

State of New Hampshire
Division of Plant and Property Management
Bureau of Purchase and Property
25 Capitol Street, State House Annex
Concord, NH 03301-6398

Date: 1/16/15
Bid No.: 137-15
Date of Bid Opening: 1/30/15
Time of Bid Opening: 11:00 AM

YOU MAY EMAIL YOUR BID TO ALAN HOFMANN: EMAIL PRCHWEB@NH.GOV

Dear Alan:

BID INVITATION FOR: SPREADERS, MATERIAL-2, 5 & 11 CUBIC YARD, STAINLESS STEEL

[Insert name of signor] _____, on behalf of _____ [insert name of entity submitting bid (collectively referred to as "Vendor")] hereby submits an offer as contained in the written bid submitted herewith ("Bid") to the State of New Hampshire in response to BID # 137-15 at the price(s) quoted herein in complete accordance with the bid.

Vendor attests to the fact that:

1. The Vendor has reviewed and agreed to be bound by the Bid.
2. The Vendor has not altered any of the language or other provisions contained in the Bid document.
3. The Bid is effective for a period of 90 days from the Bid Opening date as indicated above.
4. The prices Vendor has quoted in the Bid were established without collusion with other vendors.
5. The Vendor has read and fully understands this Bid.
6. Further, in accordance with RSA 21-I:11-c, the undersigned Vendor certifies that neither the Vendor nor any of its subsidiaries, affiliates or principal officers (principal officers refers to individuals with management responsibility for the entity or association):
 - a. Has, within the past 2 years, been convicted of, or pleaded guilty to, a violation of RSA 356:2, RSA 356:4, or any state or federal law or county or municipal ordinance prohibiting specified bidding practices, or involving antitrust violations, which has not been annulled;
 - b. Has been prohibited, either permanently or temporarily, from participating in any public works project pursuant to RSA 638:20;
 - c. Has previously provided false, deceptive, or fraudulent information on a vendor code number application form, or any other document submitted to the state of New Hampshire, which information was not corrected as of the time of the filing a bid, proposal, or quotation;
 - d. Is currently debarred from performing work on any project of the federal government or the government of any state;
 - e. Has, within the past 2 years, failed to cure a default on any contract with the federal government or the government of any state;
 - f. Is presently subject to any order of the department of labor, the department of employment security, or any other state department, agency, board, or commission, finding that the applicant is not in compliance with the requirements of the laws or rules that the department, agency, board, or commission is charged with implementing;
 - g. Is presently subject to any sanction or penalty finally issued by the department of labor, the department of employment security, or any other state department, agency, board, or commission, which sanction or penalty has not been fully discharged or fulfilled;
 - h. Is currently serving a sentence or is subject to a continuing or unfulfilled penalty for any crime or violation noted in this section;
 - i. Has failed or neglected to advise the division of any conviction, plea of guilty, or finding relative to any crime or violation noted in this section, or of any debarment, within 30 days of such conviction, plea, finding, or debarment; or
 - j. Has been placed on the debarred parties list described in RSA 21-I:11-c within the past year.

This document must be signed by a person who is authorized to legally obligate the responding vendor. A signature on this document indicates that all State of New Hampshire terms and conditions are accepted by the responding vendor and that any and all other terms and conditions submitted by the responding vendor are null and void, even if such terms and conditions have terminology to the contrary. The responding vendor shall also be subject to State of New Hampshire terms and conditions as stated on the reverse of the purchase order.

Authorized Signor's Signature _____ Authorized Signor's Title _____

NOTARY PUBLIC/JUSTICE OF THE PEACE

COUNTY: _____ STATE: _____ ZIP: _____

On the ____ day of _____, 2015, personally appeared before me, the above named _____, in his/her capacity as authorized representative of _____, known to me or satisfactorily proven, and took oath that the foregoing is true and accurate to the best of his/her knowledge and belief.

In witness thereof, I hereunto set my hand and official seal.

(Notary Public/Justice of the Peace)

My commission expires: _____ (Date)

Form P31-A

Unless specifically amended or deleted by the Division of Plant and Property Management, the following General Terms and Conditions apply to this Bid and any resulting Purchase Order or Contract.

GENERAL CONDITIONS AND INSTRUCTIONS:

NATURE OF, AND ELIGIBILITY TO RESPOND. This bid invitation is submitted in accordance with Chapter 21-1, and rules promulgated thereunder, and constitutes a firm and binding offer. A bid may not be withdrawn unless permission is obtained from the Bureau of Purchase and Property.

Bids may be issued only by the Bureau of Purchase and Property and are not transferable.

SAMPLES AND DEMONSTRATIONS. When samples are required they must be submitted free of costs and will not be returned. Items left for demonstration or evaluation purposes shall be delivered and installed free of charge and shall be removed at no cost to the State. Demonstration units shall not be offered to the State as new equipment.

Bids. Bids must be received at the Bureau of Purchase and Property before the date and time specified for the opening. Bids must be submitted on this bid form or exact copies and must be typed or clearly printed in ink. Corrections must be initialed. Bids are to be made less Federal Excise Tax and no charge for handling unless required by law.

Bids will be made available to the public after the time of award.

SPECIFICATIONS. Vendors must submit on items as specified. Proposed changes must be submitted in writing and received at the Bureau of Purchase and Property at least five (5) business days prior to the bid opening. Vendors shall be notified in writing if any changes to the specifications are made.

AWARD. The award will be made to the responsible Vendor submitting a conforming bid meeting specifications at the lowest cost unless other criteria are noted in the bid. Unless otherwise noted, the award may be made by individual items.

If there is a discrepancy between the unit price and the extension, the unit price will prevail.

When identical low bids are received the award will be made in accordance with the Administrative Rules.

Discounts will not be considered in making award but may be offered on the Invoice for earlier payment and will be applicable on the date of completion of delivery or receipt of Invoice, whichever is later. On orders specifying split deliveries, discounts will apply on the basis of each delivery or receipt of Invoice, whichever is later.

