

Gary Quinn, Director Gerry P. Little, Deputy Director Virginia E. Haines, Commissioner John P. Kelly, Commissioner Joseph H. Vicari, Commissioner

Michael J. Fiure, Director, Management & Budget Jennifer L. Bowens, Purchasing Agent

County of Ocean Administration Building 101 Hooper Avenue Toms River, NJ 08754

BID

MOTOR VEHICLES: TRIAXLE DUMP AND TRACTOR TRUCKS

2021

ADVERTISEMENT DATE: October 6, 2021 OPENING: October 26, 2021, 11:00 am

Bid Category: 04- Automotive Products, Vehicles and Services

NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that sealed bids for the furnishing and delivery of MOTOR VEHICLES: TRIAXLE DUMP AND TRACTOR TRUCKS for the County of Ocean, will be received by the Purchasing Agent of the County of Ocean on Tuesday, October 26, 2021 at 11:00 am, prevailing time.

Bids may be received electronically via the <u>County's ProcureNow Electronic Bid Portal</u> (https://secure.procurenow.com/portal/oceancounty/)

Specifications and form of proposal are on the <u>Procurement Portal (Link Below)</u> or available for viewing in the Department of Purchase, Room #224, Administration Building, 101 Hooper Avenue, Toms River, New Jersey. Direct all inquiries to Jennifer L. Bowens, Purchasing Agent.

Bidders are required to comply with the requirements of N.J.S.A. 10:5-31 et seq. and P.L. 1975 C. 127 (N.J.A.C. 17:27-1 et seq.) regarding equal employment opportunities and with the requirements of P.L. 1977 C.33 regarding corporate and/or partnership ownership.

Electronic Submission Site: https://secure.procurenow.com/portal/oceancounty/

The right to reject any and all bids is reserved in accordance with applicable law.

By order of the Board of Commissioners of the County of Ocean.

Signed:

GARY QUINN, Director

JENNIFER L. BOWENS, Purchasing Agent

CONTACT INFORMATION AND PROJECT TIMELINE

Summary

The purpose of this bid package is to provide the County of Ocean with a Contractor who will supply the materials or services described and specified herein.

Contact Information

For further information regarding these specifications, contact

Brian W. McCarthy

Director

Email: ocpurchasing@co.ocean.nj.us

Phone: (732) 349-4579

Department: Purchasing

Timeline

Advertising Date	October 6, 2021
Bid Opening Date	October 26, 2021, 11:00am Administration Building, 101 Hooper Ave., Room 119, Toms River, NJ, 08753

IMPORTANT INSTRUCTIONS FOR ELECTRONIC SUBMITTAL

Instructions for Electronic Bid Submission

The County is accepting electronic bid submissions with ProcureNow by following these instructions:

Sign up for a FREE account at https://secure.procurenow.com/signup.

Once you have completed account registration, browse back to this page, https://secure.procurenow.com/portal/oceancounty.

Click on the bid of interest, then click "Draft Response".

Follow the instructions to submit the electronic bid.

It is important to note that this process should be completed well in advance of the bid deadline / bid opening. DO NOT WAIT UNTIL THE LAST MINUTE. The County's electronic submission system will not allow electronic bids to be submitted once the deadline has passed, even if you've already started the process. The deadline is based on the countdown timer found on the ProcureNow bid submission page.

INSTRUCTIONS TO BIDDERS

Bid Opening

All bids will be opened publicly in the Administration Building, Room 119, 101 Hooper Avenue, Toms River, New Jersey, commencing at 11:00 am, prevailing time on Tuesday, October 26, 2021.

Electronic Bid Submissions

Bids must be submitted electronically through Ocean County's Procurement Portal by the date and time stipulated in the Notice to Bidders.

Deadline Instructions

The County will not be responsible for late bids, and no bids will be accepted if received after the time stipulated in the notice to bidders.

Completion of all Documents

Bidders shall complete all documents and acknowledge all terms included with the bid package. All documents should be from this bid package and must not be dated or executed prior to the date of advertising. Failure to follow these instructions is cause for rejection.

Right to Reject

The County reserves the right to reject all bids in accordance with N.J.S.A. 40A:11-13.2, to waive any informalities in the bid and to accept the lowest responsible bid in accordance with applicable law.

Bidder Default

In case of default by the bidder or contractor, the County of Ocean may procure the articles or services from other sources and hold the bidder or contractor responsible for any excess cost occasioned thereby.

Indemnity

The bidder, if awarded a contract, agrees to protect, defend and save harmless the County against any damage for payment for the use of any patented material process, article or device that may enter into the manufacture, construction or form a part of the work covered by either order or contract, and he further agrees to indemnify and save harmless the County from suits or actions of every nature and description brought against it, for, or on account of injuries or damages received or sustained by any party or parties by, or from any of the negligent acts of the contractor, his servants or agents.

Specifications

It is to be understood by the bidder that this bid is submitted on the basis of specifications prepared by the County and the fact that any bidder is not familiar with these specifications or conditions will not be accepted as an excuse.

Bid Security

NO BID SECURITY

Performance Bond

NO PERFORMANCE BOND

Pricing Proposal

Bidders must use the pricing proposal provided in the bid specifications. Failure to use the pricing proposal in the bid specifications shall be cause for rejection of the bid.

Pricing

Insert prices for furnishing all of the material and/or labor described or required. Prices shall be net, including any charges for packing, crating, containers, etc. and all transportation charges fully prepaid by the contractor F.O.B. destination and placement at locations specified by the County. No additional charges will be allowed for any transportation costs resulting from partial shipments made at the vendor's convenience when a single shipment is ordered.

Payment

Payments will be made upon the approval of vouchers submitted by the successful bidders in accordance with the requirements of the Board of Commissioners and subject to the Board of Commissioners customary procedures. The County will not pay interest or late fees regardless of language provided.

Discrepancy in Pricing

In the event that there is a discrepancy between the unit prices and the extended totals, the unit prices shall prevail. In the event there is an error of the summation of the extended totals, the computation by the OWNER of the extended totals shall govern.

Award Timeframe

Award will be made by Ocean County Board of Commissioners within sixty (60) days after receipt of bids.

Equal or Tie Bids

The County of Ocean reserves the right to award at their discretion to any one of the tie bidders where it is most advantageous for the County to do so, pursuant to N.J.S.A. 40A:11-6.1.

Tax Exempt

The County of Ocean is exempt from any State sales tax or Federal excise tax.

Equivalent Product

For purpose of evaluation where an equivalent product is being furnished, bidder must indicate any variation to our specifications no matter how slight. If no variations are indicated, it will be construed that the bid fully complies with our specifications.

Quantities

Quantities shown are approximate and the County reserves the right to decrease or omit quantities. The County will not consider minimums placed on order quantities. The County also reserves the right to increase quantities to twenty (20) percent of the maximum quantities listed at the unit price bid, in accordance with N.J.A.C. 5:30-11.3.

Delivery of Goods and Services

Delivery shall be made upon receipt of a Purchase Order issued by the Ocean County Department of Purchase, upon which delivery locations and needed quantities shall be indicated.

American Goods and Products

All contractors must comply with the provisions of New Jersey Statute Title 40A:11-18, when applicable.

Assignment

This agreement shall not be assigned without the written consent of the County of Ocean.

NJ One Call

By presenting a bid, contractor declares that he is aware of and, if required, will comply with the requirements of the "Underground Facility Protection Act (Public Law 1994, Chapter 118)" prior to commencing any intended excavation. The telephone number to call is 1-800-272-1000.

Public Works Contractor Registration Act, N.J.S.A. 34:11-56.48 et seq

The bidder must comply with the provisions of "The Public Works Contractor Registration Act", if applicable.

- All named contractors must be registered with the Department of Labor and Workforce Development pursuant to the Public Works Contractor Registration Act at the time the proposal is received, or the proposal will be determined to be non-responsive.
- Any non-listed contractor must be registered with the Department of Labor and Workforce Development prior to physically starting work. It is the responsibility of the General Contractor to insure that all non-listed sub-contractors comply.
- Contractors are encouraged to submit their and all named sub-contractors' Public Works Contractor Registration Certificates with the bid.

Prevailing Wage & Labor Laws

The New Jersey Prevailing Wage Act (P.L. 1963, Chapter 150) and provisions of the State Labor Laws must be complied with by the successful bidder, if applicable. The current Prevailing Wage Rates can be found online at https://lwdwebpt.dol.state.nj.us/archivewages/210152831-ocean-7-28-20.pdf

Special Surety Bid Requirements for Certain Construction Projects

The attention of the bidder is called to the provisions of N.J.S.A. 2A:44-143 which requires that the County of Ocean shall only accept performance and payment bonds from surety companies meeting the requirements of that statute. The bidder shall deliver with its bid a Consent of Surety. The Bidder's Surety Company shall complete the "Certificate of Surety Company" which bidder shall submit with its bid.

New Jersey Business Registration Requirements

Pursuant to N.J.S.A. 52:32-44, Ocean County ("Contracting Agency") is prohibited from entering into a contract with an entity unless the bidder/proposer/contractor, and each subcontractor that is required by law to be named in a bid/proposal/contract has a valid Business Registration Certificate on file with the Division of Revenue and Enterprise Services within the Department of the Treasury.

Prior to contract award or authorization, the contractor shall provide the Contracting Agency with its proof of business registration and that of any named subcontractor(s).

Subcontractors named in a bid or other proposal shall provide proof of business registration to the bidder, who in turn, shall provide it to the Contracting Agency prior to the time a contract, purchase order, or other contracting document is awarded or authorized.

During the course of contract performance:

- (1) the contractor shall not enter into a contract with a subcontractor unless the subcontractor first provides the contractor with a valid proof of business registration.
- (2) the contractor shall maintain and submit to the Contracting Agency a list of subcontractors and their addresses that may be updated from time to time.
- (3) the contractor and any subcontractor providing goods or performing services under the contract, and each of their affiliates, shall collect and remit to the Director of the Division of Taxation in the Department of the Treasury, the use tax due pursuant to the Sales and Use Tax Act, (N.J.S.A. 54:32B-1 et seq.) on all sales of tangible personal property delivered into the State. Any questions in this regard can be directed to the Division of Taxation at (609)292-6400. Form NJ-REG can be filed online at http://www.state.nj.us/treasury/revenue/busregcert.shtml.

Before final payment is made under the contract, the contractor shall submit to the Contracting Agency a complete and accurate list of all subcontractors used and their addresses.

Pursuant to N.J.S.A. 54:49-4.1, a business organization that fails to provide a copy of a business registration as required, or that provides false business registration information, shall be liable

for a penalty of \$25 for each day of violation, not to exceed \$50,000, for each proof of business registration not properly provided under a contract with a contracting agency.

Pay to Play Requirements

Starting in January 2007, all business entities are advised of their responsibility to file an annual disclosure statement of political contributions with the New Jersey Election Law Enforcement Commission (ELEC) pursuant to N.J.S.A. 19:44A-20.27 if they receive contracts in excess of \$50,000 from public entities in a calendar year. Business entities are responsible for determining if filing is necessary. Additional information on this requirement is available from ELEC at 888-313-3532 or at www.elec.state.nj.us.

Statement of Ownership

The provisions of N.J.S.A. 52:25-24.2 applies to all forms of corporations and partnerships, including, but not limited to, limited partnerships, limited liability corporations, limited liability partnerships, and Subchapter S corporations.

Certification of Non-Involvement in Prohibited Activities in Iran

Certification of Non-Involvement in Prohibited Activities in Iran. Pursuant to N.J.S.A. 52:32-58, the proposer must certify that neither the proposer, nor one of its parents, subsidiaries, and/or affiliates (as defined in N.J.S.A. 52:32-56(e)(3)), is listed on the Department of the Treasury's List of Persons or Entities Engaging in Prohibited Investment Activities in Iran and that neither is involved in any of the investment activities set forth in N.J.S.A. 52:32-56(f). If the proposer is unable to so certify, the proposer shall provide a detailed and precise description of such activities. Prior to contract award or authorization, the contractor shall provide the Contracting Agency with a completed Certification on Non-Involvement in Prohibited Activities in Iran.

Insurance Requirements

The contractor shall maintain primary insurance to protect against all claims under Workmen's Compensation, Comprehensive General Liability and Automobile. Except for Workmen's Compensation, all coverage shall apply as primary coverage with respect to any other insurance or self-insurance program afforded to the County. There shall be no endorsement or modification of this coverage to make it excess over other available insurance/coverage; alternatively, if the CGL and umbrella, excess of reinsurance states that it is pro rata, it shall be endorsed to be primary with respect to the County. Primary Coverage shall be subject to approval for adequacy of protection as per the following limits:

Worker's Compensation

- 1. Limits according to Worker's compensation Laws of the State of New Jersey.
- 2. Contractor's Liability not less than \$100,000.

Comprehensive General Liability

- 1. Bodily Injury \$500,000 per person; \$1,000,000 per occurrence.
- 2. Property Damage \$1,000,000 per occurrence.

Comprehensive General Liability Details

Comprehensive Automobile Liability shall include the following:

Business auto liability insurance or its equivalent with a minimum limit of \$1,000,000 per accident and including coverage for all of the following:

- A. Liability arising out of the ownership, maintenance or use of any auto;
- B. Auto non-ownership and hired car coverage.
- C. Contractor's Worker's Compensation, Comprehensive General Liability and
- D. Comprehensive Automobile Liability arising out of subcontractor's operations shall be identical as that listed above.

Proof of Insurance

Copies of each insurance certificate shall be furnished to the County when requested.

County Cooperative Contract Purchasing System

The County has established a "COUNTY COOPERATIVE CONTRACT PURCHASING SYSTEM" pursuant to N.J.S.A. 40a:11-1 et seq...

The IDENTIFIER for this system is:

CK-02-OC

This system allows local government contracting entities located within the geographical boundaries of the County to purchase goods and services awarded as a result of this bid proposal if it is extended by the low bidder.

Goods and services must be made available without substitution or deviation from specifications, size, features, quality, price or availability as herein set forth. It is understood that orders, if any, will be placed directly by contracting units, subject to the overall terms of the contract to be awarded by the County of Ocean.

The estimated quantities listed in this specification reflect only the needs of the agencies under the direct control of the Ocean County Board of Commissioners. If the vendor chooses to extend the resulting contract to all other contracting units, the quantities could be higher.

Please check ($\sqrt{\ }$) the YES or NO box in the Vendor Questionnaire to indicate whether or not you will extend contract prices to all contracting units.

AWARD METHOD

Contract will be awarded on a lump sum by item basis.

MANDATORY EQUAL EMPLOYMENT OPPORTUNITY

N.J.S.A. 10:5-31 et seq. (P.L. 1975, C. 127)

N.J.A.C. 17:27

GOODS, PROFESSIONAL SERVICE AND GENERAL SERVICE CONTRACTS

During the performance of this contract, the contractor agrees as follows:

The contractor or subcontractor, where applicable, will not discriminate against any employee or applicant for employment because of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Except with respect to affectional or sexual orientation and gender identity or expression, the contractor will ensure that equal employment opportunity is afforded to such applicants in recruitment and employment, and that employees are treated during employment, without regard to their age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex. Such equal employment opportunity shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the Public Agency Compliance Officer setting forth provisions of this nondiscrimination clause.

The contractor or subcontractor, where applicable will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex.

The contractor or subcontractor will send to each labor union, with which it has a collective bargaining agreement, a notice, to be provided by the agency contracting officer, advising the labor union of the contractor's commitments under this chapter and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

The contractor or subcontractor, where applicable, agrees to comply with any regulations promulgated by the Treasurer pursuant to N.J.S.A. 10:5-31 et seq., as amended and supplemented from time to time and the Americans with Disabilities Act.

The contractor or subcontractor agrees to make good faith efforts to meet targeted county employment goals established in accordance with N.J.A.C. 17:27-5.2.

The contractor or subcontractor agrees to inform in writing its appropriate recruitment agencies including, but not limited to, employment agencies, placement bureaus, colleges, universities, and labor unions, that it does not discriminate on the basis of age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, and that it will discontinue the use of any recruitment agency which engages in direct or indirect discriminatory practices.

The contractor or subcontractor agrees to revise any of its testing procedures, if necessary, to assure that all personnel testing conforms with the principles of job-related testing, as established by the statutes and court decisions of the State of New Jersey and as established by applicable Federal law and applicable Federal court decisions.

In conforming with the targeted employment goals, the contractor or subcontractor agrees to review all procedures relating to transfer, upgrading, downgrading and layoff to ensure that all such actions are taken without regard to age, race, creed, color, national origin, ancestry, marital status, affectional or sexual orientation, gender identity or expression, disability, nationality or sex, consistent with the statutes and court decisions of the State of New Jersey, and applicable Federal law and applicable Federal court decisions.

The contractor shall submit to the public agency, after notification of award but prior to execution of a goods and services contract, one of the following three documents:

- Letter of Federal Affirmative Action Plan Approval
- Certificate of Employee Information Report
- Employee Information Report Form AA302 (electronically provided by the Division and distributed to the public agency through the Division's website at www.state.nj.us/treasury/contract_compliance)

The contractor and its subcontractors shall furnish such reports or other documents to the Division of Purchase & Property, CCAU, EEO Monitoring Program as may be requested by the office from time to time in order to carry out the purposes of these regulations, and public agencies shall furnish such information as may be requested by the Division of Purchase & Property, CCAU, EEO Monitoring Program for conducting a compliance investigation pursuant to **Subchapter 10 of the Administrative Code at N.J.A.C. 17:27**.

AMERICANS WITH DISABILITIES ACT

Equal Opportunity For Individuals With Disabilities

The CONTRACTOR and the COUNTY do hereby agree that the provisions of title II of the Americans with Disabilities Act of 1990 (the "Act") (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability by public entities in all services, programs and activities provided or made available by public entities, and the rules and regulations promulgated pursuant thereunto, are made a part of this contract. In providing any aid, benefit, or service on behalf of the COUNTY pursuant to this contract, the CONTRACTOR agrees that the performance shall be in strict compliance with the Act. In the event that the CONTRACTOR, its agents, servants, employees, or subcontractors violate or are alleged to have violated the Act during the performance of this contract, the CONTRACTOR shall defend the COUNTY in any action or administrative proceeding commenced pursuant to this Act. The CONTRACTOR shall indemnify, protect and save harmless the COUNTY, its agents, servants and employees from and against any and all suits, claims, losses, demands, or damages of whatever kind or nature arising out of or claimed to arise out of the alleged violation. The CONTRACTOR shall, at its own expense, appear, defend and pay any and all charges for legal services and any and all costs and other expenses arising from such action or administrative proceeding or incurred in connection therewith. In any and all complaints brought pursuant to the COUNTY'S grievance procedure, the CONTRACTOR agrees to abide by any decision of the COUNTY which is rendered pursuant to said grievance procedure. If any action or administrative proceeding results in an award of damages against the COUNTY or if the COUNTY incurs any expense to cure a violation of the ADA which has been brought pursuant to its grievance procedure, the CONTRACTOR shall satisfy and discharge the same at its own expense.

