

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

**NOTICE TO BIDDERS FOR PURCHASE OF
TANDEM AXLE DUMP BODY, PLOW, SANDER, AND ACCESSORIES**

Notice is hereby given that the Board of Commissioners of the County of Elkhart, Indiana will receive sealed bids up to 9:00 a.m. on the 20th day of November, 2017 for the purchase and installation of up to four (4) tandem axle dump truck beds, plows, and other accessories (up fits) as specified for the Elkhart County Highway Department.

The bid package and specifications are on file in the office of the Elkhart County Commissioners and may be seen there and may be picked up there at the Elkhart County Administration Building, 117 N. Second, Goshen, Indiana 46540. The bid package and specifications may also be obtained from the Elkhart County Highway Department, 610 Steury Avenue, Goshen, IN 46528. The bid package and specifications are hereby incorporated by reference.

Seller agrees to furnish and deliver, ready for service and equipped as specified, the tandem axle dump truck beds, plows, sanders, and accessories (up fits) for which its bid has been accepted. Each bidder shall accompany its bid with a bid bond or a certified check, made payable to the Elkhart County Commissioners, in the sum of five percent (5.00%) of the total price for the tandem axle dump truck up fits. The Elkhart County Commissioners reserve the right to waive any irregularities in the bid process and to reject any or all bids. A non-collusion affidavit required by statute shall be fully executed and provided with the bid. Any bid submitted by a trust must identify each beneficiary of the trust and each settlor empowered to revoke or modify the trust. The bidder shall also attach literature of the models being offered with its bid.

Bids shall be enclosed in a sealed envelope, bearing the title of the bid, and the name and address of the bidder. No bid shall be withdrawn after the opening of the bids. Bids may be held for up to sixty (60) days. The contract will be awarded to the lowest responsible and responsive bidder whose bid is determined in writing to be the most advantageous to Elkhart County.

Acceptance of and payment for the tandem axle dump truck upfits shall be made after delivery and inspection of the same and after a properly authorized representative of the Elkhart County Highway Department has given approval of the satisfactory delivery, installation, equipping, and operation of the tandem axle dump truck up fits.

Elkhart County is exempt from all federal, state, and local taxes, and will not be responsible for any taxes levied on the bidders as a result of any contract awarded. Elkhart County shall not be liable for any costs incurred by the respective bidders in submitting a bid or in anticipation of being awarded a contract. It is understood the bids will become a part of Elkhart County's official files and will be open to public inspection. The receipt and retention of the bids does not obligate Elkhart County to any action.

Dated this 23rd day of October, 2017 at Goshen, Indiana.

BOARD OF COMMISSIONERS OF THE COUNTY OF ELKHART,
INDIANA

By: Mike Yoder, President

Attest:

Pauline E. Graff,
Elkhart County Auditor

PUBLICATION: Please advertise in The Goshen News and The Elkhart Truth two (2) times with one (1) week between each publication date and with the second publication occurring on or before the 8th day of November, 2017.

Instructions to Bidders

1. Bidders should notify the Elkhart County Highway Department that a bid package has been downloaded from the web site. Elkhart County may issue addenda to the specifications, and it is important we have a list of vendors to contact with any changes in the specifications. Bidders may send an email to ofc@elkcohw.org notifying the department that you may bid and have downloaded bid specifications. We will attempt to notify you of any subsequent changes. Addenda will be posted to our website.
2. Bid Forms and Execution:
 - A. Bidders are responsible for examining all instructions, drawings, specifications, notices, addenda, proposals and all other terms and provisions of the bid package. Failure to do so will be at the Bidder's risk.
 - B. Each Bidder shall furnish all information required by the Notice, Instructions to Bidders and Specifications. Bids must be noted on the form provided. The Bidder shall sign the Proposal and a Non-Collusion Affidavit, which is a part of the provided form, and where indicated, provide a notary signature and all other information required.
 - C. The Bidder shall sign the Proposal. If the Proposal is made by an individual, his/her name and address must be shown. If made by a partnership, limited liability company, or joint venture, the name and address of the authorized member of the partnership, limited liability company, or joint venture must be shown. If made by a corporation, the Proposal must be signed by an officer of the corporation or by a representative duly authorized by the corporation to execute the Proposal on its behalf.
3. Delivery of Bids:
 - A. Bids, Proposals, Guaranty, and other required documents must be submitted in a sealed envelope marked on the outside with the words "Complete Tandem Axle Body".
 - B. Bids must be delivered by the time specified in the notice to bidders. Bids must be delivered to:
Elkhart County Administration Building
Commissioners Office
117 North Second Street
Goshen, Indiana 46526
 - C. It is the bidder's responsibility to insure their bid is delivered prior to bid opening. Elkhart County Government shall not be responsible for the timely delivery of any bid. Bidders should be careful to allow adequate time for the delivery of any bid utilizing a delivery service (USPS, UPS, Fed Ex, etc.). Deliveries will only be accepted and acknowledged during regular business hours of the Commissioner's Office.

NOTE: Incoming mail does not reach the Board of Commissioners until after 9:30 a.m. If you are sending your bid via Federal Express or another overnight source, please confirm that your package will arrive before the bid opening time and date.
4. Bid Opening:
 - A. Any bid received after the time specified will be returned unopened.
 - B. Bids will be opened and read publicly at the time and place designated in the Notice to

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Bidders. Bidders, their authorized agents, and the public are invited to be present.

- C. Proposals may be rejected if they show any alteration of form, additions not called for, conditional or alternate bids (except when alternates are invited), incomplete bids, erasures or irregularities.
- D. All blank spaces for bid prices must be completed, in ink, with the unit price and total price for each item. In case of incorrect totaling of amounts and where the unit price and the extension do not agree, the unit price for each item shall determine the amount bid.
- E. Withdrawal of bids will be allowed only in those cases in which a written request to withdraw a bid is received by the Board of Commissioners prior to the date and hour for receiving and opening bids. In such cases, the same will be returned to Bidder unopened.

5. Tax Exemptions

Elkhart County is exempt from all federal, state, and local taxes, and will not be responsible for any taxes levied on the bidders as a result of any contract awarded. Elkhart County will furnish the successful Bidder with any certificate of exemption required.

6. BIDDER QUALIFICATION

The County may require any Bidder to submit evidence of qualifications, and may consider any evidence of the financial, technical, and other qualifications and abilities of the Bidder. The County will not award a Contract to a Bidder who, in its opinion, is not fully qualified on the basis of financial resources and responsibility, possession of adequate equipment, personnel, experience, and past record of performance to perform the obligations to be undertaken competently and without delay.

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**SPECIFICATIONS
for
DUMP BODY, SNOW PLOW AND ALL NECESSARY EQUIPMENT
MOUNTED TO
CURRENT YEAR MODEL
TANDEM AXLE DUMP TRUCK with HYDRAULICS
for the purpose of
MAINTAINING ALL COUNTY ROADS**

It is the intent of these specifications to describe equipment such as an underbody plow, front mounted plow, dump bed, sander, and associated hydraulics, wiring, and other necessary features mounted on a separately purchased new tandem axle dump truck chassis. All parts not specifically mentioned, which are necessary to provide a complete body up fit, shall be included in the bid and shall conform in strength and quality of material and workmanship to what is usually provided to the trade in general. The body, plow, sander, and other accessories used shall be current model and under standard production by the manufacturer.

Body, plow, sander, and other accessories shall be manufactured and assembled with conformity to the best known engineering standards of the trade relative to design, strength, quality, durability and workmanship. Every item assembled upon each chassis must meet the latest Federal safety standards.

Any units not in substantial compliance with these specifications will be rejected. It will be the responsibility of the Bidder to conform with the requirements unless deviations have been specifically cited by the Bidder and acceptance made on the basis of the exception.

All applicable State laws and local agency policies regarding bidding is incorporated into these specifications. Bidders are expected to familiarize themselves with applicable laws.

All bids are to be submitted on State Form No. 95, with Non Collusion Affidavit and Bid Bond equal to 5% of the bid price. Bidder shall complete the right hand column of the specifications. Bidder shall also specifically mention those items where the unit being bid does not meet the Owners minimum requirements at the bottom of the page where that item is mentioned. It is brought to the attention of the Bidder that failing to meet the Owner's minimum requirements does not necessarily mean that the bid will be rejected. The degree to which the unit conforms to the specifications will be considered in the Owner's evaluation of the bids.

Bidders shall also attach literature or brochure of the body, plow, sander, and other accessories being offered with this bid. Bid shall include this cost for delivery of a parts book and a service manual for such items being bid unless provided in an earlier purchase from vendor.

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The successful Bidder shall indemnify and hold harmless the local agency from any and all suits, costs and penalties or claims for infringements by reason of any patented designs, devices, or materials or any trademark or copyright in connection with the specific unit furnished under this proposal at any time during manufacture and after purchase of the specified unit(s).

Term "or Equal": Where the term "or equal" is used in these specifications and Bidder deviated from the specified item, he shall file (with his bid) an explanation justifying Bidder's proposed equal.