PATENT INFRINGEMENT. Any responding vendor who has reason to believe that any other responding vendor will violate a patent should such responding vendor be awarded the contract shall set forth in writing, prior to the date and time of opening, the grounds for his belief and a detailed description of the patent.

ASSIGNMENT PROVISION. The responding vendor hereby agrees to assign all causes of action that it may acquire under the antitrust laws of New Hampshire and the United States as the result of conspiracies, combinations, or contracts in restraint of trade which materially affect the price of goods or services obtained by the state under this contract if so requested by the State of New Hampshire.

FEDERAL FUNDS. This Division of Plant and Property Management, under RSA 21-1:14, VIII shall assure the continuation or granting of federal funds or other assistance not otherwise provided for by law by following the Federal Procurement Standards.

STATE'S OPTIONS: The Bureau of Purchase and Property reserves the right to reject or accept all or any part of any bid, to determine what constitutes a conforming bid, to award the bid solely as it deems to be in the best interest of the State, and to waive irregularities that it considers not material to the bid.

PUBLIC INFORMATION: The responding vendor hereby acknowledges that all information relating to this bid and any resulting order (Including but not limited to fees, contracts, agreements and prices) are subject to these laws of the State of New Hampshire regarding public information.

PERSONAL LIABILITY: The responding vendor agrees that in the preparation of this bid or the execution of any resulting contract or order, representatives of the State of New Hampshire shall incur no liability of any kind.

PROOF OF COMPLIANCE. The responding vendor may be required to supply proof of compliance with proposal specifications. When requested, the responding vendor must immediately supply the Bureau of Purchase and Property with certified test results or certificates of compliance. Where none are available, the State may require independent laboratory testing. All costs for such testing certified test results or certificate of compliance shall be the responsibility of the responding vendor.

FORM OF CONTRACT. The terms and conditions set forth in any additional Terms and Conditions by the Bureau of Purchase and Property are part of the bid and will apply to any contract awarded the responding vendor unless specific exceptions are taken and accepted and will prevail over any contrary provisions in Terms and Conditions submitted by the responding vendor.

CONTRACT TERMS AND CONDITIONS

1. The State of New Hampshire, acting through the Division of Plant and Property Management, engages the firm or individual ("the Vendor") to perform the services and/or sale of goods, described in the attached State documents, if any, and the Vendor's bid or quotation, both of which are incorporated herein by reference.
2. **COMPLIANCE BY VENDOR WITH LAWS AND REGULATIONS.** In connection with the performance of this agreement, the Vendor shall comply with all statutes, laws, regulations, and orders of federal, state, county or municipal authorities which shall impose any obligation or duty upon the Vendor, including, but not limited to civil rights and equal opportunity laws.
3. **TERM.** The contract, and all obligations of the parties thereunder, shall become effective on a specified date and shall be completed in their entirety prior to a specified date. Any work undertaken by the Vendor prior to the effective date shall be at his sole risk and, in the event that the contract shall not become effective, the State shall be under no obligation to reimburse the Vendor for any such work.
4. **CONTRACT PRICE.** The contract price, a payment schedule and a maximum limitation of price shall be as specified by the bid invitation and the Vendor's bid. All payments shall be conditioned upon receipt, and approval by the State, of appropriate vouchers and upon satisfactory performance by the Vendor, as determined by the State. The payment by the State of the Contract Price shall constitute complete reimbursement to the Vendor for all expenses of any nature incurred by the Vendor in the performance by the Vendor and complete payment for the Services. The State shall have no other liability to the Vendor.
5. **DELIVERY.** If the vendor fails to furnish items and/or services in accordance with all requirements, including delivery, the state may re-purchase similar items from any other source without competitive bidding, and the original vendor may be liable to the state for any excess costs.
6. **INVOICING.** All invoices must be in triplicate showing Order Number, Unit and Extension Prices and discounts allowed. A separate invoice shall be submitted for each order. Unless otherwise noted on the invitation to bid or purchase order, payment will not be due until thirty (30) days after all services have been completed, or all items have been delivered, inspected and accepted or the invoice has been received at the agency business office, whichever is later.
7. **PERSONNEL.**
 - 7.1. The Vendor shall disclose in writing the names of all owners (5% or more), directors, officers, employees, agents or subcontractors who are also officials or employees of the State of New Hampshire. Any change in this information shall be reported in writing within fifteen (15) days of their occurrence.
 - 7.2. The person signing this agreement on behalf of the State, or his or her delegee ("Contracting Officer") shall be the State's representative for purposes of this agreement. In the event of any dispute concerning the interpretation of this agreement, the Contracting Officer's decision shall be final.
8. **EVENT OF DEFAULT; REMEDIES.**
 - 8.1. Any one or more of the following acts or omissions of the Vendor shall constitute an event of default hereunder ("Events of Default"):
 - 8.1.1. failure to deliver the goods or services satisfactorily or on schedule; or
 - 8.1.2. failure to submit any report required hereunder; or
 - 8.1.3. failure to perform any of the other covenants and conditions of this agreement.
 - 8.2. Upon the occurrence of any Event of Default, the State may take any one, or more, or all, of the following actions:
 - 8.2.1. give the Vendor a written notice specifying the Event of Default and requiring it to be remedied within, in the absence of a greater or lesser specification of time, thirty (30) days from the date of the notice; and if the Event of Default is not timely remedied, terminate this agreement, effective two (2) days after giving the Vendor notice of termination; and
 - 8.2.2. give the Vendor a written notice specifying the Event of Default and suspending all payments to be made under this agreement and ordering that the portion of the Contract Price, which would otherwise accrue to the Vendor during the period from the date of such notice until such time as the State determines that the Vendor has cured the Event of Default, shall never be paid to the Vendor; and
 - 8.2.3. set off against any other obligation the State may owe to the Vendor any damages the State suffers by reason of any Event of Default; and
 - 8.2.4. treat the agreement as breached and pursue any of its remedies at law or in equity, or both.
9. **WAIVER OF BREACH.** No failure by the State to enforce any provisions hereof after any Event of Default shall be deemed a waiver of its rights with regard to that Event, or any subsequent Event. No express failure of any Event of Default shall be deemed a waiver of any provision hereof. No such failure or waiver shall be deemed a waiver of the right of the State to enforce each and all of the provisions hereof upon any further or other default on the part of the Vendor.

