# BID DOCUMENT SPECIFICATIONS

For Acquisition and Installation of

# SNOW & ICE REMOVAL EQUIPMENT: FOUR SEASON DUMP BODY, PLOW, WING, AND GROUND SPEED CONTROL FOR SPREADER, ON ONE VEHICLE

Town of Derry, New Hampshire

August 2016

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# SPECIFICATIONS FOR SNOW & ICE REMOVAL EQUIPMENT

# **INVITATION TO BID**

# SNOW & ICE REMOVAL EQUIPMENT: FOUR SEASON DUMP BODY, PLOW, WING, AND GROUND SPEED CONTROL FOR SPREADER ON ONE VEHICLE

For the

Town of Derry, New Hampshire

Sealed bids will be received at the Derry Municipal Center, 14 Manning Street, Derry, NH 03038 until 2:00pm, prevailing time, Friday, **September 9, 2016**. Bids submitted after this date and time will not be accepted.

Bids must be submitted in a sealed envelope that is clearly marked:

# SEALED BID SNOW & ICE REMOVAL EQUIPMENT

# For the Town of Derry, NH

#### DO NOT OPEN

Bids will be received for the acquisition of the items listed in **Specifications for Snow** and **Ice Removal Equipment** 

Said equipment will be used by the Town to perform winter maintenance operations on Town maintained roadways and facilities.

All prices must include all labor and materials for installation on a cab and chassis to be provided by the Town of Derry.

The Bidding Documents may be examined on or after <u>August 12, 2016</u> at the Derry Municipal Center located at 14 Manning Street, Derry, NH. Copies of the Bidding Documents are available on line at the Town of Derry website or may be picked up the Derry Municipal Center, 14 Manning Street, Derry, NH.

Bids may be held by the Town for a period no to exceed 60 days from the date of the bid opening for the purposes of evaluating bids prior to award of contract.

Town of Derry	
	Interim Town Administrator

## **INFORMATION FOR BIDDERS**

#### 1. RECEIPT AND OPENING BIDS

The Town of Derry, New Hampshire, (herein called the Town) invites bids on the form attached hereto, all blanks of which must be appropriately filled in. Bids will be received by the Town at the Derry Municipal Center, 14 Manning Street, Derry, NH until 2:00pm, prevailing time, Friday, September 9, 2016.

The envelope containing the bid must be sealed, addressed and designated as:

# SEALED BID SNOW & ICE REMOVAL EQUIPMENT: FOUR SEASON DUMP BODY, PLOW, WING, & GROUND SPEED CONTROL FOR SPREADER,

#### For the Town of Derry

#### DO NOT OPEN

Bids may be held by the Town for a period no to exceed 60 days from the date of the bid opening for the purposes of evaluating bids prior to award of contract.

Any bid may be withdrawn prior to the above scheduled time for the opening of bids or authorized postponement thereof. Any bid received after the time and date specified shall not be considered.

# 2. DESCRIPTION OF SNOW & ICE REMOVAL EQUIPMENT: FOUR SEASON DUMP BODY, PLOW, WING, & GROUND SPEED CONTROL FOR SPREADER

See: SPECIFICATIONS FOR SNOW AND ICE CONTROL EQUIPMENT

#### 3. PREPARATION OF BID

Each bid must be submitted on the prescribed proposal form showing a lump sum for each item and a total for items bid.

Each bid must be prepared in strict accordance with the requirements of the Information for Bidders and the included Specifications

The bid price shall not include Federal or State taxes

The Bidder shall not, either directly or indirectly, enter into any agreement, participate in any collusion, or otherwise take any action in restraint of free competitive bidding in connection with this bid.

# 4. **SUBCONTRACTS**

The bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Town.

# 5. BIDDER'S QUALIFICATIONS

Each Bidder shall submit qualifications to the Town on the form provided herein titled "Statement of Bidder Qualifications". The form must be delivered to the Town prior to or with the sealed bid. The Town reserves the right to reject the bid of any Bidder who has failed to submit the qualifications form.

## 6. TIME OF COMPLETION

The Bidder must agree to commence work on or before a date to be specified in the written Notice to Proceed of the Town and to supply the equipment within 60 calendar days.

