



*Joseph H. Vicari, Director  
Gary Quinn, Deputy Director  
Barbara Jo Crea, Commissioner  
Virginia E. Haines, Commissioner  
John P. Kelly, Commissioner*

*Tristin J. Collins, Director, Management & Budget  
Jennifer L. Bowens, Purchasing Agent*

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

***BID***

***MOTOR VEHICLES: DUMP TRUCKS***

***2023***

***ADVERTISEMENT DATE: December 27, 2023***

***OPENING: January 17, 2024, 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: DUMP TRUCKS** for the County of Ocean, will be received by the Purchasing Agent of the County of Ocean on **Wednesday, January 17, 2024 at 11:00 am**, prevailing time.

Bids will be received electronically via the [County's OpenGov Electronic Bid Portal \(https://procurement.opengov.com/portal/oceancounty/\)](https://procurement.opengov.com/portal/oceancounty/)

Specifications and form of proposal are on the **Procurement Portal (Link Above)** 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.

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:

**JOSEPH H. VICARI**, 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 McCarthy**

Director

Email: [jhannold@co.ocean.nj.us](mailto:jhannold@co.ocean.nj.us)

Phone: [\(732\) 349-4579](tel:(732)349-4579)

**Department:**

Vehicle Services

### **Timeline**

<b>Advertising Date</b>	December 27, 2023
<b>Bid Opening Date</b>	January 17, 2024, 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: [County's OpenGov Electronic Bid Portal \(https://procurement.opengov.com/portal/oceancounty/\)](https://procurement.opengov.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 Wednesday, January 17, 2024.

### **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.

### **Market Conditions**

Due to the fact that goods provided by this solicitation and the current economic conditions are in a volatile state, the County will allow the Contractor to request a price adjustment outside the normal contract renewal process **only if it can be demonstrated and documented that on a national basis the goods solicited and utilized have experienced a significant cost increase since the date of contract award.**

Such events shall be industry wide and cause all related product prices to be effected. **All price adjustment requests must be in writing and submitted to the Ocean County Purchasing Department for approval.** If approved, the Contractor will provide the County with revised pricing. The Contractor may not request an additional increase for a period of three (3) months from the prior request.

*Note: A request for price increase does not guarantee approval.*

### **Specific Market Conditions for Motor Vehicles**

If the current model year changes mid contract, the vendor can submit a price adjustment request to the County for the next model year. Requests for price adjustments must include justification and documentation such as a notice of an increase in the manufacturer's price and/or an increase

in the industry. Requests, including specifications and a revised price sheet, must be submitted to the Ocean County Purchasing Agent for review and approval. If approved, the revised specifications and price sheet will be posted on line for all future purchases for the new model year vehicle.

Additionally, if the awarded model vehicle is no longer available to order, the County reserves the right to purchase the same make and model vehicle (any year) from the awarded vendor from the lot, if available. Specifications and a price quote for these vehicles must be submitted to the Ocean County Purchasing Agent for review and approval before an order can be placed.

### **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>

### **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](http://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 (✓) 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.

## *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

No

\*Response required

### **BID DOCUMENTS TO BE EXECUTED\***

Documents include:

- Signature Page
- Non Collusion Certification
- Affirmative Action Questionnaire
- **Statement of Ownership (N.J.S.A. 52:25-24.2) (Mandatory Document)**
- Disclosure of Investment Activities in Iran

**FAILURE TO SUBMIT ANY OF THESE DOCUMENTSMAY BE CAUSE FOR REJECTION OF YOUR PROPOSAL.**

All documents should be from this proposal 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.

**NOTE: For detailed instructions on how to complete the forms via DocuSign, please access the "Instructions for Completing Forms in DocuSign" document available in the Attachments.**

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

[Click here to go to the form](#)

\*Response required

### **Copy of Bidder's Certificate of Employee Information Report**

**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 ON THE AFFIRMATIVE ACTION DOCUMENT:**

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.**

**Please note, the only acceptable file forms are as follows:**

**Documents (doc, docx, rtf, txt, xls, xlsx, pdf)**

**Images (jpg, png, bmp, tif)**

**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](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.

**Please note, the only acceptable file forms are as follows:**

**Documents (doc, docx, rtf, txt, xls, xlsx, pdf)**

**Images (jpg, png, bmp, tif)**

**Mandatory Equal Employment Opportunity Statement\***

Does the BIDDER comply with the [#Mandatory Equal Employment Opportunity Statement?](#)

Yes

No

\*Response required

**Americans with Disabilities Act Provisions\***

Does the BIDDER comply with the [#Americans with Disabilities Act Provisions?](#)

Yes

No

\*Response required

**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.

**Please note, the only acceptable file forms are as follows:**

**Documents (doc, docx, rtf, txt, xls, xlsx, pdf)**

**Images (jpg, png, bmp, tif)**

\*Response required

**Mechanic and Operator Training for All Heavy Duty Motor Vehicles\***

**MECHANIC AND OPERATOR TRAINING**

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.***

Please confirm

\*Response required

**COMPLIANCE PAGES FOR MOTOR VEHICLES: DUMP TRUCK\***

Please download the attached Compliance Pages. Complete each compliance line by placing a checkmark 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 exception letter with the completed compliance pages.

- [COMPLIANCE PAGES - MOTOR VE...](#)

\*Response required

**ADDITIONAL VENDOR DOCUMENTATION**

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

**Please note, the only acceptable file forms are as follows:**

**Documents (doc, docx, rtf, txt, xls, xlsx, pdf)**

**Images (jpg, png, bmp, tif)**

**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.

Please confirm

\*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

## ***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](http://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 thereto, 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.

## ***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: DUMP 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 at the bid opening and results will be made available online through the County's procurement portal 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 - CURRENT MODEL YEAR, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL**

Line Item	Description	Qty.	Unit of Measure	Unit Cost	Total Cost	No Bid	Comments
1	ITEM #1 - Current Model Year, or Newer, 6 Yard Dump Truck with Plow and Spreader, As Specified, or Equal	6	EA				
<b>OPTIONS</b>							
1A	52" Tall Moldboard in Lieu of 42" Standard, As Specified	6	EA				
1B	Freedom 2.2 Spreader Control, As Specified	6	EA				
1C	Larger Dump Body, As Specified	6	EA				
1D	Paint for Dump Body, As Specified	6	EA				
1E	Road Department Paint Color Scheme, As Specified	6	EA				
1F	Diagnostic Tools / Test Equipment, As Specified	3	SET				
1G	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	6	EA				
1H	Installation of County Supplied Two Way Radio and Accessories, As Specified	6	EA				
1I	Technical Support, As Specified	180	HR				
<b>TOTAL</b>							

### **ITEM #2 - CURRENT MODEL YEAR, OR NEWER, WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL**

Line Item	Description	Qty.	Unit of Measure	Unit Cost	Total Cost	No Bid	Comments
2	ITEM #2 - Current Model Year, or Newer, Western Star 49X SF Specialized Dump Truck with Plow and Spreader, As Specified, or Equal	6	EA				
<b>OPTIONS</b>							
2A	52" Tall Moldboard in Lieu of the 42" Standard, As Specified	6	EA				

Line Item	Description	Qty.	Unit of Measure	Unit Cost	Total Cost	No Bid	Comments
2B	Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Options, As Specified	6	EA				
2C	Freedom 2.2 Spreader Control in Lieu of Manual Specifications, As Specified	6	EA				
2D	Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) in Lieu of Manual Controls, As Specified	6	EA				
2E	Paint for Dump Body, As Specified	6	EA				
2F	Road Department Paint Color Scheme, As Specified	6	EA				
2G	Spreader Leg Stands, As Specified	6	EA				
2H	One-Way Plow with QCP, As Specified	6	EA				
2I	Diagnostic Tools / Test Equipment, As Specified	3	SET				
2J	Two-Way Radio Power and Wiring Requirements for New Vehicles, As Specified	6	EA				
2K	Installation of County Supplied Two Way Radio and Accessories, As Specified	6	EA				
2L	Technical Support, As Specified	180	HR				
<b>TOTAL</b>							

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS</u></b>		
<b><u>General</u></b>		
Chassis designed for heavy-duty general use of a dump, snow plow and spreader truck with appurtenances	<input type="checkbox"/>	<input type="checkbox"/>
Set back axle truck package with a minimum bumper-to-back-of cab measurement of 114". Axle setback to provide the best turning radius possible.	<input type="checkbox"/>	<input type="checkbox"/>
Intended Service: Dump Truck	<input type="checkbox"/>	<input type="checkbox"/>
Cab to Body Clearance: 3 inches	<input type="checkbox"/>	<input type="checkbox"/>
Front Axle Capacity: 16,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Rear Axle Capacity: 25,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Expected GVW Capacity: 40,020 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Engine</u></b>		
Cummins L9, minimum 300 HP @ 2,200 RPM and 860 lb.-ft. torque @ 1,200 RPM. Shall be in-line 6 cylinder of wet sleeve design, and 50 State certification and electronics for simple service and diagnosis when needed. Minimum displacement shall be 8.9 liters. Engine must comply with latest federal mandate for diesel emissions. Should an alternate power plant be offered, the bidder shall provide all necessary technical data to show proof of equality.	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel oil pan and hardware	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Engine Equipment</u></b>		
Engine must have latest diesel emission certification and OBD	<input type="checkbox"/>	<input type="checkbox"/>
Regen inhibit speed threshold-5 MPH	<input type="checkbox"/>	<input type="checkbox"/>
Enable regeneration in PTO mode	<input type="checkbox"/>	<input type="checkbox"/>
No PTO mode cancel vehicle speed	<input type="checkbox"/>	<input type="checkbox"/>
Oil check and fill: engine mounted	<input type="checkbox"/>	<input type="checkbox"/>
Alternator: 160 amp DR 28 SI brushless Quadra-mount with remote battery volt sense	<input type="checkbox"/>	<input type="checkbox"/>
Batteries: Two (2) 12-volt GNB Maintenance Free 2000 CCA	<input type="checkbox"/>	<input type="checkbox"/>
Battery Box: Plastic, frame-mounted, left side under cab	<input type="checkbox"/>	<input type="checkbox"/>
Positive and negative posts for jumpstart located on frame next to starter	<input type="checkbox"/>	<input type="checkbox"/>
Positive load disconnect switch mounted outboard of driver seat. Must be protected from bottom of cab.	<input type="checkbox"/>	<input type="checkbox"/>
Compressor: 18.7 CFM	<input type="checkbox"/>	<input type="checkbox"/>
Discharge line: Teflon	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Engine Equipment</u></b>		
Engine Protection: electronic engine-integral warning system with shut down function	<input type="checkbox"/>	<input type="checkbox"/>
Engine brake: Cummins exhaust brake	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust: Single right-hand under step mounted horizontal after-treatment system with diamond plate cover and cab access steps	<input type="checkbox"/>	<input type="checkbox"/>
Fan Drive: Air on/off drive automatic fan control	<input type="checkbox"/>	<input type="checkbox"/>
Oil filter: full-flow	<input type="checkbox"/>	<input type="checkbox"/>
Fuel filter	<input type="checkbox"/>	<input type="checkbox"/>
13 gallon diesel exhaust fluid tank shall be full of fluid at delivery	<input type="checkbox"/>	<input type="checkbox"/>
Non-polished aluminum diamond plate diesel exhaust fluid tank cover	<input type="checkbox"/>	<input type="checkbox"/>
Radiator	<input type="checkbox"/>	<input type="checkbox"/>
Heavy-duty coolant: -34 degrees Fahrenheit extended life with coolant filter	<input type="checkbox"/>	<input type="checkbox"/>
Constant-torque clamps: constant torque for coolant hoses 1-3” diameter	<input type="checkbox"/>	<input type="checkbox"/>
Engine Heater: Phillips 1,000W/115V	<input type="checkbox"/>	<input type="checkbox"/>
Chrome heater receptacle: mounted under driver’s door	<input type="checkbox"/>	<input type="checkbox"/>
Flywheel housing: Aluminum	<input type="checkbox"/>	<input type="checkbox"/>
Air intake warmer	<input type="checkbox"/>	<input type="checkbox"/>
Starter: Delco 12V 39 MT HD with OCP and magnetic switch	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Transmission and Equipment</u></b>		
Transmission: Allison World RDS 3500 six-speed electronic automatic with PTO provision, six (6) forward gears and one (1) reverse gear. Six-speed transmission programming (223) Programmed to unlimited output speed	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle interface wiring, Magnetic engine drain, transmission and rear axle fill and drain plugs	<input type="checkbox"/>	<input type="checkbox"/>
Vehicle interface wiring with body builder connector mounted back of cab	<input type="checkbox"/>	<input type="checkbox"/>
Electronic transmission customer access connector	<input type="checkbox"/>	<input type="checkbox"/>
Underslung or overslung frame cross-member at transmission mount	<input type="checkbox"/>	<input type="checkbox"/>
Trans oil check and fill with electronic oil level check	<input type="checkbox"/>	<input type="checkbox"/>
Transmission cooler: heavy-duty water-to oil in radiator end tank	<input type="checkbox"/>	<input type="checkbox"/>
PTO mounting LH side of transmission	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Front Axle and Equipment</u></b>		
Detroit DA-FS-16.0-572KPI/3.74 drop, minimum capacity @ ground of 16,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Set Back Front Axle Design	<input type="checkbox"/>	<input type="checkbox"/>
Front brakes: Meritor cam 16.5 x 6" Q+ cast spider cam with dust shields	<input type="checkbox"/>	<input type="checkbox"/>
Front brake lining: non-asbestos	<input type="checkbox"/>	<input type="checkbox"/>
Front brake drums: Conmet outboard-mounted cast-iron	<input type="checkbox"/>	<input type="checkbox"/>
Front oil seals	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic 75W-90 front axle lube	<input type="checkbox"/>	<input type="checkbox"/>
Front hubcap: Vented oil-type with window center and side plugs	<input type="checkbox"/>	<input type="checkbox"/>
Front slack adjusters: Meritor or Haldex	<input type="checkbox"/>	<input type="checkbox"/>
Power steering pump: TRW TAS-85	<input type="checkbox"/>	<input type="checkbox"/>
Power steering reservoir: 4-quart	<input type="checkbox"/>	<input type="checkbox"/>
Suspension bushings: graphite bronze with seals	<input type="checkbox"/>	<input type="checkbox"/>
Front suspension: flat-leaf springs rated @ 16,000 lbs. minimum	<input type="checkbox"/>	<input type="checkbox"/>
Front shock absorbers	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Rear Axle and Equipment</u></b>		
Meritor RS-25-160 series; 25,000 lbs	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle ratio: 5.63	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle carrier housing: heavy-duty iron	<input type="checkbox"/>	<input type="checkbox"/>
Main driveline: MXL176T Meritor extended lube with half-round yokes	<input type="checkbox"/>	<input type="checkbox"/>
Driver controlled traction differential with driver controlled differential lock rear valve with dash-mounted switch and blinking indicator lamp, differential unlock with ignition off, active @ 5 MPH	<input type="checkbox"/>	<input type="checkbox"/>
Lubrication: Synthetic 75W-90 rear axle lube	<input type="checkbox"/>	<input type="checkbox"/>
Rear Brakes: Meritor cam 16.5 x 7" P cast spider heavy duty double anchor fabricated shoes	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle brake linings: non-asbestos with dust shields	<input type="checkbox"/>	<input type="checkbox"/>
Rear brake drums: outboard-mounted cast iron	<input type="checkbox"/>	<input type="checkbox"/>
Brake cams and chambers on forward side of drive axle	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle oil seals	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Rear Axle and Equipment (Cont'd)</u></b>		
Parking brake chambers: Bendix Eversure Longstroke spring parking brake chambers	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle Automatic slack adjusters: Haldex	<input type="checkbox"/>	<input type="checkbox"/>
Rear Suspension: 26,000 lbs. Flat leaf with helper and radius rod	<input type="checkbox"/>	<input type="checkbox"/>
Fore and aft control rods	<input type="checkbox"/>	<input type="checkbox"/>
Axle clamp: Standard U-bolt pad	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Brake System Equipment</u></b>		
Brake Package: Full air	<input type="checkbox"/>	<input type="checkbox"/>
Anti-lock brake system: Wabco four-channel, 4-sensor/4 modulator, with-out traction control enhancement	<input type="checkbox"/>	<input type="checkbox"/>
Chassis air lines: reinforced nylon, fabric braid and wire braid depending on location	<input type="checkbox"/>	<input type="checkbox"/>
Brake relay valve with 5-8 PSI crack pressure	<input type="checkbox"/>	<input type="checkbox"/>
Air dryer: Bendix AD9SI heated air dryer mounted inboard on LH rail	<input type="checkbox"/>	<input type="checkbox"/>
Air reservoirs: Aluminum	<input type="checkbox"/>	<input type="checkbox"/>
Air tank drain valves: Pull cables on all air tanks	<input type="checkbox"/>	<input type="checkbox"/>
Clear frame rails BOC to front of rear suspension both rails outboard	<input type="checkbox"/>	<input type="checkbox"/>
Quick disconnect fitting w/50' of 200 PSI hose for tire inflation	<input type="checkbox"/>	<input type="checkbox"/>
Trailer airbrake package with airlines to back of truck	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Frame and Wheelbase</u></b>		
Wheelbase: 150"	<input type="checkbox"/>	<input type="checkbox"/>
Cab-to-Axle: 84"	<input type="checkbox"/>	<input type="checkbox"/>
Frame: 2,592,000 RBM, 7/16" x 3 9/16" x 11 1/8" heat treated steel, 120,000 KSI yield strength single channel, double frame is not acceptable due to rust perforation of inner frame splayed frame shape at front with 24" front frame extension	<input type="checkbox"/>	<input type="checkbox"/>
End of frame: Square-cut	<input type="checkbox"/>	<input type="checkbox"/>
Rear Suspension Cross Member: Standard heavy-duty C-channel	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Chassis Equipment</u></b>		
Front bumper: 14" steel 3/8" or Custom for snow plow mounting	<input type="checkbox"/>	<input type="checkbox"/>
Front tow hooks: Two (2) frame mounted	<input type="checkbox"/>	<input type="checkbox"/>
Fender and front of hood mounted front mud flaps	<input type="checkbox"/>	<input type="checkbox"/>
Front license plate bracket included	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Chassis Equipment (Cont'd)</u></b>		
Chassis Fasteners: Grade 8 threaded Hex	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Fuel Tanks and Equipment</u></b>		
Left hand fuel tank: 60-gallon, must be constructed of aluminum to preclude exterior corrosion and interior fuel contamination	<input type="checkbox"/>	<input type="checkbox"/>
Fuel tank: 25" diameter	<input type="checkbox"/>	<input type="checkbox"/>
Fuel tank and band finish: Polished stainless steel bands with plain aluminum tank	<input type="checkbox"/>	<input type="checkbox"/>
Fuel tank orientation: Forward mounted under cab	<input type="checkbox"/>	<input type="checkbox"/>
Fuel tank cap: Standard, non-locking	<input type="checkbox"/>	<input type="checkbox"/>
Fuel/water separator: With heated bowl and primer pump	<input type="checkbox"/>	<input type="checkbox"/>
Fuel hoses: Nylon high temperature reinforced	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Front Tires, Hubs and Wheels</u></b>		
Front Tires: Michelin XZU-S 315/80R x 22.5 20 Ply	<input type="checkbox"/>	<input type="checkbox"/>
Front Hubs: Conmet pre-set bearing iron (aluminum hubs are not acceptable)	<input type="checkbox"/>	<input type="checkbox"/>
Front Wheels: Accuride model 29039 5-hand 5.25 inset 10-bolt hub-pilot 22.5" x 9.00" steel disc	<input type="checkbox"/>	<input type="checkbox"/>
Front wheel nuts: Hub-pilot with flat flange	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Rear Tires, Hubs and Wheels</u></b>		
Rear Tires: Michelin XDS-2 11R22.5 16-ply	<input type="checkbox"/>	<input type="checkbox"/>
Rear hubs: Conmet pre-set bearing iron (aluminum hubs are not acceptable)	<input type="checkbox"/>	<input type="checkbox"/>
Rear wheels: Accuride model 28828 2-hand hole 10-bolt hub-pilot 22.5" x 8.25" steel disc wheel	<input type="checkbox"/>	<input type="checkbox"/>
Rear wheel nuts: hub pilot with flat flange	<input type="checkbox"/>	<input type="checkbox"/>
Wheel check high visibility green loose wheel nut indicator on all wheels	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Spare Tires to be Included</u></b>		
One (1) spare front tire mounted to wheel to match specified front wheels and tires	<input type="checkbox"/>	<input type="checkbox"/>
One (1) spare rear tire mounted to wheel to match specified rear wheels and tires	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT'D)**