10. VENDOR'S RELATION TO THE STATE. In the performance of this agreement the Vendor is in all respects an independent Vendor, and is neither an agent nor an employee of the State. Neither the Vendor nor any of its officers, employees, agents or members shall have authority to bind the State nor are they entitled to any of the benefits, workmen's compensation or emoluments provided by the State to its employees.

11. ASSIGNMENT AND SUBCONTRACTS. The Vendor shall not assign, or otherwise transfer any interest in this agreement without the prior written consent of the State. No work required by this contract shall be subcontracted without the prior written consent of the State. If a vendor is unable to complete delivery by the date specified, he must contact the using agency. However, the agency is not required to accept a delay to the original delivery date. All deliveries are subject to inspection and receiving procedure rules as established by the State of New Hampshire. Deliveries are not considered accepted until compliance with these rules has been established. State personnel signatures on shipping documents shall signify only the receipt of shipments. All deliveries shall be FOB Destination.

12. INDEMNIFICATION. The contractor shall defend, indemnify and hold harmless the State, its officers and employees, from and against any and all losses suffered by the State, its officers and employees, and any and all claims, liabilities or penalties asserted against the State, its officers and employees, by or on behalf of any person, on account of, based on, resulting from, arising out of (or which may be claimed to arise out of) the acts or omissions of the Vendor. Notwithstanding the foregoing, nothing herein contained shall be deemed to constitute a waiver of the sovereign immunity of the State, which immunity is hereby reserved to the State. This covenant shall survive the termination of this agreement.

12.1 PATENT PROTECTION. The seller agrees to indemnify and defend the State of New Hampshire from all claims and losses resulting from alleged and actual patent infringements and further agrees to hold the State of New Hampshire harmless from any liability arising under RSA 382-A:2-312(3). (Uniform Commercial Code).

13. TOXIC SUBSTANCES. In compliance with RSA 277-A known as the Workers Right to Know Act, the vendor shall provide Material Safety Data Sheets with the delivery of any and all products covered by said law.

14. NOTICE. Any notice by a party hereto to the other party shall be deemed to have been duly delivered or given at the time of mailing by certified mail, postage prepaid, in a United States Post Office addressed to the parties at the addresses given below.

15. AMENDMENT. This agreement may be amended, waived or discharged only by an instrument in writing signed by the parties hereto.

16. CONSTRUCTION OF AGREEMENT AND TERMS. This agreement shall be construed in accordance with the laws of the State of New Hampshire, and is binding upon and inures to the benefit of the parties and their respective successors and assigns.

17. ADDITIONAL PROVISIONS. The additional provisions (if any) have been set forth as Exhibit "A" hereto.

18. ENTIRE AGREEMENT. This agreement, which may be executed in a number of counterparts, each of which shall be deemed an original, constitutes the entire agreement and understanding between the parties, and supersedes all prior agreements and understandings relating hereto.

INSTRUCTIONS TO VENDOR:

Read the entire bid invitation prior to filling it out. Complete the pricing information in the "Offer" section (the unit price is the price for the unit of purchase required by this bid invitation (i.e. each, case, box, etc.) and all other required information on your offer. The extension is the unit price multiplied by the quantity required by this bid invitation. Also complete the "Vendor Contact Information" section. Finally, complete the company information on the "General Conditions and Instructions" page of this bid invitation, then sign the bid in the space provided on that page.

BID SUBMITTAL

All bids must be submitted on this form or an exact copy, must be typed or clearly printed in ink and must be received on or before the date and time specified on page 1 of this bid. Interested parties may submit a bid to the State of New Hampshire Bureau of Purchase and Property, 25 Capitol Street, Room 102, Concord NH 03301 by email to PRCHWEB@NH.GOV. All bids must be clearly marked with bid number, date due and purchasing agent's name.

IF YOU ARE EXPERIENCING DIFFICULTIES EMAILING YOUR BID OR YOU WISH TO VERIFY YOUR BID RESPONSE HAS BEEN RECEIVED, PLEASE CALL (603) 271-2201 AND ASK A PURCHASING ASSISTANT FOR ASSISTANCE OR TO CHECK ON THE STATUS OF YOUR BID RESPONSE.

GOVERNING TERMS AND CONDITIONS:

A responding bid that has been completed and signed by your representative will constitute your company's acceptance of all State of New Hampshire terms and conditions and will legally obligate your company to these terms and conditions.

A signed response further signifies that any terms and/or conditions that may be or have been submitted by the Vendor are specifically null and void and are not a part of this bid invitation or any awarded purchase order, even if said terms and/or conditions contain language to the contrary.