## 7. ADDENDA AND INTERPRETATIONS

No interpretation of the meaning of the plans, specifications, or other pre-bid documents will be made to any Bidder orally. Every request for interpretation should be in writing to the Town, and to be given consideration, must be received at least three (7) business days prior to the date fixed for opening of bids. Any and all such interpretations and any supplemental instructions will be in the form of written addenda to the Specifications which, if issued, will be placed on the Town website, not later than two (2) calendar days prior to the date fixed for the opening of bids. Failure of any Bidder to receive any such addendum or interpretation shall not relieve such Bidder from any obligation under bid as submitted. All addenda so issued shall become part of the Contract Documents

#### 8. LAWS AND REGULATIONS

The Bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over the project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

## 9. **BID OPENING & AWARD**

Bids when opened shall be irrevocable for a period of forty-five (45) calendar days following bid-opening date. Following a review of the bids, the Town will make a determination with respect to bid award. The Town, expressly reserves the right to reject any or all bids.

The successful Bidder shall not use the name of the Town in any advertising without first obtaining written permission for the Town.

# 10. EXECUTION OF CONTRACTS

The individual, firm, partnership, or corporation to whom or to which the Contract has been awarded shall sign the necessary agreements entering into a Contract with the Town and return them to the Office of the Town within fifteen (15) calendar days after the Contract is mailed or otherwise delivered to the successful bidder.

## 11. APPROVAL OF CONTRACT

No Contract is binding upon the Town until it has been executed by the Town and delivered to the Contractor.

# 12. FAILURE TO EXECUTE CONTRACT

Failure of a Bidder to comply with any of the requirements of the proposal, failure to execute the Contract with fifteen (15) calendar days after mailing, as specified, shall be just cause for the annulment of the award. In the event of such annulment, an award may then be made to the next best qualified Bidder, or the work re-advertised, or otherwise handled as the Town may elect.

# 13. WARRANTIES

All manufacturers' warranties shall apply.

# 14. **DELIVERY**

The snow and ice removal equipment is to be supplied to the Town of Derry, New Hampshire.

# **BID PROPOSAL FORM**

# SNOW & ICE REMOVAL EQUIPMENT: FOUR SEASON DUMP BODY, PLOW, WING, & GROUND SPEED CONTROL FOR SPREADER FOR ONE VEHICLE

# TOWN OF DERRY, NEW HAMPSHIRE

The undersigned	, hereby
submit the following proposal to provide the Town to SPECIFICATIONS FOR SNOW AND ICE CONTR	he equipment described in the
Four Season Dump Body	
Plow /Wing	
Ground Speed Control	
Total Bid Amount \$	
Spell out Bid Amount Total	
	Dollars
Delivery Time	
We understand that the Town reserves the right to accep waive any irregularity in any or all proposals and to mak the best interest of the Town.	
The undersigned agrees that the bid price and statements correct, that they were made without collusion, and agree the request for bids and equipment specifications.	
Signature:	
Name / Title:	
Company:	
Address:	
Telephone: Fax:	

# **STATEMENT OF BIDDER QUALIFICATIONS**

This statement must be completed, notarized, submitted and received by the Town PRIOR to or on the date for opening of bids.

All questions must be answered and the data given must be clear and comprehensive. This statement must be notarized. Where necessary, questions shall be answered on separate attached sheets. The Bidder may submit any additional information desired.

Name of Bidd	ler:
Bidder is:	Corporation: Partnership: Individual: ain office address:
i ermanent ma	an office address.
Treasury Nun	nber (Employer's Identification #):
When organiz If corporation	red?, where incorporated?
	ears have you been engaged in the contracting business under your by trade name?
General chara	cter of work performed by your company:
Have you eve	r failed to complete any work awarded to you? nd why?_
Have you eve	r defaulted on a Contract?nd why?
for each, and	important contracts recently completed by you, stating approximate cost the month and year completed. Provide names and contact information references:
	ble:\$
Bank Referen	ce:

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the Town in verification of the recitals comprising this Statement of the Bidder Qualifications.

	Name of Bidder
	By:
	Title:
	Date:
State of	-
County of	-
NOTARIZATION	
	being duly sworn, deposes and says that
he/she is	of
and that the answers to the forego	oing questions and all statements therein contained
are true and correct. Subscribed a	and sworn to before me this
day of, 20	<u>.</u>
	Notary Public
My Commission Expires:	

