

**TOWN OF MANSFIELD  
MANSFIELD, CONNECTICUT**

**INVITATION TO BID**

**Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package  
Mansfield Department of Public Works**

Sealed bids are invited and will be received by the Town of Mansfield, Connecticut at the Office of the Director of Finance, 4 South Eagleville Road, Mansfield, Connecticut 06268 until **2:00 p.m. on Thursday, July 7, 2016**, at which time and place they will be publicly opened and read aloud for a Monroe DTS Stainless Steel Dump Body, Hoist and Plow Frame Package.

The Instructions to Bidders, Form of Bid, Specifications, and other contract documents may be examined in the Engineering Office of the Town of Mansfield, Town Office Building, 4 South Eagleville Road, Mansfield, CT 06268. Copies can be obtained from the Legal Notices section of the Town of Mansfield website <http://www.mansfieldct.gov/>. Proposals must be submitted on the forms provided and in a sealed envelope plainly marked **“Bid for Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package”**.

The Town of Mansfield hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation, and they will not be discriminated against on the grounds of race, color, national origin or sex, in consideration for an award. An Affirmative Action/Equal Opportunity Employer. Minority/Women’s Business Enterprises are encouraged to apply.

If you intend to bid please notify John Carrington, Director of Public Works, at (860) 429-3331 or by email at [PublicWorks@mansfieldct.org](mailto:PublicWorks@mansfieldct.org) so you may receive any and all addendum.

To receive consideration bids must be in the hands of the Director of Finance or her authorized representative no later than the day and hour mentioned above.

The Town of Mansfield reserves the right to accept or reject any or all bids; to waive any informality; or to accept any bid deemed in the best interests of the Town of Mansfield.

All bids shall be considered valid for a period of sixty (60) days.

Cherie A. Trahan  
Director of Finance  
Town of Mansfield

## INSTRUCTIONS TO BIDDERS

The attached specifications and bid form allow each bidder to substitute his own equipment specifications for those specified on the form. However, each bidder must fill in every space in the last column marked "Bidder's Proposal" or his bid will be incomplete. If the equipment you will supply is exactly as specified in the middle column marked "Specification", then please mark the proposal column with a check mark ( √ ). If the equipment you will supply will have different features or specifications than described, then you must indicate what you propose to supply instead in the space in the last column. All spaces in the Bidder's Proposal column **MUST** be either checked or filled in with words.

As an example, consider the fuel tank for the dump truck chassis. If you will supply a 26 inch Aluminum 50 gallon tank on the left side, the bid would be filled out with a check:

BID ITEM	SPECIFICATION	( √ ) or BIDDER'S PROPOSAL
Fuel Tank	26" Al 50 gal LH U/C	√

On the other hand, if you will supply a single 60 gallon tank on the right side, the bid should be filled out in words:

BID ITEM	SPECIFICATION	( √ ) or BIDDER'S PROPOSAL
Fuel Tank	26" Al 50 gal LH U/C	50 gal. single tank on right side

The Town will consider all bids but reserves the right to reject any bids not meeting the minimum specifications and to reject any and all bids. Please complete all items of the bid and bid form.

**MONROE DTS STAINLESS STEEL DUMP BODY, HOIST, AND PLOW FRAME PACKAGE**

This specification calls for furnishing one new, current production model Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package for use in general road maintenance and snow plowing complete and ready for use as specified below. Bidder must complete every space under "Bidder's Proposal" with either a check mark (√) to indicate the item being bid is exactly as specified or a description to indicate any deviation of the item being bid from the specifications. The Town may reject any bids not meeting the minimum specifications. The Town reserves the right to reject any and all bids and to waive any informalities in the bidding.