**Cab Exterior**

Cab: 114" BBC conventional aluminum and/or steel cab, one-piece heated windshield, adjustable doors with concealed hinges, fiberglass hood and split fenders with splash shields that lift away from the engine compartment when the hood is tilted. Entry and egress shall be made via a 3-point system consisting of self-cleaning non-slip steps and a minimum of two (2) grab handles on each side for the operator and passengers to utilize, one on the inside of the door, and one on the cab exterior to the rear of the door. The steps shall be a minimum of 4" wide and the grab handles must be large enough to be safely grasped by one wearing heavy-duty work gloves.	<input type="checkbox"/>	<input type="checkbox"/>
Cab mounts: Air	<input type="checkbox"/>	<input type="checkbox"/>
Bug Screen: Non-removable mounted behind grille	<input type="checkbox"/>	<input type="checkbox"/>
Grab handles: Exterior LH/RH	<input type="checkbox"/>	<input type="checkbox"/>
Grille: Stationary Grille	<input type="checkbox"/>	<input type="checkbox"/>
Hood: Fiberglass	<input type="checkbox"/>	<input type="checkbox"/>
Air Horn under deck	<input type="checkbox"/>	<input type="checkbox"/>
Electronic horns: Dual	<input type="checkbox"/>	<input type="checkbox"/>
Key and Lockset: All trucks and all locks keyed the same with six (6) keys per unit	<input type="checkbox"/>	<input type="checkbox"/>
Headlights: Single halogen composite with bright bezels, headlights on with wipers	<input type="checkbox"/>	<input type="checkbox"/>
Marker lights: aerodynamic LED	<input type="checkbox"/>	<input type="checkbox"/>
Stop/Tail/Turn lamps at end of frame LED integral	<input type="checkbox"/>	<input type="checkbox"/>
Primary mirrors: Dual west coast bright finish with heater LH & RH remote	<input type="checkbox"/>	<input type="checkbox"/>
Mirror Mounting: Mirrors mounted on doors	<input type="checkbox"/>	<input type="checkbox"/>
Auxiliary mirrors: 8" convex bright finish mounted under primary mirrors both sides	<input type="checkbox"/>	<input type="checkbox"/>
Rear window: Tinted safety glass	<input type="checkbox"/>	<input type="checkbox"/>
Door windows: Tinted with lowered bottom beltline for increased sideward visibility and operating wing windows LH & RH	<input type="checkbox"/>	<input type="checkbox"/>
Door window regulators: Electric	<input type="checkbox"/>	<input type="checkbox"/>
Windshield: 1 piece tinted and heated	<input type="checkbox"/>	<input type="checkbox"/>
Windshield washer reservoir with fluid level indicator	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Cab Interior</u></b>		
Interior Level: Gray vinyl interior	<input type="checkbox"/>	<input type="checkbox"/>
Interior convenience package roof mounted console with additional center compartment	<input type="checkbox"/>	<input type="checkbox"/>
LH upper door trim: Molded door panel	<input type="checkbox"/>	<input type="checkbox"/>
RH upper door trim: Molded door panel	<input type="checkbox"/>	<input type="checkbox"/>
Dash mounted 12 volt power supply	<input type="checkbox"/>	<input type="checkbox"/>
Cup Holder	<input type="checkbox"/>	<input type="checkbox"/>
Air Conditioning	<input type="checkbox"/>	<input type="checkbox"/>
Main heater/vent control: Main HVAC with recirculation switch	<input type="checkbox"/>	<input type="checkbox"/>
HVAC ducting for fresh air intake with snow shield	<input type="checkbox"/>	<input type="checkbox"/>
Heater plumbing: Standard without ball shut off valves	<input type="checkbox"/>	<input type="checkbox"/>
A/C compressor: heavy-duty	<input type="checkbox"/>	<input type="checkbox"/>
A/C condenser: Radiator mounted	<input type="checkbox"/>	<input type="checkbox"/>
A/C plumbing; binary control with R134A refrigerant	<input type="checkbox"/>	<input type="checkbox"/>
Cab Insulation Package	<input type="checkbox"/>	<input type="checkbox"/>
12V negative ground electrical system	<input type="checkbox"/>	<input type="checkbox"/>
Interior lights: Dome door activated LH & RH	<input type="checkbox"/>	<input type="checkbox"/>
Cab door locks: Electric	<input type="checkbox"/>	<input type="checkbox"/>
Driver seat: Elite high-back air suspension with 2 chamber air lumbar/heat, integrated cushion extension forward and rear cushion tilt, adjustable shock absorber with dual driver seat arm rest	<input type="checkbox"/>	<input type="checkbox"/>
Passenger seat: Elite high-back air suspension with 2 chamber air lumbar/heat, integrated cushion extension forward and rear cushion tilt, adjustable shock absorber with dual arm rest	<input type="checkbox"/>	<input type="checkbox"/>
Driver seat cover: Vinyl	<input type="checkbox"/>	<input type="checkbox"/>
Seat belts: 3-point adjustable D-ring retractor for outboard seating positions	<input type="checkbox"/>	<input type="checkbox"/>
Steering column: Tilt	<input type="checkbox"/>	<input type="checkbox"/>
Interior sun visors: Standard driver and passenger	<input type="checkbox"/>	<input type="checkbox"/>
First Aid kit	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>CAB AND CHASSIS SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Cab Interior (Cont'd)</u></b>		
5 lb. Fire extinguisher	<input type="checkbox"/>	<input type="checkbox"/>
Triangular Reflector kit	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Instrument Panel and Controls</u></b>		
Gauge package: Electronic	<input type="checkbox"/>	<input type="checkbox"/>
Gauge finish: Black bezels	<input type="checkbox"/>	<input type="checkbox"/>
Low air pressure warning: Light and buzzer	<input type="checkbox"/>	<input type="checkbox"/>
Air system pressure gauge with primary and secondary gauges	<input type="checkbox"/>	<input type="checkbox"/>
Cruise control	<input type="checkbox"/>	<input type="checkbox"/>
Starter control: key-controlled	<input type="checkbox"/>	<input type="checkbox"/>
LCD odometer, trip odometer, hour meter and voltmeter	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic Interface connector: Located below dash	<input type="checkbox"/>	<input type="checkbox"/>
Fuel level gauge: Electric	<input type="checkbox"/>	<input type="checkbox"/>
Coolant temperature gauge: Electric	<input type="checkbox"/>	<input type="checkbox"/>
Transmission temperature gauge	<input type="checkbox"/>	<input type="checkbox"/>
Hour meter: Integral with driver display	<input type="checkbox"/>	<input type="checkbox"/>
Engine oil pressure gauge: Electric	<input type="checkbox"/>	<input type="checkbox"/>
PTO switch with indicator lamp	<input type="checkbox"/>	<input type="checkbox"/>
Radio: AM/FM WB with front auxiliary input	<input type="checkbox"/>	<input type="checkbox"/>
Radio speakers: Two (2)	<input type="checkbox"/>	<input type="checkbox"/>
Radio antenna	<input type="checkbox"/>	<input type="checkbox"/>
Speedometer: Electronic, MPH scale	<input type="checkbox"/>	<input type="checkbox"/>
Tachometer: Electronic, 3000 RPM	<input type="checkbox"/>	<input type="checkbox"/>
Digital Voltage Display: Integral with driver display	<input type="checkbox"/>	<input type="checkbox"/>
Windshield wiper control: Electric 2-speed with variable intermittent settings	<input type="checkbox"/>	<input type="checkbox"/>
Snow plow light must be activated through OEM chassis wiring	<input type="checkbox"/>	<input type="checkbox"/>
Four (4) on/off rocker switches in the dash with indicator lights	<input type="checkbox"/>	<input type="checkbox"/>
Parking brake system: 2-valve system with warning indicator	<input type="checkbox"/>	<input type="checkbox"/>
Turn signal switch: Self-cancelling with brake overriding stop lamps	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**CAB AND CHASSIS SPECIFICATIONS (CONT'D)**

**Paint**

Paint type and color: Basecoat clear coat paint; color to be selected from standard color chart at time of order

                    

Paint design: Standard

                    

Chassis color: Black Polyurethane

                    

Bumper color: Black

                    

Front and Rear wheel color: Powder-coated black

                    

**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 a low VOC, high solids, emulsion corrosion preventive coating, or equal

                    

**Accessories**

One (1) complete set of filters for cab/chassis, drive train and upfit

                    

Five (5) gallons of recommended-use hydraulic fluid

                    

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-LESS MODEL 433U STAINLESS DUMP BODY**

**Manuals**

The end unit shall be delivered with the following items:

One (1) fire extinguisher, interior mounted

                    

One (1) complete set of all fluid filters, air filters and belts for engine, transmission, final drives, mounted equipment, optional equipment, and all accessories that have replaceable filters

                    

Three (3) complete sets of mechanic’s parts “shop”, service and troubleshooting USB’s for chassis, engine, transmission, optional equipment, mounted equipment and accessories, including wiring diagrams. Parts manuals shall be in USB format (First ordered unit only) unless otherwise included in diagnostic software subscription

                    

Three (3) sets of Manufacturer’s Line Setting Sheets for chassis, mounted equipment, and optional equipment

                    

One (1) “Build Book” per unit ordered. This Build Book shall include the brand, model, part number and serial number for the following items/systems: Hydraulic Control Valve; Hydraulic Control Cables; Hydraulic Reservoir; Plow; Spreader; Optional Freedom 2.2 Spreader Control (if ordered); PTO and Pump; Tarp System: Dump Body. A sample of this build book will be available to view during pre-build meeting.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

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

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-LESS MODEL 433U STAINLESS DUMP BODY**

**General**

The dump body required under these specifications shall be constructed of 304-2B stainless steel. Unit shall consist of a heavy duty body, hydraulic hoist, hydraulic pump, cab shield, safety accessories, and all other components necessary to make up a complete operating unit. The body and hydraulic hoist shall be manufactured by the same company. Hoist shall be Class 50 NTEA rated telescopic.