The COUNTY shall, as soon as practicable after a claim has been made against it, give written notice thereof to the CONTRACTOR along with full and complete particulars of the claim. If any action or administrative proceeding is brought against the COUNTY or any of its agents, servants and employees, the COUNTY shall expeditiously forward or have forwarded to the CONTRACTOR every demand, complaint, notice, summons, pleading, or other process received by the COUNTY or its representatives.

It is expressly agreed and understood that any approval by the COUNTY of the services provided by the CONTRACTOR pursuant to this contract will not relieve the CONTRACTOR of the obligation to comply with the Act and to defend, indemnify, protect and save harmless the COUNTY pursuant to this paragraph.

It is further agreed and understood that the COUNTY assumes no obligation to indemnify or save harmless the CONTRACTOR, its agents, servants, employees and subcontractors for any claim which may arise out of their performance of this Agreement. Furthermore, the CONTRACTOR expressly understands and agrees that the provision of this indemnification clause shall in no way limit the CONTRACTOR'S obligations assumed in this Agreement, nor shall they be construed to relieve the CONTRACTOR from any liability, nor preclude the COUNTY from taking any other actions available to it under any other provisions of this Agreement or otherwise at law.

VENDOR QUESTIONNAIRE

County Cooperative Contract Purchasing System* Vendor will extend contract prices to "County Cooperative Contract Purchasing System" Participants as described in Instruction to Bidders. ☐ Yes \square No *Response required Signature Page* The information on this page will be used to process contract documents and ensure your BRC is valid. Please make sure the address on this page is the address you want your contract mailed to. Please complete the form by clicking on the link. Make sure that the email you complete the form with matches the email of your vendor account. **NOTE:** In order to access the forms available in this question, you must click on the green "Draft Response" button in the top left. Once you click the "Draft Response" button, the ability to access DocuSign to view the forms becomes available. You must access DocuSign, input your name and email and agree to the terms in order to access the forms. Once you have accessed the forms, you will see three lines (the menu) in the top left corner of the DocuSign window. Clicking the menu you will give you the ability to download or print the forms. Please note: The County's preferred method of submission is DocuSign. Click here to go to the form *Response required **Copy of Bidder's New Jersey Business Registration Certificate** Please use this area to upload your company's BRC. Use this link to verify your company's BRC: https://www1.state.nj.us/TYTR BRC/jsp/BRCLoginJsp.jsp Please note that a BRC is not required at the time of bid submission but shall be required prior to the award of a contract. **Mandatory Equal Employment Opportunity Statement*** Does the BIDDER comply with the #Mandatory Equal Employment Opportunity Statement? ☐ Yes \square No

*Response required

Americans with Disabilities Act Provisions*

Does the BIDDER comply with the <u>#Americans with Disabilities Act Provisions</u> ?
□ Yes
□ No
*Response required

BID DOCUMENTS TO BE EXECUTED*

Documents include:

- Non Collusion Certification
- Affirmative Action Questionnaire
- Statement of Ownership (N.J.S.A. 52:25-24.2) (Mandatory Document)

FAILURE TO SUBMIT ANY OF THESE DOCUMENTS MAY BE CAUSE FOR REJECTION OF BID.

Please complete the form by clicking on the link. Make sure that the email you complete the form with matches the email of your vendor account.

NOTE: In order to access the forms available in this question, you must click on the green "Draft Response" button in the top left. Once you click the "Draft Response" button, the ability to access DocuSign to view the forms becomes available.

You <u>must</u> access DocuSign, input your name and email and agree to the terms in order to access the forms.

Once you have accessed the forms, you will see three lines (the menu) in the top left corner of the DocuSign window. Clicking the menu you will give you the ability to download or print the forms.

Please note: The County's preferred method of submission is DocuSign.

Click here to go to the form

*Response required

Requested Documents Pertaining to Affirmative Action

Within seven (7) days after receipt of the notification of intent to award the contract or receipt of the contract, whichever is sooner, a Contractor should present one of the following to the County of Ocean:

- (a) An existing federally approved or sanctioned affirmative action program.
- (b) A New Jersey Certificate of Employee Information Report Approval.
- (c) If the Contractor cannot present "a" or "b", the Contractor is required to submit a completed Employee Information Report (Form AA302). This form will be made available to the Contractor by the County of Ocean.

QUESTIONS BELOW MUST BE ANSWERED BY ALL CONTRACTORS:

1. Do you have a Federally approved or sanctioned Affirmative Action Program?

If yes, please upload a photocopy of such approval.

2. Do you have a State of New Jersey "Certificate of Employee Information Report" approval? If yes, please upload a photocopy of such certificate.

Certification of Non-Involvement in Prohibited Activities in Iran

CERTIFICATION IS REQUIRED PRIOR TO CONTRACT AWARD

Pursuant to N.J.S.A. 52:32-57, et seq (P.L. 2012, c. 25, and P.L. 2021, c. 4), any person or entity that submits a bid or otherwise proposes to enter into or renew a contract must complete the certification below to attest, under penalty of perjury, that neither the person or entity, nor any of its parents, subsidiaries, or affiliates, is identified on the Department of Treasury's Chapter 25 list as a person or entity engaging in investment activities in Iran. The Chapter 25 list is found on the Division's website at http://www.state.nj.us/treasury/purchase/pdf/Chapter25List.pdf. Bidders must review this list prior to completing the below certification. If the Director finds a person or entity to be in violation of law, s/he shall take action as may be appropriate and provided by law, rule or contract, including but not limited to, imposing sanctions, seeking compliance, recovering damages, declaring the party in default and seeking debarment or suspension of the party.

Please fill out the below Powerform. You must use the same name and email address you used when logging in to ProcureNow.

The Disclosure of Investment Activities in Iran Statement is not a mandatory document and is not required at the time of bidding. However, this form will be required prior to the award of any contracts.

NOTE: In order to access the forms available in this question, you must click on the green "Draft Response" button in the top left. Once you click the "Draft Response" button, the ability to access DocuSign to view the forms becomes available.

You <u>must</u> access DocuSign, input your name and email and agree to the terms in order to access the forms.

Once you have accessed the forms, you will see three lines (the menu) in the top left corner of the DocuSign window. Clicking the menu you will give you the ability to download or print the forms.

Please note: The County's preferred method of submission is DocuSign.

Click here to go to the form

Descriptive Literature and Warranty Details*

Please supply all descriptive literature and warranty details for all items being bid as well as a list of all diagnostic tools and testing equipment, if applicable.

Mechanic and Operator Training for All Heavy Duty Motor Vehicles*

MECHANIC AND OPERATOR TRAINING

^{*}Response required

Training shall be provided by the successful bidder for operators and Mechanics at a County location with instructional materials as needed.

Mechanic training will be provided on site for shop mechanics and supervisors. Class size will not exceed twenty (20) total people. Separate training sessions may be required to accommodate the County's two (2) shifts. Training will be conducted to include the following minimum material:

- Brake system component identification / diagnosis and service procedures
- Electrical system features / diagnosis / maintenance
- Air conditioning system diagnostic and service procedures
- Engine repair and maintenance to include specifications / components / sensor locations
- Emissions equipment to include exhaust after treatment / regeneration / warning system
- Internet based Service and Parts Manual usage

Operator training will be provided for a minimum of four (4) hours immediately following vehicle check in and acceptance. The training will cover familiarization of the truck chassis, installed equipment, and truck hydraulic system operation.

By confirming this question, bidder understands they shall comply with the Mechanic's Training set forth above.

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<u>COMPLIANCE PAGES FOR MOTOR VEHICLE: TRIAXLE DUMP AND TRACTOR TRUCKS*</u>

Please download the attached Compliance Pages for MOTOR VEHICLES: TRIAXLE DUMP AND TRACTOR TRUCKS. Complete each compliance line by placing a check mark in the box for yes or no. Once finished, upload the completed document. If you are taking any exceptions to any of the compliance lines, please list and explain each exception in detail on company letterhead. Please upload the exceptions letter with the completed compliance pages.

• COMPLIANCE PAGES FOR MOTOR ...

ADDITIONAL VENDOR DOCUMENTATION

Please submit any additional information you wish to be considered as part of your bid package.

Acknowledgement of Submission of Forms from Current Bid Package*

Bidders shall complete all documents and acknowledge all terms included with the bid package. All documents should be from this bid package as forms change frequently and the most updated forms are provided in this specification. The forms must not be dated or executed prior to the date of advertising. Failure to follow these instructions is cause for rejection.

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^{*}Response required

*Response required

Submission of Bid Package*

By submitting a response to this solicitation, the Vendor understands and acknowledges that all required documents to this solicitation must be submitted and that failure to do so may be cause for rejection.

Bidder also understands that only one (1) bid submission shall be considered. Please DO NOT Submit a manual bid response. Submitting a manual response in addition to the electronic response is cause for rejection of your bid.

☐ Please confirm

*Response required

MOTOR VEHICLE SPECIFIC SCOPE OF WORK

CONTRACT TERMS

Contract shall be one (1) year from date of award or until delivery is complete unless otherwise stated. The County reserves the right to extend the term of the contract pursuant to N.J.S.A. 40A:11-15.

SPECIFICATIONS

Detailed specifications for this bid are located in the Vendor Questionnaire under the question labeled "Compliance Pages for MOTOR VEHICLES: TRIAXLE DUMP AND TRACTOR TRUCKS".

INTENT

The purpose of this bid package is to provide the County of Ocean with a contractor(s) who will supply current model year, or newer Motor Vehicles as specified herein.

NO ASSIGNMENT

This agreement shall not be assigned without the written consent of the County of Ocean which consent shall not be unreasonably withheld. Assignee shall promptly prepare and complete such documents as the County shall require.

AVAILABILITY AND DELIVERY

The bidder should indicate the number of days required for the delivery After Receipt of Order (A.R.O.). If not submitted with the bid proposal, the County reserves the right to request this information prior to the award of contract.

OWNERSHIP DISCLOSURE

All contractors shall comply with all laws governing the disclosure of all stockholders or partners, as included in N.J.S.A. 52:25-24.2.

BID REVIEW

Bids may be reviewed once the bid meeting has concluded. Additionally, bid results are available in the Ocean County Purchasing Department on the day following the bid openings for any interested party that may wish to review them.

MODIFICATIONS & WITHDRAWALS

Bids may be withdrawn based from the bidder prior to the time fixed for opening. No right for withdrawal exists after the bid has been opened. Written request shall be signed by the bidder or proper corporate officers.

EVALUATION

The quality of the equipment supplied, their conformity with the specifications, their suitability to requirements, delivery terms, guaranty clauses, price of the materials shall all be taken into consideration. Where equivalent equipment is offered, the County will determine if the proposed item is equal or better than that specified. The awards will be made on the basis of a comparison of prices of each vehicle listed with standard equipment plus the cost of optional equipment.

TRANSITIONAL PERIOD

In the event services are terminated by contract expiration or by voluntary termination by either the Contractor or the County of Ocean, the Contractor shall continue all terms and conditions of said contract for a period not to exceed one (1) month at the County's request.

AVAILABILITY OF FUNDS

The County's obligation hereunder is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the County for payment of any money shall arise unless, and until funds are made available each year to the Ocean County Purchasing Agent.

MANUALS

Unless otherwise indicated, a minimum of three (3) complete sets of manuals, for each model year, MUST be provided with the first vehicle/equipment delivery as follows (CD/DVD/USB format preferred, if available):

- 1) Operator's Manual
- 2) Parts Book
- 3) Shop Service Manuals including wiring diagrams and trouble shooting guide
- 4) Hydraulic System Manual including parts book and service repair manual (if applicable)

TRAINING AND TECHNICAL SUPPORT

If requested, training shall be provided by the successful bidder for operators and mechanics at a County location with instructional materials as needed.

COOLING SYSTEM PROTECTION

All vehicles furnished must be protected to -20°F (-30°C) with permanent type anti-freeze and summer coolant.

AIR CONDITIONING

All air conditioning shall be factory installed, support system (cooling, electrical, etc.) shall be upgraded in accordance with factory recommendations.

FUEL & FLUIDS

All vehicles will be delivered with a minimum of one-half (½) tank of fuel. All other fluids will be filled in accordance with the manufacturer's recommended levels.

STANDARD EQUIPMENT

These specifications include all standard equipment provided for each vehicle unless specifically upgraded or deleted. In the event options are required, the contractor shall provide upgrading of all support systems affected, in accordance with factory recommendations.

DESIGN

Materials shall be of good commercial quality for the intended service and shall be produced by use of current manufacturing processes and treated to resist rust, corrosion and wear. The design of the mechanical member shall be such that the stress imposed through normal shock loads of maximum engine torque, shall not cause rupture or permanent deformation or undue wear on any member.

REPAIRS

All repairs are to be performed at the location the vehicle is stationed or at a service center within the County. All requests for repairs must be responded to within 24 hours.

DEMONSTRATION

Bidder shall be prepared to give, prior to bid award, a complete demonstration of the equipment proposed at a County facility or a mutually agreed to location and time within the State of New Jersey. The equipment so demonstrated shall be complete as offered by the bidder.

SERVICE

Contractor shall be able to service all equipment proposed. The contractor shall maintain a service facility staffed with qualified service personnel and a working inventory of parts.

WARRANTY

All warranty paperwork will be supplied with each unit at the time of delivery and shall be in typed form. The warranty commences with the final inspection and acceptance of the unit by the County. The authorized Dealer's Warranty shall be for a minimum of one (1) year period from date of final inspection and acceptance by the County for parts and labor on chassis, engine, transmission and all optional equipment. The vendor shall furnish for each vehicle delivered, all of the manufacturer's standard warranty against defects in material, workmanship and design in said vehicles. This agreement shall cover all warranty work, minor warranty and service work at the successful bidder's location. When requested by the Director of Vehicle Services, this agreement shall also cover all warranty work, minor warranty and service work at a County facility. The successful bidder will be responsible for vehicle transportation for all warranty repairs and recall work for the complete vehicle and installed equipment during the standard or extended warranty period, when applicable. The vehicle must be picked up within five (5) working days of notification that work is required, and returned to the County within seven (7) working days. Bidder shall have full service facility stocked with parts capable of performing all warranty and non-warranty repairs, to ensure efficient and economic maintenance of the vehicles and to reduce down time. In the case of any unnecessary delays in repairing vehicles with warranty work because of parts availability or service scheduling, the Director of Vehicle Services shall be notified and, if requested, a replacement vehicle shall be provided.

DESCRIPTIVE LITERATURE AND TECHNICAL SPECIFICATIONS

Bidders are encouraged to submit descriptive literature and technical specifications with their bid. If not submitted with the bid, the County reserves the right to request this information, prior to contract award.

USE OF OTHER NAMES AND REFERENCES

Unless otherwise stated, the use of manufacturers' names and product numbers are for descriptive purposes, and establishing general quality levels only. They are not intended to be restrictive. Bidders are required to state exactly what they intend to furnish, otherwise it is fully understood that they shall furnish all items as stated.

MODEL INFORMATION REQUIRED

The manufacturer, make and exact models proposed as substitutes shall also be submitted on bidder's letterhead with any proposal contended to be "equivalent". The vehicles, equipment and accessories shall be new. The bidder shall specify the specific model being bid in each class or type of vehicle.

ROLL-OVER MODEL YEAR

The County will consider any request for a contract roll-over to the next model year after the passing of the vehicle manufacturer's cut-off date, at the same contract pricing, specifications, terms and conditions or better. If a roll-over is agreed upon between the awarded bidder and Vehicle Services Director and approved by the Purchasing Agent, the contract affected by the roll-over will be amended to the newest model year information.

CUT-OFF DATES FOR MODEL YEAR SPECIFIED

The bidder shall notify the County of Ocean Purchasing Department, c/o Jennifer Bowens, Purchasing Agent, P.O. Box 2191, Toms River, NJ 08754 in writing or by fax (732-288-7636) no less than thirty days prior to the factory cut-off date for any vehicle under contract. Successful bidder MUST provide written proof from manufacturer of factory cut-off dates and MUST confirm receipt of same by the County of Ocean Purchasing Department.

COMPLIANCE TO MINIMUM BID REQUIREMENTS EQUIVALENT PROPOSALS

It is the intent of these specifications to describe and govern the purchase of new and unused motor vehicles equipment with any and all accessories as noted herein. The units shall conform to the highest quality of manufacturing and design standards. Any item or items not specifically mentioned herein, but which would be required to produce a complete working unit, shall be supplied by the vendor. All bidders must answer compliance questions in full. A general exception cannot be taken for any paragraph or item. If a bidder is basing his proposal on equipment other than what is specified in these bid documents and wishes the equipment he proposes to be considered as an "approved equal", he shall submit on a separate sheet, in the exact format of the technical specifications contained herein, an item by item description of that which he proposes to substitute including any and all variations from or exceptions to the conditions and specifications of this bid. Failure to comply may result in rejection of bid.

KEYS

A minimum of six (6) sets of keys are required with each vehicle and piece of equipment ordered. This is a minimum requirement: if additional sets are required, it will be indicated in the detailed specification section.

BID PROPOSAL PRICE INCLUSIONS

The price quoted shall include all options specified and all transportation charges fully prepaid to Ocean County Department of Vehicle Services, Chestnut Street, Toms River, New Jersey.

FLEET NUMBER

For Ford Vendors: The County of Ocean Fleet number is QB504.

PRE-BUILD

A detailed vehicle production plan must be provided and approved prior to the start of any upfitting. The production plan detail must include exact mounting locations and configurations for all components.

TITLES

Each vehicle must be delivered with a New Jersey motor vehicle new vehicle inspection sticker in place as prescribed by law. Each vehicle must also be delivered with a New Jersey Motor Vehicle Commission title, registration, and plates. (Temporary plates are not acceptable) Deliver with title issued as follows: 610 234 000 08754 0 Ocean, County of PO Box 2191, Admin. Bldg. Toms River, NJ 08754

DELIVER WITH TITLE NOT CERTIFICATION OF ORIGIN

Notwithstanding the delivery of the title, the County reserves the right to inspect the vehicles and reject them if non-conforming to the specifications.