PUBLIC DISCLOSURE OF BID SUBMISSIONS:

Generally, all bids and proposals (including all materials submitted in connection with them, such as attachments, exhibits and addenda) become public information upon the effective date of a resulting contract or purchase order. However, to the extent consistent with applicable state and federal laws and regulations, as determined by the State, including, but not limited to, RSA Chapter 91-A (the "Right-to-Know" Law), the State will attempt to maintain the confidentiality of portions of a bid that are clearly and properly marked by a Vendor as confidential. Any and all information contained in or connected to a bid or proposal that a Vendor considers confidential must be clearly designated in a manner that draws attention to the designation. The State shall have no obligation to maintain the confidentiality of any portion of a bid, proposal or related material, which is not so marked. Marking an entire bid, proposal, attachment or sections thereof confidential without taking into consideration the public's right to know will neither be accepted nor honored by the State. Notwithstanding any provision of this RFP/RFB to the contrary, pricing will be subject to public disclosure upon the effective date of all resulting contracts or purchase orders, regardless of whether or not marked as confidential. If a bid or proposal results in a purchase order or contract, whether or not subject to approval by the Governor and Executive Council, all material contained in, made part of, or submitted with the contract or purchase order shall be subject to public disclosure. If a request is made to the State by any person or entity to view or receive copies of any portion of a bid or proposal, and if disclosure is not prohibited under RSA 21-I: 13-a, Vendors acknowledge and agree that the State may disclose any and all portions of the bid, proposal or related materials which is not marked as confidential. In the case of bids, proposals or related materials that contain portions marked confidential, the State will assess what information it believes is subject to release; notify the Vendor that the request has been made; indicate what, if any, portions of the bid, proposal or related material will not be released; and notify the Vendor of the date it plans to release the materials. The State is not obligated to comply with a Vendor's designation regarding confidentiality.

By submitting a bid or proposal, the Vendor agrees that unless it obtains and provides to the State, prior to the date specified in the notice described in the paragraph above, a court order valid and enforceable in the State of New Hampshire, at its sole expense, enjoining the release of the requested information, the State may release the information on the date specified in the notice without any liability to the Vendor.

PURPOSE:

The purpose of this bid invitation is to establish a contract(s) in the form of a purchase order(s) for supplying the State of New Hampshire with the item(s) indicated in the "Offer" section of this bid invitation, in accordance with the requirements of this bid invitation and any resulting order. This will be a one-time order with delivery required to the location(s) indicated in the F.O.B. section of this bid invitation.

VENDOR CERTIFICATIONS:

All Vendors must be duly registered as a vendor authorized to conduct business in the State of New Hampshire.

- **STATE OF NEW HAMPSHIRE VENDOR APPLICATION:** Prior to bid award, Vendors must have a completed Vendor Application Package on file with the NH Bureau of Purchase and Property. See the following website for information on obtaining and filing the required forms (no fee): admin.state.nh.us/purchasing/vendor.asp

REQUEST FOR CHANGES AND/OR CLARIFICATION:

Any Questions must be submitted by an individual authorized to commit their organization to the Terms and Conditions of this bid. Submissions must clearly identify the Bid Number, the Vendor's name and address and the name of the person submitting the question. Any requested changes to this bid invitation by the Vendor must be received in writing at the Bureau of Purchase and Property no later than 4:30 PM on the (5th) fifth business day **prior** to the date of the bid opening.

Questions must be submitted by E-mail to Alan Hofmann at the following address: alan.hofmann@nh.gov

ADDENDUM:

In the event it becomes necessary to add to or revise any part of this bid prior to the scheduled submittal date, the NH Bureau of Purchase and Property will post on our web site any Addenda. Before your submission, check the site for any addenda or other materials that may have been issued affecting the bid. The web site address is www.admin.state.nh.us/purchasing/bids.

WARRANTY REQUIREMENTS:

Successful Vendor shall be required to warranty all of the equipment awarded to Vendor for a period of not less than the manufacturer's standard period of time, from the date the items are received, inspected and accepted by the State of New Hampshire. The warranty shall cover 100% of all parts, shipping, labor, travel, lodging and expenses.

BID PRICES:

Bid prices must be in US dollars and must include delivery and all other costs required by this bid invitation. Bid prices should result in prices that are no higher than those charged to the Vendor's best/preferred customer. Special charges, surcharges, or fuel charges of any kind (by whatever name) may not be added on at any time. Any and all charges **must be built into your bid price** at the time of the bid.

PAYMENT:

Payments shall be made via ACH. Use the following link to enroll with the State Treasury:
<http://www.nh.gov/treasury/Divisions/DocsForms/Tforms.htm?inc=P>

AWARD:

The award shall be made to the responsible Vendor(s) meeting the criteria established in this RFB and providing the lowest cost in total. The State reserves the right to reject any or all bids or any part thereof and add/delete locations to the contract price. If an award is made it shall be, in the form of a State of New Hampshire Purchase Order (s).

BID RESULTS:

Bid results may be viewed when available, once the award has been made, on our web site only at:
<http://admin.state.nh.us/purchasing/index2.asp>.

For Vendors wishing to attend the bid Opening: **Only the names of the Vendors submitting responses will be made public.**

TERMINATION:

The State of New Hampshire shall have the right to terminate the purchase contract at any time by giving the successful Vendor a thirty (30) day written notice.

REQUISITION NO.: 153149 – MECHANICAL SERVICES
153208 – TURNPIKES

F.O.B.:

The F.O.B. shall be destination to the following delivery point:
NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION
BUREAU OF MECHANICAL SERVICES
33 SMOKEY BAR BLVD.
CONCORD NH 03301

RETURNED GOODS:

The successful Vendor must resolve all order and invoice discrepancies within five business days from notification. Products returned due to quality issues, duplicate shipments, over-shipments, etc. must be picked up by the successful Vendor within five business days of notification with no restocking or freight charges, and must be replaced with specified products or the agency will be refunded/credited for the full purchase price. Unauthorized substitutions for any products are not allowed.

Standard stock products ordered in error by the State of New Hampshire must be returned for full credit within fifteen days of receipt. Products must be in re-saleable condition (original container, unused) and there will be no restocking fee charged for these products. The using agency will be responsible for any freight charges to return these items to the successful Vendor.

SPECIFICATION COMPLIANCE:

Vendor's offer must meet or exceed the required specifications as written. The State of New Hampshire shall be the sole determining factor of what meets or exceeds the required specifications.