**Minimum Body Dimensions**

Inside Length: 10'6"



Inside Width: 84"



Overall Width: 96"



Side Height: 26"



End Height: 36"



Rear Post Height: 36"



Capacity: 5.9/6.8 Cubic yards water level



Cab Shield: 10 Gauge 304-2B, ½" x 90" Integral cab shield



**Minimum Body Construction**

Sides: 7 gauge 304-2B stainless steel with formed sloping dirt shedding bottom rail



Board Pockets: 10" x 7 GA 304-2B side board pockets for 4" wood



Front/Tailgate: 7 GA 304-2B stainless steel



Floor: Hardox 3/16" AR450 180,000 PSI steel with 2" side to floor radius



Top Rail: 7 GA 304-2B stainless steel with formed in dirt shedding box top rail



Side Braces: One (1) pressed outward "V" per side



Oak Wood Side Boards: 2" x 4" side boards shall be placed on both sides of dump body



Front Corner Post: 6" wide x 7 GA 304-2B



1 ¼" x 3/8" Tarp Rail: Full length stainless both sides (round bar not acceptable)



Grip strut stainless steel rail – length of body at base



Rear Corner Post: 15" wide full depth x 7 GA 304-2B



15" Full Depth Rear Bolster: 7 GA 304-2B stainless steel



Tailgate: 7 GA 304-2B stainless steel. Full perimeter box bracing, two intermediate vertical braces and one intermediate horizontal brace.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-LESS MODEL 433U STAINLESS DUMP BODY (CONT'D)**

**Minimum Body Construction (Cont'd)**

Six (6) panel double-acting tailgate with two sets of stainless steel banjo plates and long chains to allow tailgate to lie down horizontal with floor (Banjo eyes punched in rear post not acceptable). Steel D-ring inside top center of tailgate for removing tailgate.

Heavy duty stainless steel “tarp friendly” top hardware with grease fittings and chains on top pins to prevent loss of them if removed. 1” overshot lower hardware.

Tailgate release handle left front corner with chain & ring to lock handle closed. 5/8” release rod down left side alongside of long sills with enough gussets to prevent sagging.

3/8” spreader chains to be bright zinc plated steel covered with Naltex protection covering.

Crossmembers: None

Longsills: 10” @ 25.5# I-beam long sills

Lighting: STD FMVSS 108 LED lights/reflectors. Must have one (1) oval LED Stop/Tail/Turn in each rear corner post. Three (3) 1” clearance lights mounted in pull plate in back of truck

Body Up Indicator Light: As required by OSHA

Underbody: Black

Welding: Continuous exterior welding required (skip welding or caulking not acceptable). All welds must be cleaned at factory to remove all burn marks.

**Minimum Hoist Requirements**

Hoist shall be Class 50

Trunnion mounted to the body with the largest diameter of the cylinder at the bottom for increased stability

The front head sheet of the body shall be of one piece and be of a height sufficient for hoist and have a dog house 10” deep by 20” wide

All tubing sections of the cylinder shall be salt bath nitrided for superior corrosion resistance, increased hardness and durability

U-cup type seals shall be positioned in the gland nuts of each section with a wiper installed above each seal to keep contaminants out

When the tubes retract, they shall be surrounded by oil below the U-cup seals

An outer cover shall enclose the cylinder while not in use

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

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

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-LESS MODEL 433U STAINLESS DUMP BODY (CONT'D)****Minimum Hoist Requirements (Cont'd)**

Through means of the oscillating collar attached to the bottom of the outer cover, the body can be offset to one side 5 to 7 degrees without side loading the cylinder	<input type="checkbox"/>	<input type="checkbox"/>
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Cylinder first moving stage, 4 ½" O.D.	<input type="checkbox"/>	<input type="checkbox"/>
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Three (3) stages with 100" stroke	<input type="checkbox"/>	<input type="checkbox"/>
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Operating pressure, 2,000 PSI	<input type="checkbox"/>	<input type="checkbox"/>
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One (1) body prop	<input type="checkbox"/>	<input type="checkbox"/>
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**Miscellaneous**

Tailgate spreader chain kit	<input type="checkbox"/>	<input type="checkbox"/>
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One (1) oval Stop/Tail/Turn light cutouts in rear corner post	<input type="checkbox"/>	<input type="checkbox"/>
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Wiring for standard dump body lights enclosed in a sealed waterproof wiring harness. Split loom not acceptable	<input type="checkbox"/>	<input type="checkbox"/>
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Body and hoist shall come complete with manufacturer's safety decals and operating instructions	<input type="checkbox"/>	<input type="checkbox"/>
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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	<input type="checkbox"/>	<input type="checkbox"/>
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One (1) stainless steel grab handle, driver side front	<input type="checkbox"/>	<input type="checkbox"/>
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Stainless steel side ladder; slide out; 2 step. Location to be determined by County.	<input type="checkbox"/>	<input type="checkbox"/>
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3M reflective tape on both sides of body and on 6-panel tailgate	<input type="checkbox"/>	<input type="checkbox"/>
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Safety lock pins at lower tailgate hardware	<input type="checkbox"/>	<input type="checkbox"/>
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**Accessories**

Back-up Alarm: Electric with minimum decibel level 97 DBA, 12-volt	<input type="checkbox"/>	<input type="checkbox"/>
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Safety Lighting: Six (6) LED amber strobe lights. Two (2) recessed into rear post, two (2) sides of cab shield and two (2) front of cab shield	<input type="checkbox"/>	<input type="checkbox"/>
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All body lights shall be LED	<input type="checkbox"/>	<input type="checkbox"/>
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Spreader light at rear mounted to body, not spreader	<input type="checkbox"/>	<input type="checkbox"/>
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30-ton pintle hook ¾" pull plate with 5/8" D-rings	<input type="checkbox"/>	<input type="checkbox"/>
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7-way round trailer Pollak type plug with a removable end	<input type="checkbox"/>	<input type="checkbox"/>
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**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

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

**DUMP BODY SPECIFICATIONS – GALION HEAVY DUTY CROSS-MEMBER-LESS MODEL 433U STAINLESS DUMP BODY (CONT'D)****Accessories (Cont'd)**

One (1) set of Meyer Saber plow lights mounted on hood of chassis with stainless steel mounts. Location to be determined by County.

Two (2) forward facing strobe lights mounted on snow plow lights bracket to be powered by its own switch

Electric brake controller to control 7-way flat trailer Pollak type plug with a removable end

Glad hand at rear of pintle hook. Location to be determined by County.

**PIONEER MODEL EDD 1500D 8/15' TARP SPECIFICATIONS**

Side Mount- Steel Framework

Roller Assembly – Telescopic – 3-piece

Left Roller Tube: 2.140 O.D. x 2.000 I.D. 6105-T6 aluminum extrusion with bushing and stainless steel roll pin to accept motor shaft

Right Roller Tube: 2.140 O.D. x 2.000 I.D. 6105-T6 aluminum extrusion with bushing. 1" O.D. 6061-T6 aluminum shaft and stainless steel roll pin

Center Section: 1.960" O.D. x 1.820 I.D. 6105-T6 aluminum extrusion

Bearing Plates: ¼" H.R.S.

Bearings: Flange Mounted Sealed Ball Bearings

Roll Mounting Angles: 1 ½" x 2" x ¼" Steel Angle

Direct Drive Gear Motor: Mounted directly to left side roller

Worm & Wheel Configuration: Permanently lubricated sealed gearbox. 90 to 1 Ratio

Output shaft shall be supported by ball bearings on both ends. Output shaft shall be directly coupled to left side roller. Electric motor is .85 horsepower. Aluminum gearbox housing. Plastic protective cover. ¾" O.D. output shaft. Motor is thermally protected by automatic resetting circuit breaker.

**Pivot Arm Framework**

Pivot Arms: 1.745" O.D. x 1.405" I.D. 6105-T6 Aluminum Extrusion with .250 W X .94 L reinforcing fin on one side and .75 W x .50 L reinforcing block on other side. Overall height to be 3.185"

Rear Section: 1 3/4" O.D. x 170 wall 6061-T6 Aluminum Extrusion

Bows: 1 3/8" O.D. x .125 wall 6105-T4 Aluminum Extrusion

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<b><u>COMPLIANCE</u></b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b><u>PIONEER MODEL EDD 1500D 8/15' TARP SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Pivot Arm Framework (Cont'd)</u></b>		
Arm Mounting Brackets: Steel Weldment	<input type="checkbox"/>	<input type="checkbox"/>
Base Plate: ¼" H.R.S.	<input type="checkbox"/>	<input type="checkbox"/>
Mounting Hub: 4" O.D. steel tube	<input type="checkbox"/>	<input type="checkbox"/>
Spring: Reverse wound torsion spring – ½" diameter wire	<input type="checkbox"/>	<input type="checkbox"/>
Wire per ASTM A229 Class I	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Fabric</u></b>		
100% Polyester, 1000 Denier, Black HD mesh, 13 oz. per square yard	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Construction</u></b>		
Seamless front to rear, rectangular in shape, 85" wide, grommets on front & sides, pocket at rear	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Wiring and Electrical</u></b>		
All wire shall be 8 gauge stranded cable, all connectors shall be ring type. High amperage self-centering rotary switch (Momentary On/Off – Momentary On). Thermal reset circuit breaker (Auto Reset).	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE</u></b>		
<b><u>PTO</u></b>		
<b><u>CHELSEA RESE MTCA 3301000175 MTCA3301</u></b>		
The PTO shall be of a hot shift design driven off the Allison automatic transmission. The PTO shall have a direct mount rotatable pump flange. There shall be a console mounted rocker switch to engage and disengage the PTO.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Pump</u></b>		
<b><u>PARKER P20A346JEAL17-25</u></b>		
The pump shall be a cast iron, positive displacement, gear type pump. The pump shall feature pressure balanced, bronze wear plates and Teflon bushings. Pump shaft shall be a 7/8" 13 spline shaft to couple with PTO. Pump size shall be 3.44 cubic inches of displacement.	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE**

**Control Valve**

The control valve shall be a cast iron, sectional type spool valve. Valve shall have a priority inlet with adjustable flow control and adjustable main relief. The hoist section shall incorporate an auxiliary relief for the dump hoist down function. The Priority flow from inlet shall run to a combined flow section upstream of spreader section to ensure seamless operation of spreader during winter operations. The valve shall have a nominal flow rating of 20 GPM with flows to 30 GPM available with a pressure drop not to exceed 140 PSI. □                      □

Valve shall be a Parker-Gresen model V-20. Use of external flow dividers is unacceptable. □                      □

Valve shall be arranged as follows: 1 – Priority flow inlet; 2 – DA Hoist with 500 down side relief; 3 – DA Plow Raise; 4 – DA Plow Angle; 5 – Combined flow section; 6 – Spreader with detent and reverse □                      □

**Spreader Control**

The spreader control shall be a dual knob valve with on/off handle.

The spreader valve shall have individual flow adjustment knobs for the spinner and auger. Spreader valve 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. ½” JIC Bulkhead fittings shall be drilled through frame rail to accommodate a short jumper hose with quick disconnects mounted to body. □                      □

**Cable Controls**

The control valve shall be shifted via sealed cable assemblies. The 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. pull and 80 lbs. push. Cables shall be attached to the hydraulic valve by a bonnet type connection with clevis pin and locking clips. Cable shall be attached to an in cab handle. The handle shall 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 shall be attached to the end of the handle. □                      □

**Reservoir/Valve Enclosure**

Reservoir must be constructed of 7 GA stainless steel. Reservoir/valve enclosure must be 30-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 shall 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 shall allow for installation of a 2” NPT 50 GPM suction screen. Suction screen shall 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 of low oil. □                      □