Acceptance of Unit: Payment for the above dump body, plow, sander, and accessories may be made, upon request after a properly authorized representative of the Owner has given its approval of the satisfactory delivery and installation of said items. All required legal documents will be provided from bidder to owner at the time of payment.

SCOPE:

It is the intention of these specifications to describe a diesel powered tandem axle dump truck of heavy duty design with a gross vehicle weight of 64,000 pounds minimum. This will be a truck to contain a central hydraulic system, dump bed, underbody blade, front mounted snowplow, and under tailgate spreader. All materials and workmanship shall be in accordance with the best "Manufacturing Practices" and shall be inspected and approved by the Elkhart County Highway Department. The vendor shall be responsible for supplying all items necessary to assure satisfactory and proper operation of the truck up fits. Vendor shall provide on-site initial maintenance and operation training to Elkhart County Highway personnel.

REJECTION OR AWARD OF BIDS:

The purchaser reserves the right to reject any or all bids; to waive minor deviations from the specifications, to waive any informality in bids received, whenever it is in the Purchaser's best interest, and to accept or reject all or part of this bid at prices shown.

NUMBER OF UNITS TO BE PURCHASED: Elkhart County Highway may purchase up to 4 units between bid opening and December 31, 2016, depending on available funding. Bidders should clearly note on their bid form the number of units available and the length of time the bid price applies.

General: Specifications for the Elkhart County Highway Department for a heavy-duty dump body, plow, sander, and related accessories and hydraulic components mounted on a tandem axle truck chassis. (Reference within the specs to a brand name or manufacturer's name or specs is for reference only, and may be supplied with an approved substitute of equal or better quality). Equipment that is bid pursuant to these specifications shall be of equal or greater quality to those referenced, and are subject to approval by the purchaser. These are minimum specifications. Bidder must address conformity section with yes or no. If any part of an item is not in conformity then such item must be marked "no" and an explanation should be provided on a separate sheet with the benefits of that item to the county. A "No" will not automatically exclude a bid. It will be up to the purchaser's discretion which items will be determined to be equal. Any items not listed as an exception will be assumed to be part of the unit. In addition to the specifications listed, Bidders must submit with their bid a complete specification on the unit they purpose to furnish. Original copies of vehicle specifications and literature must be provided with the bid. Fax copies or unreadable copies of literature or specifications will not be accepted.

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DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

MAKE & MODEL:

DURACCLASS MODEL LESI-151214-316-2S DURAMAX DUMP BODY OR APPROVED EQUAL

YES___ NO___

DIMENSIONS:

15' long

YES___ NO___

84" wide I.D.

YES___ NO___

96" wide O.D.

YES___ NO___

12 yards side capacity.

YES___ NO___

14 yards end capacity.

YES___ NO___

38" high sides.

YES___ NO___

54" high front.

YES___ NO___

DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

46" high tailgate.

YES___ NO___

MATERIAL:

Sides and front constructed of 7 gauge 201 "2B" Stainless Steel

YES___ NO___

Tailgate constructed of 7 gauge 201 "2B" Stainless Steel

YES___ NO___

Floor constructed of 1/4" AR450 Steel Only.

YES___ NO___

450 BHN brinell hardness.

YES___ NO___

SIDES:

No side braces on body.

YES___ NO___

"Formed "V" style side bracing, vertical side and/or horizontal bracing not acceptable."

YES___ NO___

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- All exposed body and bracing bends must have a 1” radius YES___ NO___
- 4-5/8” wide x 8-3/8” tall boxed section top rail. YES___ NO___
- Top rail center bend to fold back at 20 degrees at top. YES___ NO___
- Top rail bottom to bend back at 35 degrees from horizontal. YES___ NO___
- 5-1/2” 35 degree sloping rub rail on each side. YES___ NO___
- Stainless Steel grab handle mounted at front on street side YES___ NO___
- Stainless Steel two rung fold up ladder mounted at front on street side. YES___ NO___
- Ladder must be secured in up position with a Buyers Model WJ201SS, 4 7/8” rubber hood catch with “A” bracket and all stainless steel hardware. YES___ NO___
- 18” wide stainless Grip Strut Steel step mounted at front on street side between walk rail and boxed top rail. YES___ NO___

DUMP BODY SPECIFICATIONS:

SIDES:

- Corner steep installed inside of dump body at driver side front corner. YES___ NO___
- Stainless steel grip strut material walk rail full length down each side YES___ NO___

REAR CORNER POSTS:

- 17” wide full depth rear corner post with apron YES___ NO___
- 5-1/2” deep rear corner post to house needed lighting. YES___ NO___
- 14" high front and 8” high rear side board pockets. YES___ NO___
- Rear Corner posts must be fully enclosed underneath and on top under top tailgate hinge with 7 gauge “201 2B Stainless Steel. YES___ NO___
- Each corner post will have a 7 gauge “201 2B Stainless Steel access plate on underside. YES___ NO___

MEET SPECIFICATIONS

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

Each access panel will be secured with four (4) 1/4" self tapping stainless steel screws YES___ NO___

INTEGRAL LIGHT BOXES:

Body must have custom 7 gauge 201 Stainless Steel light boxes. YES___ NO___

Light boxes must be integral structure of the rear corner post of body on each side. YES___ NO___

Each light box must be fully enclosed. YES___ NO___

Each light box will have three (3) oval cut outs for rearward facing lights. YES___ NO___

Each light box will have one (1) oval cut out for side view facing lights. YES___ NO___

Each rearward facing cut out will slope at approximately 45 degree angle. YES___ NO___

These light boxes must be part of the body from the dump body manufacturer. YES___ NO___

After market not acceptable. YES___ NO___

DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

TAILGATE:

All welds are continuous, including all items added to body, such as cab shield. YES___ NO___

All horizontal bracing, including top rail, to be dirt shedding using large radius die. YES___ NO___

Three-panel with horizontal bracing, heavy duty double acting tailgate. YES___ NO___

Stainless Steel lift loop mounted on top of tailgate at center for tailgate removal. YES___ NO___

TAILGATE CHAINS:

3/8" proof coil 304 stainless steel tailgate chains. YES___ NO___

Chains long enough to lay tailgate level with floor. YES___ NO___

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TAILGATE LINKAGE & HARDWARE:

All upper & lower tailgate pins, hardware, latching assembly and linkage must be "201 2B" Stainless Steel. YES___ NO___

All tailgate linkage must have grease zerks at all pivot points. YES___ NO___

"201 2B" Stainless Steel 1" flame cut offset tailgate hinge. YES___ NO___

"201 2B" Stainless Steel 1-1/2" upper tailgate pins YES___ NO___

"201 2B" Stainless Steel 1-1/4" lower tailgate pin incorporated in lower vertical tailgate brace for added strength. YES___ NO___

"201 2B" Stainless Steel Upper and lower banjo eyes on rear corner post. YES___ NO___

Upper banjo eyes will be mounted toward top of light box. YES___ NO___

Lower banjo eyes will be mounted approximately 7" below light boxes. YES___ NO___

"201 2B" Stainless steel 3/16" angle welded in each corner of lower panel of tailgate for running tailgate chain. YES___ NO___

DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

TAILGATE LINKAGE & HARDWARE:

"201 2B" Stainless steel 1/4" rod hooks welded on lower panel of tailgate horizontal bracing for hooking slack tailgate chain. Each one mounted approximately 12" from center. YES___ NO___

"201 2B" Stainless Steel 5/8" lower latch assembly. YES___ NO___

"201 2B" Stainless Steel 3/4" plate flame cut lower pin cradle. YES___ NO___

"201 2B" Stainless Steel complete tailgate latching assembly reinforced with 1/4" backing plate for added strength. YES___ NO___

"201 2B" Stainless Steel positive over center lock tailgate control lever YES___ NO___

Upper tailgate pins will have stainless steel handles for easy removable and installation of pins. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

FRONT WALL:

Three bend top rail of 3” wide x 2” deep with a 7/8” return flange. YES___ NO___

All welds are continuous, including all items added to body, such as cab shield. YES___ NO___

FLOOR:

Constructed of two center seam welded pieces of 1/4” AR450 steel. YES___ NO___

15”” floor to side radius. YES___ NO___

Floor to side radius must extend up sides enough to protect 40% of side from damage internally YES___ NO___

UNDERSTRUCTURE:

Understructure is crossmemberless "Crossmembers not acceptable" YES___ NO___

10” tall fabricated 3/16” “201” 2B stainless steel tubular longitudinals YES___ NO___

DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

UNDERSTRUCTURE:

Longitudinals are deep flared, fully boxed. YES___ NO___

“I-beam not acceptable” YES___ NO___

CAB SHIELD:

1/2 cab shield constructed of 7 gauge 201 2B stainless steel YES___ NO___

Top of cab shield will be fully enclosed with three (3) 12” x 8” removable access panels. YES___ NO___

Each cab shield access panel will be secured by means of six (6) stainless Steel 1/4” bolts and gaskets. YES___ NO___

Front of cab shield will have six (6) oval cut outs for LED strobe lights. YES___ NO___

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Rear of cab shield will have six (6) oval cut outs for LED strobe lights. YES___ NO___