Other manufactured makes and models: for consideration of "other manufactured makes and models" equal to or exceeding these specifications, please submit specifications and drawings for review per the "request for changes" provision as stated within the bid solicitation. All of "other manufactured makes and models" must be approved by the Bureau of Purchase and Property prior to the bid opening to be considered.

Unless otherwise specified by the Bureau of Purchase and Property in this bid invitation document, all equipment offered by the Vendor must be new; shall not be used, rebuilt, refurbished; shall not have been used as demonstration equipment, and shall not have been placed anywhere for evaluation purposes.

OFFER:

Successful Vendor hereby offers to sell the required items to the State of New Hampshire at the following price(s):

<u>QTY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>	<u>DELIVERED PRICE</u>	
			<u>UNIT \$</u>	<u>EXTENSION \$</u>
3	EACH	NEW, 12-VOLT ELECTRIC SPREADERS - STAINLESS STEEL - 2 CUBIC YARD MINIMUM AS PER THE FOLLOWING D.O.T. MINIMUM SPECIFICATIONS DATED 12/18/14	\$ _____	\$ _____

Make and model _____
Bidder to submit detailed manufacturers specifications/literature

DELIVERY TIME:

Note: Delivery is to be accomplished no later than 120 days ARO. However delivery will be accepted sooner.

<u>QTY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>	<u>DELIVERED PRICE</u>	
			<u>UNIT \$</u>	<u>EXTENSION \$</u>
11	EACH	NEW, HYDRAULIC SPREADERS - STAINLESS STEEL - DUMP BODY MOUNTED USING TRUCKS CENTRAL HYDRAULIC SYSTEM - 5 CUBIC YARD MINIMUM AS PER THE FOLLOWING D.O.T. MINIMUM SPECIFICATIONS DATED 12/16/14	\$ _____	\$ _____

OPTIONS:

LADDER

Supply one (1) each 10 foot stainless steel ladder with a minimum of nine (9) rungs rated for 375 lbs. Bottom rung to be flush with sides. Shipped loose. To be attached to sander by State personnel upon fitting sander to truck.

\$ _____

PRE-WET SYSTEM

Variable Flow, Liquid Pre-Wet System Installed on spreader to include Twin 75-Gallon "Liquid Capacity" tanks that will be controlled by the Trucks Existing Bosch-Rexroth CS550 Salt/Sand Controller as per the following minimum specifications dated 12/18/14

\$ _____

Make and model _____

Bidder to submit detailed manufacturers specifications/literature

DELIVERY TIME:

Note: Delivery is to be accomplished no later than 120 days ARO. However delivery will be accepted sooner.

=====

<u>QTY</u>	<u>UNIT</u>	<u>DESCRIPTION</u>	<u>DELIVERED PRICE</u>	
			<u>UNIT \$</u>	<u>EXTENSION \$</u>
3	EACH	NEW, HYDRAULIC SPREADERS - STAINLESS STEEL - DUMP BODY MOUNTED USING TRUCKS CENTRAL HYDRAULIC SYSTEM - 11 CUBIC YARD MINIMUM AS PER THE FOLLOWING D.O.T. MINIMUM SPECIFICATIONS DATED 12/16/14	\$ _____	\$ _____

OPTIONS:

LADDER

Supply one (1) each 10 foot stainless steel ladder with a minimum of nine (9) rungs rated for 375 lbs. Bottom rung to be flush with sides. Shipped loose. To be attached to sander by State personnel upon fitting sander to truck.

\$ _____

PRE-WET SYSTEM

Variable Flow, Liquid Pre-Wet System Installed on spreader to include Twin 75-Gallon "Liquid Capacity" tanks that will be controlled by the Trucks Existing Bosch-Rexroth CS550 Salt/Sand Controller as per the following minimum specifications dated 12/18/14

\$ _____

Make and model _____

Bidder to submit detailed manufacturers specifications/literature

DELIVERY TIME:

Note: Delivery is to be accomplished no later than 120 days ARO. However delivery will be accepted sooner.

VENDOR CONTACT INFORMATION:

The following information is for this office to be able to contact a person knowledgeable of your bid response, and who can answer questions regarding it:

Company Name

Company Address

Contact Person

Telephone Number

Toll Free Telephone Number

Facsimile Number

E-mail Address

Company Website

12 Volt Electric Spreader – Stainless Steel - Dump Body Mounted
 On/Off, Dual Control, Variable Speed Controller with Blast option
2 Cubic Yard Minimum

GENERAL:

It is the intent of this specification to describe a two (2) cubic yard struck capacity, all purpose conveyor type hopper spreader body, constructed from minimum 12 gauge. 304 Stainless Steel throughout (including nuts, bolts and fasteners), that will be slipped into a 1-1/2 Ton Truck with dump body and used for ice control. The unit will be electrically operated and electronically controlled via an electrical harness (not wireless). Unit will be installed by State personnel.

- Cab control box to include on/off power switch, variable rate conveyor speed control, variable rate spinner speed control and a blast option.
- Weather tight connectors on all harness connections that will be outside of truck cab.
- Must be suitable for mounting in a dump body 8' in length with a loaded floor height of 46"s.
- Furnish all manufacturers' standard equipment for the make and model offered not in conflict with this specification.

Body:

- Hopper body and sills shall be constructed of minimum 12 gauge stainless steel.
- Top edge of side and end walls shall be channel formed for stiffness.
- Sides shall be sloped for proper material feeding.
- Hopper body walls shall be continuously welded, with reinforcements at all corners, into one solid unit.
- Each side shall be reinforced by four gussets formed from 12 gauge stainless steel.
- Each gusset shall be supported on a 3" stainless steel channel cross sill.
- Provide two (2) ea. 3" X 8' stainless steel channel (unattached) to be used as skids and to be attached to sander cross sills by State upon installation.
- Floor shall be a bolt-in 3/16" stainless.
- Bolt-in stainless steel chain shields shall be provided.
- Hopper to be additionally strengthened by a longitudinal or horizontal member with a single balanced point lifting eye to provide proper balance for lifting the hopper from the dump body.
- Four (4) ea. additional lifting eye's/loops on front and rear end walls at corners to allow hanging sander with chains for summer storage.
- The rear of the hopper shall have an adjustable gate, fabricated of 12 gauge stainless steel with a lever controlled opening or utilize a jack screw type adjustment.
- Bottom edge of the gate shall have a flexible strip to allow passage of up to 2" stones without damage to the gate.
- Lever controlled gate shall have a position lock to allow infinite adjustment.