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>SPX 050 AMERICAN ROADS TRITON SNOW PLOW</u></b>		
<b>STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS</b>		
<b><u>Moldboard Specifications</u></b>		
Moldboard length of 11 feet	<input type="checkbox"/>	<input type="checkbox"/>
Moldboard height of 42 inches	<input type="checkbox"/>	<input type="checkbox"/>
Moldboard material shall be 10 gauge carbon steel smooth rolled profile providing ultra-smooth surface for snow deflection	<input type="checkbox"/>	<input type="checkbox"/>
Overhang from cutting edge shall have minimum 12" overhang with 10 degree attack angle.	<input type="checkbox"/>	<input type="checkbox"/>
Top of moldboard shall be reinforced by 2 ½" x 2 ½" x 3/8" angle iron.	<input type="checkbox"/>	<input type="checkbox"/>
Bottom of moldboard shall be reinforced by 4 x 4 x ¾" angle iron and drilled to accommodate AASHTO standards.	<input type="checkbox"/>	<input type="checkbox"/>
Ribs shall be reinforced with 2 x 2 x 3/8 angle as well as the upper and lower reinforcement angles. Rib shall be 5" at the trip edge and 3" tall at the top edge by ½" wide. Rib shall be 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. Three sets of double ribs and 6 single ribs.	<input type="checkbox"/>	<input type="checkbox"/>
Each rib shall have a ½" relief at the corners where they attach to the reinforcement angles. This allows water to drain off the back of the moldboard during storage.	<input type="checkbox"/>	<input type="checkbox"/>
At the bottom of each rib there shall be three 1 5/16" holes spaced at 1 7/8" center to center to allow for semi-circle height adjustment.	<input type="checkbox"/>	<input type="checkbox"/>
Two sets of double ribs shall have three 1 5/16" holes spaced at 2 ¼" center to center to allow for attack angle adjustment.	<input type="checkbox"/>	<input type="checkbox"/>
Weldments on the moldboard shall be continuous.	<input type="checkbox"/>	<input type="checkbox"/>
Outer rigs of moldboard shall be drilled for marker installation.	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) curb guards mounted each side of moldboard.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Trip Mechanism Construction</u></b>		
Plow shall be full trip design consisting of two (2) coil springs.	<input type="checkbox"/>	<input type="checkbox"/>
Springs shall be ¾" wire with a coil OD of 5 9/16", consisting of 16 full coils.	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS (CONT'D)</u></b>		
<b><u>Trip Mechanism Construction (Cont'd)</u></b>		
Bottom angle shall be reinforced by eleven (11) ½” thick gussets spaced evenly to avoid interference with cutting edge attachment hardware.	<input type="checkbox"/>	<input type="checkbox"/>
Cutting edge shall be 6” x 5/8” x 11’ long and is drilled to AASHTO standards.	<input type="checkbox"/>	<input type="checkbox"/>
Cutting edge shall be secured using 5/8” grade 8 carriage bolts.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Push Frame</u></b>		
Push frame shall be designed to hydraulically reverse the moldboard in an arc at any angle from 35 degrees left to 35 degrees right from a centered position	<input type="checkbox"/>	<input type="checkbox"/>
Push frame shall be constructed from a ½” plate	<input type="checkbox"/>	<input type="checkbox"/>
Push frame shall be supported above and below the semi-circle with 2 x 4 x 3/16” tubing	<input type="checkbox"/>	<input type="checkbox"/>
Push frame 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 connection distributes the pushing load directly from the push frame to semi-circle and moldboard relieving stress on the bolted connection. The female socket connection is made from 1” plate steel and contoured to match the male portion on the semi-circle.	<input type="checkbox"/>	<input type="checkbox"/>
Rear of push frame shall be drilled to accept a removable QCP adapter. Three sets of 1 3/16” holes shall be drilled on 2” centers to allow for installation on a variety of trucks and hitches	<input type="checkbox"/>	<input type="checkbox"/>
Two holes shall be located on the top and bottom push frame plates drilled to accept 1 ½” bolts for hydraulic cylinder attachment.	<input type="checkbox"/>	<input type="checkbox"/>
All welds must be continuously welded, no exceptions.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Semi-Circle Construction</u></b>		
Semi-circle shall be constructed from 5 x 5 x 3/16” tubing. The main tube or “push beam 5 x 5 x 5 1/16” is 120” long spanning the entire width of the moldboard. This tube shall be constructed from one continuous piece.	<input type="checkbox"/>	<input type="checkbox"/>
There shall be two stops placed appropriately to prevent the plow from turning past 35° left or right.	<input type="checkbox"/>	<input type="checkbox"/>
Crank style jackleg (part #0091215) to be mounted on backside of semi-circle	<input type="checkbox"/>	<input type="checkbox"/>
Hydraulic cylinder mounting points shall be 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.	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS (CONT'D)**

**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 shall be the male portion of the socket that relieves stress from the bolted connection. This shall be made from 1” plate steel and contoured to match the female portion on 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 shall be welded to the back side of the 5” tubular push beam to increase the weld surface area. They shall be welded at 55 degrees from the bottom of the semi-circle to match the chain angle going to the lift arm on the hitch.



There shall be seven sets 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 sets of the moldboard mounting ears (two outer sets on either side of the push beam) shall have an inside spacing of ¾” to accept a single ½” moldboard rib. Three sets of the moldboard mounting ears (the center sets) shall have an outside spacing of 2 ¾” to fit inside double moldboard ribs.



Moldboard attachment ears shall be gusseted with 4” triangular steel gussets. The 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 x 2 x ¼” 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 rear of semi-circle



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 shoe housing and allow up and down movement of the shoe via threaded screw



A 1 ¼” screw with adjusting nut are housed in a 3” square shoe housing with a welded on 5-hole mounting plate

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**STEEL MOLDBOARD TUBE TABLE POWER INFINITE REVERSING FULL PLOW SPECIFICATIONS (CONT'D)**

**Adjustable Cast Mushroom Shoes (Cont'd)**

Cast steel mushroom plow shoe 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 hydraulic cylinders

Each cylinder shall have a 4” bore with an 8” rod diameter with a maximum operating pressure of 3000 PSI

Retracted cylinder length shall be 21” with both the rod and cylinder ends accepting 1 1/2” bolts/pins for connecting to the semi-circle and push frame.

Plow shall be equipped with one crossover relief valve. Valve shall use 1/2” ports and be set to a relief pressure of 1000 PSI.

**QCP**

Push frame shall be equipped with a removable QCP adapter for quick hitch applications

The side of the removable QCP shall be drilled to allow for three different mounting heights

Base of the QCP shall be made from MC4 x 13.8# channel

QCP side plate shall be 1/2” formed plate

QCP loop diameter shall be 2”

**Paint**

Paint shall be of high quality, free of runs, overspray, and defects

Standard paint type shall be epoxy

Standard paint color shall be safety orange

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS**

**Hitch Frame**

Frame shall be heavy duty, low profile, front frame mounted style, designed for use with trucks equipped with a tilt hood and stationary grille - snow plow hitch must clear hood when open

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS (Cont'd)**

**Hitch Frame (Cont'd)**

The frame shall be capable of self-storing the hydraulic cylinder when not in operation thus allowing the lift arm to fold down parallel to the rest of the frame.

Vertical supports of the hitch shall be constructed from 4 x 4 x 3/8" square tubing.

Cylinder support bracket on the hitch shall be constructed from 3 1/2" x 3 1/2" x 1/2" angle fully welded to both vertical supports. The two cylinder mounting tabs shall be 1/2" steel placed in the center of support bracket and spaced at 2 1/8" apart. Each tab shall be drilled to accept a 1" pin.

The upper horizontal support of the hitch shall be constructed of two 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 stored as well as one of two points the lift arms connection tabs are welded. The second horizontal support is a 1/2" contoured plate that allows the lift cylinder to be stored and provides a second mounting point for the lift arm connection tabs.

There shall be two pairs of lift arm support shackles. Each pair shall be made from 1/2" x 9 3/4" plate and drilled to accept 1 1/4" pins.

Fully welded to the vertical supports shall be two C 8 x 18.75 channels with 1/2" thick end plates. The end plates shall be drilled to accept six 5/8" grade 8 bolts for attaching the hitch between the frame rails.

Support of the lower portion of the hitch shall be provided by left and right hitch side plates constructed of 5/8" plate and securely bolted to the truck frame where appropriate.

**Pin Lock QCP**

Plow attachment shall be made by a pin lock QCP assembly

Top and bottom of the assembly shall be made from 1/2" contoured plate. Both plates shall be drilled to accept the 2" lock pin.

Welded to the bottom plate shall be 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 top plate shall be 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

In front of the QCP assembly shall be two 1/2" thick form bumpers. These bumpers are the resting/pushing point for the plow. They shall be curved to allow the plow to raise and lower smoothly.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPH A-152 ARM**

**BUMPER-TO-FRAME PLOW HITCH SPECIFICATIONS (Cont'd)**

Lock pin shall be 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 Lift Arm Assembly**

Heavy duty lift arm shall be an extendable style with seven different extended positions.                      

Frame of the lift arm shall be constructed from 1/2" x 4" steel plate that is formed to contour the outer tube of the extendable arm. This frame is also the connection point to the hitch and hydraulic cylinder.                      

The external tube shall be constructed of 4" heavy wall square tubing. On each end of the tube are 1" wide bushings ground to fit the inner tube. This ensures a tight long lasting fit                      

Top plate on the lift arm shall be 3/16" and is used to prevent "racking" of the frame.                      

The inner tube shall be constructed of 3" heavy wall square tubing. Tubing is drilled to allow for the seven different extended positions.                      

Lift arm assembly shall be welded to the square tubing. Tubing shall be drilled to allow for the seven different extended positions.                      

Welded to the front of the inner tube shall be a formed 1/2" plate with notches to accept standard 1/2" link chain. When required this plate can be changed to match different level lift systems.                      

**STAINLESS STEEL 8' UNDER TAILGATE SPREADER SPECIFICATIONS**

**MEYER BL-960**

**Specifications**

Body Width: 96"                      

Hopper Height: 19"                      

Hopper Width: 96"                      

Hopper Depth: 18"                      

Spread Width: 4'-40'                      

Empty Weight: 450 lbs.                      

Spinner Diameter: 18"

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS (Cont’d)**

**MEYER BL-960**

**Specifications (Cont’d)**

Material Movement: Auger	<input type="checkbox"/>	<input type="checkbox"/>
Mounting Method: Under Tailgate	<input type="checkbox"/>	<input type="checkbox"/>
Hopper Material: Stainless Steel	<input type="checkbox"/>	<input type="checkbox"/>
Spreader Material: Salt or Salt/Sand Mix	<input type="checkbox"/>	<input type="checkbox"/>

**General**

This under tailgate shall be of the bottom opening design.                      

The spreader shall fasten to the corner posts of the dump body using spreader manufacturers’ brackets and quick disconnect pins for quick mounting and removal without the use of special tools.                      

This mounting shall allow the dumping of materials without interference from the spreader.                      

This unit shall spread free flowing granular materials, abrasives and chemicals.                      

This unit shall be factory adapted to accept automatic control systems (only with a sensed motor).                      

All stainless steel used in the production of this unit shall be corrosion resistant, non-magnetic stainless steel.                      

The manufacturing and production of this unit shall be of the best commercial practices, and only materials of the finest quality shall be used.                      

**Trough**

Rigid 10 GA stainless steel one piece end plates shall be continuously welded to a 10 gauge stainless steel auger trough & 3” x 1 ½” formed channel stainless steel rear member.                      

The unit shall have a 10 gauge stainless steel three point hinged bottom door that when released, exposes the entire length of the auger for easy cleanout.                      

This hinged bottom shall be held in place by two replaceable heavy duty cam locks with a lift handle for convenient one man operation.                      

The anti-flow cover over the discharge opening shall be manufactured of 10 gauge stainless steel and removable without the use of tools.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

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

**STAINLESS STEEL 8' UNDER TAILGATE SPREADER SPECIFICATIONS (Cont'd)****Trough (Cont'd)**

The 10 GA stainless steel trough cover/backplate shall be one piece hinged integral part of the unit that may be raised when spreading and lowered for dumping operations.

This cover shall be capable of being locked in either the raised or lowered position by two replaceable captivated latches.

**Drive**

A direct drive coupled hydraulic motor shall be provided for driving the auger.

This hydraulic motor shaft shall mount directly to the auger pipe by a non-corrosive sleeve and a 1/2" grade 8 bolt.

The hydraulic motor shall mount directly to the end plate

There shall be two separate hydraulic "orbital type" motors capable of delivering high torque at low speeds to power both the auger and the spinner.

The auger feed rate and spinner speed are both variable.

**Feed Mechanism**

The 6" diameter (nominal) heavy duty auger shall consist of flights with outer edge at not less than .150 thickness, which is welded to a 2 7/8" diameter ERW pipe size tube.

This auger shall have continuous and reverse flighting to the discharge port for more uniform dump body unloading, and shall be supported by 1 1/4" idler end shaft.

The auger idler shaft shall be supported in sealed self-aligning precision single row radial ball bearing with grease fitting.

The discharge port shall be located on the left side of the trough, approximately 21" in from the edge of the bottom door.

The spreader shall be equipped with a safety interlock device to positively prevent power from reaching the auger motor when the top cover and bottom door are opened beyond the normal operation position.

**Spinner**

The spinner shall consist of a disc and six (6) fins molded into a single polyurethane unit, resulting in a flat trajectory and uniform spread pattern from 4 to 40 feet in width.

The spinner assembly shall be adjustable side to side, allowing for variable spread patterns left, right, and center of vehicle.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**STAINLESS STEEL 8’ UNDER TAILGATE SPREADER SPECIFICATIONS (Cont’d)**

**Spinner (Cont’d)**

This shall be accomplished by sliding the hinged frame sideways on the shaft so that the point at which the material hits the spinner disc is varied.                      

The entire spinner assembly shall be easily removed by pulling two pins, and uncoupling two hydraulic quick disconnect hoses                      

The spinner disc shall be mounted directly onto the hydraulic motor shaft by means of a cast iron spinner hub.                      

The spinner shall be linked to the truck frame with a universally mounted parallel arm to keep the spinner horizontal to the road surface at all dump body angles.                      

A spinner shield shall be provided to prevent material from striking the truck.                      

The spinner shall be adjustable in height in four positions.                      

The entire spinner assembly shall be made of stainless steel except for the motor and the spinner disc.                      

**Mounting**

This spreader shall fasten to the side of the dump box using quick disconnect pins for quick mounting and removal without the use of special tools.                      

**Painting**

All stainless steel shall be chemically cleaned, but remain un-painted. Carbon steel components shall be chemically cleaned and coated with a lead free rust inhibitive primer and painted with lead free black.                      