Each side of cab shield will have one (1) oval cut out for LED strobe lights. YES___ NO___

HOIST DOGHOUSE:

Hoist doghouse must be the following size: YES___ NO___

12” deep from front to back YES___ NO___

14.375” wide YES___ NO___

50.5” tall YES___ NO___

Doghouse constructed of 3/16” AR450 steel. YES___ NO___

PAINT:

All non stainless parts must be painted one color to match stainless steel. YES___ NO___

DUMP BODY SPECIFICATIONS:

MEET SPECIFICATIONS

DUMP BODY WARRANTY:

Full three (3) year warranty on parts and labor. YES___ NO___

DUMP BODY HOIST SPECIFICATION:

MEET SPECIFICATIONS

DURACCLASS MODEL HPT63120-TM DURAMAX HOIST OR APPROVED EQUAL YES___ NO___

NTEA class 110. YES___ NO___

Single cylinder front trunion mounted inverted telescopic design. YES___ NO___

Hoist must be of the same manufacturer of the dump body. YES___ NO___

Rating of 41.6 tons capacity. YES___ NO___

All cylinder stages shall be full double-acting (Power Up-Power Down) with piston rings on each stage. YES___ NO___

All three (3) stages shall have full power down. YES___ NO___

Chrome plated cylinder sleeves. YES___ NO___

“Mailhot type nitrated cylinders are not acceptable.” YES___ NO___

6” effective DLA. YES___ NO___

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120” Stroke.	YES___ NO___
Cylinder shall have “U” cup seals.	YES___ NO___
Retaining glands shall be high strength modular iron.	YES___ NO___
Dual retainer ring design.	YES___ NO___
Hoist cylinder support frame of structural steel.	YES___ NO___
Dual body props.	YES___ NO___
10" mounted height.	YES___ NO___
50° degree dump angle.	YES___ NO___
Greaseable rear hinge	YES___ NO___
Platform type flame cut hinges only.	YES___ NO___

DUMP BODY OPTIONS SPECIFICATIONS:

MEET SPECIFICATIONS

Four (4) hooks installed on rear tailgate constructed of 201 2B stainless steel for storing (2) A-frames. Hooks mounted as low as possible. Design and location must be approved by Elkhart County Highway Department,	YES___ NO___
3M Model 963-32, 2" wide red and white wide reflectors tape on side rubrail of body back of cab shield, back of tailgate and back of tailgate salt spreader.	YES___ NO___
DuraGuard Model 322418R mud flaps directly mounted to rear of full fenders, behind rear wheels.	YES___ NO___
Mud flaps must be mounted using LESI Model MFW2375SS stainless steel bolting plates.	YES___ NO___
All mud flaps brackets, nut, bolts, washers and hardware must be 304 stainless steel.	YES___ NO___
Fleet Engineer Model 031-01740 polymer full fenders installed over rear tires with Model 031-02055 stainless steel mounting brackets and bolts.	YES___ NO___
Body equipped with 12” high solid oak side board, bolted in place, painted gloss black with center stainless steel support on each side.	YES___ NO___

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The serial number of the dump body shall be permanently marked on the outside rear of the body, on the rear top of the tailgate and on the rear top of the spreader. YES___ NO___

WELDING AND ADD ON ITEMS:

MEET SPECIFICATIONS

All welding on dump body, spreader, hydraulic reservoir and plow light brackets must be with stainless steel welding wire. YES___ NO___

All add on items to dump body, spreader, hydraulic reservoir and plow light brackets must be stainless steel, including any nut, bolts, washers etc. YES___ NO___

All weld burn marks on all items must be removed and not visible. YES___ NO___

Rear dump body hinge must be triple pass welded on all four sides of each hinge. YES___ NO___

DECALING AND NUMBERING:

MEET SPECIFICATIONS

Elkhart County decals to be applied to each door of cab. YES___ NO___

Each unit will have the unit numbers placed on each side of body, tailgate, spreader and snow plow. YES___ NO___

LIGHTING AND ELECTRICAL ITEMS SPECIFICATIONS:

MEET SPECIFICATIONS

ECCO Model 510 electronic back up alarm YES___ NO___

All LED marker lights and reflectors conform to FMVSS108 YES___ NO___

Two (2) LEDW2238-10R LED S/T/T lights in cab shield facing rearward YES___ NO___
• One (1) far right
• One (1) far left.

Twelve (12) KTLEDW2238-24A, LED strobe lights mounted in cab shield. YES___ NO___
• Six (6) facing forward
• One (1) facing out ward on each side for total of two (2)
• Four (4) facing rearward

Four (4) ovals in each rear corner post for total of six (6). YES___ NO___
• Top oval is one (1) KTLEDW2238-24 LED Strobes, for total of (2) two.
• Middle oval is one (1) LED2238-10R LED S/T/T lights, for total of (2) two.
• Top oval is one (1) MTKTL2238-24C LED back up lights, for total of (2) two.
• Side oval is one (1) KTLEDW2238-24 LED Strobes, for total of (2) two.

All wiring on top of cab shield, routed down front of body and routed under body must be install in “Stainless Steel” piping. YES___ NO___

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ABL Model 3830-0072 LED plow lights with amber front facing turn signals, pigtails and stud mount bracket, hood mounted. YES___ NO___

Buyers Model PLB11SS stainless steel mounting brackets and all hardware constructed of stainless steel. YES___ NO___

Plow lights must have all weld burn marks cleaned prior to installing on hood. YES___ NO___

Plow lights wired using BON-008746, Peterbilt 367 plow light harness kit. YES___ NO___

Plow lights withed to TST 430-0028 plow light switch. YES___ NO___

Two (2) ECCO Model EW2101A, amber LED spreader lights at rear, one (1) mounted on each under rear corner post of body. YES___ NO___

Two (2) ECCO Model EW2101A, amber LED scraper lights , one (1) mounted on each side underbody between back of cab and in front of rear wheels. YES___ NO___

Four (4) ECCO Model 3510C LED flashers grill mounted and wired to own separate switch. YES___ NO___

LIGHTING AND ELECTRICAL ITEMS SPECIFICATIONS:

MEET SPECIFICATIONS

Two (2) TP-1320LM Peterbilt cab panel lights with stainless steel bracket and three (3) amber marker lights per panel, one (1) panel installed to cab under each door. Each set of lights will be able to use as flashers or marker lights with the flip of a switch. YES___ NO___

One (1) Y24 BCZ flasher for under cab door lights. YES___ NO___

Two (2) Truck-Lite model 26302B, permastat, incandescent, blue rectangular, two (2) bulb marker clearance lights, P2, bracket mounted under dash. Lights are wired to come on with cab marker lights to illuminate floor. YES___ NO___

Body up switch must be a Preco SWM43C with light in console YES___ NO___

Velvac Model 101004 Air tailgate release mounted on body with over center kit and switch mounted in console. YES___ NO___

Cougar Model DC3200 vibrator mounted with safety chain holder under body YES___ NO___

Curtis Model 51110/51515 Captivator electronic brake controller in truck cab. YES___ NO___

Velvac Model 054001, 7-way black type trailer socket mounted at rear. YES___ NO___

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HEATED WIPER BLADES:

MEET SPECIFICATIONS

- Everblades 6618HF series work with the existing vehicle defroster system. YES___ NO___
- Heated wiper blades contain a heating element inside the silicon rubber squeegee. YES___ NO___
- Heat is activated through the switch provided, wired to any vehicle's 12 volt electrical system. YES___ NO___
- Heated wiper blades with squeegee design, engineered silicon rubber compound, 18 gauge automotive wire, and lighted heavy duty toggle switch. YES___ NO___
- A calibrated heating element radiates through the silicon rubber blade keeping the wiper free of ice and snow. YES___ NO___
- Blades reach a temperature of 200°F. at 40°F below zero. YES___ NO___

WINDSHIELD WIPER SHAKERS:

- Model SKR-002 Windshield wipers must be equipped with the shaker wiper de-icer YES___ NO___

CAMERA SYSTEM:

MEET SPECIFICATIONS

- Trucks shall come with back up cameras installed YES___ NO___
- Brigade Model A4693 Monitor 7" color and mounted YES___ NO___
- Camera to have rubberized coating for protection YES___ NO___
- Camera to have stainless steel adjustable bracket Mounted to rear of truck YES___ NO___
- Monitor to have remote YES___ NO___
- Camera to have wash and air dry incorporated in system YES___ NO___
- Camera and monitor to have sound YES___ NO___
- Camera to have view angle of 115.5 degrees YES___ NO___
- Monitor to be adjustable color, sound, mirror image Brightness, contrast and tint YES___ NO___
- System could accept optional second camera YES___ NO___
- Camera mounted MSF5000CAM "U" stainless steel bracket. YES___ NO___

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Camera mounted off of frame mounded stainless steel bracket on driver side rear of chassis. YES___ NO___

Monitor mounted using model 4475 ram mount. YES___ NO___

MSF501 with MSF8470037000 camera wash kit with nozzle. YES___ NO___

Washer fluid bottle mounted above frame between cab and body per County YES___ NO___