Conveyor:

- Material shall be conveyed to distributor by means of a conveyor at least 12" wide.
- Conveyor chains shall be rated at not less than 11,000 lbs per side.
- Manufacturer's standard gear reduction box and min ¾ HP electric motor shall be provided.
- Conveyor chain adjusters shall have a range of at least 3" and shall be spring loaded.
- Drive and idler sprockets shall be cast steel, 8 tooth, self cleaning type.

Distributor:

- Spread direction shall be controlled by a moveable stainless chute that guides the material to the spinner disc.
- Four adjustable deflectors shall provide control of spread pattern.
- Spinner disc shall be stainless steel or poly.
- Spinner disc to be a minimum 14" in diameter with straight replaceable vanes.
- Spinner shaft shall be supported by a sealed, self aligning bearing, or the spinner motor shall be mounted directly to spinner.
- Manufacturer's standard weather-tight electric spinner motor and harness with weather-tight connector shall be provided.
- Spinner disc shall be adjustable from 15" and 18" above the ground when unit is mounted in a dump body with a loaded floor height of 46"s.

12 Volt Electric Spreader – Stainless Steel - Dump Body Mounted
On/Off, Dual Control, Variable Speed Controller with Blast option
2 Cubic Yard Minimum

Hold Down Devices:

- Four threaded clamping devices, each having a minimum of 6" thread adjustment shall be provided.

Screens:

- A two (2) piece stainless steel top grid, with MAXIMUM 2" openings, in stainless steel angle iron frames shall be provided.
- Screen frame shall be hinged at mid-point and rest inside top of hopper to prevent screens from falling out.

Manuals:

- Manufacturer shall supply two (2) complete sets of parts and operation manuals.

MSDS's:

- Manufacturer shall supply two (2) complete sets of Material Safety Data Sheets for all construction and coating materials used in both the construction and finishing of all equipment furnished.

Note:

- When built to the above specification, the following brands are the only ones acceptable: Henderson, Hi-Way, Swenson, Tarrant, Torwel and Warren.

Hydraulic Spreader - Stainless Steel - Dump Body Mounted
Using Trucks Central Hydraulic System
5 Cubic Yard Minimum

GENERAL:

It is the intent of this specification to describe an all purpose conveyor type hopper spreader body, constructed from 304 Stainless Steel throughout (including nuts, bolts, springs, fastener's, piping, ¼" and smaller chains and hooks), that will be slipped into a dump body and used for ice control and covering road oils. The unit will be hydraulically operated using the trucks' existing PTO driven pump and variable flow control valves. The installation will be performed by State personnel. All sharp edges shall be ground smooth and all sharp corners rounded to prevent injury to others

BODY:

- The hopper shall have a minimum level capacity of Five (5) cubic yards.
- The sides, ends and sills shall be unitized fully welded fabrication (side extensions not allowed) using minimum 10 gauge Stainless Steel (A certificate of compliance will be required from the successful vendor).
- Bottoms of sills shall be formed outward to facilitate cleaning.
- The front wall shall be sloped to eliminate bridging of material and the rear wall to be 90' degree from the floor (not sloped).
- Top of sides and ends shall be channel formed with welded mitered corners.
- Each side shall be supported by at least four (4) ea. gussets formed from 7 gauge 304 stainless. Gussets to be stitch welded and staggered with a minimum of 4" +/-1" overlapping beads on each side.
- Four (4) ea. heavy duty stainless steel lifting eyes, rings or hooks allowing a min 2" opening to accommodate lifting hook with a safety latch shall be located on front and rear ends of body to provide proper balance for lifting the hopper from the dump body.
- A heavy duty, full width fitted rubber strip shall be attached to front of sander to reduce salt from spilling out by the conveyor chain.
- Hopper sill shall be supported on five (5) ea. 3" W X 2" deep maximum, 5/16" thick stainless steel cross channels at base.
- Two (2) ea. 3" wide X 2" deep maximum, 5/16" thick by 104" long 304 stainless steel channels (or 304 stainless steel structural 3" X 5/16" channel) below the cross channels running front to rear with a 2" radius at front and shall be shipped loose for State personnel to locate.
- Rear discharge chute area of body sill shall be double thickness stainless, fish plated and fully welded at a minimum of 36" from end of sill and further braced for strength.
- The discharge gate shall be 304 stainless, at least 7 ga. with an added brace to resist bending and fully adjustable through a heavy duty curbside jack screw type adjustment which shall be a Model #T2103 Manufactured by Canimex or approved equal.
- Position of the gate shall be calibrated.
- The bottom of the gate shall have a 3" full width ½" thick flexible seal strip that extends 1-1/2" below the gate
- The seal strip to be mounted to the outside of the gate and attached with 4 ea. 3/8" stainless steel fasteners through a full width piece of 1-1/2" X 7 ga. minimum flat bar.
- Six sectional stainless steel screens (min) shall be furnished and secured with a minimum of three (3) hinges each to a Stainless Steel 3½" ID heavy duty pipe or structural member with equal resistance to bending, running longitudinally at the center of the hopper and one (1) ea. 3" SS channel iron located midway, directly under longitude beam, running horizontally to further support the longitude beam and strengthen side walls. Pipe or structural member to be recessed and not rest on top of sander.
- Screen frames shall be 2" X 2" X 1/4" Stainless Steel angle. Screens shall be made of 1/4" diameter woven wire or larger, forming a 2-1/2" square opening.
- Woven wire to be welded to underside of the frames and welded on every rod around perimeter. The screen frames shall rest inside of the sander lay flat and not increase the overall height of the spreader by more than the material used to make the grate system.
- Unit dimensions shall be suitable for mounting in a dump body 108" long, 84" wide, and 26" deep, with a loaded floor height of 56" .
- Unit shall be capable of being mounted within 4" of the front of the dump body.
- Two (2) ea. adjustable hold down devices shall be provided for installation by DOT personnel
- Each device shall consist of a 6" section of 3/8" Grade 8 chain, welded on each end to a 6" section of ¾" Grade 8 threaded rod (with nuts) per attached sketch.
- Two (2) ea. stainless steel (unattached) angle brackets provided shall be 2" X 2" X 3/8" X 3"L. and include a 13/16" hole centered on one side.