**WARRANTY DETAILS**

Cab and Chassis: Extended Warranty: 5 year/150,000 mile engine warranty with unlimited hours to include turbo, injectors and ATS; 5 year transmission warranty with unlimited mileage; 5 year towing for warrantable repairs warranty                      

Stainless Steel Dump Body: 5 year warranty on hoist and body structure                      

Tarp: 1 year warranty on motor and moving parts                      

Central Hydraulic Manual System: 1 year warranty parts and labor                      

Complete Plow System: 1 year warranty                      

Under Tailgate Spreader: 1 year warranty                      

**Warranty shall start on date of acceptance of vehicle by the County.**  
**Vendor shall submit all warranty details with bid submission.**

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>OPTIONS</u></b>		
<b><u>1A. 52” Tall Moldboard in Lieu of 42” Standard</u></b>	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>1B. Freedom 2.2 Spreader Control</u></b>		
Controller shall have 3 Pulse Width Modulation (PWM) output channels for liquid and granular spreader controller.	<input type="checkbox"/>	<input type="checkbox"/>
The controller shall be a microprocessor type capable of PWM control of three hydraulic valves.	<input type="checkbox"/>	<input type="checkbox"/>
Controller must be automotive grade for durability. Any gaming type controllers are unacceptable.	<input type="checkbox"/>	<input type="checkbox"/>
The controller must offer ground speed control from vehicle signal. No GPS antenna can be used for ground speed signal input.	<input type="checkbox"/>	<input type="checkbox"/>
The controller must have three channels to operate an auger/conveyor and liquid system.	<input type="checkbox"/>	<input type="checkbox"/>
PWM signal must be adjustable for a wide range of implement functionality.	<input type="checkbox"/>	<input type="checkbox"/>
The controller shall be capable of ground speed oriented spreading, ground speed triggered, and manual mode.	<input type="checkbox"/>	<input type="checkbox"/>
The system shall offer a manual mode lock out option.	<input type="checkbox"/>	<input type="checkbox"/>
The spreader controller shall operate in open or closed loop configuration.	<input type="checkbox"/>	<input type="checkbox"/>
Controller shall offer remote pause, unload mode, liquid float input, test speed, and on-screen error with alarms and message reporting.	<input type="checkbox"/>	<input type="checkbox"/>
Sensor short detection with message and alarm.	<input type="checkbox"/>	<input type="checkbox"/>
System must have 2 auxiliary output channels available.	<input type="checkbox"/>	<input type="checkbox"/>
System shall offer spinner configurable MPH shut off, storm totals on screen or with USB.	<input type="checkbox"/>	<input type="checkbox"/>
Operator screen shall offer knobs or touch screen to control granular and liquid outputs.	<input type="checkbox"/>	<input type="checkbox"/>
There shall be nine (9) independently programmable feeder output channels for accurate lbs. per mile output.	<input type="checkbox"/>	<input type="checkbox"/>
The system shall also offer 9 programmable speeds for the spinner.	<input type="checkbox"/>	<input type="checkbox"/>
System shall maintain up to 4 different granular material types.	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b><u>OPTIONS (CONT'D)</u></b>		
<b><u>1B. Freedom 2.2 Spreader Control (Cont'd)</u></b>		
There shall be an integrated blast mode with instant off to stop output if necessary.	<input type="checkbox"/>	<input type="checkbox"/>
Blast must be programmable for flow rate and material distance.	<input type="checkbox"/>	<input type="checkbox"/>
Unit shall provide an unload mode at speeds of up to 5 MPH.	<input type="checkbox"/>	<input type="checkbox"/>
A standby (pass) mode shall be provided to allow for momentary interrupt of the spreader without changing the feeder/spinner/liquid output.	<input type="checkbox"/>	<input type="checkbox"/>
All programming and calibration shall be accomplished using the touch screen of the controller. Detachable key board is not acceptable.	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>Modular Granular and Liquid Valve</u></b>		
The modular manifold must be constructed of 6061 anodized aluminum.	<input type="checkbox"/>	<input type="checkbox"/>
Modular manifold must have an adjustable pressure of up to 3500 PSI with multiple flow, pressure, performance, and function configurations.	<input type="checkbox"/>	<input type="checkbox"/>
Each function shall be equipped with screw adjustable manual overrides protected by jacketed debris covers.	<input type="checkbox"/>	<input type="checkbox"/>
The modular manifold shall operate in either open center (fixed displacement) or closed center (variable displacement) hydraulic circuits.	<input type="checkbox"/>	<input type="checkbox"/>
The auger/conveyor must be rated at 15 GPM and feature a cartridge valve design for precision spreading.	<input type="checkbox"/>	<input type="checkbox"/>
The spinner valve must provide 10 GPM and also feature a cartridge design valve with manual override.	<input type="checkbox"/>	<input type="checkbox"/>
Pre-wet or anti-ice implements shall be available as a 10 GPM hydraulic circuits if necessary.	<input type="checkbox"/>	<input type="checkbox"/>
Additional cartridge valve required for liquid system.	<input type="checkbox"/>	<input type="checkbox"/>
These functions shall be proportional controlled, pulse width modulated, pressure and flow compensated, with heavy duty 12 VDC coils.	<input type="checkbox"/>	<input type="checkbox"/>
Spreader control “outside the cab” harnessing shall meet IP 68 standards.	<input type="checkbox"/>	<input type="checkbox"/>
Connections must be NEMA x6 standards for dust protection.	<input type="checkbox"/>	<input type="checkbox"/>



**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**1F. Diagnostic Tools / Test Equipment (Cont'd)**

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 3. Provide a list of all test/diagnostic/programming equipment and special tools being supplied at the time of bid.  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. All software installations and activations will be completed by the successful bidder at no cost to the County.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 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 equipment.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 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. | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Training shall be provided on all items in this section at a County location.   | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. This equipment shall be the OEM equipment as available by the chassis manufacturer.   | <input type="checkbox"/> | <input type="checkbox"/> |

**1G. 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:

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 and secured in the vicinity of the operator. The wiring harness shall be clearly labeled "TWO-WAY RADIO". The wires shall be unterminated. The 12VDC sources shall be protected from making contact with grounded metal surfaces.

                    

**1H. 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.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**1H. Installation of County Supplied Two Way Radio and Accessories (Cont'd)**

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.

                    

**1I. Technical Support**

Technical Support is to be provided by factory authorized technical representatives and is to be the original equipment Manufacturers' 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.

                    

Technical support may be requested in the following areas:

1. Engine (cooling, fuel, ignition, lubrication systems) – 1 day at each location.
2. Transmission – 1 day at each location
3. Electrical – 1 day at each location
4. Brakes – 1 day at each location
5. Hydraulic system (dump body, spreader, snow plow) – 1 day at each location
6. 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.

                    

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.

**ITEM #1 – MODEL YEAR 2023, OR NEWER, 6 YARD DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED, OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**II. Technical Support (Cont'd)**

Technical Support for Vehicle Services may be provided at the following fleet maintenance facility location as scheduled by a Vehicle Services Department representative:

- a. 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)
- b. 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.