Systems to have on off switch within operators reach YES___ NO___

System for low light situations YES___ NO___

SPECIAL WIRING SYSTEM:

MEET SPECIFICATIONS

All wiring to rear dump body shall be severe duty wiring specifications, as listed. YES___ NO___

SPECIAL WIRING SYSTEM:

MEET SPECIFICATIONS

All wiring that is exposed outside of the junction box, rear light boxes and cab shield light boxes must be contained and sealed in a sealed loom on each side of body, and separate of chassis wiring system. YES___ NO___

Wiring loom shall be Industrial Heavy Duty 1/2" and 3/4"Carlton, Carflex brand chemical resistant flexible loom, with required Carflex fitting. YES___ NO___

All wiring shall run from the chassis to two (2) rear frame mounted junction boxes, Phoenix model PH-310. YES___ NO___

All lights in cab shield will have a Grote model 82-2313 terminal strip on each side for all strobes and S/T/T lights. YES___ NO___

There will be a total of two (2) terminal strips in cab shield. YES___ NO___

Each side terminal strip in cab shield will terminate at the rear corner post in each light box. YES___ NO___

Each rear corner post light box will have one (1) Grote model 82-2313 terminal strip. YES___ NO___

All wiring from rear corner post light boxes terminal strips will terminate to terminal strips in cab mounted junction box housing. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

Each rear spreader light and scraper light will terminate to terminal strip in each corner post light box. YES___ NO___

Back up alarm will terminate terminal strip on curb side rear corner post light box. YES___ NO___

All electrical connections done by equipment installer must be soldered and heat shrunk. YES___ NO___

All wiring must be continuous wire. No Splicing will be accepted. YES___ NO___

All wiring in shall be ran down the center of the rear of the vehicle from rear junction boxes to in cab. YES___ NO___

All wiring will be attached to a "stainless steel" mounting bracket that run from rear hinge to under cab of chassis. YES___ NO___

All wiring must be mounted with clamps with "stainless steel" fasteners. YES___ NO___

SPECIAL WIRING SYSTEM:

MEET SPECIFICATIONS

The "stainless steel" mounting bracket must be mounted to the chassis using all "stainless steel" fasteners. YES___ NO___

All connections to all terminal strips will have crimped/soldered/heat shrunk electrical eyelet connectors. YES___ NO___

Chief Model 175-S0-080-2 High Amp Breaker, Type III switchable breaker, flush mounted in reservoir enclosure. YES___ NO___

TRAILER HITCH AND OTHER ITEMS SPECIFICATIONS:

MEET SPECIFICATIONS

3/4" pintle hitch plate mounting at rear with 1" swinging D-rings. YES___ NO___

Pintle hook outer edge must be wrap with 1 1/2" 3/16" flap stock. YES___ NO___

Rear of pintle hitch will have 1 1/2" x 1 1/2" x 3/16" angle weld full width for support. YES___ NO___

Pintle hook plate will have 3/4" side gussets on each side. YES___ NO___

Pintle hook installed and rated at 20 tons. YES___ NO___

Chipper box pull bar incorporated into pintle hitch per Elkhart County approval YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

Ground to center of chipper bar is 18" YES___ NO___

Chipper bar must have at least 7" clearance between top of bar and bottom of pintle hitch. YES___ NO___

Chipper bar made from 2" A311 Class B Stressproof CF round stock. YES___ NO___

Chipper bar is approximately 36" wide. YES___ NO___

Front tow pins from chassis manufacturer installed in bumper YES___ NO___

Chassis furnished rear tow hooks reinstalled to rear of truck. YES___ NO___

1" D-ring welded to side plate on each side of plow hitch center of tube for towing. YES___ NO___

SAFETY ITEMS:

MEET SPECIFICATIONS

American Model L9-Metal wall mounted first aid kit installed in cab of vehicle. YES___ NO___

Chassis mirrors need to be tilted to see rear tires and spinner using special stainless steel brackets. YES___ NO___

PAINTING:

MEET SPECIFICATIONS

The following items will be furnished by the Truck Equipment Installer in the following paint scheme. YES___ NO___

All items must be primed and repainted after installation on to chassis. Normal factory paint is not acceptable. YES___ NO___

All items that were in raw metal must be cleaned and primed before paint. YES___ NO___

All paint must have a five (5) year warranty from any defects. YES___ NO___

Front Bumper will be painted Gloss Black. YES___ NO___

Plow Hitch and side plates will be painted Gloss Black. YES___ NO___

Underbody scraper will be painted gloss black YES___ NO___

Entire hoist and sub frame must be cleaned and repainted by the truck equipment installer gloss black. YES___ NO___

The rear pintle hitch must be cleaned, primed and painted gloss black. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

STAINLESS STEEL CLEANING

MEET SPECIFICATIONS

All stainless steel welds factory or installers must be cleaned by using a Dynaflux Machine and process.

YES___ NO___

No stainless steel weld burns or burn through should be visible.

YES___ NO___

All stainless steel items Dump Body, Hydraulic Reservoir, Salt Spreader, and Plow Light Brackets must be entirely wash/cleaned by using a acid wash for stainless steel cleaning.

YES___ NO___

All stainless steel items must be cleaned off the chassis.

YES___ NO___

UNDERCOATING

MEET SPECIFICATIONS

Entire dump body must be undercoated to U.S. military standards.

YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

WET SPLINE POWER TAKE OFF:

Chelsea CPTO280GDFJW-B8RF Hotshift PTO with wet spline and rotational flange

YES___ NO___

PTO must have a 329130-5X lube hose attached to transmission

YES___ NO___

Power take off shall be made of cast iron.

YES___ NO___

Unit will be capable of mounting to Allison style transmission.

YES___ NO___

PTO shall be of the Hot Shift "Wet Spline" design and have a direct mount flange for the hydraulic pump.

YES___ NO___

PTO to engine speed shall be in the range of 75-152%.

YES___ NO___

Unit shall have in internal solenoid shifting coil.

YES___ NO___

PTO will have a low oil shut down feature with override in console.

YES___ NO___

HYDRAULIC PUMP:

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The hydraulic system shall be set to operate at 1800 to 2000 PSI with compensator set. YES___ NO___

The hydraulic pump to be furnished under this proposal shall be a load sensing type, designed for constant operation, capable of delivering ten (10) to fifty (50) GPM upon demand, contingent on pump RPM. (40 GPM output at 1500 engine RPM) YES___ NO___

Sauer Danfoss SDPP83027121 is acceptable. YES___ NO___

HYDRAULIC STACK VALVE:

The valve shall be of a mobile stackable design load sensing type. YES___ NO___

The valve shall be capable of a minimum 35 GPM with published flow curves to 40 GPM YES___ NO___

The valve must be pressure and flow compensated YES___ NO___

Changing a valve section from a single to double acting is done by replacing A spool. YES___ NO___

Inlet and outlet ports to be 1” o-ring all working ports shall be SAE#10 o-ring. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

VALVE ARRANGEMENT:

Inlet cap with top ported pressure and tank and side ported load sense port. YES___ NO___

Double acting cylinder spool for scraper lift, proportional 12VDC operated with spring return to neutral pressure compensated 0-11 GPM. YES___ NO___

Double acting cylinder spool for scraper left/right, proportional 12VDC operated with spring return to neutral pressure compensated 0-11 GPM. YES___ NO___

Double acting cylinder spool for hoist, proportional 12 VDC operated with spring return to neutral and 500 PSI down side relief. YES___ NO___

Double acting cylinder spool for plow lift, proportional 12VDC operated with spring return to neutral pressure compensated 0-11 GPM Float shall be incorporated and controlled by console. YES___ NO___

Double acting cylinder spool for plow left/right, proportional 12VDC operated with spring return to neutral pressure compensated 0-11 GPM main spool plow YES___ NO___

Single acting 0-15 GPM spool for feeder, proportional 12VDC spring to center YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

Single acting 0-7 GPM spool for spinner, proportional 12VDC spring to center YES___ NO___

Single acting 0-7 GPM spool for pre-wet proportional 12VDC spring to center YES___ NO___

Valve must have its own enclosure on reservoir YES___ NO___

Spreader sections shall be part of a manifold assembly that has a pressure reducing valve and solenoid drain and has the ability to have a cartridge added for anti-ice applications YES___ NO___

Valve shall have pressure transducer installed to show pressure on control system display in cab YES___ NO___

COMBINATION HYDRAULIC RESERVOIR AND PROTECTIVE VALVE ENCLOSURE:

Reservoir shall be 30-gallon minimum capacity with the breather cap mounted to an inspection lid. YES___ NO___

All mounting bracket used for mounting of reservoir to frame of truck must be stainless steel. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

COMBINATION HYDRAULIC RESERVOIR AND PROTECTIVE VALVE ENCLOSURE:

Reservoir must be constructed of 304 stainless steel. YES___ NO___

Inspection lid shall also provide for an in tank mounted return line filter. YES___ NO___

Breather cap fill neck must be screened and mounted on a riser. YES___ NO___

Reservoir shall be complete with a sight temperature gauge and a magnetic drain plug. YES___ NO___

Suction port will allow for installation of a 2" NPT 50 GPM suction screen. YES___ NO___

To be equipped with hot oil sensor. YES___ NO___

Suction screen will have a 3 to 5 PSI by-pass spring. YES___ NO___

As an integral part of the reservoir, there shall be an area for mounting of the hydraulic stack valve. YES___ NO___

Reservoir must be of template style for bulkhead "through" mounting of YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

the valve and be completely free from internal tubing or hoses from the work ports and inlet of the valve.

