliott Parkway Williamsport, MD, 21795	
BUYBACK, TRADE-IN, OF EXISTING WASHINGTON COUNTY HIGHWAY MACHINES:		
1	The following machines shall be made available for appraisal by appointment only during normal hours of operation by contacting Scott Hose, Maintenance Superintendent, Washington County Department of Water Quality, 16232 Elliott Parkway, Williamsport, MD 21795. Please telephone to make arrangements at (240)-313-2652. All bidders offering to bid this proposal for new machines to the County as described herein are required to bid on the following units being offered and indicate trade value on the bid form. The following machines are offered on an as-is, where-is condition completely void of any conditional guarantees or warranty expressed or implied. These machines shall not be available by the County until the new machines are placed in-service during the twenty-one (21) day inspection and acceptance period immediately following the delivery date of the new machines expected to be during the month of January 2022. The used machines considered in this bid were included in a contract from a prior bid award in FY2017 (PUR-1327) with guaranteed buyback amount at \$59,000.00-each.	
2	The WCDWQ equipment identification numbers, year, make, model serial number and hours of the used machines are as follows. Each machine shall be equipped with one (1) WainRoy mechanical coupler, one (1) hydraulic swinger and one (1) 24-inch heavy-duty, 5-tooth ditching bucket:	
a	Model year 2017, John-Deere 310SL, serial number 1T031SLHHF309940. Machine hour meter as of 11 Aug 2021 is 1,621.	

POLICY TITLE: Insurance Requirements for Independent Contractors

ADOPTION DATE: August 29, 1989

EFFECTIVE DATE: September 1, 1989

FILING INSTRUCTIONS: _____

I. PURPOSE

To protect Washington County against liability, loss or expense due to damaged property, injury to or death of any person or persons and for care and loss of services arising in any way, out of, or in connection with or resulting from the work or service performed on behalf of Washington County.

II. ACTION

The following should be inserted in all Independent Contractor Contracts:

"The Contractor shall procure and maintain at his sole expense and until final acceptance of the work by the County, insurance as hereinafter enumerated in policies written by insurance companies admitted in the State of Maryland, have A.M. Best rating of A- or better or its equivalent, and acceptable to the County."

1. **Workers Compensation:** The Contractor agrees to comply with Workers Compensation laws of the State of Maryland and to maintain a Workers Compensation and Employers Liability Policy.

Minimum Limits Required:

Workers Compensation - Statutory
Employers' Liability - \$100,000 (Each Accident)
\$500,000 (Disease - Policy Limit)
\$100,000 (Disease - Each Employee)

2. **Comprehensive General Liability Insurance:** The Contractor shall provide Comprehensive General Liability including Products and Completed Operations.

Minimum Limits Required:

\$1,000,000 combined single limit for Bodily Injury and Property Damage.

Such insurance shall protect the County, its agents, elected and appointed officials, commission members and employees, and name Washington County on the policy as additional insured against liability, loss or expense due to damaged property (including loss of use), injury to or death of any person or persons and for care and loss of services arising in any way, out of, or in connection with or resulting from the work of service performed on behalf of Washington County.

2. **Comprehensive General Liability Insurance** (continued)

The Contractor is ultimately responsible that Subcontractors, if subcontracting is authorized, procure and maintain at their sole expense and until final acceptance of the work by the County, insurance as hereinafter enumerated in policies written by insurance companies admitted in the State of Maryland, have A.M. Best rating of A- or better or its equivalent, and acceptable to the County.

3. **Business Automobile Liability:** The Contractor shall provide Business Auto Liability including coverage for all leased, owned, non-owned and hired vehicles.

Minimum Limits Required:

\$1,000,000 combined single limit for Bodily Injury or Property Damage.

Certificate(s) of Insurance: The Contractor shall provide certificates of insurance requiring a 30 day notice of cancellation to the Insurance Department, Board of County Commissioners of Washington County prior to the start of the applicable project.

Approval of the insurance by the County shall not in any way relieve or decrease the liability of the Contractor. It is expressly understood that the County does not in any way represent that the specified limits of liability or coverage or policy forms are sufficient or adequate to protect the interest or liabilities of the Contractor.

All responsibility for payment of any sums resulting from any deductible provisions, corridor, or self-insured retention conditions of the policy or policies shall remain with the Contractor.

General Indemnity: The Contractor shall indemnify, defend and save harmless the Board of County Commissioners of Washington County, its appointed or elected officials, commission members, employees and agents for any and all suits, legal actions, administrative proceedings, claims, demands, damages, liabilities, interest, attorneys fees, costs and expenses of whatsoever kind of nature, whether arising before or after final acceptance and in any manner directly or indirectly caused, occasioned or contributed to in whole or in part by reason of any act, error or omission, fault or negligence whether active or passive by the Contractor, or any one acting under its direction, control or on its behalf in connection with or incident to its performance of the Contract.