<b>BID ITEM</b>	<b>SPECIFICATION</b>	<b>( √ ) or BIDDER'S PROPOSAL</b>
Body	Body shall be constructed entirely from 304 Stainless Steel with the exception of the center floor plate and the long members. Multiple material test samples will be taken from the awarded supplier to ensure they are as stated in the specification. The body shall be manufactured in America by an American company. No Exceptions.	
Item 1	Body shall have the ability to be used as a conventional dump body or as a material spreader. Unit shall have an integral removable conveyor with the discharge on the left front of body.	
Item 2	The body shall have an inside length of 120" and inside width of 88".	
Item 3	Inside side height shall be 28", with the tailgate and front head sheet 38".	
Item 4	Body capacity shall be 6 – 7 cubic yards.	
Item 5	All welds shall be 100% continuous.	
Item 6	The sides, front and tailgate shall be constructed from 3/16" 304 Stainless steel, 85,000 PSI. No Exceptions	
Item 7	The floor shall be constructed from 3/16" Hardox 450 205,000 PSI steel. No Exceptions	
Item 8	Long members shall be 12" x 25.4 # S-Beam reinforced internally with three 1/4" x 3" channel and externally with eight 1/4" x 2" x 3/16" stainless steel box tubes and one additional 4" channel. No Exceptions.	

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Item 9	The boxed design front corner post shall be 1/4" x 4-1/2" x 6". No Exceptions	
Item 10	The 3/16" front head sheet shall be reinforced vertically with two evenly spaced 3" boxed angles and one full width horizontal boxed angle. Both sides will have 2 vertical 5" box braces on each side.	
Item 11	The boxed rear corner post shall be 1/4" x 4-1/2" x 8-3/4". No Exceptions. Four banjo plates two each post, upper and lower tailgate hardware shall be integral with rear corner post.	
Item 12	The 4-1/2" x 4-1/2" boxed top rails shall be dirt shedding inward. Top rails shall have 6" board pockets welded to the front and rear corner post.	
Item 13	The double acting tailgate shall be six panel Boxed perimeter and verticals shall be 4" x 2-3/4" channel with boxed reinforcement, dirt shedding.	
Item 14	Upper offset tailgate hinges shall be 3/4" lube able and retained with a 1-1/4" stainless steel pin. The 1-1/4" lower pins shall rest in the pin saddle when the tailgate is closed.	
Item 15	The latches shall be air operated, over center self-locking type, with a timed 1-1/4" cross shaft. All tailgate linkage including air cylinder brackets shall be constructed from 304 Stainless Steel and lube-able. Brake chamber type actuators will not be accepted. No Exceptions. There shall be two GR43. 3/8" chains and four banjo plates, two each side to secure tailgate in the open position.	
Item 16	The underside of the Hardox 450 tilting floor shall be reinforced with a minimum of eight 4" x 2" x 3/16" Stainless steel tubes. The underside of the body shall have factory applied, snow and ice melt resistant undercoat material meeting FMVSS 302-49CFR Code. Mild steel or honeycomb understructure will not be accepted.	

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Item 17	The front of the tilting floor shall have 3/16" tapered reinforcement from the inside of the boxed top rail to the hinged floor. A, 2" x 2" angle reinforcement shall be at the top of the taper and retain the front wiper.	
Item 18	The rear corner post of the tilting floor shall have 2-1/2" x 2-1/2" capped vertical reinforcement angle.	
Item 19	There shall be a minimum of four, heavy duty, bolt on, 304 Stainless steel, replaceable hinges, that the floor rotates on. The Stainless steel hinge tubes shall be 2-1/4" OD and machined to accept 1-1/4" Stainless steel hinge pin, double lip seals on each end and a grease fitting. Mild steel and or piano type hinges will not be accepted. No Exceptions.	
Item 20	Grease line extensions from each hinge shall terminate on a remote manifold mounted in a convenient location. A telescopic safety prop shall be centered on the bottom of the floor.	
Item 21	Two 4" double acting cylinders with 2" rods shall be positioned in such a way to achieve a minimum of 35 degree tilt angle with 20 ton capacity. Cylinder rods shall be constructed of Socatri induction hardened nickel alloy steel. Chrome Cylinders or cylinders with external packing glands will not be accepted.	
Item 22	Cab shield shall be 24" 304 Stainless steel 10 Gauge. Maximum height for the cab shield will be 9'6". No Exceptions.	
Item 23	The conveyor assembly will be fully removable by 16 stainless steel carriage bolts. Single pin systems or fixed conveyor assemblies will not be accepted.	
Item 24	There shall be two hinged Hardox 450 Floor plates that cover the conveyor when not in use. No Exceptions. Provisions to retain floor plates in the open position shall be provided.	