5 CUBIC YARD 304 STAINLESS STEEL SPREADER (con't)

CONVEYOR:

- Conveyor sprockets, front and rear, shall be cast (flame cut sprockets are unacceptable).
- For standardization purposes, the distance between conveyor shaft drive sprockets shall be 20" O.C. and the conveyor drive shaft shall be 1-3/4" diameter.
- All bearings shall be sealed and self-aligning.
- Two (2) ea. 3/4" heavy spring loaded cadmium plated adjustment screws with a minimum of 6" adjustments shall be provided to maintain proper conveyor adjustment.
- A replaceable stainless steel conveyor chain shield shall be bolted on over the chain.
- Bridge over conveyor shall be supplied if necessary to assure conveyor operation in all valve settings.
- Chain shall be open pintle type rated at a minimum average ultimate strength of 30,900 lbs. per side with cross bar flights made of 3/8" X 1-1/4" steel located on not greater than 4-1/2" centers.
- Pintle chain to weigh 2.56 lbs per foot, thickness of link to be 0.2000. (Drives Brand model D667KC is indicative of the size pintle chain required).
- Vendor to provide specification documentation for chain supplied before or upon delivery.
- Conveyor shall operate on a bolt on replaceable 3/16" wear plate made of 304 stainless steel which will rest on a minimum 1-1/2" X 1-1/2" X 3/16" stainless steel angle iron running longitudinally along both sides and not on individual cross members to reduce the potential for high and low wear surfaces of the floor.

CONVEYOR DRIVE:

- Durst A1126S worm gear speed reducer shall have a speed reduction of 25:1 with thru-drive capability for feedback sensor.
- No other drive types are acceptable.
- Worm gear shall be a hardened and polished gear, running/bathed in oil and driving an aluminum-bronze worm wheel.
- All pipe plugs in cover and case housing to be hex or square head brass or bronze.
- Gear box cover to have drain plug at six (6) o'clock position.
- Relief style vent to be located on top of case housing.
- Speed reducer shall be mounted on the left (driver's) side of the hopper.
- Hydraulic motor used for 25:1 conveyor drive shall be a Char-Lynn Model "S", number 103-3398-012 with a 60 pulse sensor and a M12 connector and shall include a Compu-spread right angle adapter cable with power indicator, part number 124213.

DISTRIBUTOR:

- The spinner disc shall be 7 gauge stainless steel, 18" diameter with 6 each straight replaceable stainless steel vanes.
- Material shall be guided from conveyor end to center of distributor disc by an enclosed minimum 8" X 18" rectangular stainless steel flip up (hinged) chute that shall provide means of changing direction of spread pattern.
- The spinner shall be driven by a Char-Lynn Model "H" hydraulic motor, #101-1001-009.
- Spinner shaft shall be supported by two sealed, lifetime lubricated bearings or spinner shall be attached to the hydraulic motor.

Distributor shall be capable of placing a windrow of material behind and to the outside of the rear wheels on the driver side and shall consist of a stainless steel chute that attaches to distributor at a minimum 50 degree angle and intercepts material before it hits spinner, delivering material in a windrow.

- Spinner height shall be adjustable to 15" 18" and 21" above the ground when unit is mounted in a body with a loaded floor height of 56".
- A minimum of three adjustable stainless baffles shall be provided to control spread width and direction.

5 CUBIC YARD 304 STAINLESS STEEL SPREADER (con't)

HYDRAULIC SYSTEM:

- Hydraulic power shall be provided from existing pump.
- All hydraulic supply and return piping shall be rigid stainless steel.
- Piping to be located on left (drivers) side of hopper, installed through drilled/punched holes that are 3" in from the outside edge of the four (4) ea. vertical gussets.
- Pipes to be separated at least 3" O/C from each other and tack welded to all gussets.
- Return oil piping shall be 1-1/4" nominal I.D. and shall be installed 24" up from bottom of skids and be fitted with a "T" at rear of the sander.
- Return hose from the conveyor gear box to the "T" shall be Aeroquip FC510-12 series installed.
- Return hose from the spinner motor to the "T" shall be an Aeroquip FC-510-8 series uninstalled.
- Supply piping for conveyor shall be 3/4" nominal I.D. and installed 27" up from the bottom of the skids with an Aeroquip FC510-12 series high pressure hose to conveyor motor installed.
- Supply piping for spinner shall be 1/2" nominal I.D. and be installed 30" up from bottom of skids with an Aeroquip FC510-8 series high pressure hose line to spinner motor.
- Aeroquip swivel type connectors shall be used to connect all hydraulic components.
- All pipes to be the same length and staggered four (4) inches at front and rear. 1-1/4" return oil pipe with 90' elbow in place and is not to extend beyond front of the sander. (for example: if the 1-1/4" pipe is 4" from the front of the sander then the 3/4" pipe would be 8" from the front of sander and the 1/2" pipe would be 12" from the front of the sander).
- All piping shall be cleaned, and shall terminate in National Pipe Thread with stainless steel 90 degree street elbow fittings pointing upward (parallel to sloping sides) at front and downward at rear with pipe threaded caps to protect threads.
- Each gusset on the left side will have an additional 1" hole in the area of the 1/2" stainless steel pipe to facilitate running a feedback sensor wiring harness.