DELIVERY REQUIREMENTS

Please be advised that when delivering vehicles and/or equipment to the County of Ocean the following procedure must be strictly adhered to: 1. Three (3) days prior to delivery, the successful contractor is required to contact Vehicle Services at (732) 349-4579 and speak with one of the service writers for an approved delivery date. 2. Two (2) days prior to the vehicle delivery the successful bidder will provide via Electronic Delivery (E-mail) a completed and accurate Vehicle Data Sheet and Parts Listing Sheet in a Word Document format for each vehicle being delivered. 3. The successful bidder will have a representative available, and if requested, present during the check-in process. 4. ALL manuals and related materials, as requested in the specifications, MUST be presented to appropriate County personnel at time of delivery of said vehicles /equipment. 5. ALL parts, if requested in the specifications (i.e. belts, filters, hoses, etc.), MUST be presented at time of delivery. 6. The successful contractor shall provide, upon delivery, a list of all supplies (filters, hoses, belts, etc.) needed for the periodic maintenance for the first year. This list shall be complete with part numbers. 7. The successful contractor shall provide, upon delivery, an "As Built" list of all installed equipment and part numbers to cover the vehicle chassis and body. 8. The successful contractor will also be

responsible to fill out any and all paperwork needed by the County prior to vehicle delivery. This will assure proper data entry of each vehicle to aide in any future warranty issues. 9. A letter of assurance, on the awarded bidder's company letter head, shall accompany each delivered vehicle, certifying that the vehicle meets or exceeds all specifications as ordered on the Purchase Order. 10. The vehicles furnished shall comply with all safety laws, rules and regulations of the State of New Jersey and with standards for automotive vehicles. A DOT (Department of Transportation) Safety Kit shall be delivered with each vehicle purchased and include a First Aid Kit, Fire Extinguisher, and Safety Triangles. 11. The vehicles, equipment and accessories shall be new and ready for immediate use upon delivery, all service and make-ready having been done prior to delivery. Any vehicle not in such condition will be rejected. All vehicles are to be delivered to the Ocean County Department of Vehicle Services, Chestnut Street, Toms River, New Jersey. 12. No advertising shall appear on any vehicle delivered under the terms of the contract. Further, the contractor will not affix the dealer name to the vehicle. Vehicles delivered to final destinations with dealer's advertising will be rejected. 13. No Vehicle will be accepted at the final delivery point without all supporting documentation and paperwork completed and delivered with the units, which include the vehicle title, warranty, odometer/engine hour statement (if applicable), specified manuals, any line set tickets, invoice and keys sets. No unit will be considered accepted until it has undergone final inspection. 14. All delivered vehicles must be clean both inside and outside. Manufacturer's standard items, such as hubcaps, floor mats, jack and lug wrench or the like, shall be provided, installed, by the contractor prior to delivery.

DELIVERY INSPECTIONS

Prior to presentation for inspection, it shall be the contractor's responsibility to pre-inspect each vehicle. The vehicle must conform to the manufacturer's "new vehicle prep" procedures, if any. The contractor will be required to submit a copy of any "new vehicle prep" procedures upon delivery of the vehicle. Each vehicle presented for inspection shall be accompanied by an inspection package including, but not limited to the following: purchase order, line set sheet (when available) and dealer's pre-inspection prep checklist. The checklist will list the responsible prep mechanic and acknowledge that the vehicle conforms to delivery specifications and that all added equipment and accessories have been properly installed.

Reasons for rejection of units include, but are not limited to:

- 1. Grinding noise in the wheels (wheel bearings).
- 2. Improperly aligned wheels.
- 3. Damaged rims.
- 4. Any spare tire-rim not mounted on vehicle.
- 5. Leakage of oil.
- 6. Transmission leaking fluid at transmission cooler lines or transmission seals.
- 7. Leakage at rear end.
- 8. Leaking at radiator.
- 9. Fuel Leaks.

- 10. Restrictions in fuel system.
- 11. Leakage in any part of the exhaust system.
- 12. Excessively noisy brakes or excessive brake pedal travel.
- 13. Oil pan damage.
- 14. Inoperative windshield wipers.
- 15. Windshield washer not functioning properly.
- 16. Windshield washer bottle leaking.
- 17. Transmission malfunctions.
- 18. Lack of grease fittings in ball joints, U-joints, etc. if factory standard.
- 19. Horn blowing while driving or inoperative.
- 20. Gauges or dials missing/malfunctioning.
- 21. Vehicle pulls to one side.
- 22. Seatbelts not operating properly.
- 23. Keys not working properly.
- 24. Door locks inoperative.
- 25. Oil dipstick missing or rust on dipstick.
- 26. Appropriate new vehicle inspection sticker not furnished on windshield.
- 27. Lights running, turn, backup, brake, side indicators, and indicator lights not working properly.
- 28. Lenses missing on interior/exterior light or water in lenses.
- 29. Any manufacturing deficiencies which permit water leakage into passenger compartment.
- 30. Windows not operating properly.
- 31. Vehicle not properly prepped in accordance with the manufacturer's pre-delivery specifications.
- 32. Vehicle not configured with all equipment and items specified in the contract/purchase order.
- 33. Body dents, scratches and other defects.
- 34. Body paint defects.
- 35. Water leak through roof.
- 36. Any defects in equipment installation.
- 37. Electrical system problem.
- 38. Any defects in after-market components, such as truck body, snow plow, aerial platform, generator, winch, crane and lift-gate.
- 39. Improperly run wiring and hoses along the chassis.

Inspected units which do not comply with these or other requirements will be rejected. If a vehicle has been rejected, the contractor will be notified and the notification will indicate the reason for rejection. All rejected units will be corrected and the corrected unit(s) will be presented for re-inspection within seven (7) working days. The ordering Department may cancel the purchase order if the contractor fails to correct any problem, without incurring any cost or fee.

PRICING PROPOSAL

ITEM #1 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL

Line Item	Description	Qty.	Max. Qty.	Unit of Measure	Unit Cost	Total	Comments
1	Model Year 2023 Western Star 49X SF Specialized Dump Truck with Plow and Spreader, As Specified, or Equal	1	10	EA			
OPTIONS							
la	Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Options, As Specified	1	10	EA			
1b	Freedom 2.2 Spreader Control in Lieu of Manual Specification, As Specified	1	10	EA			
1c	Central Hydraulic System (Electric Proportional Plow/Granular Controls Specifications) In Lieu of Manual Controls, As Specified	1	10	EA			
1d	Paint for Dump Body, As Specified	1	10	EA			
1e	Road Department Paint Color Scheme, As Specified	1	10	EA			
1f	Spreader Leg Stands, As Specified	1	10	EA			
1g	One-Way Plow with QCP, As Specified	1	10	EA			
1h	Diagnostic Tools/Test Equipment, As Specified	1	3	EA			
1i	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	1	10	EA			
1j	Installation of County-Supplied Two-Way Radio and Accessories, As Specified	1	10	EA			
1k	Technical Support, As Specified	1	80	HOUR			
TOTAL	1		1	<u> </u>			

ITEM #2 - MODEL YEAR 2023, OR NEWER, SPECIALIZED WESTERN STAR 49X TRACTOR, AS SPECIFIED, OR EQUAL

Line Item	Description	Qty.	Max. Qty.	Unit of Measure	Unit Cost	Total	Comments
2	Model Year 2023, or Newer, Specialized Western Star 49X Tractor, As Specified, or Equal	1	10	EA			

Line Item	Description	Qty.	Max. Qty.	Unit of Measure	Unit Cost	Total	Comments
OPTIONS							
2a	Road Department Options (Shall Consist of All Items Listed), As Specified, or Equal	1	10	EA			
2b	Solid Waste Options (Shall Consist of All Items Listed), As Specified, or Equal	1	10	EA			
2c	Diagnostic Tools/Test Equipment, As Specified	1	3	SET			
2d	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	1	10	EA			
2e	Installation of County-Supplied Two-Way Radio and Accessories, As Specified	1	10	EA			
2f	Technical Support, As Specified	1	180	HOUR			
TOTAL	1				1		

Oil check and fill: engine mounted

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ITEM # 1 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL

Manufacturer/Model: Click or tap here to enter text. **Engine:** Click or tap here to enter text. **Transmission:** Click or tap here to enter text. Warranty: Click or tap here to enter text. **Delivery**, **A.R.O.**: Click or tap here to enter text. **COMPLIANCE** YES NO **GENERAL** 2023 WESTERN STAR 49X SF Set forward axle Lh primary steering location П П **DIMENSIONS** Front axle 20,000 lbs. П П Pusher axle 20,000 lbs. П Rear axle 52,000 lbs. П П Registered gwwr 80,000 lbs.; cg tags П П **ENGINE** Cummins x15 performance series 14.91, 912 cid minimum 500v hp @ 1900rpm. Gov 2000 rpm, and 1850 lb.-ft. Torque @ 1150rpm. П П Must be in line 6 cylinder of wet sleeve design utilizing hardened Cylinder liners, and electronics for simple service and diagnosis as needed. П П П П Minimum displacement shall be 14.9 liters. Engine must comply with latest federal mandate for diesel emissions. Should an Alternate power plant be offered the bidder must provide, all necessary technical data to show proof of equality including Maintenance schedules. П П **ENGINE EQUIPMENT** Engine must have latest 50 state clean idle diesel emission certification \Box

ENGINE EQUIPMENT (Cont'd)	COMPLIAN YES	NCE NO
Air intake: under hood mounted air intake with precleaner integrated into hood with inside/outside air snow door		
Alternator: 200 amp 28 si with remote battery volt sense		
Batteries: (4) 12-volt gnb maintenance-free 4000 CCA		
Battery box: frame-mounted stack battery box LH or RH side back of cab		
Positive load disconnect control switch mounted under dash or floor		
Remote jump start studs mounted on frame next to starter		
Silicone heater/radiator hoses where possible		
Compressor: Cummins 18.7 CFM with internal safety valve		
Engine protection: electronic engine-integral warning system with shut down function		
Engine brake: Cummins intebrake compression brake with on off switch and low, med and high retardation switch		
Exhaust: single right-hand under cab ATD with bright finish upper 11' vertical stack cab mounted		
2-piece fan shroud and rear rock guard		
Exhaust shield: stainless steel		
Fan drive: electronically controlled variable speed automatic control with dash switch and light		
13 gallon diesel exhaust fluid tank		
Non-polished aluminum cover for def tank		
Oil filter: full-flow		
Fuel filter/water separator: Detroit engine mounted with water in fuel Indicator		
Radiator: 1400 square-inch severe service assembly bolted to engine		

	COMPLYES	IANCE NO
ENGINE EQUIPMENT (Cont'd) Heavy-duty coolant: -34 oat extended life		
Coolant hoses: silicone where possible		
Hose clamps: constant tension for coolant hoses and air intake system		
Engine heater: Philips 1500w/115v		
Chrome heater receptacle: mounted under driver's door		
Cast iron front and rear engine supports		
Starter: Delco 12v 39 MT+ HD OCP		
TRANSMISSION AND EQUIPMENT Allison RDS 4700 automatic transmission with PTO provision		
Programming for 70 mph output speed		
S1 performance primary shift schedule		
1800 rpm primary mode shift speed		
Disable-load based shift schedule		
Transmission prognostics-enabled		
PTO mounting LH & RH side of main transmission		
Water to oil transmission cooler		
Magnetic plugs, engine drain		
Transmission drain, axle(s) fill & drain		
Dash mounted push button shift control		
Synthetic transmission fluid		
Transmission oil check and fill with electronic oil level check		

	COMPL	COMPLIANCE		
FRONT AXLE AND SUSPENSION	<u>YES</u>	<u>NO</u>		
Meritor 20000# front axle				
Meritor 16.5 x 6 q+ high capacity cast spider cam front brakes				
Brakes, double anchor, fabricated shoe				
Non-asbestos front brake lining severe service				
Conmet cast iron front brake drums				
Front brake dust shields				
Front oil seals				
Seals				
Stemco aluminum vented front hub caps				
With window and center+side plugs – oil				
Synthetic 75w-90 front axle lube				
Haldex automatic front slack adjusters with stainless steel clevis pins				
Bendix high capacity 20-23k power steering with rh auxiliary gear				
Power steering pump oil air cooler				
4 quart power steering see thru reservoir				
23,000# flat leaf front suspension				
Threaded spring pins and bushings				
Front shock absorbers				
REAR AXLE AND SUSPENSION Meritor rt-52-185 52000# tandem rear axle				
Factory installed Watson/Chalin sl-2065 Tru-Track 20000# air lift				

	COMPLI YES	IANCE NO
REAR AXLE AND SUSPENSION (Cont'd) Steerable pusher suspension with 16.5x6" brakes, dust shields and		
FL 1 Watson/chalin 20000# axle		
Pusher axle controls in cab, up/down valve, gauge and air pressure regulator		
Reverse lift axle warning with last state retention		
Air piping for liftable pusher axle controls mounted inside cab		
52" pusher axle spacing		
Iron rear axle carrier housing		
SPL250HD XL Dana Spicer main driveline w/half round yokes		
SPL170 XL Dana Spicer interaxle driveline w/half round yokes		
Driver control differential lockout rear/rear with indicator light for traction device		
Synthetic 75W-90W all axles		
Meritor 16.5x7" P cam double anchor cast shoes		
Non-asbestos rear brake lining		
Webb cast iron rear brake drums		
Rear brake dust shields		
Haldex automatic rear slack adjusters with stainless steel clevis pins		
Rear oil seals		
Bendix eversure longstroke 2-drive axle spring		
Forward of axle mounted parking chambers		
Standard spindle nuts for all axles		
Tuf-trac 52000# inverted leaf rear suspension		
Standard ride height		

	COMPLI YES	IANCE NO
REAR AXLE AND SUSPENSION (Cont'd) 56" axle spacing		
Fore/aft and transverse control rods		
Rear shock absorbers – one axle		
BRAKE SYSTEM EQUIPMENT Wabco 4S/4M ABS without traction control		
Reinforced nylon, fabric braid & wirebraid chassis air lines		
Bendix brake valves where possible		
Relay valve with 5.5 psi crack pressure		
Air connections to end of frame with glad hands		
Bw ad-9si brake line air dryer w/heather		
Air dryer frame mounted RH under cab		
Aluminum air brake reservoirs		
Cab blow out kit with air hose and nozzle		
Pull cables on all air reservoirs		
FRAME AND WHEELBASE 242" wheelbase with 150"c/t usable		
.59 x 3.5 x 12.4 steel frame with .236" inner c-channel reinforcement		
120 KSI 40.42 SM, 4,849,851 RBM		
58 in. Overhang		
24" integral front frame extension		
Underslung crossmember		
Square end of frame		

FRAME AND WHEELBASE (Cont'd)	<u>COMPL</u> <u>YES</u>	IANCE NO
Heavy duty ductile iron engine crossmember		
Heavy duty steel rear closing crossmember		
Heavy duty steel construction back of transmission crossmember		
Heavy duty steel bolted construction bolted midship #1 crossmember		
Heavy duty steel bolted construction rear suspension forward crossmember		
Heavy duty steel bolted construction rear mounted suspension crossmember		
CHASSIS EQUIPMENT/TRAILER CONNECTIONS 7-way trailer plug end of frame		
3/8" severe duty steel bumper or custom bumper for hitch mounting		
Phosphate-coated class 10.9 fine thread hex chassis fasteners		
Exterior harnesses wrapped in abrasion tape, secondary covering and connector protection		
Air piping and electrical independently clipped to frame		
FUEL TANKS AND EQUIPMENT Single 70 gallon aluminum, minimum		
LH fuel tank mounted forward		
25" diameter fuel tank(s)		
Aluminum fuel tank bracket(s)		
Plain aluminum fuel tank with polished stainless bands		
Alliance fuel/water separator with heated bowl		
Equiflo inboard fuel system		
High temperature reinforced nylon fuel hose		
No fuel cooler		

ELIEL TANKS AND EQUIDMENT (Cont.)	COMPLI YES	ANCE NO
FUEL TANKS AND EQUIPMENT (Cont'd) In tank fuel level sender		
FRONT TIRES, HUBS AND WHEELS Michelin XZY-3 425/65R22.5 20 PLY		
Conmet iron front hubs		
Accuride 29807 4.75 inset 5 hand hd 22.5x12.25 10-hub pilot steel disc front wheels		
REAR DRIVE & PUSHER TIRES, HUBS, & WHEELS Michlein xds2 11r 24.5 16 ply rear drive axle tires		
Webb iron rear hubs		
Accuride 28827 2 hand 24.5x8 .25 10-hub pilot steel		
Steel disc rear wheels		
Michelin XZY-3 425/65R22.5 20 ply pusher tires (2)		
Accuride 29807 - 22.5 x 12.25" 4.75" inset 5 hand 10 hub pilot pusher wheels		
Nylon wheel guards front and rear all interfaces		
Wheel-Check High Visibility Green Loose Wheel Nut Indicator On All Wheels		
CAB EXTERIOR Lower Right Hand Door Window with Fresnel Lens		
121" BBC conventional steel reinforced aluminum cab		
Galvanized E coated sealed steel door construction		
Forged steel door hinges with steel reinforced "a" pillar		
Triple door seal system		
Non-removable bug screen		
Front cab mounts outboard of frame for stability or when taking off and applying torque from engine		

	COMPL YES	IANCE NO
CAB EXTERIOR (Cont'd) Bolt on molded fender extensions		
LH/RH exterior grabhandles with rubber insert and RH interior grab handle MTB to reinforced 'A' post		
Stainless steel radiator mounted grille		
Stainless steel radiator shell/hood bezel with tilt hood handle		
Molded resin hood with isolated hood suspension mounting system		
Hood opening strut assist with safety lock		
Two (2) Hadley sd-978 26" rect air horns		
Single electric horn		
Horn shields		
All locks keyed the same; must have six (6) keys		
Dual stage LED headlights with heated light system		
Aerodynamic LED marker lights in stainless steel visor		
Individual LED stop/tail/turn/backup lights flush mounted end of frame		
Led rear facing turn signal lamps in convex mirror lens in addition to standard front turn signal lamps		
Dual C bar mirror system bright finish c-bar, heated mirrors, dual remote, turn signal, stanless steel back cover with integral convex		
Door mounted mirrors with control switches on door panels		
102" equipment width		
LH/RH heated hood mounted side view mirrors, black finish		
Stainless steel exterior sun visor		
3 piece solar tinted impact resistant polycarbonate rear window configuration (1) 31 x 20" (2) 9 x 20"		

CAR EVTERIOR (C4) IV	COMPLI YES	ANCE NO
CAB EXTERIOR (Cont'd) Tinted door glass LH & RH tinted		
Electric door window regulators		
1 piece tinted roped in seal mounted full grid heated windshield		
2 gallon windshield washer reservoir with fluid level indicator		
CAB INTERIOR Gray vinyl premium interior		
Black mats with double insulation		
12 volt power supply in dash		
Dash mounted ash tray & lighter		
Forward roof mounted console		
Map pockets, left and right doors		
Cab Coat hook(s)		
Wraparound wing dash with six digital gauges in driver command center and up to 13 gauges on the dash		
5 lb. Fire extinguisher mounted		
Heater, defroster and air conditioner		
Main HVAC with constant temp control and cosmetic cover main fresh air inlet with fresh air filter		
Standard heater plumbing with ball shut off valves at supply lines		
Air conditioner compressor		
Radiator MTD A/C condenser		
R-134A refrigerant		
Cab insulation w/additional noise/thermal treatment front & back walls		

CAB INTERIOR (Cont'd)	COMPLI YES	ANCE NO
Centralized logic controllers in main dash electrical panels, houses VPDM onboard ECU and TEM programmable modules		
Multiplexed electrical system		
Color-coded and laser-etched wiring		
Premium LED cab lighting		
Cab door latches with electric door locks		
Triangular reflectors without flares		
Elite high back air suspension driver and passenger seats with 3 Chamber air lumbar support, integrated cushion extension, forward and rear cushion tilt, with heat and adjustable shock absorber inboard and outboard driver and passenger arm rests		
Gray vinyl driver and passenger seat cover		
3-point driver & passenger seat belts including seatbelt retractor		
Adjustable tilt and telescoping steering column		
450mm (18") black steering wheel with multifunction integrated controls		
Driver/passenger interior sun visors		
INSTRUMENT PANELS AND CONTROLS Wrap around dash that allows up to 13 gauges and driver command center with up to six (6) digital gauges		
Panel with teak color surround w/round gauges		
Teak color center access instrument panel		
Low air pressure light and buzzer		
Primary & secondary air pressure gauges		
Intake mounted air restriction gauge		
87 db to 112 db self-adjusting backup alarm		