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Item 25	The conveyor shall be constructed completely from 3/16" 304 Stainless steel longitudinal, cross members and Hardox 450 floor. No Exceptions.	
Item 26	Conveyor chain will have two polymer wear strips mounted on the return side to prevent wear. No exceptions	
Item 27	Conveyor chain will be adjusted by two 1" stainless steel threaded tensioners with jam nuts. Grease type tensioners will not be accepted.	
Item 28	An adjustable & tapered 304 Stainless Steel poly lined material chute shall be frame mounted on stainless steel tube bracket along with an adjustable 304 stainless steel spinner assembly with 18" poly disc. Mild steel spinner assemblies will not be accepted. Body mounted poly only material chute assemblies will not be accepted.	
Item 29	The trunion mounted front telescopic hoist shall be nitrated and allow a minimum of 50 degree dump angle with 25 ton capacity. Frame saddle and mounting is to be provided and factory powder coated black	
Item 30	The rear hinge shall be 4" angle, 1" plate, and 3" wide flame cut hinge pads with Delrin bushings, grease zerks and 2" Stainless steel hinge pins. Mild steel pins will not be accepted. No Exceptions.	
Item 31	The plow frame attachment shall be manufactured in such a way as too allow the hood of the chassis fitted with a tilt cowl and stationary grill work to tilt forward over the upper portion of such attachment. Side plates shall be 3/4" thick, reinforced and bolted with a minimum of 6 3/4" grade 8 flange bolts each side of chassis rails as far back as possible. Top cross members and vertical risers shall be constructed of 4" x 3" x 1/2" angle. Bottom member shall be 15" x 4-15" 1/2" C-channel, interlaced with vertical	

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	members. Dual push centers and cylinder base mounting bracket are mounted to this member. Lift yoke shall be constructed of ½” steel side to form a frame. 1-1/8” tube for pivot and ¼” top plate. Factory powder coated black. Cheek plates will not be accepted.	
Item 32	Yoke pivots on 1” diameter full width bolt with castle nut and cotter pin.	
Item 33	Plow lift cylinder shall be 4” double acting, 4” bore with 10” stroke.	
Item 34	Whelen emergency lighting system shall consist of Stainless steel “D” 3 light boxes recessed in to each rear body corner post, with One Whelen amber LED emergency flasher with one TR-3 LED side post amber emergency flasher, One red LED stop, tail and turn signal, and one Halogen back up light each side. Two Whelen “A” Stainless steel light boxes recessed in both front corners of the cab shield at 45 degree angles, boxes shall house 2 Amber LED emergency flashers.	
Item 35	Electrical lighting system. Plow lights shall be Truck Light #80800 mounted on the hood with custom fitted Stainless Steel brackets, Final location to be determined by Town of Mansfield representative. Electrical system completely sealed, run by constant duty solenoid and protected by 100 amp resettable circuit breaker, in NAPA junction box, all terminals coated with silicone dielectric grease. Spinner light-Truck Light Load area light-Truck Light ICC lighting Back up alarm	
Item 36	Safety and Accessories Ladder, OSHA approved 3 step slide out and down with self-cleaning steps and grab handle located at left front corner of body. Stainless Steel spring loaded shovel holder. Safety leg to hold the body in	

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	<p>raised position, safety leg to hold the floor in raised position, safety decals, mud flaps on stainless steel brackets front and rear of axle with anti-sail braces, center mud flap to protect rear brake chambers, Life-Time poly fenders. Owners manual.</p>	
Item 37	<p>The electronic auger, spreader and pre-wet controller shall have a 16 bit color touch screen. Storm totals shall be instantly accessible by touching a button on the main screen. Menu items shall be accessible by holding a button on the front panel and shall include embedded help screen including “guided calibration.” Night mode shall be available by touching a button on the main screen. The controller will have “on-screen” menu based programming using the touch screen for setup and calibration. The system shall incorporate three levels of security and access that is password protected and defined by user. The three levels shall give the user varying levels of access to the system set-up, data, configuration fields and parameters base upon access given. The “administrator” shall have full access to all menus in the system and have the ability to make system configuration changes as well as changes to the system parameters. 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.</p> <p>The unit shall be a durable lightweight metal design with a back lit front panel, tactile switches and encoders and field upgradeable using a USB 2.0 compatible thumb drive. The USB port can also be used to download and save storm total and system configuration.</p>	
Item 38	<p>The following are required features for the electronic spreader control.</p> <p>Blast mode with adjustable timer.</p>	