# **CONTRACT DOCUMENTS**

# **CONTRACT**

This AGREEMENT, made this d	ate:	, by and
between the Town of Derry, New	v Hampshire, herein ca	alled the Town, and
of	, Cour	nty of
, and State of	, herei	nafter called "Contractor", a
of of of corporation organized under the l	aws of <u>.</u>	
WITNESSETH, that the Contrac mutually agree as follows:	tor and the Town for t	he consideration stated herein
ARTICLE 1. Statement of V	<u>Vork</u>	
The Contractor shall furnish all	labor materials of	quinment and convices
The Contractor shall furnish all		
and perform and complete all w	_	
required for the delivery of SNC		
SEASON DUMP BODY, PLOW, W		
SPREADER, FOR ONE VEHICLE		
Chassis including addenda to sa	•	men addenda are
numbered and dated as follows:		
Addendum #	<u>Dated</u>	
<del></del>		<del>_</del>
	-	_
		_
Said Specifications and Addenda hereof.	are incorporated here	in referenced and made a part
ARTICLE 2. The Contract I	Price_	
The Town shall pay the Contract	•	-
in current funds, subject to additi the sum of:		
	0 1 0	
The Town shall pay to the Contra	-	
amounts determined for the equipment that the Town is agreeing to purchase from this company. The prices given in the proposal are made part of this Contract as fully		
as though they were reproduced l		ue part of this contract as fully

# ARTICLE 3. Contract Documents

The executed Contract Documents shall consist of the following component parts:

- a) This Instrument
- b) Addenda as listed herein
- c) Invitation to Bid
- d) Information for Bidders
- e) Technical Specifications
- f) Signed Copy of Proposal
- g) Bid Proposal Form

This instrument, together with the other documents enumerated in this Article 3, which said other documents are as fully a part of the Contract as if hereto attached or herein repeated, form the Contract. In the event that any provision in any component part of this Contract conflicts with any provision of any other component part, the provision of the component part first enumerated in the Article 3, shall govern, except as otherwise specifically stated.

# ARTICLE 4. Time of Completion

The Contractor hereby agrees to commence work under this Contract on a date to be specified in a written "Notice to Proceed" of the Town, and to fully complete the project with <u>180</u> calendar days of said specified date.

Town of	Contractor:
Signature:	Signature:
Name:	Name:
Title:	Title:
	Address:

# SPECIFICATIONS FOR SNOW & ICE REMOVAL EQUIPMENT

The equipment listed below is to be installed on a new 2017 F-550 cab and chassis vehicle provided by the Town of Derry.

# **BODY:**

It is the intent of these specifications to describe a multi-use heavy-duty crossmemberless 304 stainless steel dump body. This dump body shall have a telescopic hoist and an integral conveyor built into the floor for conveying and/or spreading ice control materials, chips for seal coating, asphalt or shoulder material.

The overall length of the dump body shall be 9 feet and overall width shall be 94". It shall have a capacity of 3.1 cubic yards without sideboards. The double wall sides of the body shall be 17" high and constructed of 12 gauge 304 stainless steel. The top of the side shall have a 4 ½" deep boxed top rail with a top radius bend of 1 1/8". The bottom of the sides shall have a 45 degree dirt shedding rub rail that is 6" wide from the bend and have a bottom radius bend of 1 1/8". For additional support the sides are designed with a full length formed inward "V" bend. The rear corner post shall be 12" wide and 6" deep.

The floor outside of the conveyor shall be of 10 gauge 304 stainless steel and constructed without the use of cross members. There shall be a single bar flight chain conveyor in the center of the floor running the entire length of the body. The floor shall be formed in the center to fully cover the chain links. The floor shall be supported by two formed 10 gauge 304 stainless steel trapezoidal longitudinals that span the entire length of the body.

#### **TAILGATE:**

The tailgate shall be 23" high and constructed of 10 gauge 304 stainless steel. The outer full width vertical gussets shall be 3" deep with radius bends of 1 1/8". The top of the tailgate shall be 4 ½" deep with 1 1/8" radius bend and bottom horizontal rail shall be full width. The tailgate shall have an opening in the center to accept a conveyor hood. The tailgate latch shall be made of ½" 304 stainless steel and have a 1" latch pin. There will be threaded rod adjustments and have two yokes with 5/8" pins. The tailgate hinge pin shall be 1" in diameter. The gate handle shall be made of 1" rod and will have a safety chain with a ring that will slide over the handle. All moving parts shall be equipped with accessible grease fittings.

#### **CONVEYOR HOOD:**

The conveyor hood shall be mounted in the center rear opening of the dump truck tailgate. It shall be capable of being shifted to a forward extended position inside the body, covering the rear end of the conveyor and to a rearward retracted position where a front face of the conveyor hood is flush with an inner face of the tailgate. Within the conveyor hood shall be the coal door assembly. The conveyor hood shall contain a vertically sliding door that is locked at different adjustable settings by a treaded friction type locking handle. A horizontally revolving feed gate is not acceptable.

#### **CONVEYOR:**

For ease of dumping operations, even tailgate spreading of aggregates the conveyor shall end flush with the rear of the body and shall not extend past the tailgate of the unit.