INSTRUMENT PANELS AND CONTROLS (Cont'd)	COMPLI YES	IANCE NO
Cruise control-electronic, controls on steering wheel		
Electronic mph speedometer and 2500 rpm tachometer		
Key operated ignition switch & integral		
Start position, four (4) position off/run/start		
Headlights on with wipers with daytime running lights		
Auxiliary PDM for TEM use		
Electric fuel gauge		
Electrical engine coolant temp gauge		
Transmission oil temperature gauge		
Engine and trip hour meters integral within driver display		
Engine oil pressure gauge		
AM/FM WB world tuner cd stereo radio with Bluetooth, iPod interface		
USB and auxiliary inputs, J1939		
Two (2) radio speakers (cab only)		
Headliner multi-band antenna AM/FM/Weatherband, Wi-Fi/Bluetooth, GNSS/GPS		
Electronic outside temperature sensor display in driver message center		
PTO switch and four (4) dash mounted aux.switches WTH indicator lights		
Engine, trip and PTO hour meter within driver display		
Hand control valve		
Voltmeter		
Rotary headlamp switch, marker lights/headlights switch with pull out for optional road lamps		

	COMPLIA	
INSTRUMENT PANELS AND CONTROLS (Cont'd)	<u>YES</u>	<u>NO</u>
Wiring and switch for customer furnished snow plow lamps with dual connections at bumper		
Switch indicator light and 10' of wire on chassis LH back of cab for customer furnished utility lights		
Two (2) valve parking brake system		
Self-cancelling turn signal switch with integral head lamp dimmer headlamp flash, wash wipe intermittent		
Heavy duty electronic flasher		
PAINT/FINISH Rail black high solids		
Paint shall be base coat clear coat. Colors shall come from standard color chart or Ocean County Road Department Color Scheme as found in options		
Chassis frame: Polyurethane		
Wheels/Rims: Rear/pusher wheel color: vendor powder black		
Front wheel color: Vendor powder black		
UNDERCOATING Entire truck chassis, underside of cab and underside of body to be coated with Tectyl 2423 haps free black, which is a low VOC, high solids, emulsion corrosion Preventive coating, or equal		
WARRANTY Basic vehicle - 1 year, 50,000 miles		
Battery - 1 year, 50,000 miles		
Brightwork – 6 months, unlimited		
Cab corrosion/perforation – 5 years, unlimited		
Cab structure – 1 year, 100,000 miles		

	COMPLIANO YES	<u>CE</u> <u>NO</u>
WARRANTY (Cont'd) Corrosion – 6 months, unlimited		
Crossmembers – 3 years, 300,000 miles		
Diesel Emission 2010 – 5 years, 100,000 miles		
Greenhouse Gas 14/17 (medium heavy duty to heavy heavy duty trucks/tractors) – 5 years, 100,000 miles		
Greenhouse Gas 14/17 tire (file direct) – 2 years, 24,000 miles		
Frame rails – 3 years, 300,000		
Front/steer axle: Detroit – 1 year, unlimited		
Front/steer axle: non-Detroit – 1 year, 100,000 miles		
Paint – 1 year, 50,000 miles		
Paint, chassis – 6 months, unlimited		
Rear axle: Detroit – 1 year, unlimited		
Rear axle: non-Detroit – 1 year, 100,000 miles		
Towing – 5 years, unlimited miles		
Cummins 5 year 100,000 mile engine and ATS warranty		
 Cummins protection plan i: Internal components, major engine systems and major components Registered parts and labor Covers the following, including mounting hardware and gaskets: cylinder head assembly, cylinder block assembly, Rocker level assembly, ECM, piston, rings and liners; lube oil cooler assembly, front gear cover, oil pan, connecting rod assembly, front gear cover, oil pan, connectingrod assembly, Lube pump assembly, camshaft and bushings; cam follower assemblies, crank shaft assemblie EGR cooler, valve and mixer; Fuel injectors (excluding aftertreatment injector), turbo, water pump, fuel pump, air compressor, select engine sensors and flywheel 		
Allison 7 year unlimited miles transmission warranty		

	COMPI	IANCE
SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMB	<u>YES</u> ERLESS ST	<u>NO</u> AINLESS
STEEL DUMP BODY		
Model #SSHD176066 304 acid wash, or equal		
GENERAL		
Floor ¼" 450 Brinell		
Front 3/16" Stainless Steel 304		
Sides 3/16" Stainless Steel 304		
Tailgate 3/16" stainless steel 304		
Long sills 3/16" 250 Brinell steel		
Outside body width – 96"		
Hoist attachment – front mount		
Front design – 12" hoist recessed 90° corners		
Front height including longsills – 72"		
Longsills shape – formed 10"		
34" longsills outside width		
27" longsills inside width		
Sandblasts and primer – glass bead blasting		
Underbody to be painted chassis black		
One (1) d-ring top of tailgate		
CABSHIELD		
Cabshield type – traditional		
Cabshield length – 24"		
Cabshield width – 90" cabshield height – to be determined to match chassis height		
Light holes configuration – 4 oval lights holes		

COMPLIANCE YES NO

SPECIFICATIONS FO	R BRANDON	HEAVY DUTY	HEATED CR	COSSMEMBERL	ESS STAINLESS
STEEL DUMP BODY ((Cont'd)				

STEEL DUMP BODY (Cont'd)	
CABSHIELD (Cont'd) Cabshield installation	
SIDE Side shape – formed side	
Top rail section – formed	
6" board pocket and intermediate bracket	
Double walking rail; stainless steel	
3/8" stainless steel upper tarp rail	
REAR Double acting tailgate (lays flat or dumps through)	
Lock positioning – end point latch system	
Bolster shape – standard flat rear bolster	
Tailgate angle- straight	
Locking system – air cylinder size 2.5"; push/pull air controls	
Tailgate panel – Two (2) panels	
HOIST Mailhot cs 160-6.5-4 da, or equal	
ACCESSORIES TO BE INCLUDED One (1) Complete Set of Filters For Cab/Chassis, Drive Train And Upfit	
5 Gallons of Recommended-Use Hydraulic Fluid	
One (1) spare front tire and wheel and one (1) spare rear wheel and tire	
INSTALLATION PARTS 40 ton cradle	

COMPLIANCE YES <u>NO</u>

SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEM STEEL DUMP BODY (Cont'd)	BERLESS ST	TAINLESS
INSTALLATION PARTS (Cont'd) 40 ton hoist bracket		
40-50 ton upper cylinder blocks (2)		
MISCELLANEOUS One (1) oval stop/tail/turn light in each rear corner post		
Wiring for standard dump body lights enclosed in a sealed waterproof Wiring harness (split loom NOT ACCEPTABLE)		
One (1) set stainless steel stone guards – mounted on frame		
Body and hoist shall come complete with manufacturer's safety decals And operating instructions		
Body and hoist warranted to be free from defects in material and workmanship under normal use and service for a period of five (5) years		
One (1) stainless steel grab handle		
3M reflective tape on both sides of body and on 9-panel tailgate		
Two (2) shovel holders – one front, one rear		
ACCESSORIES TO BE INCLUDED Safety lighting – six (6) oval led amber strobe lights with amber lenses		
Two (2) recessed into rear post, two (2) at sides of cabshield and two (2) in front of cab shield		
All body lights shall be LED and Heated		

One (1) set of Meyer Saber heated and LED plow lights mounted on hood of chassis With stainless steel mounts. Location to be determined by county at time of build

Two (2) forward facing Whelen strobe lights mounted on snow plow lights bracket

to be powered by its own switch, part # RSA03ZCR

COMPLIANCE YES

SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBE STEEL DUMP BODY (Cont'd)	ERLESS ST	SAINLES
ACCESSORIES TO BE INCLUDED Four (4) step double fold stainless steel folding ladder with grab handle; stainless Steps above ladder on outside and inside of body with stainless steel steps on side Of body		
2" x 6" oak wood side boards		
SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUAL Side mount – steel framework		
Roller assembly – telescopic 3 piece		
Left roller tube – 2.140" OD X 2" ID 6105-T6 aluminum extrusion with bushing and stainless streel roll pin to accept motor shaft		
Right roller tube – 2.140" OD X 2" ID 6105-T6 aluminum extrusion with bushing. 1" OD 6061-T6 aluminum shaft and stainless steel oil pin		
Center section – 1.960" OD X 1.820" ID 6105-T6 aluminum extrusion		
Bearing plates – 1/4" H.R.S		
Bearings – flange mounted sealed ball bearings		
Roll mounting angles - 1 ½" x 2 x ¼" steel angle		
Direct drive gearmotor: mounted directly to left side roller. Worm and wheel Configuration. Permanently lubricated, sealed gearbox. 90 to 1 ratio. Output shaft Is supported by ball bearings on both ends. Output shaft is directly coupled to Left side roller. Electric motor is .85 horsepower. Aluminum gearbox housing. Plastic protective cover. ³ / ₄ " od output shaft. Motor is thermally protected By automatic resetting circuit breaker.		
PIVOT ARM: FRAMEWORK Pivot arms: 1 5/8" OD X 11 gauge aluminum tubing; 2 piece construction		
Rear section: 1 5/8" OD X 11 gauge aluminum tubing		
Bows: 1 5/16" OD X 11 gauge aluminum tubing		
Arm mounting brackets: steel weldment		

	COMPLIANCE	
SDECHELCATIONS FOR PLONEED MODEL EDD 1500A A TARR OR FOLLA	YES (Co. (2.1))	NO
SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUA	AL (Cont'd)	
PIVOT ARM: FRAMEWORK (Cont'd)	_	_
Base plate: ¹ / ₄ " H.R.S		
Mounting hub: 4" OD steel tube		
Spring: reverse wound torsion spring – ½" diameter wire		
Wire PER ASTM A229 Class I		
SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STA	AINLESS ENC	CLOSURE
FABRIC		
Asphalt tarp		
CONSTRUCTION		
Seamless front to rear rectangular in shape, 85" wide, grommets on front	_	_
And sides, pocket at rear		
WIRING AND ELECTRICAL		
All wire shall be 8 gauge stranded cable. All connectors are ring type, high Amperage self-centering rotary switch (momentary on – of – momentary on),		
Thermal reset circuit breaker (auto reset)		
PTO PTO shall be of a hot shift design driven off the Allison automatic transmission.		
PTO shall have a direct mount rotatable pump flange. There shall be a console		
Mounted rocker switch to engage and disengage the PTO. Must be Chelsea.		
HYDRAULIC PUMP WITH PTO		
Shall be on an open circuit axial piston design with adjustable compensator.		
Pump operating pressure must adjust to the actual load pressure plus a pressure		
Differential required for the controlled action.		
When the system is not demanding power, the load sense control will operate		
In an energy-saving stand-by mode.		
Minimum nump displacement is 80cc/40 cubic inches, delivering 42 GPM		
Minimum pump displacement is 80cc/ 4.9 cubic inches, delivering 42 GPM at 2,000 rpm.		
Pump minimum displacement shall be 90 cubic centimeters continuously rate at 350 bar (5,000 psi). Standby pressure shall be 350 psi.		П
22 cm (2,000 par). Summed pressure small of 220 par.	_	

	COMPLIAT YES	NCE NO
SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAIL (Cont'd)		OSURE
HYDRAULIC PUMP WITH PTO		
Mounting is an SAE C 4-bolt flange		
Shaft is 1.25" diameter, 14 tooth splined		
Rpm is rated to 2300 (continuous) with pressure and flow compensator control		
 Rear ported, flange mounted suction port shall meet the following requirements: Suction port minimum 2.5" Must use (4) m8 x 16-8.8 mounting bolts The rear SAE ported pressure port shall meet the following requirements: Pressure port minimum 1" sae-16 O-ring boss 		
MOUNT Pump must mount directly to a PTO on ALLISON 4500 series transmissions Without requiring bent axis or external mounting hardware.		
Pump must offer mounting flanges N SAE and ISO configurations, and ports are Offered in SAE and ISO tube and flange versions.		
Side or end-ported models must be available to facilitate plumbing and help fit The pump to your space.		
Multiple drain ports allow many mounting orientations - must be standard.		
PUMP The hydraulic system must include a low oil shutdown with momentary override. The system shall disengage the PTO is a low oil scenario should occur. The operator Will have the ability to temporarily override the shutdown to park all hydraulic Implements for travel.		
CONTROL VALVE GRENSON VALVE WITH PRIORITY FLOW INLET Central hydraulic valve system shall be a mobile design to withstand exposure to Deicing chemicals and severe weather conditions		
System shall provide hydraulic fluid to operate the dump body hoist, front plow, And granular spreader system		
Hydraulic system can run all hydraulic functions simultaneously without Inhibiting the action of the others		

COMPLIANCE YES <u>NO</u>

SPECIFICATIONS FOR CENTRAL HYDRAULIC	MANUAL SYSTEM - ST	TAINLESS ENCLOSU	JRE
(Cont'd)			

SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STA (Cont'd)	INLESS EN	NCLOSUR
CONTROL VALVE GRENSON VALVE WITH PRIORITY FLOW INLET (Co	ont'd)	
Serviceable without disassembly		
Directional control valves shall be pre-compensated, proportional, And load independent		
Valve system shall be closed center for variable displacement pump		
Valve sections must be adjustable for pressure up to 5,500 psi and flow ratings up to 40 GPM.		
Each valve must be laminar flow design for minimal pressure drop. Where Required, each section must be able to limit the operating speed for the implement.		
Each section must be manually activated with manual push/pull cables		
There shall be a main pressure relieve set at 2,400 psi to protect against System over-pressurization		
Hoist section must be a PVG 100, 40 GPM 4-way section for double Acting hoist		
Plow lift and angle sections are also 4-way for double acting cylinders With crossover relief		
Spreader section shall have detent on one side of valve and self-centering on reverse		
Side of valve. Note: Please Refer To the 'Modular Granular and Liquid Valve' Section Of Option 1B. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications.		
All hydraulic hoses must be bulkhead mounted with metal tube style connectors. all tubes shall be labeled with the hydraulic operation		
Manufacturer must be authorized to perform warranty repairs and periodic Maintenance on hydraulic valve sections		
SPREADER CONTROL Spreader control shall be a dual knob valve with on/off handle.		

<u>ITEM # 1 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL</u> (CONT'D)

CDECLEVOATIONS FOR CENTER AT HAVER AND LIFE OF MANUAL CANCEEN. CTAINING	COMPLIAN YES	NO
SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINI (Cont'd)	LESS ENCLO	SURE
SPREADER CONTROL (Cont'd) Shall have individual flow adjustment knobs for the spinner and auger.		
Shall include a relief cartridge to protect the motors in the event of a material jam		
Valve shall feature spinner priority to reduce material pile up from the auger at low flow conditions		
CABLE CONTROLS Control valve shall be shifted via sealed cable assemblies		
Cable assembly shall feature a polyethylene conduit with armor over braid and Teflon liner		
Cable assembly shall be rated for a minimum of 100 lbs of pull and 80 lbs of push		
Cables shall be attached to the hydraulic valve with clevis pin and locking clips		
Cable to be attached to an in cab handle. Handle will be mounted in a location Convenient to the operator. The handle shall feature cast base construction with steel Internal parts and be rated for 80 lbs. Of output force. A knob with identification Label will be attached to the end of the handle		
Reservoir must be constructed of 10 gauge stainless steel. Reservoir/valve enclosure Shall be 40 gallon capacity with an integrated covered mounting area for the valve. All plumbing for the hydraulic valve inside the enclosure shall be SAE rated stainless Steel tubing and terminate on the front of the reservoir with JIC bulkhead connectors. The breather cap shall be mounted to an inspection lid. Inspection lid shall also provide For an in tank mounted return line filter. The filter assembly shall incorporate a 10 Micron 50 GPM filter element with a 25 psi bypass. The reservoir will include a Twist off filler/breather assembly with 40 micron vent filter and a fill screen. Reservoir Shall be complete with a sight temperature gauge and a magnetic drain plug. Suction Port will allow for installation of a 2" NPT 50 GPM suction screen. Suction screen shall Have a 3 to 5 psi bypass spring. A 2" full flow ball valve shall be installed in the suction Line. Removing of a lid to access the filter and breather cap is NOT ACCEPTABLE .		

The reservoir shall have a float switch to control PTO operation in the event of low oil.

COMPLIANCE WARRANTY FOR A CERTIFIED CENTRAL HYDRAULIC SECTIONAL VALVE GROUP FOR PLOW, AUGER AND SPINNER Warranty coverage runs for a period of one year from the date of Initial installation (or 13 months from day of shipment from certified Cirus control systems), or whichever occurs first. WARRANTY FOR BUMPER-TO-FRAME PLOW HITCH (SPH-A0000152) One year from date of delivery П SPECIFICATIONS FOR V-BOX SPREADER **GENERAL** 147 series v-box hopper style salt and sand spreader. Spreader shall be capable Of hauling and spreading free flowing granular materials. Unit shall consist of a 304 stainless steel body, rear discharge conveyor, spinner disk, power drive and All components necessary to make a complete operating unit. Unit shall be Manufactured in the usa by an iso 9001:2008 certified company. Specifications on the unit must accompany the bid. **BODY REQUIREMENTS** 14 yard capacity П \Box Inside length of hopper shall be 15' at top and 12' at bottom \Box Inside top width shall be 84" \Box \Box П П Side slope to be 45° minimum Front panel slopes shall be a minimum of 18° Hopper seams shall be continuous welded on inside П \Box П П Sides, ends and side supports shall be 10 gauge 304 stainless steel Top edge of hopper is formed "J" channel 2" x 1 ½" Auger trough shall be 10 gauge 304 stainless steel П П Longsills shall be 10 gauge 304 stainless steel \Box Cross sills shall be formed 7 gauge 304 stainless steel welded to side supports Lift hooks on each corner are 5/8" stainless steel round bar П П

		COMPLIANCE	
SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)	<u>YES</u>	<u>NO</u>	
BODY REQUIREMENTS (Cont'd) All hardware is stainless steel			
3/8" rod on 3/8" rod top grate screens with anti-freeze hinges are required equipment With auger conveyor v-box units			
AUGER REQUIREMENTS Twin 7" diameter hard faced variable pitch augers			
64 cir direct drive hydraulic motor			
Motor is directly coupled to end of auger shafts			
Auger shafts connect at front with a 2" 4 bolt flange bearing			
Rear auger drive has no motor guard bolted to rear			
One (1) led spreader light mounted to spreader box			
Four (4) 6" oval amber strobe lights with amber lenses mounted in stainless Steel tissue box			
SPINNER CHUTE ASSEMBLY 10 gauge 304 stainless steel			
Four (4) position telescopic adjustment			
Four (4) bottom spinner deflectors shall be overlapping to prevent loss of granular material when the deflectors are raised.			
Front deflector shall be fixed.			
Bottom overlapping spinner deflectors shall have four (4) positions of rod and pin adjustment without tools. Chain adjustable deflectors are NOT ACCEPTABLE .			
Poly 20" diameter spinner disc shall have replaceable machined hub			
Spinner hydraulic motor shall mount directly on bottom of spinner disc			
PAINT All metal surfaces shall be high pressure cleaned with a phosphate solution to Remove slag, splatter, oxide, and oil residue.			