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	<p>Unload mode.  Pass mode with instant on/off control.  Remote functions for blast and pause.  Four configurable granular materials.  On-screen error message in plain English.  Universal mounting bracket.  The spreader control system shall be a Freedom 2.1 controller manufactured by Certified Power.  No Exceptions</p>	
Item 39	<p>Hydraulic System  The hydraulic system furnished shall be completely installed and be capable of powering and controlling all hydraulic requirements satisfactory, both independently and collectively. The components listed herein have been chosen for their ability to provide long-term durability and ease of service.</p>	
Item 40	<p>The hydraulic pump will be mounted and driven by a Chelsea transmission mounted power take off. The PTO will feature cast iron construction and hot shift style engagement operated through the in cab control system. The PTO shall have a rotatable pump mounting flange to avoid interference with transmission and chassis frame rail.</p>	
Item 41	<p>The hydraulic pump shall be a Danfoss series 45 axial piston pump model JR-R-S60B-LS-14-24 NO EXCEPTIONS. To ensure system compatibility the pump and valve shall be constructed by the same manufacture. The pump will feature an internal bleed down compensator and SAE flange type porting. Pump size to be a minimum of 60cc.</p>	
Item 42	<p>The hydraulic valve is to be Danfoss PVG32 and of mobile design. Valve must contain sections for plow raise/lower, plow angle, body raise, side tilt raise/lower with down side relief, and load cover. There shall be a three function cartridge type manifold directly bolted to the last</p>	

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	<p>section that provides hydraulic flow to the body auger, chassis mounted spinner, and pre-wet systems. Power beyond type arrangements will not be accepted. Valve to be pressure and flow compensated for all functions. A valve that is a “Hybrid” with individual sections mounted to a common manifold will not be accepted. Due to the flow requirements full cartridge designs will also not be acceptable.</p>	
Item 43	<p>The hydraulic valve shall be installed in a combination hydraulic tank/valve enclosure, with internal stainless steel tubes and feed out the front side on the valve tank combo, bottom supplied units will not be accepted. The enclosure shall be of 304 stainless steel construction. The cover shall be gasketed and held in place by rubber straps. There shall be two handles to allow easy removal of the cover. The valve shall be mounted in the enclosure through the use of bulkhead fittings. The tank section shall be a minimum capacity of 40 gallons. A 100 micron stainless steel suction line strainer shall be installed in the suction port. A magnetic drain plug and sight/temperature gage shall be provided. A 10 micron cartridge type return filter shall be provided and integrally install in the reservoir section.</p>	
Item 44	<p>Body, plow and load cover controls shall DEL air over hydraulic. There shall be direct mounted air actuators on each valve section with fine proportional control of the spool. All connections shall be enclosed with no moving parts exposed.</p>	
Item 45	<p>Control levers to be mounted on a custom swivel tower with integrated arm rest, accessory switch panel and adjustable electronic control mount. Mounting location to be determined by the Town prior to installation. No Exceptions</p>	

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Item 46	Load cover shall be Hydraulic Power Cover Model DT-1200, the asphalt tarp operating from central hydraulic system.	
Item 47	Tow Plate Shall be constructed from ¾" steel, appropriately welded and braced, with 25 ton swivel-type pintle hook, heavy duty D-Rings and 7 wire trailer plug.	
Item 48	80 gallon poly liquid tank installed in 304 stainless steel bracket mounted to the front passenger side of the body, a hydraulic operated pre-wet pump and motor shall be installed on the tank bracket in a poly enclosure. All necessary hoses, fittings, nozzles, filters and valves for a complete operational pre-wet system controlled through the above listed Freedom 2.1 electronic controller. No Exceptions.	
Item 49	Prior to assembly non Stainless Steel manufactured components shall be factory powder coated	
Item 50	Fasteners All fasteners used on body, hoist, hitch and other allied equipment and related parts shall be of USA origin with proper markings, grade 8 or better meeting the Fastener Quality Act (FCA) which requires them to meet or exceed the requirements of SAE J429 Standards	
Item 51	<i><b>NOTE:</b> All Stainless steel components described above must be 304B Stainless steel.</i>	
Item 52	<i><b>NOTE:</b> All Hardox steel described above must be AR 450 205,000 PSI steel.</i>	
Item 53	<i>All welding performed must be in compliance with current AWS procedures and guide lines recognized within the state of manufacture.</i>	
Item 54	<i>Manufacture shall attach their standard warranty statement. All components described herein shall carry a one year warranty.</i>	
Item 55	A pre-wet tank to be constructed of "304" stainless steel engineered to withstand the	