Valve must be removable as a unit with template through the top of the reservoir for service and accessibility. YES___ NO___

All electrical connections must be made via IP68 rated connectors on the front (cab) side of the reservoir. YES___ NO___

The enclosure must have a fully potted output module installed in it for all electrical connections for the complete system. YES___ NO___

This module must be the master for the complete control of system that operates on a CAN open platform. YES___ NO___

The hydraulic fittings must come out the bottom of the enclosure and must be male JIC bulkheads. YES___ NO___

Access to the enclosure must be by a removable top lid that is held in place with 2 rubber tie downs. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

COMBINATION HYDRAULIC RESERVOIR AND PROTECTIVE VALVE ENCLOSURE:

The reservoir filter and fill cap must be accessible without removing a lid or cover. YES___ NO___

Hydraulic reservoir must be mounted on the driver's side of the vehicle. YES___ NO___

Certified Power model MTCA3301 or approved equal. YES___ NO___

HYDRAULIC RETURN FILTER:

The reservoir filter and fill cap must be accessible without removing a lid or cover. YES___ NO___

Filter shall be top tank mounted type 10 microns with a by-pass and replaceable cartridge element. YES___ NO___

Filter shall be capable of 80 GPM flow capacity YES___ NO___

Filter shall have one 1 ¼" SAE port with the ability to be machined for another. YES___ NO___

A bypass condition pressure switch is required and shall light a change filter YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

message on the system.

Display: switch shall be 22 PSI and have a DIN connector. YES___ NO___

ROAD WATCH SS TEMPERATURE SENSOR:

Mounted off reservoir on driver side. YES___ NO___

Road Accuracy: $\pm 2^{\circ}\text{F}$ (23 to 41 $^{\circ}\text{F}$ Ambient) and $\pm 6^{\circ}\text{F}$ (-40 to 23 $^{\circ}\text{F}$, 41 to 131 $^{\circ}\text{F}$ Ambient) YES___ NO___

Air Accuracy: $\pm 2^{\circ}\text{F}$ (-40 to 131 $^{\circ}\text{F}$) YES___ NO___

Repeatability: $\pm 2^{\circ}\text{F}$ YES___ NO___

Emissivity: Factory calibrated at 0.96 YES___ NO___

Field of View Angle: 15 $^{\circ}$ YES___ NO___

Operating Voltage: nominal 12 VDC (vehicle power) YES___ NO___

Current Requirement: 0.05 Amp YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

ROAD WATCH SS TEMPERATURE SENSOR:

System Operating Temperature Range: -40 $^{\circ}\text{F}$ to + 150 $^{\circ}\text{F}$ YES___ NO___

Sensor Sample Rate: 10 samples per second YES___ NO___

Display Response Time: 1/2 second, immediate peak response YES___ NO___

Weight: Sensor, 11 oz., Display, 3 oz. YES___ NO___

Vibration: 4 g's two axis, Sensor and Display YES___ NO___

Relative Humidity: 95% Non-condensing YES___ NO___

Shock: 100 g's I/R sensor element YES___ NO___

Must include all required cabling connections. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

CONTROL GUARD CONTROL:

- The intent of this specification is to describe a fully proportional, 3-axis, single joystick control system that is modular in construction for different cab mounting configurations. YES___ NO___
- The control system shall be a total control system with a 100% proportional 3-axis joystick with a built in modular front bay in to allow the control to be changed to individual stick design. YES___ NO___
- Console will be of a fully adjustable pedestal design. YES___ NO___
- Joystick Must have X, Y&Z axis that are 100% proportional. YES___ NO___
- Joystick shall have 6 thumb-activated push buttons for selecting functions such for, hoist, snowplow, spreader blast, spot spread, and underbody plow. YES___ NO___
- Joystick shall be able to control 3 proportional valve functions simultaneously. YES___ NO___
- Joystick will have proportional control of up to 12 bi-directional valves or 24 coils. YES___ NO___
- Joystick must have safety trigger control protection for all valve functions. YES___ NO___
- Control system shall incorporate the use of short-circuited protected PWM outputs. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

CONTROL GUARD CONTROL:

- The PWM outputs shall be current regulated and will operate in the selected range regardless of fluctuations in truck system voltage. YES___ NO___
- The PWM frequency shall be field selectable to accommodate different valve ranges. YES___ NO___
- The system shall include a DC-to-DC power supply to function in a 9-16 volt input range. YES___ NO___
- There shall be diagnostic LED's on all inputs and outputs in the control logic center and the PWM output control. YES___ NO___
- System shall incorporate at least 5 RS232 connections for various communication capabilities and for GPS tracking systems and data archiving. YES___ NO___
- There shall be bi-directional communication with the spreader control. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The system shall have expandable memory capabilities for additional data acquisition and user information. YES___ NO___

The power distribution shall have field replaceable-socketed relays and fuses. YES___ NO___

The power distribution system shall have isolated grounds and main ground terminal. YES___ NO___

Ground traces through the board mounting screws are not acceptable. YES___ NO___

The accessory switches shall be field programmable with dipswitches to allow selection from momentary to on/off. YES___ NO___

The switch legends shall also be easily replace and changed in the field. YES___ NO___

The TouchGuard switches, shall have visible green LED backlighting when in the off position and changed to red LED when depressed by the operator. YES___ NO___

The switch pads should be easily serviceable by a detachable cable and four mounting screws for field replacement. YES___ NO___

There shall be integral connections with the accessory switch circuits to the logic control center to allow for self-diagnostic system monitoring. YES___ NO___

Upon any switch circuit failure, the switch console shall have an audible alarm and with flashing red LED's. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

CONTROL GUARD CONTROL:

Depressing the switch to the off position shall disable the switch function. YES___ NO___

The console shall allow for integration with the TouchGuard switch control system. YES___ NO___

CERTIFIED POWER FREEDOM XDS ELECTRIC SPREADER CONTROL SYSTEM:

GENERAL:

The intent of this specification is to describe a complete control system that operates on a CAN Bus. YES___ NO___

The system communicates over a CAN Open system bus using CAN Open protocol and not a proprietary communication protocol. YES___ NO___

The system shall consist of four primary modules that reside on the Bus and YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

allow flexibility in mounting configurations.

The system is completely expandable and allows for additional modules to be added to the CAN Bus. YES___ NO___

All four primary components of the system are software upgradeable using a laptop and Certified power interface cable. YES___ NO___

The configuration file of a calibrated system can be saved for transfer to other systems or as a backup providing the ability to use specific configurations for varying vehicle use or operator skill level. YES___ NO___

The original configuration is maintained at the factory as a secondary backup and is traceable by part number. YES___ NO___

The in-cab control system panel can support up to 10 rocker switch inputs and up to 4 joysticks. YES___ NO___

The display and Certified Power TouchGuard switch bay can be attached to the system panel. YES___ NO___

Joystick function is clearly labeled on a graphic overlay providing basic operator instruction. YES___ NO___

The system panel can be positioned over a 360 degree rotation and 4 inches of vertical travel on its mounting tube. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

CERTIFIED POWER FREEDOM XDS ELECTRIC SPREADER CONTROL SYSTEM:

XDS DISPLAY:

The display shall be a 7" color LCD touch screen, user adjustable position, and USB port for accessing firmware updates and configuration. YES___ NO___

The display provides a built in diagnostic feature allowing technicians to view all input signals real time. YES___ NO___

The display also provides error logging and system status change logging for reviewing operator inputs. YES___ NO___

The display automatically resizes to provide maximum readability with varying display content. YES___ NO___

A status window provides the operator with system status messages. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

When configured the display will incorporate granular rates, both pre-wet and anti-ice YES___ NO___ rates, anti-ice lane indication, road/air temperature, hydraulic pressure where designated, system status, error messages, plow float indication, auto/manual mode indication and material currently being used.

Active functions that are not in use shall explain in English "OFF" YES___ NO___ for ease of operator interpretation.