		IANCE
SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)	<u>YES</u>	<u>NO</u>
PAINT (Cont'd) Non-stainless steel parts shall be painted or powder coated black		
304 stainless steel components unpainted		
TAILGATE LOCK KIT Main latch bar shall be 3" x 4.1 lb structural channel 84" wide		
Two (2) 3" x 4.1 lb x 8" structural channel with two (2) ½" x 1 ½" mounting hole shall be welded to main channel to bolt on spreader		
Two (2) 1 1/4" x 7" round stock tailgate latches to be welded to main channel		
TIE DOWN KIT Shall consist of four (4) chain style tie down assemblies		
Chains shall be grade 30 3/8" x 29 links		
Top plate shall be ¹ / ₄ " x 4 triple broke a1011 powder coated steel With banjo eye to accept 3/8" chain		
Tie down bracket shall be ½" x 4" x triple broke a1011 powder coated steel With 3/8" double link clevis to attach chain		
³ / ₄ " zinc plated turnbuckle to have grease fitting		
$\frac{1}{4}$ " turnbuckle shall have $\frac{1}{2}$ " – 13 nut welded to center to secure turnbuckle		
WARRANTY FOR 145-20 SERIES V-BOX SPREADER - 304 STAINLESS STE All parts of the product to be free from defects in material and workmanship for a	EL CONST	RUCTION
period of one (1) year		
SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING I MOLDBOARD SPECIFICATIONS	FULL PLOV	V
42" H x 11' L		
10 gauge carbon steel smooth rolled profile providing ultra-smooth Surface for snow deflection		
Overhang from cutting edge to have minimum 12" overhang with 10° attack angle		

COMPLIANCE SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW (Cont'd) MOLDBOARD SPECIFICATIONS (Cont'd) Top of moldboard shall be reinforced by 2 ½" x 2 ½" x 3/8" angle iron. Bottom of Moldboard is reinforced by 4 x 4 x 3/4" angle iron and is drilled to accommodate Aashto standards. Ribs are reinforced with 2 x 2 x 3/8 angle as well as the upper and lower Reinforcement angels. П П Ribs are 5" at the trip edge and 3" tall at the top edge by ½" wide Ribs are spaced to match support arm locations as well as provide adequate Support of the moldboard A total of 12 ribs shall be used per moldboard assembly П П Three (3) sets of double ribs and six (6) single ribs П П Each rib shall have a ½" relief at the corners where they attach to the reinforcement Angles. This will allow water to drain off the back of the moldboard during storage П П At the bottom of each rib there shall be three (3) 1 5/16" holes spaced at 1 7/8" Center to center to allow for semi-circle height adjustments П Two (2) sets of double ribs shall have three (3) 1 5/16" holes spaced at 2 1/4" center to Center to allow for attack angle adjustment П Weldments on the moldboard shall be continuous П П Outer ribs of moldboard will be drilled for marker installation П П Two (2) curb guards mounted each side of moldboard П П TRIP MECHANISM CONSTRUCTION Plow shall be full trip design consisting of two (2) coil springs Springs are ³/₄" wire with a coil od of 5 9/16" consisting of 16 full coils П Bottom angle is reinforced by eleven (11) ½" thick gussets spaced evenly to avoid Interference with cutting edge attachment hardware Cutting edge shall be 6" x 5/8" x 11' long and shall be drilled to AASHTO standards П Cutting edge shall be secured using 5/8" grade 8 carriage bolts

<u>COMPLIANCE</u>
<u>YES</u> <u>NO</u>

FICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW (Cont'd)

SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING	FULL PLO	W (Cont'o
PUSH FRAME Designed to hydraulically reverse the moldboard in an arc at any angle from 35° left to 35° right from a centered position		
Shall be constructed of ½" plate		
Supported above and below the semi-circle with 2 x4 x 3/16" tubing		
Shall be drilled to accept 1 ½" bolt at the semi-circle connection. At this connection Welded to the push frame is the female portion of the socket connection. This connect Distributes the pushing load directly from the push frame to the semi-circle and moldb Relieving stress on the bolted connection. The female socket connection is made from Plate steel and is contoured to match the male portion on the semi-circle	oard	
Rear of push frame shall be drilled to accept a removable QCP adapter. Three (3) sets 1 3/16" holes shall be drilled on 2" centers to allow for installation on a variety of Trucks and hitches	of	
Two holes shall be located at the top and bottom push frame plates drilled to accept 1 ½" bolts for hydraulic cylinder attachment		
All welds are to be continuously welded. NO EXCEPTIONS		
SEMI-CIRCLE CONSTRUCTION Semi-circle shall be constructed from 5" x 5" x 3/16" tubing. The main tube, Or push beam, is 5" x 5" x 5/16" at 120 inches long spanning the entire width Of the moldboard. This tube is constructed from one continuous piece		
There two stops placed appropriately to prevent the plow from turning Past 35° left or right		
Crank style jackleg (part #0091215) to be mounted on backside of semi-circle		
Hydraulic cylinder mounting points are ½" plates welded to the top and bottom Of the semi-circle. Plates shall be drilled to accept 1 ½" bolts for hydraulic Cylinder attachment. These plates also serve as locators for support arm shackles And gussets to provide additional support from the "push beam" to the rest of The semi-circle.	П	П

COMPLIANCE YES NO

SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW (Cont'd)

SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FU	ILL PLOW (C	ont a
SEMI-CIRCLE CONSTRUCTION (Cont'd) In the center of the semi-circle a hole shall be drilled to accept the 1 ½" grade 8 bolt That acts as the pivot point for the push frame. Also, at this point above and below The semi-circle is the male portion of the socket that relieves stress from the bolted Connection. This is made from 1" plate steel and is contoured to match the female Portion of the push frame.		
Tabs shall be welded on the push frame to accept ½" screw type chain shackles. These tabs shall be made from ½" plate steel 5 ¼" long and 2 ½" wide. They are welded to the backside of the 5" tubular push beam to increase the Weld surface area at 55° from the bottom of the semi-circle to match the chain		
Angel going to the lift arm on the hitch		
There are seven set of ¾" thick moldboard mounting ears installed along the Push beam for attachment of the moldboard. Moldboard shall pivot at these points On 1 ¼" diameter rivet pins with a washer and cotter pin on the opposite Side of the rivet head.		
Four (4) sets of the moldboard mounting ears (two outer on either side of the push beam) Shall have an inside spacing of 3/4" to accept a single 1/2" moldboard rib. Three (3) sets of moldboard mounting ears (the center sets) shall have an outside spacing of 2 3/4" to fit inside double moldboard ribs.		
Moldboard attachment ears to be gusseted with 4" triangular steel gussets		
Push frame shall connect to upper portion of the moldboard using two support Arms. The center of the support arm shall be made from $2 \times 2 \times \frac{1}{4}$ " square Box tube. Actual mounting points are 1" schedule 40 pipe fully welded through The box tubing. The box tubing shall be drilled through to accept the pipe. The actual connection point is a $7/8$ " bolt.		
ADJUSTABLE CAST MUSHROOM SHOES Plow to be fitted with adjustable cast steel mushroom shoes mounted left and right on rea Of semi-circle	ar	
A ½" steel plate to be welded onto the semi-circle rear with five (5) adjusting holes for Overall height		
Adjusting handle crank to be stowable against the show housing and allow up and down Movement of the shoe via threaded screw		
A 1 1/4" screw with adjusting nut are housed in a 3" square shoe housing with a welded On 5-hole mounting plate		

	COMPLIAN YES	NCE NO
ADJUSTABLE CAST MUSHROOM SHOES (Cont'd) Cast steel mushroom plow show has 6" bolt centers, 3/4" square holes and is 10.625" in Diameter and 2.34 inches thick.		
Grade 8 hardware shall be used throughout		
HYDRAULICS Plow angle shall be controlled by two double acting hydraulics cylinders		
Each cylinder shall have a 4" bore with an 8" rod diameter with a maximum Operating pressure of 3,000 psi.		
Retracted cylinder length is 21" with both the rod and cylinder ends accepting 1 ½" Bolts/pins for connecting to the semi-circle and push frame		
QCP Push frame is equipped with a removable QCP adapter for quick hitch applications		
QCP side plates shall be ½" formed plate		
QCP loop diameter shall be 2"		
PAINT Paint shall be of high quality, free of runs, overspray and defects		
Standard paint type will be epoxy		
Standard paint color shall be safety orange for the moldboard and black for the frame		
BUMPER TO FRAME PLOW HITCH SPECIFICATIONS		
FRONT HITCH FRAME Snow plow hitch must clear hood when open		
Frame is heavy duty, low profile, front frame mounted style. It is designed for use with Trucks equipped with a tilt hood and stationary grill		
Frame is capable of self-storing the hydraulic front lift arm cylinder when not in operational Allowing the lift arm to fold down parallel to the rest of the frame	on,	
Vertical supports of the hitch are constructed from 4" x 4" x 3/8" square tubing		

	COMPLIANCE	
	YES	NO
BUMPER TO FRAME PLOW HITCH SPECIFICATIONS(Cont'd)		
FRONT HITCH FRAME (Cont'd) Cylinder support bracket on the hitch is constructed a 3" X 2" rectangular tube. The two cylinder mounting tabs are ½" steel placed in the center of support bracket and spaced at 2 1/8" apart. Each tab is drilled to accept A 1" pin.		
 The upper horizontal support of the hitch is constructed of two (2) pieces: The first is a formed 3/8" plate that wraps the top and upper back portion of the Vertical supports this plate also acts as a stop when the lift cylinder is store as Well as one of two points the lift arms connection tabs are welded. The second horizontal support is a ½" contoured plate that allows the lift cylinder To be stored and provides a second mounting point for the lift arm connection 		
Tabs		
There are two (2) pairs of lift arm support shackles. Each pair is made from ½" x 9 ¾" Plate and are drilled to accept t ¼" pins		
Fully welded to the vertical supports are two c 8" x 18.75" channels with ½" thick end Plates. The end plates are drilled to accept six (6) 5/8" grade 8 bolts for attaching the hite Between the frame rails	ch	
Support of the lower portion of the hitch is provided by left and right weldments bolted to The tapered portion of the frame. Weldments are drilled with four (4) 5/8" holes for Mounting to the exterior of the truck frame.		
A 12-volt electric over hydraulic pump to operate the front hitch wing post slide located Behind cab		
FRONT HITCH PIN LOCK QCP Front plow attachment is made by a pin lock QCP assembly		
Top and bottom of the assembly are made from ½" contoured plate. Both plates are Drilled to accept the 2" lock pin		
Welded to the bottom plate is a 5/8" chamfered plate that both provides support to the Lock pin and helps to guide the QCP loop into the hitch		
Welded to the top of the plate is a formed 3/8" plate drilled for the 2" lock pin that Both provides support and protects the pin in the event a plow is set too high while Hitching.		

	COMPLIAN	CE
BUMPER TO FRAME PLOW HITCH SPECIFICATIONS (Cont'd)	<u>YES</u>	<u>NO</u>
BUMIER TO FRAME I LOW IIITCH SI ECIFICATIONS (Cont u)		
FRONT HITCH PIN LOCK QCP (Cont'd) In the front of the QCP assembly are two (2) ½" thick formed bumpers. These bumpers Are the resting/pushing point for the plow. They are curved to allow the plow to raise		
And lower smoothly.		
Lock pin is 2" tapered at one end for ease in guiding into position and has tabs welded to The other for the lift bar attachment		
HEAVY DUTY ARM LIFT ASSEMBLY Heavy duty lift arm is extendable style with seven (7) different extendable positions		
Frame of the lift arm is constructed from ½" x 4" steel plate that is formed to contour The outer tube of the extendable arm. The frame is also the connection point to the hitch And hydraulic cylinder		
The external tube is constructed of 4" heavy wall square tubing. On each end of the tube Are 1" wide bushings ground to fit the inner tube. This shall ensure a long lasting fit.		
Top plate on the lift are is 3/16" and is used to prevent "racking" of the frame Inner tube is constructed of 3" heavy wall square tubing. Tubing is drilled to allow for The seven (7) extendable positions		
Welded to the front of the inner tube is a formed ½" plate with notches to accept Standard 1/2" link chain. When required this plate can be changed to match Different level systems.		
HYDRAULIC LIFT CYLINDER Hitch is provided with a single acting 4" x 10" hydraulic cylinder. A double acting Cylinder can be provided for applications where plow "float" hydraulic controllers		
Are used.		
WARRANTY FOR STEEL MOLDBOARD TUBE TABLE, POWER INFINITE RIFULL PLOW (SPX-00000050)	EVERSING	
One year from date of delivery		
OPTIONS 1A. Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Option	1 <u>S</u>	
Body shall be heated through diverter box with thermos-switch for activation with Stainless steel piping		

OPTIONS (Con424)	COMPLIANO YES	<u>CE</u> <u>NO</u>
OPTIONS (Cont'd) 1B. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications		
General Controller shall have 3 PWM output channels for liquid and granular spreader controller		
The controller shall be a microprocessor type capable of PWM control of three Hydraulic valves.		
Controller must be automotive grade for durability. Any gamming type controllers are Unacceptable.		
The controller must offer ground speed control from vehicle signal. No GPS antenna car Be used for ground speed signal input.	n 	
The controller must have three channels to operate an auger/conveyor and liquid System.		
PWM signal must be adjustable for a wide range of implement functionality.		
The controller shall be capable of ground speed oriented spreading, ground speed triggered, and manual mode.		
The system will offer a manual mode lock out option.		
The spreader controller will operate in open or closed loop configuration.		
Controller shall offer remote pause, unload mode, liquid float input, test speed, And on-screen error with alarms and message reporting.		
Sensor short detection with message and alarm.		
System must have 2 auxiliary output channels available.		
AVL data transfer is available with an additional modem.		
System shall offer spinner configurable mph shut off, storm totals on screen or With USB.		
Operator screen offers knobs or touch screen to control granular and liquid outputs.		
There shall be 9 independently programmable feeder outputs channels for actuate Lbs. Per mile output.		

	COMPLIAN YES	<u>CE</u> NO
OPTIONS (Cont'd) 1B. <u>Freedom 2.2 Spreader Control In Lieu Of Manual Specifications</u> (Cont'd) General (Cont'd)		
The spinner shall also offer 9 programmable speeds for the spinner.		
System will maintain up to 4 different granular material types.		
There shall be an integrated blast mode with instant off to stop output if necessary.		
Blast must be programmable for flow rate and material distance.		
Unit shall provide an unload mode at speeds of up to 5 mph.		
A standby (pass) mode shall be provided to allow for momentary interrupt of the spreade Without changing the feeder/spinner/liquid output.	r	
All programing and calibration shall be accomplished using the touch screen of The controller.		
Detachable key board for programming is NOT ACCEPTABLE .		
Modular Granular and Liquid Valve *If the freedom 2.2 spreader control is chosen, spreader with detent and reverse on uncontrol valve on page 42 will need to be removed, and replaced with the following:	der	
The modular manifold must be constructed of 6061 anodized aluminum.		
Modular manifold must have an adjustable pressure of up to 3500psi with multiple flow, Pressure, performance, and function configurations.		
Each function will be equipped with screw adjustable manual overrides protected by jack Debris covers. The modular manifold can operate in either open center (fixed displacement) or	ceted	
Closed center (variable displacement) hydraulic circuits.		
The auger / conveyor must be rated at 15 GPM and features a cartridge valve design for Precision spreading.		
The spinner valve must provide 10 GPM and also feature a cartridge design valve With manual override.		
Pre-wet or anti-ice implements are also available as a 10 GPM hydraulic circuits if necessary.		

	COMPLIAN YES	<u>ICE</u> NO
OPTIONS (Cont'd) 1B. <u>Freedom 2.2 Spreader Control In Lieu Of Manual Specifications</u> (Cont'd)	<u>—</u>	
These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.		
Spreader control "outside the cab" harnessing shall meet ip 68 standards.		
The modular manifold can operate in either open center (fixed displacement) or Closed center (variable displacement) hydraulic circuits.		
The auger / conveyor must be rated at 15 GPM and features a cartridge valve design for Precision spreading.		
The spinner valve must provide 10 GPM and also feature a cartridge design valve With manual override.		
Pre-wet or anti-ice implements are also available as a 10 GPM hydraulic circuits If necessary.		
These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.		
Spreader control "outside the cab" harnessing shall meet IP 68 standards.		
Connections must be Nema x6 standards for dust protection.		
Outside the cab connections shall be rated as Nema "x8" – protected against The effects of permanent submersion in water as well as able to show no corrosion After 500 hours in a 35° salt spray.		
The entire hydraulic system shall be completely serviceable without removing from the Enclosure or disassembling sections		
The electronics and hydraulics shall be manufactured by the same company.		
The hydraulic system shall be pressure and flow tested before the installation process.		
The modular spreader valve manifold will be mounted in a weather resistant enclosure.		
Enclosure shall be vented to reduce moisture and finished with 304 stainless steel.		

	COMPLIAN	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>
1C. Central Hydraulic System (Electric Proportional Plow / Granular Controls Spe	cifications)	
In Lieu Of Manual Controls	•	
The in-cab control system shall be an integrated proportional multi-axis (x, y) (3) joystic. Console with circuit panel and spreader control.	k □	
0-5000 gauge		
Dump body hoist, front plow, and wing plow shall be controlled by three individual Joysticks capable of proportionally controlling up to 5 bi-directional valves.		
Dump body lever must have safety trigger protection.		
Controller must include integrated protection and diagnostic systems with safety features Incorporated.		
System must have user settable speed control for all hydraulic functions.		
Unit shall be designed for floor mount pedestal with armrest		
System will integrate with the freedom 2 granular / liquid control systems in The housing		
System must supply pulsed voltage to each individual valve coil.		
All connections inside the valve enclosure shall be ip68 rated.		
All connections will be labeled with appropriate descriptions for each connection To individual solenoids of the hydraulic actuating cylinders.		
System must also have integrated accessory control switches: the system Will include up to six (6) switches and up to six (6) warning indicator lights Mounted in the controller.		
Each switch will handle 12v up to 10amp load and can be operated as on/off, Momentary or on/off/on as needed.		
Installing dealer must be authorized to preform warranty repairs and periodic Maintenance on certified products.		