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOWS AND SPREADER, AS SPECIFIED OR EQUAL**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>GENERAL</b>		
2023 WESTERN STAR 49X SF	<input type="checkbox"/>	<input type="checkbox"/>
Set forward axle	<input type="checkbox"/>	<input type="checkbox"/>
Lh primary steering location	<input type="checkbox"/>	<input type="checkbox"/>
<b>DIMENSIONS</b>		
Front axle 20,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Pusher axle 20,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle 52,000 lbs.	<input type="checkbox"/>	<input type="checkbox"/>
Registered gvwr 80,000 lbs.; cg tags	<input type="checkbox"/>	<input type="checkbox"/>
<b>ENGINE</b>		
Cummins x15 performance series 14.9l, 912 cid minimum 525v hp @ 1900rpm.	<input type="checkbox"/>	<input type="checkbox"/>
Gov 1900 rpm, and 1850 lb.-ft. Torque @ 1000 rpm.	<input type="checkbox"/>	<input type="checkbox"/>
Must be in line 6 cylinder of wet sleeve design utilizing hardened Cylinder liners, and electronics for simple service and diagnosis as needed.	<input type="checkbox"/>	<input type="checkbox"/>
Minimum displacement shall be 14.9 liters.	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>
<b>ENGINE EQUIPMENT</b>		
Engine must have latest 50 state clean idle diesel emission certification	<input type="checkbox"/>	<input type="checkbox"/>
Oil check and fill: engine mounted	<input type="checkbox"/>	<input type="checkbox"/>
Air intake: hood mounted air intake with precleaner integrated into hood with inside/outside air snow door.	<input type="checkbox"/>	<input type="checkbox"/>
Alternator: 200 amp 28 si with remote battery volt sense	<input type="checkbox"/>	<input type="checkbox"/>
Batteries: (4) 12-volt gnb maintenance-free 4000 CCA	<input type="checkbox"/>	<input type="checkbox"/>
Battery box: frame-mounted stack battery box LH or RH side back of cab	<input type="checkbox"/>	<input type="checkbox"/>
Positive load disconnect control switch mounted under dash or floor	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>ENGINE EQUIPMENT (Cont'd)</b>		
Remote jump start studs mounted on frame next to starter	<input type="checkbox"/>	<input type="checkbox"/>
Silicone heater/radiator hoses where possible	<input type="checkbox"/>	<input type="checkbox"/>
Compressor: Cummins 18.7 CFM with internal safety valve	<input type="checkbox"/>	<input type="checkbox"/>
Engine protection: electronic engine-integral warning system with shut down function	<input type="checkbox"/>	<input type="checkbox"/>
Engine brake: Cummins interbrake compression brake with on off switch and low, med and high retardation switch	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust: single right-hand under cab ATD with bright finish upper 11' vertical stack cab mounted	<input type="checkbox"/>	<input type="checkbox"/>
2-piece fan shroud and rear rock guard	<input type="checkbox"/>	<input type="checkbox"/>
Exhaust shield: stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Fan drive: electronically controlled variable speed automatic control with dash switch and light	<input type="checkbox"/>	<input type="checkbox"/>
13 gallon diesel exhaust fluid tank	<input type="checkbox"/>	<input type="checkbox"/>
Non-polished aluminum cover for def tank	<input type="checkbox"/>	<input type="checkbox"/>
Oil filter: full-flow	<input type="checkbox"/>	<input type="checkbox"/>
Fuel filter/water separator: Detroit engine mounted with water in fuel Indicator	<input type="checkbox"/>	<input type="checkbox"/>
Radiator: 1400 square-inch severe service assembly bolted to engine	<input type="checkbox"/>	<input type="checkbox"/>
Heavy-duty coolant: -34 oat extended life	<input type="checkbox"/>	<input type="checkbox"/>
Coolant hoses: silicone where possible	<input type="checkbox"/>	<input type="checkbox"/>
Hose clamps: constant tension for coolant hoses and air intake system	<input type="checkbox"/>	<input type="checkbox"/>
Engine heater: Philips 1500w/115v	<input type="checkbox"/>	<input type="checkbox"/>
Chrome heater receptacle: mounted under driver's door	<input type="checkbox"/>	<input type="checkbox"/>
Cast iron front and rear engine supports	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>ENGINE EQUIPMENT (Cont'd)</b>		
Starter: Delco 12v 39 MT+ HD OCP	<input type="checkbox"/>	<input type="checkbox"/>
<b>TRANSMISSION AND EQUIPMENT</b>		
Allison RDS 4700 automatic transmission with PTO provision	<input type="checkbox"/>	<input type="checkbox"/>
Programming for 70 mph output speed	<input type="checkbox"/>	<input type="checkbox"/>
S1 performance primary shift schedule	<input type="checkbox"/>	<input type="checkbox"/>
1900 rpm primary mode shift speed	<input type="checkbox"/>	<input type="checkbox"/>
Performance–Table based shift schedule	<input type="checkbox"/>	<input type="checkbox"/>
Transmission prognostics-enabled	<input type="checkbox"/>	<input type="checkbox"/>
PTO mounting LH & RH side of main transmission	<input type="checkbox"/>	<input type="checkbox"/>
Water to oil transmission cooler	<input type="checkbox"/>	<input type="checkbox"/>
Magnetic plugs, engine drain	<input type="checkbox"/>	<input type="checkbox"/>
Transmission drain, axle(s) fill & drain	<input type="checkbox"/>	<input type="checkbox"/>
Dash mounted push button shift control	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic transmission fluid	<input type="checkbox"/>	<input type="checkbox"/>
Transmission oil check and fill with electronic oil level check	<input type="checkbox"/>	<input type="checkbox"/>
<b>FRONT AXLE AND SUSPENSION</b>		
Meritor 20000# front axle	<input type="checkbox"/>	<input type="checkbox"/>
Meritor 16.5 x 6 q+ heavy duty cast spider cam front brakes	<input type="checkbox"/>	<input type="checkbox"/>
Brakes, double anchor, fabricated shoe	<input type="checkbox"/>	<input type="checkbox"/>
Non-asbestos front brake lining severe service	<input type="checkbox"/>	<input type="checkbox"/>
Conmet cast iron front brake drums	<input type="checkbox"/>	<input type="checkbox"/>
Front brake dust shields	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<b><u>COMPLIANCE</u></b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b>FRONT AXLE AND SUSPENSION (Cont'd)</b>		
Front oil seals	<input type="checkbox"/>	<input type="checkbox"/>
Stemco aluminum vented front hub caps	<input type="checkbox"/>	<input type="checkbox"/>
With window and center+side plugs – oil	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic 75w-90 front axle lube	<input type="checkbox"/>	<input type="checkbox"/>
Haldex automatic front slack adjusters with stainless steel clevis pins	<input type="checkbox"/>	<input type="checkbox"/>
Bendix high capacity 20-23k power steering with rh auxiliary gear	<input type="checkbox"/>	<input type="checkbox"/>
Power steering pump oil air cooler	<input type="checkbox"/>	<input type="checkbox"/>
4 quart power steering see through reservoir	<input type="checkbox"/>	<input type="checkbox"/>
23,000# flat leaf front suspension	<input type="checkbox"/>	<input type="checkbox"/>
Threaded spring pins and bushings	<input type="checkbox"/>	<input type="checkbox"/>
Front shock absorbers	<input type="checkbox"/>	<input type="checkbox"/>
<b>REAR AXLE AND SUSPENSION</b>		
Meritor rt-52-185 52000# tandem rear axle	<input type="checkbox"/>	<input type="checkbox"/>
Factory installed Watson/Chalin sl-2065 Tru-Track 20000# air lift	<input type="checkbox"/>	<input type="checkbox"/>
Steerable pusher suspension with 16.5x6” brakes, dust shields and FL 1 Watson/chalin 20000# axle	<input type="checkbox"/>	<input type="checkbox"/>
Pusher axle controls in cab, up/down valve, gauge and air pressure regulator	<input type="checkbox"/>	<input type="checkbox"/>
Reverse lift axle warning with last state retention	<input type="checkbox"/>	<input type="checkbox"/>
Air piping for liftable pusher axle controls mounted inside cab	<input type="checkbox"/>	<input type="checkbox"/>
52” pusher axle spacing	<input type="checkbox"/>	<input type="checkbox"/>
Iron rear axle carrier housing	<input type="checkbox"/>	<input type="checkbox"/>
SPL250HD XL Dana Spicer main driveline w/half round yokes	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>REAR AXLE AND SUSPENSION (Cont'd)</b>		
SPL170 XL Dana Spicer interaxle driveline w/half round yokes	<input type="checkbox"/>	<input type="checkbox"/>
Driver control differential lockout rear/rear with indicator light for traction device	<input type="checkbox"/>	<input type="checkbox"/>
Synthetic 75W-90W all axles	<input type="checkbox"/>	<input type="checkbox"/>
Meritor 16.5x7" P cam double anchor cast shoes	<input type="checkbox"/>	<input type="checkbox"/>
Non-asbestos rear brake lining	<input type="checkbox"/>	<input type="checkbox"/>
Webb cast iron rear brake drums	<input type="checkbox"/>	<input type="checkbox"/>
Rear brake dust shields	<input type="checkbox"/>	<input type="checkbox"/>
Haldex automatic rear slack adjusters with stainless steel clevis pins	<input type="checkbox"/>	<input type="checkbox"/>
Rear oil seals	<input type="checkbox"/>	<input type="checkbox"/>
Bendix eversure longstroke 2-drive axle spring	<input type="checkbox"/>	<input type="checkbox"/>
Forward of axle mounted parking chambers	<input type="checkbox"/>	<input type="checkbox"/>
Standard spindle nuts for all axles	<input type="checkbox"/>	<input type="checkbox"/>
Tuf-trac 52000# inverted leaf rear suspension	<input type="checkbox"/>	<input type="checkbox"/>
Standard ride height	<input type="checkbox"/>	<input type="checkbox"/>
55" axle spacing	<input type="checkbox"/>	<input type="checkbox"/>
Fore/aft and transverse control rods	<input type="checkbox"/>	<input type="checkbox"/>
Rear shock absorbers – two axles	<input type="checkbox"/>	<input type="checkbox"/>
<b>BRAKE SYSTEM EQUIPMENT</b>		
Wabco 6S/6M ABS with traction control with ATC shut off switch	<input type="checkbox"/>	<input type="checkbox"/>
Reinforced nylon, fabric braid & wirebraid chassis air lines	<input type="checkbox"/>	<input type="checkbox"/>
Bendix brake valves where possible	<input type="checkbox"/>	<input type="checkbox"/>
Relay valve with 5.5 psi crack pressure	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>BRAKE SYSTEM EQUIPMENT (Cont'd)</b>		
Air connections to end of frame with glad hands	<input type="checkbox"/>	<input type="checkbox"/>
Bw ad-9si brake line air dryer w/heater	<input type="checkbox"/>	<input type="checkbox"/>
Air dryer frame mounted RH under cab	<input type="checkbox"/>	<input type="checkbox"/>
Aluminum air brake reservoirs	<input type="checkbox"/>	<input type="checkbox"/>
Cab blow out kit with air hose and nozzle	<input type="checkbox"/>	<input type="checkbox"/>
Pull cables on all air reservoirs	<input type="checkbox"/>	<input type="checkbox"/>
<b>FRAME AND WHEELBASE</b>		
242" wheelbase with 150" c/t usable	<input type="checkbox"/>	<input type="checkbox"/>
.59 x 3.5 x 12.4 steel frame with .236" inner c-channel reinforcement	<input type="checkbox"/>	<input type="checkbox"/>
120 KSI 40.42 SM, 4,849,851 RBM	<input type="checkbox"/>	<input type="checkbox"/>
58 in. Overhang	<input type="checkbox"/>	<input type="checkbox"/>
24" integral front frame extension	<input type="checkbox"/>	<input type="checkbox"/>
Square end of frame	<input type="checkbox"/>	<input type="checkbox"/>
Heavy duty ductile iron engine crossmember	<input type="checkbox"/>	<input type="checkbox"/>
Heavy duty steel rear closing crossmember	<input type="checkbox"/>	<input type="checkbox"/>
Heavy duty steel construction back of transmission crossmember	<input type="checkbox"/>	<input type="checkbox"/>
Standard construction midship #1 crossmember	<input type="checkbox"/>	<input type="checkbox"/>
Standard construction rear suspension forward crossmember	<input type="checkbox"/>	<input type="checkbox"/>
Standard construction rear mounted suspension crossmember	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CHASSIS EQUIPMENT/TRAILER CONNECTIONS</b>		
7-way trailer plug end of frame	<input type="checkbox"/>	<input type="checkbox"/>
3/8" severe duty steel bumper or custom bumper for hitch mounting	<input type="checkbox"/>	<input type="checkbox"/>
Phosphate-coated class 10.9 fine thread hex chassis fasteners, rear suspension hangar mounting to have Huck spin fasteners	<input type="checkbox"/>	<input type="checkbox"/>
Exterior harnesses wrapped in abrasion tape, secondary covering and connector protection	<input type="checkbox"/>	<input type="checkbox"/>
Air piping and electrical independently clipped to frame	<input type="checkbox"/>	<input type="checkbox"/>
<b>FUEL TANKS AND EQUIPMENT</b>		
Single 70 gallon aluminum, minimum	<input type="checkbox"/>	<input type="checkbox"/>
LH fuel tank mounted forward	<input type="checkbox"/>	<input type="checkbox"/>
25" diameter fuel tank(s)	<input type="checkbox"/>	<input type="checkbox"/>
Aluminum fuel tank bracket(s)	<input type="checkbox"/>	<input type="checkbox"/>
Plain aluminum fuel tank with polished stainless bands	<input type="checkbox"/>	<input type="checkbox"/>
Fuel/water separator with water in fuel sensor and 12 volt preheater	<input type="checkbox"/>	<input type="checkbox"/>
Equiflo inboard fuel system	<input type="checkbox"/>	<input type="checkbox"/>
High temperature reinforced nylon fuel hose	<input type="checkbox"/>	<input type="checkbox"/>
No fuel cooler	<input type="checkbox"/>	<input type="checkbox"/>
In tank fuel level sender	<input type="checkbox"/>	<input type="checkbox"/>
<b>FRONT TIRES, HUBS AND WHEELS</b>		
Michelin XZY-3 425/65R22.5 20 PLY	<input type="checkbox"/>	<input type="checkbox"/>
Conmet iron front hubs	<input type="checkbox"/>	<input type="checkbox"/>
Accuride 29807 4.75 inset 5 hand hd 22.5x12.25 10-hub pilot steel disc front wheels	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>REAR DRIVE &amp; PUSHER TIRES, HUBS, &amp; WHEELS</b>		
Michlein xds2 11r 24.5 16 ply rear drive axle tires	<input type="checkbox"/>	<input type="checkbox"/>
Webb iron rear hubs	<input type="checkbox"/>	<input type="checkbox"/>
Accuride 28827 2 hand 24.5x8 .25 10-hub pilot steel	<input type="checkbox"/>	<input type="checkbox"/>
Steel disc rear wheels	<input type="checkbox"/>	<input type="checkbox"/>
Michelin XZY-3 425/65R22.5 20 ply pusher tires (2)	<input type="checkbox"/>	<input type="checkbox"/>
Accuride 29807 - 22.5 x 12.25" 4.75" inset 5 hand 10 hub pilot pusher wheels	<input type="checkbox"/>	<input type="checkbox"/>
Nylon wheel guards front and rear all interfaces	<input type="checkbox"/>	<input type="checkbox"/>
Wheel-Check High Visibility Green Loose Wheel Nut Indicator on all wheels	<input type="checkbox"/>	<input type="checkbox"/>
<b>CAB EXTERIOR</b>		
121" BBC conventional steel reinforced aluminum cab	<input type="checkbox"/>	<input type="checkbox"/>
Galvanized E coated sealed steel door construction	<input type="checkbox"/>	<input type="checkbox"/>
Forged steel door hinges with steel reinforced "a" pillar	<input type="checkbox"/>	<input type="checkbox"/>
Triple door seal system	<input type="checkbox"/>	<input type="checkbox"/>
Non-removable bug screen	<input type="checkbox"/>	<input type="checkbox"/>
Front cab mounts outboard of frame for stability or when taking off and applying torque from engine.	<input type="checkbox"/>	<input type="checkbox"/>
Bolt on molded fender extensions	<input type="checkbox"/>	<input type="checkbox"/>
LH/RH exterior grabhandles with rubber insert and RH interior grab handle MTB to reinforced 'A' post	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel radiator mounted grille	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel radiator shell/hood bezel with tilt hood handle	<input type="checkbox"/>	<input type="checkbox"/>
Molded resin hood with isolated hood suspension mounting system	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB EXTERIOR (Cont'd)</b>		
Hood opening strut assist with safety lock	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) Hadley sd-978 26" rect air horns	<input type="checkbox"/>	<input type="checkbox"/>
Single electric horn	<input type="checkbox"/>	<input type="checkbox"/>
Horn shields	<input type="checkbox"/>	<input type="checkbox"/>
All locks keyed the same; must have six (6) keys	<input type="checkbox"/>	<input type="checkbox"/>
Dual stage LED headlights with heated lens system	<input type="checkbox"/>	<input type="checkbox"/>
Aerodynamic LED marker lights in stainless steel visor	<input type="checkbox"/>	<input type="checkbox"/>
Individual LED stop/tail/turn/backup lights flush mounted end of frame	<input type="checkbox"/>	<input type="checkbox"/>
Led rear facing turn signal lamps in convex mirror lens in addition to standard front turn signal lamps	<input type="checkbox"/>	<input type="checkbox"/>
Dual C bar mirror system bright finish c-bar, heated mirrors, dual remote, turn signal, stainless steel back cover with integral convex	<input type="checkbox"/>	<input type="checkbox"/>
Door mounted mirrors with control switches on door panels	<input type="checkbox"/>	<input type="checkbox"/>
102" equipment width	<input type="checkbox"/>	<input type="checkbox"/>
LH/RH heated hood mounted side view mirrors, black finish	<input type="checkbox"/>	<input type="checkbox"/>
Stainless steel exterior sun visor	<input type="checkbox"/>	<input type="checkbox"/>
3 piece solar tinted impact resistant polycarbonate rear window configuration (1) 31 x 20" (2) 9 x 20"	<input type="checkbox"/>	<input type="checkbox"/>
Tinted door glass LH & RH tinted	<input type="checkbox"/>	<input type="checkbox"/>
Electric door window regulators	<input type="checkbox"/>	<input type="checkbox"/>
1 piece tinted roped in solar green glass windshield	<input type="checkbox"/>	<input type="checkbox"/>
2 gallon windshield washer reservoir with fluid level indicator	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB INTERIOR</b>		
Gray vinyl premium interior	<input type="checkbox"/>	<input type="checkbox"/>
Black mats with added floor heat and noise insulation	<input type="checkbox"/>	<input type="checkbox"/>
12 volt power supply in dash	<input type="checkbox"/>	<input type="checkbox"/>
Dash mounted ash tray & lighter	<input type="checkbox"/>	<input type="checkbox"/>
Forward roof mounted console	<input type="checkbox"/>	<input type="checkbox"/>
Map pockets, left and right doors	<input type="checkbox"/>	<input type="checkbox"/>
Cab Coat hook(s)	<input type="checkbox"/>	<input type="checkbox"/>
Wraparound wing dash with digital gauges in driver command center	<input type="checkbox"/>	<input type="checkbox"/>
One (1) 5 lb. Fire extinguisher mounted	<input type="checkbox"/>	<input type="checkbox"/>
Heater, defroster and air conditioner	<input type="checkbox"/>	<input type="checkbox"/>
Main HVAC with constant temp control and cosmetic cover main fresh air inlet with fresh air filter	<input type="checkbox"/>	<input type="checkbox"/>
Standard heater plumbing with ball shut off valves at supply lines	<input type="checkbox"/>	<input type="checkbox"/>
Air conditioner compressor	<input type="checkbox"/>	<input type="checkbox"/>
Radiator MTD A/C condenser	<input type="checkbox"/>	<input type="checkbox"/>
R-134A refrigerant	<input type="checkbox"/>	<input type="checkbox"/>
Premium cab insulation	<input type="checkbox"/>	<input type="checkbox"/>
Centralized logic controllers in main dash electrical panels, houses VPDM onboard ECU and TEM programmable modules	<input type="checkbox"/>	<input type="checkbox"/>
Multiplexed electrical system	<input type="checkbox"/>	<input type="checkbox"/>
Color-coded and laser-etched wiring	<input type="checkbox"/>	<input type="checkbox"/>
Premium LED cab lighting	<input type="checkbox"/>	<input type="checkbox"/>
Cab door latches with electric door locks	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>CAB INTERIOR (Cont'd)</b>		
Triangular reflectors without flares	<input type="checkbox"/>	<input type="checkbox"/>
Elite high back air suspension driver and passenger seats with 2 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	<input type="checkbox"/>	<input type="checkbox"/>
Gray Moroura cloth driver and passenger seat cover	<input type="checkbox"/>	<input type="checkbox"/>
3-point driver & passenger seat belts including seatbelt retractor	<input type="checkbox"/>	<input type="checkbox"/>
Adjustable tilt and telescoping steering column	<input type="checkbox"/>	<input type="checkbox"/>
450mm (18") black steering wheel with multifunction integrated controls	<input type="checkbox"/>	<input type="checkbox"/>
Driver/passenger interior sun visors	<input type="checkbox"/>	<input type="checkbox"/>
<b>INSTRUMENT PANELS AND CONTROLS</b>		
Wrap around dash that allows gauges and driver command center with up to six (6) digital gauges	<input type="checkbox"/>	<input type="checkbox"/>
Panel with teak color surround w/round gauges	<input type="checkbox"/>	<input type="checkbox"/>
Teak color center access instrument panel	<input type="checkbox"/>	<input type="checkbox"/>
Low air pressure light and buzzer	<input type="checkbox"/>	<input type="checkbox"/>
Primary & secondary air pressure gauges	<input type="checkbox"/>	<input type="checkbox"/>
Intake mounted air restriction gauge	<input type="checkbox"/>	<input type="checkbox"/>
Cruise control-electronic, controls on steering wheel	<input type="checkbox"/>	<input type="checkbox"/>
Electronic mph speedometer and 2500 rpm tachometer	<input type="checkbox"/>	<input type="checkbox"/>
Key operated ignition switch & integral	<input type="checkbox"/>	<input type="checkbox"/>
Start position, four (4) position off/run/start	<input type="checkbox"/>	<input type="checkbox"/>
Headlights on with wipers with daytime running lights	<input type="checkbox"/>	<input type="checkbox"/>
Electric fuel gauge	<input type="checkbox"/>	<input type="checkbox"/>
Electrical engine coolant temp gauge	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>INSTRUMENT PANELS AND CONTROLS (Cont'd)</b>		
Transmission oil temperature gauge	<input type="checkbox"/>	<input type="checkbox"/>
Engine and trip hour meters integral within driver display	<input type="checkbox"/>	<input type="checkbox"/>
Engine oil pressure gauge	<input type="checkbox"/>	<input type="checkbox"/>
AM/FM WB world tuner cd stereo radio with Bluetooth, iPod interface	<input type="checkbox"/>	<input type="checkbox"/>
USB and auxiliary inputs, J1939	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) radio speakers (cab only)	<input type="checkbox"/>	<input type="checkbox"/>
Headliner multi-band antenna AM/FM/Weatherband, Wi-Fi/Bluetooth, GNSS/GPS	<input type="checkbox"/>	<input type="checkbox"/>
Electronic outside temperature sensor display in driver message center	<input type="checkbox"/>	<input type="checkbox"/>
PTO switch and four (4) dash mounted aux.switches WTH indicator lights	<input type="checkbox"/>	<input type="checkbox"/>
Engine, trip and PTO hour meter within driver display	<input type="checkbox"/>	<input type="checkbox"/>
Hand control valve	<input type="checkbox"/>	<input type="checkbox"/>
Voltmeter	<input type="checkbox"/>	<input type="checkbox"/>
Rotary headlamp switch, marker lights/headlights switch with pull out for optional road lamps	<input type="checkbox"/>	<input type="checkbox"/>
Wiring and switch for customer furnished snow plow lamps with dual connections at bumper	<input type="checkbox"/>	<input type="checkbox"/>
Switch indicator light and 10' of wire on chassis LH back of cab for customer furnished utility lights	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) valve parking brake system	<input type="checkbox"/>	<input type="checkbox"/>
Self-cancelling turn signal switch with integral head lamp dimmer headlamp flash, wash wipe intermittent	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>PAINT/FINISH</b>		
Rail black high solids	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Chassis frame: Polyurethane	<input type="checkbox"/>	<input type="checkbox"/>
Wheels/Rims:		
Rear/pusher wheel color: vendor powder black	<input type="checkbox"/>	<input type="checkbox"/>
Front wheel color: Vendor powder black	<input type="checkbox"/>	<input type="checkbox"/>
<b>UNDERCOATING</b>		
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	<input type="checkbox"/>	<input type="checkbox"/>
<b>MANUALS</b>		
The end unit shall be delivered with the following items:		
One (1) fire extinguisher, interior mounted	<input type="checkbox"/>	<input type="checkbox"/>
One (1) complete set of all fluid filters, air filters and belts for engine, transmission, final drives, mounted equipment, optional equipment, and all accessories that have replaceable filters	<input type="checkbox"/>	<input type="checkbox"/>
Three (3) complete sets of mechanic's parts "shop", service and troubleshooting USB's for chassis, engine, transmission, optional equipment, mounted equipment and accessories, including wiring diagrams. Parts manuals shall be in USB format (First ordered unit only) unless otherwise included in diagnostic software subscription	<input type="checkbox"/>	<input type="checkbox"/>
Three (3) sets of Manufacturer's Line Setting Sheets for chassis, mounted equipment, and optional equipment	<input type="checkbox"/>	<input type="checkbox"/>
One (1) "Build Book" per unit ordered. This Build Book shall include the brand, model, part number and serial number for the following items/systems: Hydraulic Control Valve; Hydraulic Control Cables; Hydraulic Reservoir; Plow; Spreader; Optional Freedom 2.2 Spreader Control (if ordered); PTO and Pump; Tarp System; Dump Body. A sample of this build book will be available to view during pre-build meeting.	<input type="checkbox"/>	<input type="checkbox"/>
<b>WARRANTY</b>		
Basic vehicle - 1 year, 50,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Battery - 1 year, 50,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Brightwork – 6 months, unlimited	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>WARRANTY (Cont'd)</b>		
Cab corrosion/perforation – 5 years, unlimited	<input type="checkbox"/>	<input type="checkbox"/>
Cab structure – 1 year, 100,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Corrosion – 6 months, unlimited	<input type="checkbox"/>	<input type="checkbox"/>
Crossmembers – 3 years, 300,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Diesel Emission 2010 – 5 years, 100,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gas 14/17 (medium heavy duty to heavy heavy duty trucks/tractors) – 5 years, 100,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Greenhouse Gas 14/17 tire (file direct) – 2 years, 24,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Frame rails – 3 years, 300,000	<input type="checkbox"/>	<input type="checkbox"/>
Front/steer axle: Detroit – 1 year, unlimited	<input type="checkbox"/>	<input type="checkbox"/>
Front/steer axle: non-Detroit – 1 year, 100,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Paint – 1 year, 50,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Paint, chassis – 6 months, unlimited	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle: Detroit – 1 year, unlimited	<input type="checkbox"/>	<input type="checkbox"/>
Rear axle: non-Detroit – 1 year, 100,000 miles	<input type="checkbox"/>	<input type="checkbox"/>
Towing – 5 years, unlimited miles	<input type="checkbox"/>	<input type="checkbox"/>
Cummins 5 year 100,000 mile engine and ATS warranty	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**WARRANTY (Cont'd)**