Unit to be capable of running dual spreader and directional spinner control. YES___ NO___

XDS OPERATORS PANEL:

The operator panel shall be of molded silicone rubber keypad utilizing high life magnetic snap action switches and three high life magnetic 16 position detented encoders used for Rate, Lane and Liquid control separately. YES___ NO___

The detented positions will be user programmable as to the value of each increment in the setup menu. YES___ NO___

The operator panel provides input capabilities to support RS232, RS422, truck speed input, and multiple digital I/O. YES___ NO___

The panel shall have Roadwatch Road Air temperature sending unit. YES___ NO___

The panel shall incorporate the already integrated functions of blast and pause. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

CERTIFIED POWER FREEDOM XDS ELECTRIC SPREADER CONTROL SYSTEM:

XDS OPERATORS PANEL:

The panel shall also incorporate mode, product and select switches integrated in the panel. YES___ NO___

XDS VALVE DRIVER MODILE:

IP68 sealed assembly shall be mounted to the valve enclosure providing both interior and exterior electrical connections. YES___ NO___

The valve driver module drives up to 14 PWM channels, accepts a 4 – 20mA input, 4 closed loop feedback signals, and multiple digital inputs. YES___ NO___

All PWM outputs are software configurable and can be controlled by closed loop operation, proportional input devices, or digital input devices. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The module has built in over temperature shutdown, over current shutdown, and low voltage shutdown. YES___ NO___

All electrical connections are IP68 sealed when mated utilizing threaded connections for positive retention. YES___ NO___

The valve driver module will reside on the BUS as the “master” and all truck values and configurations will be saved in this module. YES___ NO___

XDS SOFTWARE:

The system shall incorporate three levels of security and access that is password protected and defined by the user. YES___ NO___

The three levels of access called operator, technician and administrator shall give the user varying levels of access to the system setup, data, configuration fields and parameters based upon access given. YES___ NO___

The “administrator” shall have full access to all menus in the system and have the ability to make system configuration changes as well as system parameter changes. YES___ NO___

Spreader and liquid functions when controlled utilizing closed loop feedback will incorporate and “auto trim” feature that will allow the system to automatically set the PWM minimums and maximums when engaged. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

CERTIFIED POWER FREEDOM XDS ELECTRIC SPREADER CONTROL SYSTEM:

XDS SOFTWARE:

The system shall have “over speed” protection for the liquid functions that will alert the operator and shut down the liquid function when the driver has exceeded a user defined speed. YES___ NO___

The software shall incorporate a “test speed” mode for use in testing the system safely without requiring the truck to be moving or the drive axles engaged. YES___ NO___

TPE WIRING HARNESSSES:

Wiring and harness system should meet ISO rating IP68 and NEMA 6. YES___ NO___

The connectors should be zinc die cast E-coated, similar to a MIL spec connector. YES___ NO___

Each should have three sealing points- the lock ring itself, a raised portion of YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

the molded plastic around each pin, and a viton O-ring that seals the whole connector.

The cable jacket should be TPE- thermoplastic elastomer, and molded to the connectors. YES___ NO___

Connectors and harness should be rated and tested for a temperature range from - 30C to + 70C. YES___ NO___

Connectors should be tested to be water tight when submerged in 6' of water for 24 hours, in 275' of water for 1 hour, and when subjected to a 1000-psi pressure wash. YES___ NO___

The connectors should be designed to have NO corrosion after 500 hours in a 35C salt spray. YES___ NO___

Cabling should be rated excellent in its resistance to oxidation, heat, oil, low temperature flexibility, weather, sun, ozone, abrasion, electrical priorities, flame, water, acid, alkali, gasoline, benzol, toluol, degreaser solvents, alcohol, and weld slag. YES___ NO___

StormGuard TPE wiring is acceptable. YES___ NO___

StormGuard distribution junction box in cab must have a solid color cover. Clear cover not acceptable. YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

TPE WIRING HARNESSSES:

Unit to be equipped with a low hydraulic oil warning and shut down system with over ride switch in console. YES___ NO___

WIRING, HOSES AND FITTINGS:

LESI MODEL TMLS-7B-SV HOSE & FITTING KIT OR APPROVED EQUAL YES___ NO___

All fittings must be NRP Jones JIC hydraulic fittings manufacturer in Indiana. YES___ NO___

All hydraulic hoses must be NRP Jones manufacturer in Indiana. YES___ NO___

No hose can exceed 6' in length. YES___ NO___

There shall be "stainless steel" 9' tubing to rear for spreader return and pressure lines. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

There shall be "stainless steel" 6' tubing to rear for front plow up-down and power angling lines. YES___ NO___

Each tube must be fasten to frame of truck in three (3) areas. All tube fasteners, brackets and attaching hardware must be "stainless steel". YES___ NO___

All wiring will be routed in such a manner to prevent pinching and sharp corners, review wiring specifications. YES___ NO___

All connections to valves and sensors will be made with high quality components and protected with dielectric grease. YES___ NO___

All wiring of length will be tied up to prevent sagging. YES___ NO___

Plow and truck to be equipped with the following hydraulic coupling hook up components YES___ NO___

CEJN 10-932-4001 Multi-X Quattro 12.5 Female Plate, 4 port, WEO 3/4" connection, 1/2" nominal flow diameter, dust caps, and mounting bracket YES___ NO___

CEJN 10-932-1023 Multi-X Quattro 12.5 Aluminum Cover Docking Station YES___ NO___

CENTRAL HYDRAULIC SYSTEM SPECIFICATIONS:

MEET SPECIFICATIONS

WIRING, HOSES AND FITTINGS:

CEJN 10-932-1073 Multi-X Quattro 12.5 Aluminum Cover Docking Station, WEO 3/4" connection, 1/2" nominal flow diameter, dust caps, and mounting bracket YES___ NO___

CEJN 10-932-4051 Multi-X Quattro 12.5 Male Plate, 4 port, WEO 1/2" connection, 1/2" nominal flow diameter, dust caps, and , mounting bracket YES___ NO___

Four (4) CEJN 14-727-0812 Multi-X adapter 1/2" WEO to male JIC 3/4"-16 YES___ NO___

Four (4) CEJN 14-727-1217 Multi-X adapter 3/4" WEO to male JIC 1-1/16"-12 YES___ NO___

All spreader quick couplers must be stainless steel with dust caps and covers. YES___ NO___

All quick couplers will be installed through the pintle plate at the rear YES___ NO___

FRONT BUMPER:

MEET SPECIFICATIONS

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

Chassis bumper will be modified and reused with plow hitch. YES___ NO___

TRUCK MOUNTED PLOW PUSH FRAME SPECIFICATIONS:

MEET SPECIFICATIONS

MAKE & MODEL:

WAUSAU SQH QUICK HITCH OR APPROVED EQUAL YES___ NO___

GENERAL:

Plow hitch must be compatible and interchangeable with 2016-2017 units currently being used in the county fleet. YES___ NO___

Equipment company must show where they have installed at least twenty (20) plow hitches of this style on municipal trucks in the State of Indiana on the past four (4) years. YES___ NO___

The quick hitch is to be designed so that the lift cylinder can be used to detach the snowplow from the truck mounting plate. YES___ NO___

Hitch must have a minimum ten year proven track record in the snow & Ice industry YES___ NO___

TRUCK MOUNTED PLOW PUSH FRAME SPECIFICATIONS:

MEET SPECIFICATIONS

GENERAL:

The Wausau SQH quick hitch, truck portion shall consist of a 5/8" thick push plate furnished with a quick release lever and two (2) connecting links to operate two (2) spring-loaded, 5-1/2" grade 8 pins, which secure the truck plate to the plow hitch. YES___ NO___

The push plate shall be furnished with a top horizontal stiffener (22-7/8" long x 1-1/2" wide x 5/8" thick) and a bottom horizontal stiffener (26-3/4" long x 4" wide x 5/8" thick). YES___ NO___

The push plate shall be attached to the truck with a series of support plates welded to the bottom stiffener and push plate and frame mounting angles welded to the top portion of the push plate and bolted to the truck frame. YES___ NO___

Bottom of hitch to ground must be 13" after all equipment is installed on chassis. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The coupling and decoupling of the plow shall be accomplished without the use of tools. YES___ NO___

Hitch painted Black. YES___ NO___

PLOW AND HITCH MOUNTING DISTANCE SPECIFICATIONS:

MEET SPECIFICATIONS

The hitch shall also consist of a lever and two (2) connecting links to operate two (2) spring-loaded, 5-1/2" grade 8 pins, which secure the truck plate to the plow hitch. YES___ NO___

The coupling and decoupling of the plow shall be accomplished without the use of tools. YES___ NO___

Hitch painted Black. YES___ NO___

Due do trying to relieve chassis front end stress to tires, axle, springs, shocks, brakes and steering, the following measurements must be followed. YES___ NO___

Distance from front of bumper to front of grill cannot exceed 17". YES___ NO___

Distance from front of grill to back of moldboard cannot exceed 85".

PLOW HITCH OPERATION SPECIFICATIONS:

MEET SPECIFICATIONS

REMOVAL OF PLOW:

The following is the requirements for removal operation of snow plow. YES___ NO___

- 1.) Plow should be in a non-angle position. YES___ NO___
- 2.) Plow jack stand shall be un pinned and re-pinned in the down position. YES___ NO___
- 3.) Plow hitch lock lever shall be pulled to placed locking pins in open position. YES___ NO___
- 4.) Driver will get in truck and put plow lever for plow lift cylinder in lowering position, which will raise the plow off of the hitch. YES___ NO___
- 5.) Driver will then get out of truck and release plow line male manifold from truck and place it in docking station on plow. YES___ NO___
- 6.) Driver will back away from plow.