COMPLIANCE YES NO

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П

OPTIONS (Cont'd)

1C. <u>Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications)</u>
<u>In Lieu Of Manual Controls (Cont'd)</u>

D.		:	/ 7 ~ 1		T	
Kί	eserv	oir	/ v a	ıve	Enc	losure

Reservoir must be constructed of 7ga stainless steel. Reservoir/valve enclosure must Be 40-gallon capacity with an integrated covered mounting area for the valve. All Plumbing for the hydraulic valve inside the enclosure will be sae rated stainless Steel tubing and terminate on the front of the reservoir with jic bulkhead connectors. The breather cap shall be mounted to an inspection lid. Inspection lid shall also Provide for an in tank mounted return line filter. The filter assembly shall incorporate A 10 micron 50GPM filter element with a 25 psi bypass. The reservoir will include a Twist off filler/breather assembly with 40 micron vent filter and a fill screen. Reservoir Shall be complete with a sight temperature gauge and a magnetic drain plug. Suction port Will allow for installation of a 2" npt 50 GPM suction screen. Suction screen will have A 3 to 5 psi by-pass spring. A 2" full flow ball valve shall be installed in the suction line. Removing of a lid to access the filter and breather cap is not acceptable. The reservoir Shall have a float switch to control PTO operation in the event low oil. П П **Freedom 2.2 Spreader Control** Controller shall have 3 PWM output channels for liquid and granular spreader Controller The controller shall be a microprocessor type capable of PWM control of three Hydraulic valves. Controller must be automotive grade for durability. Any gamming type controllers are Unacceptable. The controller must offer ground speed control from vehicle signal. No gps Antenna can be used for ground speed signal input. \Box The controller must have three channels to operate an auger/conveyor and Liquid system. PWM signal must be adjustable for a wide range of implement functionality. The controller shall be capable of ground speed oriented spreading, ground Speed triggered, and manual mode. The system will offer a manual mode lock out option.

The spreader controller will operate in open or closed loop configuration.

OPTIONS (Cont'd)	COMPLIA YES	NCE NO
1C. <u>Central Hydraulic System (Electric Proportional Plow / Granular Controls Sp. In Lieu Of Manual Controls</u> (Cont'd)	oecifications)	
Freedom 2.2 Spreader Control (Cont'd) Controller shall offer remote pause, unload mode, liquid float input, test speed,		
And on-screen error with alarms and message reporting.		
Sensor short detection with message and alarm.		
System must have 2 auxiliary output channels available.		
AVL data transfer is available with an additional modem.		
System shall offer spinner configurable mph shut off, storm totals on screen or With USB.		
Operator screen offers knobs or touch screen to control granular and liquid outputs.		
There shall be 9 independently programmable feeder outputs channels for actuate lbs. per mile output.		
The spinner shall also offer 9 programmable speeds for the spinner.		
System will maintain up to 4 different granular material types.		
There shall be an integrated blast mode with instant off to stop output if necessary.		
Blast must be programmable for flow rate and material distance.		
Unit shall provide an unload mode at speeds of up to 5 mph.		
A standby (pass) mode shall be provided to allow for momentary interrupt Of the spreader without changing the feeder/spinner/liquid output.		
All programing and calibration shall be accomplished using the touch Screen of the controller.		
Detachable key board for programming is NOT ACCEPTABLE		
Modular Granular and Liquid Valve The central hydraulic valve system shall be a mobile design to withstand exposure		_
To de-icing chemicals and severe weather conditions.		\Box

COMPLIANCE YES NO **OPTIONS** (Cont'd) 1C. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd) Modular Granular and Liquid Valve (Cont'd) System shall provide hydraulic fluid to operate the dump body hoist, front plow, And granular spreader system. Hydraulic system can run all hydraulic functions simultaneously without inhibiting The action of the others. Valve sections shall be of cast iron, horizontally stackable, and serviceable without Disassembly. Directional control valves shall be pre-compensated, proportional, and load Independent. П П Valve system shall be closed center for variable displacement pump. \Box Valve sections must be adjustable for pressures up to 5000psi and flow ratings Up to 40 GPM. Each valve must be laminar flow design for minimal pressure drop. Where required each section must be able to limit the operating speed for the implement. \square П Each directional valve section must have a built-in check valve prevents the oil From flowing via the pressure adjustment spool to tank. П П There shall be main pressure relieve set at 2400psi to protect against system Over-pressurization. Hoist section must be a PVG 100, 40 GPM 4-way section for double acting hoist With flow control. П Plow lift and angle sections are also 4-way for double acting cylinders with crossover Relief and flow control. The hydraulic system shall be pressure and flow tested before the installation. П П Installing dealer must be certified to perform warranty repairs and periodic Maintenance on hydraulic valve sections. П П The spreader manifold must be constructed of 6061 anodized aluminum.

COMPLIANCE YES NO

1C. <u>Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications)</u> <u>In Lieu Of Manual Controls</u> (Cont'd)			
Modular Granular and Liquid Valve (Cont'd) Spreader manifold must have an adjustable pressure of up to 3500psi with multiple flow. Pressure, performance, and function configurations.	, □		
Each function will be equipped with screw adjustable manual overrides protected By jacketed debris covers.			
The spreader manifold can operate in either open center (fixed displacement) or Closed center (variable displacement) hydraulic circuits.			
The auger / conveyor must be rated at 15 GPM and features a cartridge valve design for Precision spreading.			
The spinner valve must provide 10 GPM and also feature a cartridge design Valve with manual override.			
Pre-wet or anti-ice implements are also available as a 10 GPM hydraulic circuits If necessary.			
These functions are proportional controlled, pulse width modulated, pressure and flow Compensated, with heavy duty 12vdc coils.			
Spreader control "outside the cab" harnessing shall meet ip 68 standards.			
Connections must be Nema x6 standards for dust protection.			
Outside the cab connections shall be rated as Nema "x8" – protected against the Effects of permanent submersion in water as well as able to show no corrosion After 500 hours in a 35°c salt spray.			
The entire hydraulic system shall be completely serviceable without removing From the enclosure or disassembling sections.			
The electronics and hydraulics shall be manufactured by the same company.			
The hydraulic system shall be pressure and flow tested before the installation process.			
The modular spreader valve manifold will be mounted in a weather resistant enclosure.	П		

	COMPLIAD YES	NCE NO
OPTIONS (Cont'd) 1C. <u>Central Hydraulic System (Electric Proportional Plow / Granular Controls Spo</u> <u>In Lieu Of Manual Controls</u> (Cont'd)	ecifications)	
Modular Granular and Liquid Valve (Cont'd) Enclosure shall be vented to reduce moisture and finished with black powder coat Or stainless steel.		
Specifications for Patrol Wing - Wing Post Front wing post shall be removable for summer operation		
The front hitch shall be constructed so that the wing post mount will be able to slide in An out to allow the tilt hood to move forward without obstruction for maintenance and Daily fluid checks.		
The front wing post slide function will be accomplished using a hydraulic cylinder Controlled by an in-cab push button and driven by an independent electric hydraulic Pump		
Front Hitch The plow lift hinge shall be flame cut from 3/4" steel plate and shall have a full plate Gusset at the top.		
The plow lift cylinder shall be 4" x 10" double acting and shall have O-ring seals.		
QCP hitch with 2" tapered pin;		
There shall be a 10-gauge break formed bumper extension left side.		
Front Post There shall be provisions for a minimum of 8" of float for the front of the wing.		
The cylinder shall have O-ring seals and wipers.		
There shall be a 1-1/4" x 12" wing slide to wing hinge pin and a 1-1/4" wing Hinge to wing bolt.		
Arm Wing Enables the chassis hood to open for maintenance and regular fluid checks.		
Trip Wing Hinge The wing shall be attached to the front wing post with a trip hinge.		
The hinge shall be designed to allow the wing to trip and reset automatically		

		COMPLIANCE	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>	
1C. Central Hydraulic System (Electric Proportional Plow / Granular Controls Spe	ecifications)		
In Lieu Of Manual Controls (Cont'd)			
Trip Wing Hinge (Cont'd) When hitting an obstruction.			
The reset shall be with a rubber compression not with coil spring.			
The hinge shall have two offset hinges to lift the wing as it trips.			
Side Wing Moldboard The wing shall be designed for the right side of the truck and shall be heavy duty.			
Wing shall have an overall length of 132" and shall have a 120" x 8" 2' cutting edge.			
The nose height shall be 32" and the discharge height shall be 39.2"			
The cutting edge backer shall be 4" x 6" x 5/8" with gussets and shall be punched to Accept 8" or 3" x 3" x 12" punch cutting edge.			
Welded to this backer shall be a minimum of five (5) 3/8" ribs			
The leader shall be a minimum of 1" plate steel and shall have two (2) holes to accept A 1 1/4" wing bolt			
 Steel support sliding pivot weldment when in operation the Tubes will run from frame rail to frame rail Two (2) 1" quick release hitch pins in easy to reach location to lock the pivot Weldment into place during operation mode Hydraulic cylinder mounted to the hitch to allow the pivot point to slide Out 12" and allow the hood to open for maintenance Slide cylinder will be actuated using an electric hydraulic pump unit mounted in A stainless steel protective box in the frame rails of the chassis behind the cab 3" x 12" toe cylinder to allow front edge of plow to raise 12" off the ground 			
There shall be several places longitudinally at the back of the wing to allow the push Arms to be attached at proper angles.			
The steel on the side wing will be sandblasted and primed. The plow shall be painted Orange on the front and black on the back.	П	П	

COMPLIANCE YES NO **OPTIONS (Cont'd)** 1C. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd) **Specifications for Patrol Wing (Cont'd) Rear Wing Post Mount** The rear post wind mount will be removable for summer paving operation using a bolt On steel plate The rear post mount shall be as follows: ½" plate permanent mounted weldment bolted to the frame with a cross member Under the frame to support channel on driver's side. The frame will not be mounted To the lift axle cross member • Removable forward portion rear ½" plate mounting weldment bolted to the Permanent section support to allow to forward mount to be removed during the summer 4" round torque arm with dampening spring to support rear pf plow board 1D. Paint for Dump Body Paint specified dump body in a single stage paint a single color (i.e. School bus Yellow or other paint color from color chart) П П 1E. Road Department Paint Color Scheme School bus yellow from the bottom of the windows down, Bahama Blue from the bottom of the windows up to and including cab roof and Back, on hood from bottom of windsheild to a pont on the hood to make A "v" and match the road department fleet. П Shall be base coat clear coat П П (Note: not all vehicles will be painted this way) 1F. Spreader Leg Stands Main channels to be constructed of 2" x 6" x 7ga tubing Galvanized tubing is done to ASTM a123 grade 100 – 3.9 mil minimum thickness П П Crossmembers to be 3" structural channel Telescoping rear legs to be constructed of 3 ½" x 3 ½" x 3/16" tubing П П Adjustable front legs to pivot, constructed of 4" x 4" x 3/16" tubing П П

	COMPLI	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>
1F. Spreader Leg Stands (Cont'd)		
4" adjustable steel front roller wheels		
Body guide wheels front and rear of stand		
1G. One-Way Plow with QCP		
The one-way plow shall be designed to be heavy duty and shall be of a high		
Speed design.		
It shall have a clearing path of 9' with an 11' 3" cutting edge length including		
The nose shoe.		
The cutting edge shall be 132" x 8" x 2" and shall be replaceable.		
The plow shall have a nose height of 29" and a discharge height of 55".		
The moldboard shall be manufactured with a 2" x 2" x 1/4" angle leader welded		
To the 5 - 3/8" ribs and the steel nose plate.		
The bottom cutting edge backer shall be 4" x 6" x 5/8" angle with gussets.		
This angle shall be punched to allow the use of both 8" and 3"-3"-12" punched		
Cutting edges.		
There shall be a 3" x 3" angle mid-way of the ribs from the discharge end to the		
Nose end.		
The moldboard shall be roll formed of 10 gauge steel.	П	П
The moraecura chain ce for formed of to gauge been	_	_
The moldboard shall pin to the push frame with 3 Au≅ shaped connectors.		
Two of the connectors shall have a heavy duty coil spring to allow the moldboard		
To trip and assist in absorbing road shock.		
The push frame shall have a 4" x 6" x 5/8" plated angle front with two (2)		
4" x 4" x 3/8" tubular steel push arms and there shall be three diagonal		
Braces with in the push arms.	Ц	
There shall be a safety chain to prevent the moldboard from tipping over when	_	
Adjuster pin is removed.		
The plow shall have two adjustable push frame shoes and two moldboard shoes.		

<u>ITEM # 1 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)</u>

	COMPLI YES	IANCE NO
OPTIONS (Cont'd)	<u>1 E5</u>	110
1G. One-Way Plow with QCP (Cont'd)		
The plow shall be manufactured to accept carbide edges and adjust to 55 degrees		
To 60 degrees attack angle.		
The entire steel structure will be sandblasted and primed. The plow shall be		
Painted orange on the front and black on the back.		
Plow shall have QCP loop installed with 2" diameter loop		
1H. <u>Diagnostic Tools / Test Equipment</u> Cummins Quickserv Unlimited Service plan, with renewals, shall be provided at no cost to the county for a period of five (5) years from the acceptance of the equipment		
1. Successful bidder shall be required to supply between one (1) and three (3) Complete sets of testing/diagnostic/programming equipment (i.e. Laptop, Software, cabling, and adapters) and special tools required to perform the Full range of diagnostic and maintenance actions necessary to maintain Vehicle operability. This equipment will cover the vehicle chassis, engine,		
Transmission, brakes, hydraulics, and all additional equipment (if applicable) 2. All laptop computers will be of the newest available technology and have		
sufficient storage and memory to operate all required software		
3. Provide a list of all test/diagnostic/programming equipment and special tools	_	_
being supplied at the time of bid All actives installations and active tions will be completed by the successful.		
4. All software installations and activations will be completed by the successful bidder at no cost to the county		
5. All software updates and renewal will be provided at no cost to the county	Ш	Ц
for a period of five (5) years from the acceptance of the equipment		
6. All technical issues relating to test/diagnostic/programming equipment and special tools shall be resolved by the successful bidder at no cost to the		
county for a period of five (5) years from the acceptance of the equipment 7. Training shall be provided on all items in this section at a specified county		
location		
11. <u>Two-Way Radio Power and Wiring Requirements for New Vehicles</u> For the purpose of installing two-way radios into new county vehicles and equipment,		
The following power and wiring components shall be included:		
 #12 AWG red wire connected to 12vdc battery source rated at 20 amps 		
• #12 AWG black wire connected to chassis ground		
• #16 AWG yellow wire connected to 12vdc ignition sense rated at 5 amps		
Wires shall be encased in plastic wire loom and routed from their source into the		
Cab of the vehicle and secured in the vicinity of the operator. Wiring harness shall be Clearly labeled "two-way radio". Wires shall be unterminated. 12vdc sources		
Shall be protected from making contact with grounded metal surfaces	П	

ITEM # 1 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)

COMPL	IANCE
YES	NO

 \Box

OPTIONS (Cont'd)

classes are scheduled.

IJ. Installation of County Supplied Two Way Radio and Acc	Accessories
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Install is to include but not limited to antenna cable, mounts, speakers, brackets, etc.

For the purpose of installing two-way radios into new county vehicles and equipment, The following power and wiring components shall be included: 1. #12 awg red wire connected to 12vdc battery source rated at 20 amps. 2. #12 awg black wire connected to chassis ground. 3. #16 awg yellow wire connected to 12vdc ignition sense rated at 5 amps. These wires shall be encased in plastic wire loom and routed from their source into The cab of the vehicle. The wiring harness shall be clearly labeled "two-way radio". The 12vdc sources shall be protected from making contact with grounded metal surfaces. П 1K. Technical Support Technical support is to be provided by factory authorized technical representatives and Is to be the original equipment manufacturer's industry standard technical presentation In a classroom setting. The support provided shall be at the journeyman/equipment technician Level and should address limited theory, fault diagnosis and repair pertaining specifically to the equipment supplied under this specification. \Box Technical support may be requested in the following areas: Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location. Transmission – 1 day at each location Electrical – 1 day at each location Brakes – 1 day at each location Hydraulic system (dump body, spreader, snow plow) – 1 day at each location Upfitter (dump body, sweeper, etc.) -1 day at each location A technical representative(s) shall be made available for a total of 180 training/support Hours (anticipated to be scheduled in six (6) hour blocks). Shorter training days will be Allowed only with consent of vehicle services. The total training hours will be required To be provided and no additional compensation will be considered. The actual time to be Spent on each area will be by mutual agreement of the vehicle services department and The successful bidder. \Box П For the purposes of determining materials and other training costs, class size is Anticipated to be comprised of six (6) to ten (10) vehicle services department personnel. Actual class size will be determined by the vehicle services department at the time the

<u>ITEM # 1 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)</u>

	COMPLIANCE	
	YES	NO
OPTIONS (Cont'd)		
1K. <u>Technical Support</u> (Cont'd)		
Before the training is scheduled, vehicle services and the contractor will agree on the		
Scope of the training, and the type and quantity of manuals, etc. That are necessary for		
Proper coverage.		
Technical support for vehicle services may be provided at the following fleet Maintenance facility location as scheduled by a vehicle services department Representative:		
• Toms River, 152 Chestnut Street, Toms River, N.J. 08753 (two (2) sessions will be provided at this location. One beginning at 7 am and another beginning at 1:30 pm)		
• Manahawkin, 379 Haywood Road, Bldg. 109, Manahawkin, N.J. 08050		
Technical support for other departments will be held at a location within Ocean County. The requesting department will notify the successful bidder of		
The location. Training at the successful bidder's site, rather than the designated		
Locations, will be by mutual consent only. Technical support will be requested		
And scheduled on an as needed basis up to but not exceeding the 180 hours total		
During a period not to exceed twelve (12) months from the date of placing the		
Last unit in service.		

Manufacturer/Model: Click or tap here to enter text.

Engine: Click or tap here to enter text.

Transmission: Click or tap here to enter text.

Warranty: Click or tap here to enter text.

Delivery, **A.R.O.**: Click or tap here to enter text.