Revision Date: August 27, 1991

Effective Date: August 27, 1991

Revision Date: March 4, 1997

Effective Date: March 4, 1997

**BOARD OF COUNTY COMMISSIONERS
OF WASHINGTON COUNTY, MARYLAND
WASHINGTON COUNTY PURCHASING DEPARTMENT**

PROVISIONS FOR OTHER AGENCIES

All items, conditions and pricing shall be made available to the entities listed below if authorized by the Bidder. Authorization is to be indicated by a check mark in the appropriate column. A negative reply will not adversely affect consideration of the bid. Any jurisdiction using this contract shall place its own order with the successful Bidder(s). There is no obligation on the lead jurisdiction for agreements made with other jurisdictions.

<u>YES</u>	<u>NO</u>	<u>JURISDICTION</u>
_____	_____	WASHINGTON COUNTY PUBLIC SCHOOLS
_____	_____	WASHINGTON COUNTY HEALTH DEPARTMENT
_____	_____	OTHER WASHINGTON COUNTY MUNICIPALITIES
_____	_____	HAGERSTOWN COMMUNITY COLLEGE
_____	_____	CITY OF HAGERSTOWN
_____	_____	FREDERICK COUNTY COMMISSIONERS
_____	_____	OTHER FREDERICK COUNTY MUNICIPALITIES
_____	_____	ALLEGANY COUNTY COMMISSIONERS
_____	_____	BOARD OF EDUCATION OF ALLEGANY COUNTY
_____	_____	OTHER ALLEGANY COUNTY MUNICIPALITIES
_____	_____	ALLEGANY COMMUNITY COLLEGE
_____	_____	CITY OF FROSTBURG
_____	_____	CITY OF CUMBERLAND
_____	_____	GARRETT COUNTY - GENERAL SERVICES
_____	_____	BOARD OF EDUCATION OF GARRETT COUNTY
_____	_____	OTHER GARRETT COUNTY MUNICIPALITIES
_____	_____	GARRETT COUNTY COMMUNITY COLLEGE
_____	_____	WASHINGTON COUNTY VOLUNTEER FIRE & RESCUE COMPANIES

REVISED Provisions for other Agencies (Revised 8/30/2021 via Addendum No. 1)

Industrial Equipment Lease/Purchase and Trade-In

PUR-1514

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Bidder's Name

SIGNATURE TO BIDS

NOTE: Bidders shall use this page as a cover page when submitting his/her bid.

Each bid must show the full business address and telephone number of the Bidder and be signed by the person legally authorized to sign contracts. All correspondence concerning the bid and contract, including notice of award, copy of contract and purchase order, will be mailed or delivered to the address shown on the bid in the absence of written instructions from the Bidder to the contrary. Bids by partnerships must be signed in the partnership name by one of the members of the partnership or by an authorized representative, followed by the signature and designation of the person signing, who shall also state the names of the individuals composing the partnership. Bids by corporations must be signed with the name of the corporation, followed by the signature and designation of the officer having authority to sign. When requested, satisfactory evidence of authority of the officer signing in behalf of the corporation shall be furnished. Anyone signing the bid as agent shall file satisfactory evidence of his/her authority to do so.

All documents, materials, or data developed as a result of this contract are the County's property. The County has the right to use and reproduce any documents, materials, and data, including confidential information, used in or developed as a result of this contract. The County may use this information for its own purposes or use it for reporting to Federal agencies. The Bidder warrants that it has title to or right of use of all documents, materials, or data used or developed in connection with this contract. The Bidder must keep confidential all documents, materials, and data prepared or developed by the Bidder or supplied by the County. All erasures and/or changes shall be initialed by the individual making modifications to the proposal.

BIDDER MUST SIGN HERE AND RETURN THIS PAGE AND THE PROPOSAL FORM IN ADDITION TO SUBMITTING ANY DOCUMENTS CALLED FOR BY THE GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS, SPECIFICATIONS, AND ANY OTHER DOCUMENTS HEREIN CONTAINED.

By signing here, Bidder does hereby attest that he/she has read fully the general conditions and instructions, specifications, and any other documents herein contained, and does understand them and will furnish and deliver all labor and materials in accordance with the specifications for the price as listed on the proposal form.