For overall high strength and structural integrity of the unit, the 34" wide conveyor shall be an integral part of the body. The inside face of the trapezoidal longitudinal shall also be the side of the conveyor.

The conveyor chain outside width shall be a minimum of 32" and shall run on a 10 gauge 304 stainless steel conveyor bedplate. The outside edge of the conveyor bedplate shall be welded to the inside face of the trapezoidal longitudinal.

When the conveyor chain is moving material toward the rear of the body, the material shall be fed through the doghouse opening in the tailgate. The rear of the floor and rear conveyor shall have no openings by which material shall pass through before it moves rearward through the doghouse in the tailgate. The rear of the floor and rear conveyor shall seal tight against the tailgate and doghouse when the coal door is closed. This tight seal shall eliminate any material leaking out of the body.

The conveyor shall feed material rearward through the coal door of the tailgate and shall be 32" minimum width. The sides of the conveyor which are also the longitudinal members of the body shall be constructed of 10 gauge formed 304 stainless steel channel. The D667K pintle chain shall have a ½" x 1 ½" bar flight welded to every link. The conveyor chain shall be powered by a 6:1 ratio spur gearbox mounted to one side of the rear mounted 1½" drive shaft. The gearbox shall be powered by a hydraulic motor.

#### **TELESCOPIC HOIST:**

The hoist shall be a front trunion mounted telescopic design hoist. It shall be designed to operate up to 2000 PSI and shall be self-bleeding. It shall be installed with the largest stage at the bottom for stability. The cylinder shall lift the body via 1 7/8" pin mounting connected to the bottom front of the box.

The tubes comprising this cylinder shall be processed through a liquid salt bath nitriding treatment to enhance the surface hardness and corrosion resistance. The corrosion resistance obtained through this process will be roughly ten times that of chrome plating. The cylinder shall be a bore seal design, with each section sealing against the ID of the next largest diameter tube. As the external surface of these tubes never make contact with a seal; scrapes and score that may occur over the life of the hoist will not affect the sealing capabilities. There will be an oscillating collar on the outer cover of the cylinder to allow the body to be offset 5° to 7° without transferring that side load to either the truck frame or the cylinder tubes, and therefore enhancing stability, and longevity.

The piston rod shall be machined from ASI 4140 and nitrated using the QPQ method to establish the following mechanical properties:

Surface Hardness: Rockwell C60-C65

Surface Finish: RMS 20

(using ASTM B117 salt spray) Approximately 7% surface area corrosion in 88 hours (or 10 times better than hard chrome plating)

Fatigue Strength: Approximately 80% to 100% increase using QPQ as compared untreated sample.

# **HYDRAULIC CONTROL:**

To operate the unit as a spreader, there shall be two variable speed hydraulic cab controls mounted in the cab. One control knob will govern the conveyor speed and the other will govern the spinner or shoulder conveyor speed.

# **SPINNER:**

The spinner disc shall be a 20" steel plate. It shall have 6 formed vanes and be powered by a hydraulic motor mounted underneath the spinner disc.

## **CAB SHIELD:**

There shall be a  $\frac{1}{2}$  cab shield supplied made of 12 gauge 304 stainless steel. The  $\frac{1}{2}$  cab shield shall extend 27" from the front of the body.

Struck capacity of 9' body: 3.1 cubic yards without sideboards.

# **OPTIONS:**

All lights and reflectors to meet FMVSS\_108

Back up alarm/body raise indicator/front & rear mid flaps

Heavy Duty top grate screens

LED- Pair strobes in rear post & two front LED – 404 @45 degree angle

Stop & Taillight in rear post

Back up light in rear post

Pintle hook combination with ½" plate/ D-rings/ plug

Three work lights to be determined

Bolt in conveyor chain cover plate.

# PLOW EQUIPMENT

Front plow

Plow with power reverse (twin reversing cylinders)

3/8" poly moldboard skin plate,

1/2" x 8" C-1085 cutting edge

3/8" heavy duty moldboard ribs

½" heavy duty backer angle

Tubular style A-frame attaching to heavy duty tube moldboard attachment tube

Six torsion spring single trip edge assembly

Wing Plow
Overall length 9 feet
Width of space cleared 6.5 feet
Height: Front- 21 inches
Rear- 27 inches
Moldboard thickness 3/16 inch steel
Moldboard construction multi-panel
Vertical ribs 5 ribs 3/8 inch material
Approximate weight 400 pounds.

# **GROUND SPEED CONTROL:**

The ground speed control system shall be a Muncie MESP 300 or equivalent.