Cummins protection plan is:

- 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 assemblies, 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                      

**SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS 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”

**ITEM #2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY</b>		
<b>General (Cont'd)</b>		
34" longsills outside width	<input type="checkbox"/>	<input type="checkbox"/>
27" longsills inside width	<input type="checkbox"/>	<input type="checkbox"/>
Sandblasts and primer – glass bead blasting	<input type="checkbox"/>	<input type="checkbox"/>
Underbody to be painted chassis black	<input type="checkbox"/>	<input type="checkbox"/>
One (1) d-ring top of tailgate	<input type="checkbox"/>	<input type="checkbox"/>
<b>Cabshield</b>		
Cabshield type – traditional	<input type="checkbox"/>	<input type="checkbox"/>
Cabshield length – 24"	<input type="checkbox"/>	<input type="checkbox"/>
Cabshield width – 90" cabshield height – to be determined to match chassis height	<input type="checkbox"/>	<input type="checkbox"/>
Light holes configuration – 4 oval lights holes	<input type="checkbox"/>	<input type="checkbox"/>
Cabshield installation	<input type="checkbox"/>	<input type="checkbox"/>
<b>Side</b>		
Two (2) triangle steps evenly spaced with grab handles located at front of body driver's side	<input type="checkbox"/>	<input type="checkbox"/>
Side shape – formed side	<input type="checkbox"/>	<input type="checkbox"/>
Top rail section – formed	<input type="checkbox"/>	<input type="checkbox"/>
6" board pocket and intermediate bracket	<input type="checkbox"/>	<input type="checkbox"/>
Double walking rail; stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
3/8" stainless steel upper tarp rail	<input type="checkbox"/>	<input type="checkbox"/>
8" apron shall pin on at rear of body	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<b><u>COMPLIANCE</u></b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b>SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY (Cont'd)</b>		
<b>Rear</b>		
Double acting tailgate (lays flat or dumps through)	<input type="checkbox"/>	<input type="checkbox"/>
Lock positioning – end point latch system	<input type="checkbox"/>	<input type="checkbox"/>
Bolster shape – standard flat rear bolster	<input type="checkbox"/>	<input type="checkbox"/>
Tailgate angle- straight	<input type="checkbox"/>	<input type="checkbox"/>
Locking system – air cylinder size 2.5”; push/pull air controls	<input type="checkbox"/>	<input type="checkbox"/>
Tailgate panel – Two (2) panels	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hoist</b>		
Mailhot cs 160-6.5-4 da, or equal	<input type="checkbox"/>	<input type="checkbox"/>
<b>Accessories To Be Included</b>		
One (1) Complete Set of Filters For Cab/Chassis, Drive Train And Upfit	<input type="checkbox"/>	<input type="checkbox"/>
5 Gallons of Recommended-Use Hydraulic Fluid	<input type="checkbox"/>	<input type="checkbox"/>
One (1) spare front tire and wheel and one (1) spare rear wheel and tire	<input type="checkbox"/>	<input type="checkbox"/>
Safety lighting – six (6) oval led amber strobe lights with amber lenses	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) recessed into rear post, two (2) at sides of cabshield and two (2) in front of cab shield	<input type="checkbox"/>	<input type="checkbox"/>
All body lights shall be LED and Heated	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) forward facing Whelen strobe lights mounted on snow plow lights bracket to be powered by its own switch, part # RSA03ZCR	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
2” x 6” oak wood side boards	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR BRANDON HEAVY DUTY HEATED CROSSMEMBERLESS STAINLESS STEEL DUMP BODY (Cont'd)</b>		
<b>Installation Parts</b>		
40 ton cradle	<input type="checkbox"/>	<input type="checkbox"/>
40 ton hoist bracket	<input type="checkbox"/>	<input type="checkbox"/>
40-50 ton upper cylinder blocks (2)	<input type="checkbox"/>	<input type="checkbox"/>
<b>Miscellaneous</b>		
One (1) oval stop/tail/turn light in each rear corner post	<input type="checkbox"/>	<input type="checkbox"/>
Wiring for standard dump body lights enclosed in a sealed waterproof Wiring harness (split loom <b>NOT ACCEPTABLE</b> )	<input type="checkbox"/>	<input type="checkbox"/>
One (1) set stainless steel stone guards – mounted on frame	<input type="checkbox"/>	<input type="checkbox"/>
Body and hoist shall come complete with manufacturer's safety decals And operating instructions	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
One (1) stainless steel grab handle	<input type="checkbox"/>	<input type="checkbox"/>
3M reflective tape on both sides of body and on 9-panel tailgate	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) shovel holders – one front, one rear	<input type="checkbox"/>	<input type="checkbox"/>
<b>SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUAL</b>		
Side mount – steel framework	<input type="checkbox"/>	<input type="checkbox"/>
Roller assembly – telescopic 3 piece	<input type="checkbox"/>	<input type="checkbox"/>
Left roller tube – 2.140" OD X 2" ID 6105-T6 aluminum extrusion with bushing and stainless steel roll pin to accept motor shaft	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Center section – 1.960" OD X 1.820" ID 6105-T6 aluminum extrusion	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR PIONEER MODEL EDD 1500A-A TARP, OR EQUAL (Cont'd)</b>		
Bearing plates – ¼” H.R.S	<input type="checkbox"/>	<input type="checkbox"/>
Bearings – flange mounted sealed ball bearings	<input type="checkbox"/>	<input type="checkbox"/>
Roll mounting angles - 1 ½” x 2 x ¼” steel angle	<input type="checkbox"/>	<input type="checkbox"/>
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. ¾” od output shaft. Motor is thermally protected By automatic resetting circuit breaker.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Pivot Arm: Framework</b>		
Pivot arms: 1 5/8” OD X 11 gauge aluminum tubing; 2 piece construction	<input type="checkbox"/>	<input type="checkbox"/>
Rear section: 1 5/8” OD X 11 gauge aluminum tubing	<input type="checkbox"/>	<input type="checkbox"/>
Bows: 1 5/16” OD X 11 gauge aluminum tubing	<input type="checkbox"/>	<input type="checkbox"/>
Arm mounting brackets: steel weldment	<input type="checkbox"/>	<input type="checkbox"/>
Base plate: ¼” H.R.S	<input type="checkbox"/>	<input type="checkbox"/>
Mounting hub: 4” OD steel tube	<input type="checkbox"/>	<input type="checkbox"/>
Spring: reverse wound torsion spring – ½” diameter wire	<input type="checkbox"/>	<input type="checkbox"/>
Wire PER ASTM A229 Class I	<input type="checkbox"/>	<input type="checkbox"/>
<b>SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE</b>		
<b>Fabric</b>		
Asphalt tarp	<input type="checkbox"/>	<input type="checkbox"/>
<b>Construction</b>		
Seamless front to rear rectangular in shape, 85” wide, grommets on front And sides, pocket at rear	<input type="checkbox"/>	<input type="checkbox"/>
<b>Wiring And Electrical</b>		
All wire shall be 8 gauge stranded cable. All connectors are ring type, high		

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

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

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)****Wiring and Electrical (Cont'd)**

Amperage self-centering rotary switch (momentary on – of – momentary on),  
Thermal reset circuit breaker (auto reset)

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

**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.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

**Hydraulic Pump With Pto**

Shall be on an open circuit axial piston design with adjustable compensator.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Pump operating pressure must adjust to the actual load pressure plus a pressure  
Differential required for the controlled action.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

When the system is not demanding power, the load sense control will operate  
In an energy-saving stand-by mode.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Minimum pump displacement is 80cc/ 4.9 cubic inches, delivering 42 GPM  
at 2,000 rpm.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Pump minimum displacement shall be 90 cubic centimeters continuously rate at  
350 bar (5,000 psi). Standby pressure shall be 350 psi.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Mounting is an SAE C 4-bolt flange

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Shaft is 1.25” diameter, 14 tooth splined

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Rpm is rated to 2300 (continuous) with pressure and flow compensator control

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

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

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

**Mount**

Pump must mount directly to a PTO on ALLISON 4500 series transmissions  
Without requiring bent axis or external mounting hardware.

<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------

Pump must offer mounting flanges N SAE and ISO configurations, and ports are  
Offered in SAE and ISO tube and flange versions.

<input type="checkbox"/>	<input type="checkbox"/>
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**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**Mount (Cont'd)**

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 if 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 Gerson 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

                    

Valve sections shall be of cast iron, horizontally stackable, and 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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH FLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**Control Valve Grenson Valve With Priority Flow Inlet (Cont'd)**

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.

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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**SPECIFICATIONS FOR CENTRAL HYDRAULIC MANUAL SYSTEM – STAINLESS ENCLOSURE (Cont'd)**

**Reservoir/Valve Enclosure**

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.                                           

**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 (1) year from date of delivery

                    

**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                                           

Inside length of hopper shall be 15’ at top and 12’ at bottom                                           

Inside top width shall be 84”                                           