Bidder acknowledges receipt of Addenda by initialing the following:

Addendum No. 1 _____ Addendum No. 2 _____ Addendum No. 3 _____
Addendum No. 4 _____ Addendum No. 5 _____ Addendum No. 6 _____

AFFIRMATION REGARDING COLLUSION

I AFFIRM THAT:

Neither I nor, to the best of my knowledge, information, and belief, the below stated business has:

REVISED Signature to Bids (Revised 8/30/2021 via Addendum No. 1)

Industrial Equipment Lease/Purchase and Trade-In

PUR-1514

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Bidder's Name

- (a) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;
- (b) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the Bidder or Offeror or of any competitor, or otherwise taken any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted.

AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM:

Neither I nor, to the best of my knowledge, information, and belief, the below business (as is defined in Section 16-101 (b) of the State Finance and Procurement Article of the Annotated Code of Maryland), or any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies (as is defined in Section 16-101(f) of the State Finance and Procurement Article of the Annotated Code of Maryland), has been convicted of, or has had probation before judgment imposed pursuant to Criminal Procedure Article, Section 6-220 of the Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other State or federal law, except as follows (indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the business):

BIDDER'S COMPANY/FIRM: _____

ADDRESS: _____

AUTHORIZED SIGNATURE: _____

NAME AND TITLE PRINTED: _____

TELEPHONE & FAX NUMBER: _____

E-MAIL ADDRESS: _____

STATE DEPARTMENT OF ASSESSMENTS AND TAXATION (SDAT) NO. _____

DATE: _____ FEDERAL EMPLOYER'S IDENTIFICATION NO. _____

For Informational Purposes Only: Has your company/firm been certified by the State of Maryland as a Minority Business Enterprise? (Please check below.)

_____ Yes _____ No

REVISED Signature to Bids (Revised 8/30/2021 via Addendum No. 1)

Industrial Equipment Lease/Purchase and Trade-In

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Bidder's Name

PUR-1514
Industrial Equipment Lease and Trade In

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 1A

**THREE (3) DIESEL ENGINE, BACKHOE / FRONT END LOADERS WITH THUMB, equipped
without radial tires, with hydraulics to re-use existing hammers and hydraulic swingers,
mechanical couplers.**

1. Total Price of Straight Purchase *(per Unit with No Annual Lease)*

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for Three (3) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for Three (3) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:
- a. Within two (2) years from date of acceptance:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
- b. Within three (3) years from date of acceptance:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
- c. Within four (4) years from date of acceptance:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
- d. Within five (5) years from date of acceptance:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
8. Adjusted Bids:
- Bid per Unit (Item No. 3 above):
- _____ DOLLARS (\$ _____)
(Written) (Figures)
- Plus Total Cost of Repairs (No. 6 above) per Unit:
- _____ DOLLARS (\$ _____)
(Written) (Figures)
- Less Repurchase (No. 7.d. above) per Unit
- _____ DOLLARS (\$ _____)
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for Four (3) Units (Item No. 5 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus total cost of repairs (No. 6 above x Three (3) Units):

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above x Three (3) Units):

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid for Three (3) Units:

_____ DOLLARS (\$) _____
(Written) (Figures)

TRADE-INS -

1. Trade-In - 772099c, 2017, John-Deere **310SL**, serial number 1T0310SLCHF309818

_____ DOLLARS (\$) _____
(Written) (Figures)

2. Trade-In - 772100w, 2017, John-Deere **310SL**, serial number 1T0310SLJHF309946

_____ DOLLARS (\$) _____
(Written) (Figures)

3. Trade-In - 772101e, 2017, John-Deere 310SL, serial number 1TO310SLCHF309950

_____ DOLLARS (\$) _____
(Written) (Figures)

TOTAL OF ABOVE THREE (3) TRADE-INS:

_____ DOLLARS (\$) _____
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$ _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS:

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 1B

TWO (2) DIESEL ENGINE, BACKHOE / FRONT END LOADERS with THUMB, equipped with radial tires, with hydraulics to re-use existing hammers and hydraulic swingers, mechanical couplers.

1. Total Price of Straight Purchase (*per Unit with No Annual Lease*)

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for Two (2) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for Two (2) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:

_____ DOLLARS (\$ _____)
(Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for Four (2) Units (Item No. 5 above):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x Two (2) Units):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x Two (2) Units):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Total Adjusted Bid for Two (2) Units:

_____ DOLLARS (\$) _____)
(Written) (Figures)

TRADE-INS -

1. Trade-In – 772102s, 2017, John-Deere 310SL, serial number 1T0310SLKHF309962

_____ DOLLARS (\$) _____)
(Written) (Figures)

2. Trade-In – 772103c, 2017, John-Deere 310SL, serial number 1T0310SLPHF309975

_____ DOLLARS (\$) _____)
(Written) (Figures)

TOTAL OF ABOVE TWO (2) TRADE-INS:

_____ DOLLARS (\$) _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$) _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS: _____

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 1C

ONE (1) DIESEL ENGINE, BACKHOE / FRONT END LOADER without THUMB without radial tires with auger hydraulics, with NEW hammer, hydraulic swinger and mechanical couplers.