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	harsh conditions of plowing operations.	
Item 56	Tank frame mounted with a minimum of 300 gallon capacity.	
Item 57	Tank sight tube will verify level of liquid contained in tank.	
Item 58	Tank will be designed to retain various Liquid Chloride Anti Icing and Pre-Wetting agents at approximately 13 lbs. per gallon.	
Item 59	The tank will be engineered with baffles to reduce movement of liquid contained within.	
Item 60	Special care to be taken in mounting the tank to prevent chaffing and rubbing on exposed truck and equipment components.	
Item 61	All hose clamps required for hoses or connections to be stainless steel.	
Item 62	Liquid hose runs to be routed to prevent chaffing.	
Item 63	Hose runs that require 90 degree bends to use elbows and be fastened with clamps and grommets.	
Item 64	The tank shall be warranted for 5 years against cracks, leaks, and degradation from date of in-service.	
Item 65	Any brackets or fasteners required for the system to be stainless steel including spray nozzles.	
Item 66	A minimum of two (2) adequately sized spray nozzles to apply the liquid at a between 10 and 40 gallons per ton onto the material being dropped from the conveyor area.	
Item 67	The location of the spray bar on the pilot model per Town of Mansfield approval.	
Item 68	The system to include a heavy-duty closed loop variable rate, hydraulically driven pre-wet pump unit capable of providing multiple settings ranging from 10 gallons/ton to 40 gallons/ton at various engine RPM and speed.	
Item 69	Pump unit to be fully adjustable from the supplied in-cab electronic controller as well as using preset calibrated settings as	

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	stipulated in the liquid and granular controller section.	
Item 70	The complete pump and hydraulic unit to be installed in a "304" stainless steel enclosure mounted in a location that can be easily serviced and maintained. The complete system to be filled with 5 gallons of a non-toxic RV antifreeze and tested for leaks before delivery.	
Item 71	The system to include a bleeder and cleanout kit to facilitate maintenance of the system. The system to include the following items: 1 bronze ball valve with 1 inch thread, 1 stainless fitting pipe nipple with 1" close, 1 polypropylene fitting ½" short pipe nipple # NIP050, 1 polypropylene fitting ½" pipe tee banjo #TEE050, 1 polypropylene fitting ½" x ¼" pipe bushing banjo # RB050, 1 Weatherhead # 6892 drain valve plug ¼" pipe thread.	

**Town of Mansfield  
Bid Proposal**

**Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package**

**BID OPENING: 2:00 p.m., Thursday, July 7, 2016**

Office of the Director of Finance, 4 South Eagleville Road, Mansfield, Connecticut 06268

To: Cherie A. Trahan  
Director of Finance  
Town of Mansfield  
4 South Eagleville Road  
Mansfield, Connecticut 06268

The undersigned, as bidder, agrees to furnish a Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package, complete and as specified herein. The bidder proposes to furnish all labor, materials, and equipment, and all else whatsoever required for the "Monroe DTS Stainless Steel Dump Body, Hoist, and Plow Frame Package" as amended by the addendum noted below for the amounts shown herein under Schedule of Bid.

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated: \_\_\_\_\_

It is understood and agreed that the Owner has the privilege of rejecting any or all Bids and of waiving informality in any bid.

It is further understood and agreed that this bid shall be irrevocable for sixty (60) calendar days after bid receipt date.

**SCHEDULE OF BID**

All prices must be clearly written, in ink or typed, in words as well as figures, for the entire Bid. In the event of a discrepancy between the lump sum price in words and unit price in figures, the written unit price in words shall govern.

\_\_\_\_\_ Dollars and \_\_\_\_\_ Cents  
(Words)

\$ \_\_\_\_\_  
(Numbers)

BIDDER:

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COMPANY

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SIGNATURE BY DULY AUTHORIZED

(SEAL)

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PRINT OR TYPE NAME

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TITLE

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DATE

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ADDRESS

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TELEPHONE

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FAX

---

EMAIL ADDRESS

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VENDOR FEIN