	COMPLI YES	IANCE NO
MODEL CONTRACTOR OF THE PROPERTY OF THE PROPER		
Set Forward Axle		
Lh Primary Steering Location		
GENERAL		
Maximum 8% Expected Grade		
3 Axle Tractor		
Front Axle 16,000 Lbs.		
Rear Axle 46,000 Lbs.		
Registered GVWR 80,000 Lbs.		
ENGINE		
Cummins X15 Performance Series		
14.9 L 912 Cid Minimum 525 HP @ 1900 rpm		
Gov 1900 Rpm, And 1850 LbFt. Torque @ 1000 rpm		
Must Be In Line 6 Cylinder of Wet Sleeve Design, Utilizing Hardened Cylinder Liners for Durability, And Electronics for Simple Service And Diagnosis When Needed		
Minimum Displacement Shall Be 14.9 Liters		
Engine Must Comply With Latest Federal Mandate for Diesel Emissions		

<u> </u>	COMPLIANCE	
ENGINE (Cont'd)	<u>YES</u>	<u>NO</u>
Should An Alternate Power Plant Be Offered, The Bidder Shall Provide All Necessary Technical Data To Show Proof Of Equality, Including Maintenance Schedules		
ENGINE EQUIPMENT		
Engine Shall Have Latest 50 State Clean Idle Diesel Emission Certification		
Oil Check and Fill: Engine Mounted		
Air Intake: Side of Hood Air Intake with Engine Mounted High Capacity Air Cleaner and Passive Precleaner Integrated Into Hood		
Alternator: 200 Amp 28si with Remote Battery Volt Sense		
Batteries: Four (4) 12-Volt 740rc Maintenance-Free 4000 CCA		
Stack Battery Box with Aluminum Cover: Frame Mounted Right Side Aft Of Cab		
Positive Load Disconnect Control Switch Mounted Outboard Of Driver Seat		
Remote Jump Start Studs Mounted On Frame Next To Starter		
Silicone Heater/Radiator Hoses Where Possible		
Compressor: Cummins 18.7 CFM with Internal Safety Valve		
Engine Protection: Electronic Engine-Integral Warning System with Shut Down Function		
Engine Brake: Cummins Intebrake Compression Brake With On Off Dash Switch and Low, Med, and High Retardation Switch		
Exhaust: Single Right-Hand Under Cab ATD with Bright Finish Upper 11' Dual Curved Vertical Stacks and Elbows Cab Mounted LH & RH		
Exhaust Shields: Stainless Steel		
Fan Drive: Electronically Controlled Variable Speed Viscous Automatic Fan Control with Dash Switch and Indicator Light		
13 Gallon Diesel Exhaust Fluid Tank		

(801,12)	COMPLIANCE	
ENCUME EQUIDMENT (Cond) A	<u>YES</u>	<u>NO</u>
ENGINE EQUIPMENT (Cont'd) Non-Polished Aluminum Cover for DEF Tank		
Oil Filter: Full-Flow		
Radiator: 1400 Square Inch Server Service Assembly Bolted To Engine		
Radiator Drain Valve		
Radiator Protection Package		
2 Piece Fan Shroud and Rear Rock Guard		
Ethylene Glycol Pre-Charged SCA Heavy Duty Coolant-34F		
Coolant Houses: Silicone Heater, Radiator, Where Possible		
Hose Clamps: Constant Tension for Coolant Hoses and Air Intake System		
Engine Heather: Phillips 1500w/115v		
Chrome Heater Receptacle: Mounted Under Driver's Door		
Cast Iron Front and Rear Engine Supports		
Starter: Delco 12v 39mt + HD OCP		
TRANSMISSION AND EQUIPMENT		
Allison RDS 4700 Automatic Transmission with PTO Provision		
Programming For Max Speed of 70 Mph		
S1 Performance Primary Shift Schedule		
1900 Rpm Primary Mode Shift Speed		
Disable-Load Based Shift Schedule		
Transmission Prognostics-Enabled		
PTO Mounting LH Side Of Main Transmission		
Water to Oil Transmission Cooler		

<u></u>	COMPL	IANCE
TRANSMISSION AND EQUIPMENT (Cont'd)	<u>YES</u>	<u>NO</u>
Magnetic Plugs, Engine Drain, Transmission Drain, Axle(S) Fill and Drain		
Push Button Shift Control		
Synthetic Transmission Fluid		
Transmission Oil Check And Fill With Electronic Oil Level Check		
FRONT AXLE AND SUSPENSION		
Detroit Da-F 16.0-5 16,000 Lb. 71.5 KPI/3.74 Drop Front Axle		
Meritor 16.5x6 Q+ Cast Spider Cam Front Brakes		
Brakes, Double Anchor, Fabricated Shoe		
Non-Asbestos Front Brake Lining Severe Service		
Conmet Cast Iron Front Brake Drums		
Front Brake Dust Shields		
Front Oil Seals		
Vented Front Hub Caps with window, Center and Side Plugs		
Synthetic 75W-90 Front Axles Lube		
Haldex Automatic Front Slack Adjusters with Stainless Steel Clevis Pins		
Bendix Single High Capacity 14.6-18k Steering Gear		
Power Steering Oil/Air Cooler		
16,000# Taper Leaf Front Suspension		
4 Quart Power Steering Reservoir		
Threaded Springs Pins and Bushings		
Front Shock Absorbers		
REAR AXLE AND SUSPENSION Meritor Rt-46-164p Tandem Rear at 46,000 Lbs.		

(001.12)	COMPLIANCE	
	YES	NO
REAR AXLE AND SUSPENSION (Cont'd) Iron Rear Axle Carrier Housing		
SPL250HD XL Dana Spicer Main Driveline with Half Round Yokes		
SPL170 XL Dana Spicer Interaxle Driveline with Half Round Yokes		
Driver Control Differential Lockout Both Rear Axles, Indicator Light For Traction Device		
Synthetic 75W-90W All Axles		
Meritor 16.5 X 8.62"Cast Spider Cam Double Anchor Fabricated Shoes		
Non-Asbestos Rear Brake Lining		
Conmet Cast Iron Rear Brake Drums		
Rear Brake Dust Shields		
Haldex Automatic Rear Slack Adjusters W/Stainless Steel Clevis Pins		
Rear Oil Seals		
Bendix Eversure Longstroke 2-Drive Axle Spring Heavy Duty 30/36		
Parking Brake Chambers		
Forward Of Axle Mounted Parking Chambers		
Standard Spindle Nuts For All Axles		
46000# Tuftrac Suspension Rubber Isolated Pivit Points Parabolic Taper Leaf Springs Rubber Elastomer Bushings Maintenance Free		
56" Axle Spacing		
Fore/Aft and Transverse Control Rods		
Rear Shock Absorbers – Two Axles		
BRAKE SYSTEM EQUIPMENT		
Wabco 4S/4M ABSs With Traction Control And Off-Road Switch		

SI ECIFIED, OK EQUAL (CONT D)		COMPLIANCE YES NO	
BRAKE SYSTEM EQUIPMENT (Cont'd)			
Reinforced Nylon, Fabric Braid And Wire Braid Chassis Air Lines			
Bendix Brake Valves Where Possible			
Relay Valve With 5.5 Psi Crack Pressure			
Bendix Ad-9 Air Dryer- Frame Mounted			
Aluminum Air Brake Reservoirs			
Cab Blow Out Kit With Nozzle Inside LH Cab Entry Door			
Dv-2 Auto Drain Valve With Heat To Wet Tank, Pull Cables On All Other Air Reservoirs			
Hand Control Valve For Trailer Brakes			
FRAME AND WHEELBASE 220" Wheelbase with 130" C/T			
.51 X 343 X 10-3/4 Steel Frame 120 KSI 26.81 Sm 3,216,626 RBM Single Channel			
Splayed Frame Rails Front of Chassis, No Inner or Outer Frame Reinforcements			
Phosphate Coated Frame Bolts			
Tapered Rear End of Frame For Plate Mount			
Heavy Duty Ductile Iron Engine Crossmember			
Heavy Duty Back Oftransmission Crossmember			
Heavy Duty Steel Midship #1 Crossmember			
Tractor Steel C-Channel Crossmember With 3.5" King Pin Clearance			
Standard Weight Rear Mounted Suspension Crossmember			
CHASSIS EQUIPMENT Connector Powered Through Ignition Mounted End Of Frame			
5/16" Bright Steel Bumper With Center Tow Pin			

STECTIED, ON EQUILE (CONT D)		COMPLIANCE	
CHASSIS EQUIPMENT (Cont'd)	<u>YES</u>	<u>NO</u>	
Fender Mounted Front Mud Flaps			
LH Back Of Cab Access			
Fine Threaded Hex Chassis Fasteners Phosphate Coated			
Air Piping and Electrical Independently Clipped To Frame			
7-Way Round Trailer Plug			
Holland Fw35 ILS Air Slide 5 th Wheel W/Left Hand Release			
Tractor Access Package Including Step Provided For Back Of Cab Access And Deck Plate Between Frame Rails. Step And Hand Rail On Driver's Side.			
A Hydraulic Hose Hanger Shall Be Installed In A Way That Allows The Hydraulic Hoses To Be Safely Coiled While Not In Use. There Shall Be Dummy Hydraulic End Couplers Installed Where The End Fittings Of The Hydraulic Hoses Can Plug Into After Coiling; This Will Prevent Damage To The Fittings And Hoses As Well As Protect From Contamination.			
<u>FUEL TANKS AND EQUIPMENT</u> Single LH 150 Gallon Fuel Tank With Steps W/60 Gallon RH Hydraulic Oil			
LH Fuel Tank Mounted Forward			
25" Diameter Fuel Tank(S)			
Aluminum Fuel Tank Bracket(S)			
Plain Aluminum Fuel Tank With Polished Stainless Bands			
Alliance Fuel/Water Separator With Heated Bowl And Indicator Light			
Inboard Fuel System			
High Temperature Reinforced Nylon Fuel Hose			
No Fuel Cooler			
In Tank Fuel Lever Sender			

<u> </u>		COMPLIANCE	
FRONT TIRES, HUBS, AND WHEELS	<u>YES</u>	<u>NO</u>	
Michelin XZE 12R X 22.5 16 Ply			
Conmet Iron Front Hubs			
Accuride 28828 Inset 2 Hand 22.5 X 8.25 10-Hub Pilot Disc Front Wheels			
REAR DRIVE TIRES, HUBS, AND WHEELS			
Michelin Xds2 11r 22.5 16 Ply Rear Drive Axle Tires			
Conmet Iron Rear Hubs			
Accuride 28828 2 Hand 22.5 X 8.25 10 Hub Pilot Steel			
Steel Disc Rear Wheels			
Nylon Wheel Guards Front And Rear All Interfaces			
Wheel-Check High Visibility Green Loose Wheel Nut Indicator On All Wheels			
CAB EXTERIOR 121" BBC Conventional Steel Reinforced Aluminum Cab			
Galvanized E Coated Sealed Steel Door Construction			
Forged Steel Door Hinges With Steel Reinforced "A" Pillar			
Non-Removable Bug Screen Mounted Behind Grille			
Front Cab Mounts Outboard Of Frame For Stability Or When Taking Off And Applying Torque From Engine			
Bolt On Molded Fender Extensions			
LH/RH Exterior Grab Handles With Rubber Insert And RH Interior Grab Handle Mounted To Reinforced 'A' Post			
Stainless Steel Radiator Mounted Grille			
Stainless Steel Radiator Shell/Hood Bezel With Tilt Hood Handle			
Molded Resin Hood With Isolated Hood Suspension Mounting System			
Hood Opening Strut Assist With safety Lock			

STEENTED, OR EQUILE (CONT. D)	COMPLIANCE	
CAB EXTERIOR (Cont'd)	<u>YES</u>	<u>NO</u>
Two (2) Hadley Sd-978 26" Air Horns		
Single Electric Horn		
Horn Shields		
All Locks Keyed With the Same 6 Keys		
Dual Stage Headlights 45 Degree Pattern with Heated Lens System		
Aerodynamic Led Marker Lights In Stainless Steel Visor		
Individual LED Stop/Tail/Turn/Backup Lights Flush Mounted End Of Frame		
Led Rear Facing Turn Signal Lamps In Convex Mirror Lens In Addition To Standard Front Turn Signal Lamps		
Dualc-Bar Mirror System Bright Finish C-Bar, Heated Mirrors, Dual Remote, Turn Signal indicators, Stainless Steel Back Cover With Integral		
Door Mounted Mirrors, Switches on Door Panels		
102" Equipment Width		
LH/RH Integral Convex Mirrors, Bright Finish Stainless Steel Exterior Sun Visor		
LH/RH Heated Hood Mounted Side View Mirrors, Black Finish		
(3) Piece Solar Tinted Impact Resistant Polycarbonate Rear Window Configuration (1) 31x20" (2) 9x20"		
Tinted Door Glass LH & RH Tinted		
Lower Right Hand Door Window with Fresnel Lens		
Electric Door Window Regulators		
One (1) Piece Tinted Roped In Full Grid Heated Windshield		
Two (2) Gallon Windshield Washer Reservoir With Fluid Level Indicator		

<u>~(</u> (==1,1_2)		COMPLI			
CAB INTERIOR		<u>YES</u>		<u>NO</u>	
Gray Vinyl Premium Interior					
Black Mats With Added Floor Heat Noise Insulation					
12 Volt Power Supply In Dash					
Forward Roof Mounted Console					
Storage Pockets Integrated Into Door Panel, Left And Right Doors					
Coat Hook(S) Cab Backwall					
Wraparound Wing Dash With Six (6) Digital Gauges In Driver Command Co And Up To Thirteen (13) Gauges On The Dash	enter				
5 Lb Fire Extinguisher, Mounted					
Heater, Defroster, And Air Conditioner					
Brushless Blower Motor With Ten (10) Blower Speeds					
Standard Heater Plumbing With Ball Shutoff Valves At Supply Lines					
Heavy Duty Air Conditioner Compressor					
Radiator Mounted A/C Condenser					
Binary Control, R-134a					
Premium Cab Insulation with Additional Noise/Thermal Treatment					
Centralized Logic Controllers in Main Dash Electrical Panels, Houses Onboard ECU, and Ten (10) Programmable Modules					
Multiplexed Electrical System					
Premium Led Cab Lighting					
Color Coded And Laser Etched Wiring					
Door Activated Led Lights					
Cab Door Latches With Electric Door Locks					

SI ECIPIED, OK EQUAL (CONT D)	COMPLIANCE YES NO	
CAB INTERIOR (Cont'd)		
Triangular Reflectors Without Flares		
Elite Heated High Back Air Suspension Driver And Passenger Seats With 3 Chamber Air Lumbar Support, Integrated Cushion Extension, Forward And Rear Cushion Tilt With Adjustable Shock Absorber Inboard And		
Outboard Driver And Passenger Arm Rests		
Grey Mordura Cloth Driver And Passenger Seat Cover		
3 Point Driver And Passenger Seat Belts With Seat Belt Retractor		
Adjustable Tilt Steering Column		
18" Steering Wheel With Multi-Function Integrated Controls With Chrome Switch Bezels		
Driver/Passenger Interior Sun Visors		
INSTRUMENT PANELS AND CONTROLS Wrap Around Dash That Allows Up To 13 Gauges And Driver Command Center With Up To 6 Digital Gauges		
Teak Accent Surround With Round Gauges		
Low Air Pressure Light And Buzzer		
Primary And Secondary Air Pressure Gauges		
Dash Mounted Air Restriction Gauge		
87 Db To 112 Db Self-Adjusting Backup Alarm		
Electronic Stability Control		
Electronic Cruise Control		
Warning Light Bar Display Mounted In Teak Finish		
Instrument Cluster Gauges With Bright Bezels		
Data Star Driver Display		
Heavy Duty Onboard Diagnostic Interface Connector, 9 Pin, SAE J1587/1708/1936, Located Below Dash		

(001,12)		COMPLIANCE	
INSTRUMENT PANELS AND CONTROLS (Cont'd)	<u>YES</u>	<u>NO</u>	
Electric Fuel Gauge			
Electrical Engine Coolant Temperature Gauge			
Transmission Oil Temperature Gauge			
Engine And Trip Hour Meters Integral Within Driver Display			
Engine Oil Pressure Gauge			
AM/FM WB Stereo Radio with Bluetooth iPod Interface			
USB and Auxiliary Inputs, J1939			
Two (2) Radio Speakers (Cab Only)			
Headliner Multi-Band Antenna AM/FM/WB, Wi-Fi, Bluetooth/GNSS/GPS			
Electronic Outside Temperature Sensor, Engine Trip And PTO Hour Meter Display in Driver Command Center			
PTO Switch Dash Mounted With Indicator Light			
24" Wiper Blades			
Electric Windshield Wiper Motor With Delay			
Rotary Headlamp Switch, Marker Lights/Headlights Switch With Pull Out For Optional Road Lamps			
Switch Indicator Light and 10' Of Wire On Chassis LH Back Of Cab for Customer Furnished Utility Lights			
Two-Valve Parking Brake System			
Self-Cancelling Turn Signal Switch With Dimmer Head Light Flash Wash/ Wipe/ Intermittent			
ACCESSORIES TO BE INCLUDED One (1) Complete Set of Filters For Cab/Chassis, Drive Train And Upfit			
5 Gallons of Recommended-Use Hydraulic Fluid			
One (1) spare front wheel and tire and one (1) spare rear wheel and tire			

	COMPLIANCE	
PAINT	<u>YES</u>	<u>NO</u>
Paint shall be designated on the Purchase Order and shall be one of the available options listed under Options.		
UNDERCOATING Entire Truck Chassis, Underside Of Cab And Underside Of Added Body, Oil Pan (Dump, Utility, Platform) To Be Coated With Tectyl 2423 Haps Free Black Which Is Low Voc, High Solids, Emulsion Corrosion Preventative Coating, or Equal		
PROTECT CLASS-8 CAB RACKS 68" X 80" Deluxe Cab Rack With: • Window		
Two Chain Hangers		
• Two Chain Trays		
One Tool Box		Ш
6061 Al Bars In Window		
Weld Residue Is Removed And Welds Polished		
Two (2) 14-Position Locking Chain Hangers		
Locking Center-Mount Toolbox		
Extruded I-Beam Uprights And Legs Form The Support Structure		
Structural Panels Are 5052 Marine Grade Aluminum And Are Resistant To Corrosion especially Salt-Water Atmosphere		
Robust, Durable Continuous Welds Join The Structural Rib Aluminum Panel To Protech Hept-Tubes		
Stop/Tail/Turn, Oval LED		
PROTECH STORAGE BOX Aluminum Step Box with .105 Diamond Plate Aluminum Lid Mounted On		
Curbside Location		
Grip Strut Steps		
Neoprene Bulb Style Seals		
Stainless Steel Locking T-Latches		

(001(12)	COMPLIANCE	
PROTECH STOP ACE DOV (C. 121)	YES	<u>NO</u>
PROTECH STORAGE BOX (Cont'd) Internal Mounting Brackets		
Dimensions: 25"H X 28"D X 36"W		
Polished Aluminum (20-2460s)		
Polished Aluminum Lid		
Wide Mouth Opening (20-2460w)		
Continuous Seam Mig Welds On Stress Panels, Such As The Box Floor		
Full-Length Stainless Steel Piano Hinges On Doors And Lids		
INSTALLED EQUIPMENT BEHIND HEADACHE RACK 40" Chrome Plating Pogo Stick With D-Ring		
Airlines For Low Boy To Be Attached To Pogo Stick		
7 Way Trailer Plug Also Attached To Pogo Stick		
All Lines Must Be Long Enough To Reach Low Boy Trailer		
Bulkhead Bracket To Accommodate Airlines And 7 Way Trailer Plug For		
Safe Storage When Trailer Is Not In Use		
WHELEN TLI2F 12 Vdc Split Amber/White Surface Mount Lighthead With 33 Scan-Lock		
Flash Patterns: • Two In The Grill • Two On The Side • Two In The Rear		
Lights To Operate Off Cab Switches		
FRONT FENDERS Quarter Front Fenders shall Be Made From Stainless Steel		
Brackets shall Be Made Out Of Stainless Steel		
REAR MUD FLAPS Rear Mud Flap With Removable Bracket B83		