PLOW HITCH OPERATION SPECIFICATIONS:

MEET SPECIFICATIONS

INSTALLING OF PLOW:

The following is the requirements for removal operation of snow plow. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

- 1.) Driver will pull into plow touching plow truck plate to plow portion of hitch. YES___ NO___
- 2.) Driver will then get out of truck and release plow line male manifold from docking station on plow and hook it up to female portion on truck. YES___ NO___
- 3.) Driver will get in truck and put plow lever for plow lift cylinder in raise position, which will lower the plow on to the hitch. YES___ NO___
- 4.) Plow hitch lock lever shall be release to placed locking pins in locking position. YES___ NO___
- 5.) Plow jack stand shall be un pinned and re-pinned in storage position. YES___ NO___
- 6.) Driver will pull away with plow. YES___ NO___

PLOW HITCH CHAIN BOX SPECIFICATIONS:

MEET SPECIFICATIONS

Chain box mounted between frame rails, behind plow hitch in front/below grill. YES___ NO___

Chain box must be approved by the County. YES___ NO___

PLOW HITCH WARRANTY

MEET SPECIFICATIONS

Full 36 month warranty on parts and labor YES___ NO___

SNOW PLOW SPECIFICATIONS:

MEET SPECIFICATIONS

WAUSAU HOME SAFE POWER REVERSIBLE TRIP EDGE SNOW PLOW WITH POLYMER MOLDBOARD OR APPROVED EQUAL YES___ NO___

SNOW PLOW SPECIFICATIONS:

MEET SPECIFICATIONS

GENERAL:

These specifications describe a Power Reversible Trip Edge snow plow which shall be built from new material and definitely suited for continuous work under difficult conditions of snow removal. YES___ NO___

MOLDBOARD ASSEMBLY:

The moldboard shall be not less than 48” high nor less than 12’ wide. YES___ NO___

POLYMER MOLDBOARD:

The sheet shall be formed from polyethylene material, which is made from new resin (recycle material is not acceptable), and must be color impregnated and ultra violet stabilized to a “Schmidt Blue” pigmentation. YES___ NO___

It shall be welded to a frame work which includes not less than ten (10) steel reinforcing ribs at least ½” thick and 3.5” wide and a lower moldboard reinforcement from not less than 4” x 3” c ½” steel angle so as to form a rigid structure. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The upper portion of the moldboard shall project over the cutting edge so as to form a continuous solid, integral snow shield and shall include an upper reinforcement from not less than 3" x 2.5" x 3/8" steel angle. YES___ NO___

CUTTING EDGE:

Shall be one (1) 5/8" x 8" x 144" steel, centered punched to AASHO standards on 12" centers and supported by a reinforcement from not less than 4" x 4" x 3/4" steel angle. YES___ NO___

TRIPPING EDGE MECHANISM:

Shall be of the single edge cover blade design, which shall activate whenever the cutting edge comes into contact with an obstruction on the pavement. YES___ NO___

Trip activation shall be achieved through (5) torsion springs from not less than 3/4" square wire, having a 3-3/4" O.D. with fifteen (15) active coils each. YES___ NO___

Each spring shall be pinned in place in a horizontal position and shall butt to the lower moldboard reinforcement and to the cutting edge reinforcement. YES___ NO___

Spring adjustment shall be provided so as to alter the precharge of springs for varying plowing conditions. YES___ NO___

SNOW PLOW SPECIFICATIONS:

MEET SPECIFICATIONS

HYDRAULIC REVERSING

The plow shall be equipped with telescoping type hydraulic cylinders enabling the plow to be angled either left, right or straight ahead YES___ NO___

Maximum angle to the left or right shall be 32 degrees. YES___ NO___

The hydraulic "telescopic" cylinders shall have hard chrome plated rods with .0014" per side of chrome. YES___ NO___

The cylinders shall be 19.29" long from center mounting hole to center of mounting hole when retracted and shall have a stroke of 19.68". YES___ NO___

The cylinders shall be heavy duty to allow for heavy snow plowing under severe conditions and shall be equipped with a hydraulic cushion valve mounted on the plow to protect the cylinders from damage. YES___ NO___

The cylinder mounting holes shall be 1" diameter for use with 63/64" diameter pins. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The hydraulic port in the angling cylinders shall be 3/4-16 standard straight “O” ring thread. YES___ NO___

The hoses used shall be standard 1/2” SAE 100R2 rated. YES___ NO___

PLOW COUPLING SYSTEM:

Plow when mounted on front of the truck cannot exceed 84” from front of grill to top front of snow plow. YES___ NO___

Shall be a SQH Quick Hitch design, or equal, utilizing two (2) cast steel claws at the top. YES___ NO___

The design shall incorporate the reversing cylinders, lift cylinders, and lift cylinder lifting arrangement to be part of the plow assembly so that when the complete plow is removed from the truck, only the mounting plate remains on the truck. YES___ NO___

The hydraulic double acting-lifting cylinder shall be 4” bore 16-3/8” stroke with a 2” diameter rod. YES___ NO___

The lifting cylinder shall have incorporated a 200 PSI relief valve to limit the down pressure of the plow to the ground to the proper limit. YES___ NO___

SNOW PLOW SPECIFICATIONS:

MEET SPECIFICATIONS

PLOW COUPLING SYSTEM:

The lifting cylinder arrangement shall incorporate a mechanical transport lock that shall take the weight of the plow off the hydraulic cylinder during transport, and shall act as a safety in the event of a hose failure during transport. YES___ NO___

The hitch shall be a parallel lifting type consisting of (2) parallel tubular push arms of 3” x 3” x 5/16” wall steel tubing and when the plow is carried in the raised position and angled right or left, the plow remains level to the pavement. YES___ NO___

The hitch shall incorporate a turntable that allows oscillation of the plow with respect to the truck to allow the plow to follow the road contour. YES___ NO___

This turntable shall consist of a pair of 3/4” thick vertical plates of 7-1/2” wide by 27-1/2” high with 4 slots, and a 1.58” diameter pivot pin. YES___ NO___

The two halves shall be held together with four (4) bolts - 1” diameter, grade with castle nuts. YES___ NO___

The system shall have two (2) adjustable spring arrangements to adjust the YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

oscillation tension.

The plow shall incorporate a stand that can be used without tools, and shall allow the plow to stand during hitching, and after the plow is removed from the truck. YES___ NO___

The entire process of hitching or unhitching from the truck shall be possible by one man in not more than 5 minutes. YES___ NO___

PAINT:

Individual completed sections of the plow assembly should be shot-blasted, cleaned, primed with "low VOC" (FREE OF CHROMATES AND LEAD) white oxide primer. YES___ NO___

SPRAY GUARD:

Shall bolt to the top moldboard flange or reinforcement. YES___ NO___

It shall consist of a 12" wide x 3/8" thick rubber belt, metal retaining strap and necessary mounting hardware, Lindco model 3508110. YES___ NO___

SNOW PLOW SPECIFICATIONS:

MEET SPECIFICATIONS

CURB SHOE:

A curb bumper shall be supplied at both sides of the moldboard (qty.2). YES___ NO___

They shall be from a minimum of 3/4" x 6" steel, shall bolt at the cutting edge face and shall project 1" outside each end of the cutting edge. YES___ NO___

OPTIONS:

Plow furnished with SNoWheels installed on each side, Per current model used. YES___ NO___

36" flexible plow markers YES___ NO___

"HOT WING" must be incorporated into the curbside of the moldboard. YES___ NO___

Plow Jack Stand for storing of snowplow when not on truck. YES___ NO___

UNDERBODY SCRAPER SPECIFICATIONS:

MEET SPECIFICATIONS

MAKE & MODEL:

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

BONNELL MODEL UBS144-2PRPD UNDERBODY SCRAPER OR APPROVED EQUAL YES___ NO___

GENERAL:

These specifications are designed to design a power reversible underbody scraper which shall be built from materials, and definitely suited for continuous severe work conditions for snow removal. YES___ NO___

MOLDBOARD:

Moldboard shall not be less than one (1) inch thick. YES___ NO___

Moldboard a maximum of seventeen (17) inches in height. YES___ NO___

Moldboard a minimum of seventeen (17) inches in height. YES___ NO___

Any smaller or larger height moldboard will not be acceptable. YES___ NO___

Moldboard a minimum of twelve (12) feet in length. YES___ NO___

The moldboard material shall be high strength steel, with replaceable 5/8 inch x 6 inches reversible curved steel cutting edge. YES___ NO___

UNDERBODY SCRAPER SPECIFICATIONS:

MEET SPECIFICATIONS

MOLDBOARD:

Main hanger piece with a 1/2" top plate and a 3/8" bottom plate. YES___ NO___

The main hinge shaft to be 2 1/2 inches in diameter solid cold rolled. YES___ NO___

Hanger weldments are to be five (5) in number to facilitate attachment of moldboard. YES___ NO___

The moldboard shall be capable of raising to a horizontal position with a minimum ground clearance of 8 inches not in use. YES___ NO___

CUTTING EDGES:

The cutting edge shall consist of two (2) 5/8" x 6" x 5' curved sections with AASHO punching. YES___ NO___

MAIN REVERSE TABLE:

The main reverse table shall be one (1) piece flame cut from one inch plate. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The reverse table shall have provisions for attachment of (2) 4" x 14.5" double acting cylinders. YES___ NO___

The reverse table to be supplied with all necessary mounting brackets and hardware for attachment to the chassis frame rails YES___ NO___

The center pin shall be a minimum of 5 inches with grease fitting tube approximately 36 inches long. YES___ NO___

The reverse table shall have minimum seven (7) plowing positions with pin for manually locking of moldboard. YES___ NO___

Moldboard to be hydraulically angled 45 degrees left and right. YES___ NO___

MOLDBOARD PITCH:

Moldboard pitch shall be provided by two (2) 3" x 10" double acting cylinders with safety trip cushion springs to protect scraper and chassis in the event of contact with an immovable road obstruction. YES___ NO___

These springs will permit the moldboard to trip up and over the obstruction and return it to plowing position when the obstruction is cleared. YES___ NO___

UNDERBODY SCRAPER SPECIFICATIONS:

MEET SPECIFICATIONS

MAIN REVERSE TABLE:

There must be a pressure gauge installed in cab of truck monitor down pressure of scraper. YES___ NO___

All hinge and pivot points shall be greasable to ensure free and easy movement. YES___ NO___

PAINT:

The underbody scraper shall be thoroughly cleaned, shot blasted, prime painted and finish painted. YES___ NO___

SALT SPREADER SPECIFICATIONS:

MEET SPECIFICATIONS

SWENSON MODEL SADS OR APPROVED EQUAL YES___ NO___

GENERAL:

Spreader shall be constructed of 304 Stainless Steel YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

This under-tailgate spreader will be of bottom opening design. YES___ NO___

The entire unit will rigidly mount to the sides of the dump box with single pin quick detachable hardware. YES___ NO___

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

The overall spreader width shall not be over 96". YES___ NO___

This unit will spread free flowing granular materials, abrasives and chemicals and be factory adapted to accept automatic control system. YES___ NO___

HOPPER:

Rigid 7 GA one piece end plates will be continuously welded to a 7 gauge auger trough. YES___ NO___

The sides of the spreader will extend up 8" higher than standard height. YES___ NO___

SALT SPREADER SPECIFICATIONS:

MEET SPECIFICATIONS

HOPPER:

The unit will have a 10 gauge three point hinged bottom that, when released, exposes the entire length of the auger for easy clean out. YES___ NO___

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

The anti—flow cover over the discharge opening is manufactured of 10 gauge steel and removable without use of tools. YES___ NO___

The 10 gauge cover/back plate will be a one piece hinged integral part of the unit which may be raised when spreading and lowered when dumping. YES___ NO___

This cover shall be capable of being locked in either the raised or lowered position by two (2) simple YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

captivated latches.

FEED MECHANISM:

The six (6) inch (nominal) heavy-duty auger shall consist of 3/8" flitting which is welded to a 2" ERW pipe size tube. YES___ NO___

This auger shall have continuous and reverse flitting to the discharge port for more uniform dump body emptying and shall be supported by 1.25" shafting ends. YES___ NO___

The auger shafts will be supported in sealed, self-aligning precision single row radial bearing with grease fittings. YES___ NO___

The drive end bearing shall attach to a removable 7 gauge end plate. YES___ NO___

The discharge port shall be located on the left side of the trough. YES___ NO___

SALT SPREADER SPECIFICATIONS:

MEET SPECIFICATIONS

SPINNER:

All spinner bracketing and mounting hardware must be 304 stainless steel construction. YES___ NO___

The spinner shall consist of a disc and six (6) vanes formed into a single polyurethane unit, resulting in a flat trajectory and a uniform spreading pattern from four (4) to forty (40) feet. YES___ NO___

The spinner assembly shall be adjustable allowing for variable spreading pattern left, center of right. YES___ NO___

This will 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. YES___ NO___

The entire spinner assembly shall be easily removed by pulling two (2) pins and uncoupling two hydraulic "quick disconnects" hoses. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

The spinner speed and auger feed rate shall be both variable through the dual flow control valve located in the cab. YES___ NO___

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

The spinner assembly will be linked to the truck frame with a universally mounted parallel arm to keep the spinner horizontal to the road at all dump box angles. YES___ NO___

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

POWER TRAIN:

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

SALT SPREADER SPECIFICATIONS:

MEET SPECIFICATIONS

POWER TRAIN:

The independent spinner motor shall mount directly to the spinner disc eliminating any power loss by transmission. YES___ NO___

The auger shall be driven by a direct drive hydraulic motor coupled to the auger. YES___ NO___

The hydraulic motor will mount directly into the auger pipe by a non-corrosive sleeve and a .5” grade 5 bolt. YES___ NO___

The hydraulic motor shall mount directly to the end plate. YES___ NO___

Hydraulic motor shall be sensored motor (White Brand not acceptable) YES___ NO___

PAINTING:

Stainless Steel will not be painted. YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

MOUNTING:

This spreader shall fasten to the side of the dump body using quick disconnect pins for quick mounting. YES___ NO___

All spreader mounting hardware must be bolted using stainless steel bolts. YES___ NO___

Spreader must be fitted tight to sides and rear of spreader to eliminate any material spill. All fill strips must be "stainless steel". YES___ NO___

Spreader will have bolt on side spill shields. YES___ NO___

12" x 7 gauge "201 2B" Stainless steel spreader pan installed on rear of dump body using Swenson quick detachable mounting hardware. YES___ NO___

SPECIAL EQUIPMENT SPECIFICATION NOTES:

MEET SPECIFICATIONS

DUE TO NEEDING SERVICE AND/OR PARTS ON VEHICLES AND/OR EQUIPMENT DURING A SNOW STORM OR ANY OTHER EMERGENCY SITUATION THE COUNTY HIGHWAY DEPARTMENT IS REQUESTING THAT THE FOLLOWING ITEMS BE MET!

SPECIAL EQUIPMENT SPECIFICATION NOTES:

MEET SPECIFICATIONS

No alternate or optional quotes/bids on equipment will be accepted! Furnishing of an alternate or optional quote/bid will disqualify the entire bid! YES___ NO___

Equipment dealer must be in good standings with Elkhart County, based on past performance. YES___ NO___

Equipment dealer must present a unit to the county, showing their plow, plow hitch, scraper, dump body, spreader and hydraulic controls equal to the specifications within ten (10) days of the quote request. YES___ NO___

Equipment dealer must be a factory authorized distributor for all equipment furnished. YES___ NO___

Dump Body must have a Full Three (3) Year Warranty YES___ NO___

Snow Plow Hitch must have a Full Three (3) Year Warranty YES___ NO___

Snow Plow must have a Full Three (3) Year Warranty YES___ NO___

Salt Spreader must have a Full One (1) Year Warranty YES___ NO___

ELKHART COUNTY HIGHWAY DEPARTMENT - PLOW TRUCK EQUIPMENT SPECIFICATIONS

All other aftermarket equipment and components must have at least a Full One (1) Year Warranty YES___ NO___

Equipment dealer must have a 24 hour, seven days a week emergency phone number for parts, service or any help needed during a break down. YES___ NO___

A letter from the equipment dealer stating all warranties must be furnished in writing at time of bid, for bid to be considered. YES___ NO___

There will be a pre-construction meeting with the equipment installer at time of chassis arrival to their facility. YES___ NO___

All below items must be furnished and will be used to evaluate the award of the bid.

Literature featuring the exact requested items must be furnish on the following: YES___ NO___

Dump Body YES___ NO___

Snow Plow YES___ NO___

Scraper YES___ NO___

Snow Plow Hitch YES___ NO___

Hydraulic Components YES___ NO___

Salt Spreader YES___ NO___

Body company quote sheet with a entire parts break down of all items being furnished in this bid. YES___ NO___

Equipment Warranty Letter YES___ NO___

Dump Body & Equipment Bid Form

The proposal must be made on this form and form is to be placed in a sealed envelope plainly marked "Dump Body & Equipment" on the outside with the name of the bidder. The undersigned acknowledges that they have read the specifications and the price indicated reflects full compliance with the specifications as written unless deviations are indicated on a separate sheet titled "Bid Exceptions" with each non-conforming item listed. Non-conforming items will be evaluated based on price and equipment standardization. The Elkhart County Commissioners reserve the right to determine the character and sufficiency of each bid. Bid award will be based on substantial conformity to the specifications and in the best interest of Elkhart County.

BID PRICE:

Bid price each for up to four (4) dump bodies and equipment mounted to tandem axle trucks:

Unit price for each unit: \$_____

Estimated delivery time after order:_____

Vendor will hold the unit price until the date of:_____

Completed units to be delivered to: Elkhart County Highway
610 Steury Ave.
Goshen, IN 46528

NAME OF COMPANY:_____

ADDRESS OF BIDDER:

BID SUBMITTED BY: _____

(Signature)

DATE: _____