Side slope to be 45° minimum

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)</b>		
<b>Body Requirements (Cont'd)</b>		
Front panel slopes shall be a minimum of 18°	<input type="checkbox"/>	<input type="checkbox"/>
Hopper seams shall be continuous welded on inside	<input type="checkbox"/>	<input type="checkbox"/>
Sides, ends and side supports shall be 10 gauge 304 stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Top edge of hopper is formed "J" channel 2" x 1 1/2"	<input type="checkbox"/>	<input type="checkbox"/>
Auger trough shall be 10 gauge 304 stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Longsills shall be 10 gauge 304 stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Cross sills shall be formed 7 gauge 304 stainless steel welded to side supports	<input type="checkbox"/>	<input type="checkbox"/>
Lift hooks on each corner are 5/8" stainless steel round bar	<input type="checkbox"/>	<input type="checkbox"/>
All hardware is stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
3/8" rod on 3/8" rod top grate screens with anti-freeze hinges are required equipment With auger conveyor v-box units	<input type="checkbox"/>	<input type="checkbox"/>
<b>Auger Requirements</b>		
Twin 7" diameter hard faced variable pitch augers	<input type="checkbox"/>	<input type="checkbox"/>
64 cir direct drive hydraulic motor	<input type="checkbox"/>	<input type="checkbox"/>
Motor is directly coupled to end of auger shafts	<input type="checkbox"/>	<input type="checkbox"/>
Auger shafts connect at front with a 2" 4 bolt flange bearing	<input type="checkbox"/>	<input type="checkbox"/>
Rear auger drive has no motor guard bolted to rear	<input type="checkbox"/>	<input type="checkbox"/>
One (1) led spreader light mounted to spreader box	<input type="checkbox"/>	<input type="checkbox"/>
Four (4) 6" oval amber strobe lights with amber lenses mounted in stainless Steel tissue box	<input type="checkbox"/>	<input type="checkbox"/>
<b>Spinner Chute Assembly</b>		
10 gauge 304 stainless steel	<input type="checkbox"/>	<input type="checkbox"/>
Four (4) position telescopic adjustment	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR V-BOX SPREADER (Cont'd)</b>		
<b>Spinner Chute Assembly (Cont'd)</b>		
Four (4) bottom spinner deflectors shall be overlapping to prevent loss of granular material when the deflectors are raised.	<input type="checkbox"/>	<input type="checkbox"/>
Front deflector shall be fixed.	<input type="checkbox"/>	<input type="checkbox"/>
Bottom overlapping spinner deflectors shall have four (4) positions of rod and pin adjustment without tools. Chain adjustable deflectors are <b>NOT ACCEPTABLE</b> .	<input type="checkbox"/>	<input type="checkbox"/>
Poly 20" diameter spinner disc shall have replaceable machined hub	<input type="checkbox"/>	<input type="checkbox"/>
Spinner hydraulic motor shall mount directly on bottom of spinner disc	<input type="checkbox"/>	<input type="checkbox"/>
<b>Paint</b>		
All metal surfaces shall be high pressure cleaned with a phosphate solution to Remove slag, splatter, oxide, and oil residue.	<input type="checkbox"/>	<input type="checkbox"/>
Non-stainless steel parts shall be painted or powder coated black	<input type="checkbox"/>	<input type="checkbox"/>
304 stainless steel components unpainted	<input type="checkbox"/>	<input type="checkbox"/>
<b>Tailgate Lock Kit</b>		
Main latch bar shall be 3" x 4.1 lb structural channel 84" wide	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) 1 ¼" x 7" round stock tailgate latches to be welded to main channel	<input type="checkbox"/>	<input type="checkbox"/>
<b>Tie Down Kit</b>		
Shall consist of four (4) chain style tie down assemblies	<input type="checkbox"/>	<input type="checkbox"/>
Chains shall be grade 30 3/8" x 29 links	<input type="checkbox"/>	<input type="checkbox"/>
Top plate shall be ¼" x 4 triple broke a1011 powder coated steel With banjo eye to accept 3/8" chain	<input type="checkbox"/>	<input type="checkbox"/>
Tie down bracket shall be ¼" x 4" x triple broke a1011 powder coated steel With 3/8" double link clevis to attach chain	<input type="checkbox"/>	<input type="checkbox"/>
¾" zinc plated turnbuckle to have grease fitting	<input type="checkbox"/>	<input type="checkbox"/>
¼" turnbuckle shall have ½" – 13 nut welded to center to secure turnbuckle	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>Warranty For 145-20 Series V-Box Spreader - 304 Stainless Steel Construction</b>		
All parts of the product to be free from defects in material and workmanship for a period of one (1) year	<input type="checkbox"/>	<input type="checkbox"/>
<b>SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS</b>		
42" H x 11' L	<input type="checkbox"/>	<input type="checkbox"/>
10 gauge carbon steel smooth rolled profile providing ultra-smooth Surface for snow deflection	<input type="checkbox"/>	<input type="checkbox"/>
Overhang from cutting edge to have minimum 12" overhang with 10° attack angle	<input type="checkbox"/>	<input type="checkbox"/>
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 ¾" angle iron and is drilled to accommodate Aashto standards.	<input type="checkbox"/>	<input type="checkbox"/>
Ribs are reinforced with 2 x 2 x 3/8 angle as well as the upper and lower Reinforcement angels.	<input type="checkbox"/>	<input type="checkbox"/>
Ribs are 5" at the trip edge and 3" tall at the top edge by ½" wide	<input type="checkbox"/>	<input type="checkbox"/>
Ribs are spaced to match support arm locations as well as provide adequate Support of the moldboard	<input type="checkbox"/>	<input type="checkbox"/>
A total of 12 ribs shall be used per moldboard assembly	<input type="checkbox"/>	<input type="checkbox"/>
Three (3) sets of double ribs and six (6) single ribs	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) sets of double ribs shall have three (3) 1 5/16" holes spaced at 2 ¼" center to Center to allow for attack angle adjustment	<input type="checkbox"/>	<input type="checkbox"/>
Weldments on the moldboard shall be continuous	<input type="checkbox"/>	<input type="checkbox"/>
Outer ribs of moldboard will be drilled for marker installation	<input type="checkbox"/>	<input type="checkbox"/>
Two (2) curb guards mounted each side of moldboard	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)</b>		
<b>Trip Mechanism Construction</b>		
Plow shall be full trip design consisting of two (2) coil springs	<input type="checkbox"/>	<input type="checkbox"/>
Springs are 3/4" wire with a coil od of 5 9/16" consisting of 16 full coils	<input type="checkbox"/>	<input type="checkbox"/>
Bottom angle is reinforced by eleven (11) 1/2" thick gussets spaced evenly to avoid Interference with cutting edge attachment hardware	<input type="checkbox"/>	<input type="checkbox"/>
Cutting edge shall be 6" x 5/8" x 11' long and shall be drilled to AASHTO standards	<input type="checkbox"/>	<input type="checkbox"/>
Cutting edge shall be secured using 5/8" grade 8 carriage bolts	<input type="checkbox"/>	<input type="checkbox"/>
<b>Push Frame</b>		
Designed to hydraulically reverse the moldboard in an arc at any angle from 35° left to 35° right from a centered position	<input type="checkbox"/>	<input type="checkbox"/>
Shall be constructed of 1/2" plate	<input type="checkbox"/>	<input type="checkbox"/>
Supported above and below the semi-circle with 2 x4 x 3/16" tubing	<input type="checkbox"/>	<input type="checkbox"/>
Shall be drilled to accept 1 1/2" bolt at the semi-circle connection. At this connection Welded to the push frame is the female portion of the socket connection. This connection Distributes the pushing load directly from the push frame to the semi-circle and moldboard Relieving stress on the bolted connection. The female socket connection is made from 1" Plate steel and is contoured to match the male portion on the semi-circle	<input type="checkbox"/>	<input type="checkbox"/>
Rear of push frame shall be drilled to accept a removable QCP adapter. Three (3) sets of 1 3/16" holes shall be drilled on 2" centers to allow for installation on a variety of Trucks and hitches	<input type="checkbox"/>	<input type="checkbox"/>
Two holes shall be located at the top and bottom push frame plates drilled to accept 1 1/2" bolts for hydraulic cylinder attachment	<input type="checkbox"/>	<input type="checkbox"/>
All welds are to be continuously welded. <b>NO EXCEPTIONS</b>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Semi-Circle Construction</b>		
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	<input type="checkbox"/>	<input type="checkbox"/>
There two stops placed appropriately to prevent the plow from turning		

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

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

**Semi-Circle Construction (Cont'd)**

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.

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 ¾” to accept a single ½” moldboard rib. Three (3) sets of moldboard mounting ears (the center sets) shall have an outside spacing of 2 ¾” 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 x 2 x ¼” 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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

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

**SPECIFICATIONS FOR STEEL MOLDBOARD TUBE TABLE REVERSING FULL PLOW MOLDBOARD SPECIFICATIONS (Cont'd)****Adjustable Cast Mushroom Shoes**

Plow to be fitted with adjustable cast steel mushroom shoes mounted left and right on rear

Of semi-circle  

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 ¼” screw with adjusting nut are housed in a 3” square shoe housing with a welded

On 5-hole mounting plate  

Cast steel mushroom plow show has 6” bolt centers, ¾” 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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>BUMPER TO FRAME PLOW HITCH SPECIFICATIONS</b>		
<b>Front Hitch Frame</b>		
Snow plow hitch must clear hood when open	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Frame is capable of self-storing the hydraulic front lift arm cylinder when not in operation, Allowing the lift arm to fold down parallel to the rest of the frame	<input type="checkbox"/>	<input type="checkbox"/>
Vertical supports of the hitch are constructed from 4" x 4" x 3/8" square tubing	<input type="checkbox"/>	<input type="checkbox"/>
Cylinder support bracket on the hitch is constructed a 3" X 2" rectangular tube. The two cylinder mounting tabs are 1/2" steel placed in the center of support bracket and spaced at 2 1/8" apart. Each tab is drilled to accept A 1" pin.	<input type="checkbox"/>	<input type="checkbox"/>
The upper horizontal support of the hitch is constructed of two (2) pieces: <ul style="list-style-type: none"> <li>• 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.</li> <li>• The second horizontal support is a 1/2" contoured plate that allows the lift cylinder To be stored and provides a second mounting point for the lift arm connection Tabs</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
There are two (2) pairs of lift arm support shackles. Each pair is made from 1/2" x 9 3/4" Plate and are drilled to accept t 1/4" pins	<input type="checkbox"/>	<input type="checkbox"/>
Fully welded to the vertical supports are two c 8" x 18.75" channels with 1/2" thick end Plates. The end plates are drilled to accept six (6) 5/8" grade 8 bolts for attaching the hitch Between the frame rails	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>
A 12-volt electric over hydraulic pump to operate the front hitch wing post slide located Behind cab	<input type="checkbox"/>	<input type="checkbox"/>
<b>Front Hitch Pin Lock QCP</b>		
Front plow attachment is made by a pin lock QCP assembly	<input type="checkbox"/>	<input type="checkbox"/>
Top and bottom of the assembly are made from 1/2" contoured plate. Both plates are Drilled to accept the 2" lock pin	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<b><u>COMPLIANCE</u></b>	
	<b><u>YES</u></b>	<b><u>NO</u></b>
<b>BUMPER TO FRAME PLOW HITCH SPECIFICATIONS (Cont'd)</b>		
<b>Front Hitch Pin Lock QCP (Cont'd)</b>		
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	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>
In the front of the QCP assembly are two (2) 1/2" 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.	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
<b>Heavy Duty Arm Lift Assembly</b>		
Heavy duty lift arm is extendable style with seven (7) different extendable positions	<input type="checkbox"/>	<input type="checkbox"/>
Frame of the lift arm is constructed from 1/2" 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	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>
Welded to the front of the inner tube is a formed 1/2" plate with notches to accept Standard 1/2" link chain. When required this plate can be changed to match Different level systems.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Hydraulic Lift Cylinder</b>		
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.	<input type="checkbox"/>	<input type="checkbox"/>
<b>Warranty For Steel Moldboard Tube Table, Power Infinite Reversing Full Plow (SpX-00000050)</b>		
One year from date of delivery	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

	<u>COMPLIANCE</u>	
	<u>YES</u>	<u>NO</u>
<b>OPTIONS</b>		
<b><u>2A. 52" Tall Moldboard in Lieu of the 42" Standard</u></b>	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>2B. Heavy Duty Heated Crossmemberless Stainless Steel Dump Body Under Options</u></b>		
Body shall be heated through diverter box with thermos-switch for activation with Stainless steel piping	<input type="checkbox"/>	<input type="checkbox"/>
<b><u>2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications</u></b>		
<b>General</b>		
Controller shall have 3 PWM output channels for liquid and granular spreader controller	<input type="checkbox"/>	<input type="checkbox"/>
The controller shall be a microprocessor type capable of PWM control of three Hydraulic valves.	<input type="checkbox"/>	<input type="checkbox"/>
Controller must be automotive grade for durability. Any gamming type controllers are Unacceptable.	<input type="checkbox"/>	<input type="checkbox"/>
The controller must offer ground speed control from vehicle signal. No GPS antenna can Be used for ground speed signal input.	<input type="checkbox"/>	<input type="checkbox"/>
The controller must have three channels to operate an auger/conveyor and liquid System.	<input type="checkbox"/>	<input type="checkbox"/>
PWM signal must be adjustable for a wide range of implement functionality.	<input type="checkbox"/>	<input type="checkbox"/>
The controller shall be capable of ground speed oriented spreading, ground speed triggered, and manual mode.	<input type="checkbox"/>	<input type="checkbox"/>
The system will offer a manual mode lock out option.	<input type="checkbox"/>	<input type="checkbox"/>
The spreader controller will operate in open or closed loop configuration.	<input type="checkbox"/>	<input type="checkbox"/>
Controller shall offer remote pause, unload mode, liquid float input, test speed, And on-screen error with alarms and message reporting.	<input type="checkbox"/>	<input type="checkbox"/>
Sensor short detection with message and alarm.	<input type="checkbox"/>	<input type="checkbox"/>
System must have 2 auxiliary output channels available.	<input type="checkbox"/>	<input type="checkbox"/>
AVL data transfer is available with an additional modem.	<input type="checkbox"/>	<input type="checkbox"/>
System shall offer spinner configurable mph shut off, storm totals on screen or With USB.	<input type="checkbox"/>	<input type="checkbox"/>

**ITEM # 2 – MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications (Cont'd)**

**General (Cont'd)**

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**

*\*If the freedom 2.2 spreader control is chosen, spreader with detent and reverse on under Control valve on page 42 will need to be removed, and replaced with the following:*

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 jacketed Debris covers.

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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications (Cont'd)**

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.                      

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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2C. Freedom 2.2 Spreader Control In Lieu Of Manual Specifications (Cont'd)**

Enclosure shall be vented to reduce moisture and finished with 304 stainless steel.                                           

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls**

The in-cab control system shall be an integrated proportional multi-axis (x, y) (3) joystick Console with circuit panel and spreader control.                                           

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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Reservoir/Valve Enclosure**

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.

                    

**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.

                    

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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. 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.                      

Valve system shall be closed center for variable displacement pump.                      

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.                      

Each directional valve section must have a built-in check valve prevents the oil From flowing via the pressure adjustment spool to tank.                      

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.                      

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.                      

Installing dealer must be certified to perform warranty repairs and periodic Maintenance on hydraulic valve sections.                      

The spreader manifold must be constructed of 6061 anodized aluminum.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications)**

**In Lieu Of Manual Controls (Cont'd)**

**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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. Central Hydraulic System (Electric Proportional Plow / Granular Controls Specifications) In Lieu Of Manual Controls (Cont'd)**

**Specifications for Patrol Wing (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

Sliding post shall be as follows:

- 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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**                      **NO**

**OPTIONS (CONT'D)**

**2D. 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

                    

**2E. 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)

                    

**2F. 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.

                    

Shall be base coat clear coat

                    

(Note: not all vehicles will be painted this way)

                    

**2G. 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

                    

Crossmembers to be 3” structural channel

                    

Telescoping rear legs to be constructed of 3 ½” x 3 ½” x 3/16” tubing

                    

Adjustable front legs to pivot, constructed of 4” x 4” x 3/16” tubing

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

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

**OPTIONS (CONT'D)**

**2H. 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

                    

**2I. Diagnostic Tools / Test Equipment**

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 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

                    

                    

                    

                    

                    

                    

                    

                    

**2J. 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

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**      **NO**

**OPTIONS (CONT'D)**

**2K. 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.

    

**2L. 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.

    

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.

**ITEM #2 - MODEL YEAR 2023 WESTERN STAR 49X SF SPECIALIZED DUMP TRUCK WITH PLOW AND SPREADER, AS SPECIFIED OR EQUAL (CONT'D)**

**COMPLIANCE**  
**YES**      **NO**

**OPTIONS (CONT'D)**

**2L. Technical Support (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.