	COMPLIANCI YES N	
HYDRAULIC SPECIFICATIONS FOR LOWBOY SPECIALTY EQUIPMENT T		NO
See Options		
WARRANTY FOR A 2022 WESTERN STAR 4900 SF OR APPROVED EQUAL Western Star Severe Service	П	П
Western Star Severe Service		Ш
Basic Vehicle - 1 Year, 50,000 Miles		
Battery - 1 Year, 50,000 Miles		
Brightwork – 6 Months, Unlimited		
Cab Corrosion/Perforation – 5 Years, Unlimited		
Cab Structure – 1 Year, 100,000 Miles		
Corrosion – 6 Months, Unlimited		
Crossmembers – 3 Years, 300,000 Miles		
Diesel Emission 2010 – 5 Years, 100,000 Miles		
GHG/17 (Medium Heavy Duty To Heavy Duty Trucks/Tractors) – 5 Years, 100,000 Miles		
GHG14/17 Tire (File Direct) – 2 Years, 24,000 Miles		
Frame Rails – 3 Years, 300,000		
Front/Steer Axle: Detroit – 1 Year, Unlimited		
Front/Steer Axle 1 Year, 100,000 Miles		
Paint – 1 Year, 50,000 Miles		
Paint, Chassis – 6 Months, Unlimited		
Rear Axle: 1 Year, 100,000 Miles		
Towing For Warranty Repair – 5 Years Unlimited Mileage		
Cummins 5 Year 100,000 Mile Engine And ATS Warranty		

	<u>COMPLI</u> YES	ANCE NO
WARRANTY FOR A 2022 WESTERN STAR 4900 SF OR APPROVED EQUA		<u>NO</u>
Cummins Protection Plan I:	_ ` ´	
 Internal Components, Major Engine Systems And Major Components 		
Registered Parts And Labor		
Covers All These Components Including Mounting Hardware		
And Gaskets: Cylinder Head Assembly, Cylinder Block Assembly,		
Rocker Level Assembly, Ecm, Piston, Rings And Liners; Lube Oil		
Cooler Assembly, Front Gear Cover, Oil Pan, Connecting Rod		
Assembly, Front Gear Cover, Oil Pan, Connecting Rod Assembly,		
Lube Pump Assembly, Camshaft And Bushings; Cam Follower		
Assemblies, Crank Shaft Assemblies, Egr Cooler, Valve And Mixer;		
Fuel Injectors (Excluding Aftertreatment Injector), Turbo, Water		
Pump, Fuel Pump, Air Compressor, Select Engine Sensors And Flywheel.	П	
riywneei.	Ш	Ш
Allison 5 Year Unlimited Miles Transmission Warranty		
OPTIONS		
2A. Road Department Options (Shall Consist of all of the following items)		
Brake System Equipment		
Air Connections at Back of Truck Glad Hands		
Frame and Wheelbase		
Square End of Frame with 58" Overhang		
Front Tires, Hubs, and Wheels		
Michelin Xze 11r X 24.5 16 Ply		
Conmet Iron Front Hubs		
A '1 20027 I (2 II 1245 V 0 25 10 II 1 D'1 (D' E (WI 1 DI 1		
Accuride 28827 Inset 2 Hand 24.5 X 8.25 10-Hub Pilot Disc Front Wheels Black	Ш	
Rear Drive Tires, Hubs, and Wheels		
Michelin Xds2 11r 24.5 16 Ply Rear Drive Axle Tires		
Conmet Iron Rear Hubs		
Accuride 28827 2 Hand 24.5 X 8.25 10 Hub Pilot Steel		
Steel Disc Rear Wheels Black		
Nylon Wheel Guards Front And Rear All Interfaces		

STECHTED, OR EQUIL (CONT. D)	COMPLI YES	ANCE NO
OPTIONS (Cont'd) OPTIONS 2A. Road Department Options (Shall Consist of all of the following items) (Cont'd) Rear Drive Tires, Hubs, and Wheels (Cont'd) Wheel-Check High Visibility Green Loose Wheel Nut Indicator On All Wheels		
One (1) Spare Front and (1) Spare Rear Tire with Black Rims		
Road Department Paint Color Scheme School bus yellow from the bottom of the windows down, Bahama Blue from the bottom of the windows up to and including cab roof and Back, on hood from bottom of windshield to a point on the hood to make A "v" and match the road department fleet.		
Shall be base coat clear coat	П	П
Shan be base coat clear coat	Ш	Ц
(Note: not all vehicles will be painted this way)		
Whelen Led Liberty II Solo IX 54" Light Bar Light Bar Led Liberty II Solo IX 54", All Modules Filled With Amber LED • Alley Lights And Takedowns Are To Be White • Whelen Controller		
Brackets For Mounting On Safety Back RackLightbar Flush With Top Of Cab		
32 Inch 16,200 Lumen Led Clear Combination Spot-Flood Light Bar Mounted On Top Crossmember Of The Headache Rack Facing Downward		
Flash Patterns		
Rated Ip67 For Dust And Water Resistance		
Height 4.89"		
Lead Length 52"		
Lens Shape Round		

	COMPLIAN YES	NCE NO
OPTIONS (Cond.)		2,0
OPTIONS (Cont'd) 2A. Road Department Options (Shall Consist of all of the following items) (Cont'd)		
30 Ton Heavy-Duty Swivel Type Pintle Hook Color: Black		
Finish: Powder Coated		
Material: Forged Steel		
Pintle Hook Type: Swivel		
Drawbar Eye Inner Diameter: 3.00		
Maximum Gross Trailer Weight: 60000 Lb		
Maximum Vertical Load: 12000 Lb		
The Height Of The Inside Body Of The Pintle To Be 28 Inches		
1 Inch Pull Plate Mounted On Rear Of Tractor For Hitch Glad Hands Mounted On Side Of Frame Rail		
7 Way Trailer Plug Round		
<u>Wide Load Sign</u> Mounted To Front Bumper With A Stainless Steel Hinge	П	П
Sign To Be 12" X 92"		
Sign Backing To Be Made Of Alumalite Material		
Reflective Material To Be Orafol Oralite 5600 5 Mil		
Sign To Be Hinged In The Middle And Pinned To Curbside When Closed		
Hydraulic Specifications for Lowboy Specialty Equipment Trailer Fixed Displacement Pump With Hotshift PTO: The Hydraulic Pump		
Shall Be A Parker P-20, Fixed Displacement With 2.0" Gear.		
Minimum Pump Displacement Is 3.9 Cid Maximum Pressure 3000psi.		
Pressure Line Shall Have An In-Line Relief To Protect Against Over Pressurization.	П	

<u> </u>		COMPLIANCE	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>	
2A. Road Department Options (Shall Consist of all of the following items) (Cont'd))		
Hydraulic Specifications for Lowboy Specialty Equipment Trailer (Cont'd)			
Pump Shall Be Bi-Rotational Or Uni-Rotational Design.			
Hydraulic Pump Must Be Self-Lubricating.			
Pump Shaft Shall Have 1 Inch With 15 T-Spline.			
Pump Shall Be PTO Mount With 2 Or 4 Bolt B-Flange.			
Pump Must Mount Directly To A Chelsea "Hot Shift" PTO On Allison 3000			
And 4000 Series Transmissions Without Requiring Bent Axis Or External Mounting			
Hardware			
Pump Must Be Rear Ported.			
Installer Must Be Authorized To Preform Warranty Repairs If Required. Such authorization shall be provided with bid submission.	П		
dution shart of provided with old such association.			
Hydraulic Pump Shall Be A Parker Model P-20 Or Equal.			
PTO To Be Activated By On/Off Switch In The Cab			
Reservoir And Filter:			
Reservoir Shall Be A Chassis Mounted With 60 Gallon Capacity.			
The Return Line Shall Have A 25 Micron Return Filter Rated			
at 45-50 GPM Per Minute.			
Hydraulic Quick Connects To Be Pioneer 4110-5 Male And Pioneer 4150-5			
Female On Trailer End And 1" Quick Disconnects On Opposite End For Ease			
Of Storage			
Hoses Are To Be ¾ Inch, 11 Foot Long			
2" Ball Valve Mounted On Hydraulic Tank For Suction Line Going To The			
Hydrualic Pump			
All Hydraulic Hoses shall have a Blind Side Quick Disconnect Mounted on Headache			
Rack for Safe Storage			

SI ECIPIED, OR EQUAL (CONT D)	COMPLIA YES	NCE NO
OPTIONS (Cont'd)		
2B. Solid Waste Options (Shall consist of all of the following items) Frame and Wheelbase		
Tapered Rear End Of Frame For Plate Mount		
Front Tires, Hubs, And Wheels Michelin XZE 12r X 22.5 16 Ply		
Conmet Iron Front Hubs		
Accuride 28828 Inset 2 Hand 22.5 X 8.25 10-Hub Pilot Disc Front Wheels White		
Rear Drive Tires, Hubs, And Wheels Michelin Xds2 11r 22.5 16 Ply Rear Drive Axle Tires		
Conmet Iron Rear Hubs		
Accuride 28828 2 Hand 22.5 X 8.25 10 Hub Pilot Steel		
Steel Disc Rear Wheels White		
Nylon Wheel Guards Front And Rear All Interfaces		
Wheel-Check High Visibility Green Loose Wheel Nut Indicator On All Wheels		
One (1) Spare Front and One (1) Spare Rear Tire with White Rims		
Paint		
Chassis to Be Painted Chestnut Elite. Paint Code: 00751963EY		
Equipment to Be Installed Behind Headache Rack 150 Amp Master Tarp Disconnect Switch Inside Cab		
Waterproof 150 Amp Reset Breaker In Battery Box		
Tarp Cable Connector Model # 3BY23 or equal		
One Tarp Cable Connector Mounted To Bulkhead For Tarp Cable Storage		
Hydraulic Specifications For Walking Floor Trailer And Lowboy Specialty Equip Fixed Displacement Pump With Hot Shift PTO.	ment Trailer	
The Hydraulic Pump Shall Be A Parker P-350, Fixed Displacement With 2.0" Gear.		

	COMPLIANCE	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>
2B. Solid Waste Options (Shall consist of all of the following items) (Cont'd)		
<u>Hydraulic Specifications For Walking Floor Trailer And Lowboy Specialty Equipr</u> Minimum Pump Displacement Is 5.11 Cid.	<u>nent</u> Trailer □	(Cont'd
Pump Shall Supply 25 To 30 GPM's At 1200 Rpm's.		
Pump Shall Be Bi-Rotational Or Uni-Rotational Design.		
Hydraulic Pump Must Be Self-Lubricating.		
Pump Shaft Shall Have 1 Inch With 15 T-Spline.		
Pump Shall Be PTO Mount With 2 Or 4 Bolt B-Flange.		
Pump Must Mount Directly To A Chelsea "Hot Shift" PTO On Allison 3000 And 4000 Series Transmissions Without Requiring Bent Axis Or External Mounting Hardware		
Pump Must Be Rear Ported.		
Installer Must Be Authorized To Preform Warranty Repairs If Required. Such authorization shall be included with bid submission.		
Hydraulic Pump Shall Be A Parker Model P350 Or Equal.		
Parker DVG 20 Proportional Valve Group: The Central Hydraulic Valve System Shall Be A Mobile Design To Withstand Exposure To De-Icing Chemicals And Severe Weather Conditions.		
The System Shall Provide Hydraulic Oil To Operate A Walking Floor Trailer And Lowboy Special Equipment Trailer.		
The Spool Valve Sections Shall Be Of Cast Iron Construction, Horizontally Stackable And Serviceable Without Disassembly.		
The Directional Control Valves Shall Be Cable Actuated.		
Valve Sections Must Be Adjustable For Pressures Up To 3500 Psi And Flow Ratings Up To 25 To 30 GPM.		
Where Required Each Section Must Be Able To Limit The Operating Pressure With Adjustable Relief.		
Fach Directional Valve Section Must Have A Built-In Check Valve Prevents		

The Oil From Flowing Back To Tank. Each Section Must Have A Manual

<u> </u>	COMPLIANCE	
OPTIONS (Cont'd)	<u>YES</u>	<u>NO</u>
2B. Solid Waste Options (Shall consist of all of the following items) (Cont'd)		
<u>Parker DVG 20 Proportional Valve Group</u> (Cont'd) Over-Ride With Lever Included.		
	_	
Valves Must Mount With All The Work Ports Facing Up.		
There Shall Be Main Pressure Relieve Set At 3500psi To Protect Against System Over-Pressurization.		
The Walking Floor Section Shall Supply 35 GPM At 2900psi.		
The Lowboy Section Shall Supply For The Walking Floor Trailer 10 GPM At 1500psi		
Parker Valve Actuation With Push Pull Cable Controls		
Controls LeverS Shall Be Single Axis Cable Actuation With Return To Center For Safety.		
There Shall Be A Combination Of Single Axis De-Tented Levers Stacked Together For Operation Of The Walking Floor And Lowboy Trailer.		
Tor Operation Of The Walking Floor And Lowboy Transf.	Ш	
Cable Core Shall Be Nylon Covered Stainless Steel Capable Of 100lb Of Push / Pull.		
Cable To Valve Connection Shall Be Clevis Ends With Mounting Bracket And Single Nut Adjustment With Locking Nut.		
The Controllers Shall Be Mounted In Cab Inside A Totally Enclosed Single Tower.		
Reservoir And Filter		
Reservoir Shall Be A Chassis Mounted With 60 Gallon Capacity.		
The Return Line Shall Have A 25 Micron Return Filter Rated At 45-50 GPM Per Minute	e. 🗆	
Hydraulic Quick Connects To Be G95111-1616 Gates And G95121-1616 Gates		
Extra Set Mounted To Bulkead For Hose Storage		
Hoses Are To Be ¾ Inch, 11 Foot Long		
All Hydraulic Hoses Are To Have A Blind Side Quick Disconnect Mounted On Headache Rach For Safe Storage		
2" Ball Valve Mounted On Hydraulic Tank For Suction Line Going To The Hydrualic Pump		

(CONT D)		COMPLIANCE YES NO	
OPTIONS (Cont'd)	<u>IES</u>	<u>NO</u>	
2B. Solid Waste Options (Shall consist of all of the following items) (Cont'd)			
Reservoir And Filter			
A Relief Valve Will Be Installed To Prevent System From Over			
Presurizing When Hoses Are Not Hooked Up			
2C. <u>Diagnostic Tools / Test Equipment</u>			
Cummins Quickserv Unlimited Service plan, with renewals, shall be provided at no			
cost to the county for a period of five (5) years from the acceptance of the equipment			
1. Successful bidder shall be required to supply between one (1) and three (3) Complete sets of testing/diagnostic/programming equipment (i.e. Laptop, Software, cabling, and adapters) and special tools required to perform the Full range of diagnostic and maintenance actions necessary to maintain Vehicle operability. This equipment will cover the vehicle chassis, engine,			
Transmission, brakes, hydraulics, and all additional equipment (if applicable) 2. All laptop computers will be of the newest available technology and have			
sufficient storage and memory to operate all required software			
3. Provide a list of all test/diagnostic/programming equipment and special tools being supplied at the time of bid			
4. All software installations and activations will be completed by the successful bidder at no cost to the county			
5. All software updates and renewal will be provided at no cost to the county for a period of five (5) years from the acceptance of the equipment6. All technical issues relating to test/diagnostic/programming equipment and special tools shall be resolved by the successful bidder at no cost to the			
county for a period of five (5) years from the acceptance of the equipment			
7. Training shall be provided on all items in this section at a specified county location			
 2D. Two-Way Radio Power and Wiring Requirements for New Vehicles For the purpose of installing two-way radios into new county vehicles and equipment, The following power and wiring components shall be included: #12 AWG red wire connected to 12vdc battery source rated at 20 amps #12 AWG black wire connected to chassis ground #16 AWG yellow wire connected to 12vdc ignition sense rated at 5 amps Wires shall be encased in plastic wire loom and routed from their source into the Cab of the vehicle and secured in the vicinity of the operator. Wiring harness shall be Clearly labeled "two-way radio". Wires shall be unterminated. 12vdc sources 			
Shall be protected from making contact with grounded metal surfaces			

COMPLI	ANCE
YES	NC

OPTIONS (Cont'd)

2E. Installation of County Supplied Two Way Radio and Accessories

Install is to include but not limited to antenna cable, mounts, speakers, brackets, etc.

For the purpose of installing two-way radios into new county vehicles and equipment, The following power and wiring components shall be included:	
1. #12 awg red wire connected to 12vdc battery source rated at 20 amps.	
2. #12 awg black wire connected to chassis ground.	
3. #16 awg yellow wire connected to 12vdc ignition sense rated at 5 amps.	
These wires shall be encased in plastic wire loom and routed from their source into The cab of the vehicle. The wiring harness shall be clearly labeled "two-way radio". The 12vdc sources shall be protected from making contact with grounded metal surfaces.	
2F. <u>Technical Support</u> Technical support is to be provided by factory authorized technical representatives and Is to be the original equipment manufacturer's industry standard technical presentation In a classroom setting. The support provided shall be at the journeyman/equipment technic Level and should address limited theory, fault diagnosis and repair pertaining specifically to the equipment supplied under this specification.	
 Technical support may be requested in the following areas: Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location. Transmission – 1 day at each location Electrical – 1 day at each location Brakes – 1 day at each location Hydraulic system (dump body, spreader, snow plow) – 1 day at each location Upfitter (dump body, sweeper, etc.) – 1 day at each location 	
A technical representative(s) shall be made available for a total of 180 training/support Hours (anticipated to be scheduled in six (6) hour blocks). Shorter training days will be Allowed only with consent of vehicle services. The total training hours will be required To be provided and no additional compensation will be considered. The actual time to be Spent on each area will be by mutual agreement of the vehicle services department and The successful bidder.	
For the purposes of determining materials and other training costs, class size is Anticipated to be comprised of six (6) to ten (10) vehicle services department personnel. Actual class size will be determined by the vehicle services department at the time the classes are scheduled.	

<u>SPECIFIED, OR EQUAL</u> (CONT'D)		
	COMPLIA	
	<u>YES</u>	<u>NO</u>
OPTIONS (Cont'd)		
2F. <u>Technical Support</u> (Cont'd)		
Before the training is scheduled, vehicle services and the contractor will agree on the		
Scope of the training, and the type and quantity of manuals, etc. That are necessary for		
Proper coverage.		
Technical support for vehicle services may be provided at the following fleet Maintenance facility location as scheduled by a vehicle services department Representative:		
• Toms River, 152 Chestnut Street, Toms River, N.J. 08753 (two (2) sessions will be provided at this location. One beginning at 7 am and another beginning at 1:30 pm)		
• Manahawkin, 379 Haywood Road, Bldg. 109, Manahawkin, N.J. 08050		
Technical support for other departments will be held at a location within Ocean County. The requesting department will notify the successful bidder of		
The location. Training at the successful bidder's site, rather than the designated		
Locations, will be by mutual consent only. Technical support will be requested		
And scheduled on an as needed basis up to but not exceeding the 180 hours total		
During a period not to exceed twelve (12) months from the date of placing the		_
Last unit in service.		Ш