1. Total Price of Straight Purchase (*per Unit with No Annual Lease*)

_____ DOLLARS (\$) _____
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$) _____
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

4. Annual Lease/Purchase Payment for One (1) Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for One (1) Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:

_____ DOLLARS (\$) _____
(Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$ _____)
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$ _____)
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$ _____)
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$ _____)
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$ _____)
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

9. Adjusted Bids:

Total Bid for One (1) Unit (Item No. 5 above):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Total Adjusted Bid for One (1) Unit:

_____ DOLLARS (\$) _____)
(Written) (Figures)

TRADE-IN -

1. Trade-In – 772104w, 2017, John-Deere 310SL, serial number 1T0310SLCHF309981

_____ DOLLARS (\$) _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS: _____

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 2A
**FIVE (5) DIESEL ENGINE, RUBBER TIRED WHEEL LOADERS w/o HENKE DOZER
BLADE, w/ THIRD FUNCTION HYDRAULICS**

1. Total Price of Straight Purchase: *(per Unit with No Annual Lease)*
_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:
_____ DOLLARS (\$ _____)
(Written) (Figures)
 - a. Vendor shall state Lease Fixed Interest Rate:
_____ PERCENT (_____ %)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-Year Period per Unit:
_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for Five (5) Units:
_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for Five (5) Units:
_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:
_____ DOLLARS (\$ _____)
(Written) (Figures)

7. **Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:**

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____)
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____)
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____)
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____)
(Written) (Figures)

8. **Adjusted Bids:**

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____)
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____)
(Written) (Figures)

9. Adjusted Bids:

Total Bid for Five (5) Units (Item No. 5 above):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x Five (5) Units):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x Five (5) Units):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Total Adjusted Bid for Five (5) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

TRADE-INS -

1. Trade-In -- 762093w, 2017, John-Deere 624K-II, serial number 1DW624KZLHF679962

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Trade-In -- 762094w, 2017, John-Deere 624K-II, serial number 1DW624KZCHF679973

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Trade-In -- 762095e, 2017, John-Deere 624K-II, serial number 1DW624KZAHF679975

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Trade-In -- 762096s, 2017, John-Deere 624K-II, serial number 1DW624KZHFF679977

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Trade-In -- 762097c, 2017, John-Deere 624K-II, serial number 1DW624KZPHF680018

_____ DOLLARS (\$ _____)
(Written) (Figures)

TOTAL OF ABOVE Five (5) TRADE-INS:

_____ DOLLARS _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$) _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS: _____

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 2B

**ONE (1) DIESEL ENGINE, RUBBER TIRED WHEEL LOADER w/ THIRD FUNCTION
HYDRAULICS, w/ HENKE DOZER BLADE**

1. Total Price of Straight Purchase: *(per Unit with No Annual Lease)*
_____ DOLLARS (\$) _____
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:
_____ DOLLARS (\$) _____
(Written) (Figures)
 - a. Vendor shall state Lease Fixed Interest Rate:
_____ PERCENT (_____ %)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-Year Period per Unit:
_____ DOLLARS (\$) _____
(Written) (Figures)

4. Annual Lease/Purchase Payment for One (1) Unit:
_____ DOLLARS (\$) _____
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for One (1) Unit:
_____ DOLLARS (\$) _____
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:
_____ DOLLARS (\$) _____
(Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for One (1) Unit (Item No. 5 above):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Total Adjusted Bid for One (1) Unit:

_____ DOLLARS (\$) _____)
(Written) (Figures)

TRADE-IN -

1. Trade-In -- 762098c, 2017, John-Deere 624K-II, serial number 1DW624KZTHF680020

_____ DOLLARS (\$) _____)
(Written) (Figures)

TOTAL OF ABOVE ONE (1) TRADE-IN:

_____ DOLLARS (\$) _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$) _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

DELIVERY DATE: _____

REMARKS/EXCEPTIONS: _____

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 3
TWO (2) DIESEL ENGINE, MINI HYDRAULIC EXCAVATORS

1. Total Price of Straight Purchase: *(per Unit with No Annual Lease)*

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ PERCENT (_____ %)
(Written) (Figures)

3. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for Two (2) Units:

_____ DOLLARS (\$ _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$ _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS: _____

**PUR-1514
INDUSTRIAL EQUIPMENT**

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 4
ONE (1) DIESEL ENGINE, BACKHOE/FRONT END LOADER

1. Total Price of Straight Purchase (*per Unit with No Annual Lease*)

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:

_____ DOLLARS (\$ _____)
(Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for Four (1) Units (Item No. 5 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus total cost of repairs (No. 6 above x One (1) Unit):

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above x One (1) Unit):

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid for One (1) Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

TRADE-INS -

- 1. Trade-In -John-Deere 310SL, serial number 1T0310SLAHF310051.

_____ DOLLARS (\$) _____
(Written) (Figures)

TOTAL OF ABOVE One (1) TRADE-INS:

_____ DOLLARS (\$) _____
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$) _____
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS:

PUR-1514
WASHINGTON COUNTY BUILDINGS, GROUNDS AND FACILITIES DEPARTMENT

REVISED – FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 5
ONE (1) DIESEL ENGINE, MULTI-TERRAIN LOADER

1. Total Price of Straight Purchase *(per Unit with No Annual Lease)*

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:

_____ DOLLARS (\$ _____)
(Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for Four (1) Units (Item No. 5 above):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x One (1) Unit):

_____ DOLLARS (\$) _____)
(Written) (Figures)

Total Adjusted Bid for One (1) Unit:

_____ DOLLARS (\$) _____)
(Written) (Figures)

TRADE-IN -

1. Trade-In – Caterpillar 297, serial number **CAT0297DABL700311**.

_____ DOLLARS (\$) _____)
(Written) (Figures)

TOTAL OF ABOVE One (1) TRADE-INS:

_____ DOLLARS (\$) _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$) _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS:

PUR-1514
Industrial Equipment Lease and Trade In

REVISED - FORM OF PROPOSAL
(Complete & Return with Scope of Work / Specifications)

ITEM NO. 6

One (1) DIESEL ENGINE, BACKHOE / FRONT END LOADER WITH THUMB, equipped w/o radial tires, w/ hydraulics to re-use existing hammers and hydraulic swingers, mechanical couplers.

1. Total Price of Straight Purchase *(per Unit with No Annual Lease)*

_____ DOLLARS (\$ _____)
(Written) (Figures)

2. Annual Lease/Purchase Payment per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

a. Vendor shall state Lease Fixed Interest Rate:

_____ DOLLARS (\$ _____)
(Written) (Figures)

3. Total Annual Lease/Purchase Cost Over a Five-year Period per Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

4. Annual Lease/Purchase Payment for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

5. Total Annual Lease/Purchase Cost Over a Five-Year Period for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

6. Guaranteed Total Cost of repairs for 2,000 hours or five (5) years per unit at:

_____ DOLLARS (\$ _____)
Written) (Figures)

7. Repurchase Price for which bidders will buy back, for five (5) years the equipment offered, per unit:

a. Within two (2) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

b. Within three (3) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

c. Within four (4) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

d. Within five (5) years from date of acceptance:

_____ DOLLARS (\$) _____
(Written) (Figures)

8. Adjusted Bids:

Bid per Unit (Item No. 3 above):

_____ DOLLARS (\$) _____
(Written) (Figures)

Plus Total Cost of Repairs (No. 6 above) per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

Less Repurchase (No. 7.d. above) per Unit

_____ DOLLARS (\$) _____
(Written) (Figures)

Total Adjusted Bid per Unit:

_____ DOLLARS (\$) _____
(Written) (Figures)

9. Adjusted Bids:

Total Bid for one (1) Units (Item No. 5 above):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Plus total cost of repairs (No. 6 above x One (1) Unit):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Less Repurchase (No. 7.d. above x One (1) Unit):

_____ DOLLARS (\$ _____)
(Written) (Figures)

Total Adjusted Bid for One (1) Unit:

_____ DOLLARS (\$ _____)
(Written) (Figures)

TRADE-INS -

1. Trade-In - 2017, John-Deere 310Sl, serial number 1T0310SLHHF309940

_____ DOLLARS (\$ _____)
(Written) (Figures)

TOTAL OF ABOVE One (1) Units TRADE-INS:

_____ DOLLARS (\$ _____)
(Written) (Figures)

SEPARATE PRICE FOR PERFORMANCE/PAYMENT BOND, PER UNIT, IF REQUIRED:

_____ DOLLARS (\$ _____)
(Written) (Figures)

DELIVERY DATE: _____

STATE WARRANTY: _____

REMARKS/EXCEPTIONS: _____