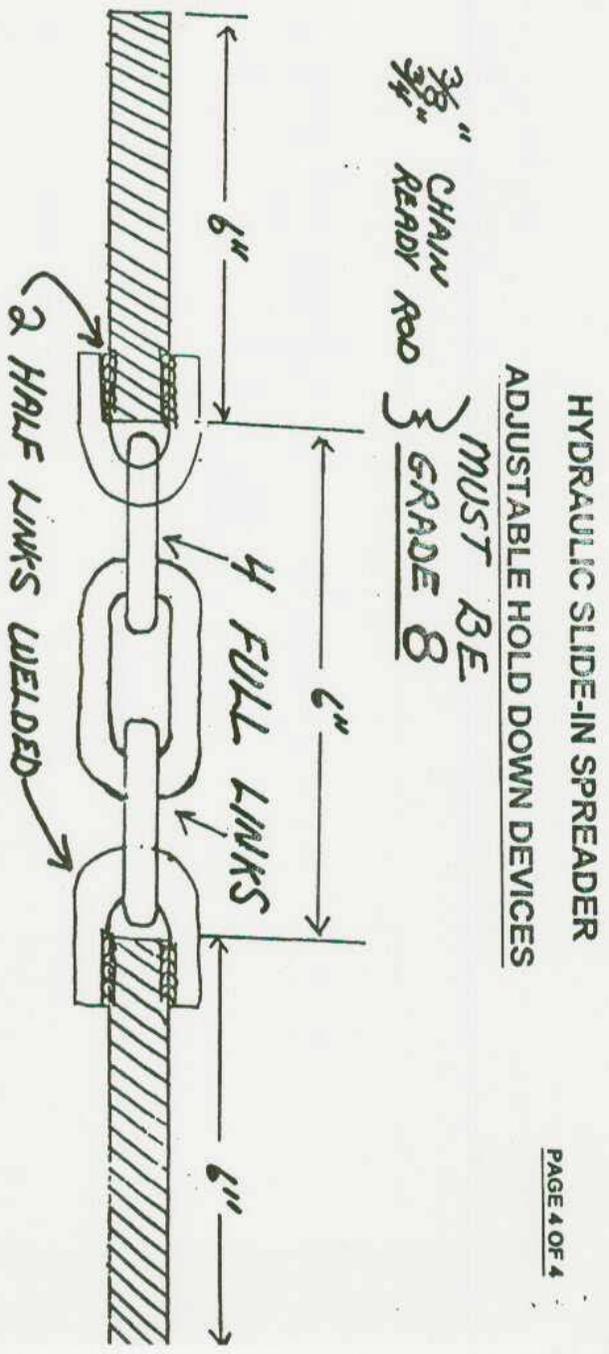
EQUIPMENT:

- Furnish all manufacturers standard equipment not in conflict with these specifications.
- All equipment furnished must comply with applicable State of New Hampshire and Federal laws.
- An instruction and parts manual shall be furnished with each spreader.
- MSDS's: Manufacturer shall supply two (2) complete sets of Material Safety Data Sheets for all construction materials used in the construction of all equipment furnished before or upon delivery.

PAINT: None

- NOTE: The following brands of spreaders, when built to the above specification, are the only ones acceptable: Bonnell, Warren, Frink, Flink, Henderson, Hi-Way, Swenson, Tarrant and Torwel.
see "other manufactured makes and models "in the specification compliance

5 CUBIC YARD 304 STAINLESS STEEL SPREADER (con't)



Hydraulic Spreader - Stainless Steel - Dump Body Mounted
Using Trucks Central Hydraulic System
11 Cubic Yard Minimum

GENERAL:

It is the intent of this specification to describe an all purpose conveyor type hopper spreader body, constructed from 304 stainless steel throughout (including nuts, bolts, springs, fastener's, piping, ¼" and smaller chains and hooks), that will be slipped into a dump body and used for ice control and covering road oils. The unit will be hydraulically operated using the trucks' existing PTO driven pump and variable flow control valves. The installation will be performed by State personnel. All sharp edges shall be ground smooth and all sharp corners rounded to prevent injury to others.

BODY:

- The hopper shall have a minimum level capacity of eleven (11) cubic yards.
- The sides, ends and sills shall be unitized fully welded fabrication (side extensions not allowed) using a minimum 10 gauge 304 stainless steel (A certificate of compliance will be required from the successful vendor).
- Bottoms of sills shall be formed outward to facilitate cleaning.
- The sides shall be formed one piece without splicing.
- The front wall shall be sloped to eliminate bridging of material and the rear wall to be 90° degree from the floor (not sloped).
- Top of sides and ends shall be channel formed with welded mitered corners.
- Each side shall be supported by at least six (6) ea. gussets formed from 7 gauge 304 stainless. Gussets to be stitch welded and staggered with a minimum of 4" +/-1" overlapping beads on each side
- Four (4) ea. heavy duty stainless steel lifting eyes, rings or hooks allowing a min 2" opening to accommodate lifting hook with a safety latch shall be located on front and rear ends of body to provide proper balance for lifting the hopper from the dump body.
- A heavy duty, full width fitted rubber strip shall be attached to front of sander to reduce salt from spilling out by the conveyor chain.
- Hopper sill shall be supported on seven (7) ea. 3" wide X 2" deep maximum X 5/16" thick stainless steel cross channels at base.
- Two (2) ea. 3" wide X 2" deep maximum, 5/16" thick, 158" long 304 stainless steel channels (or 304 stainless steel 3" x 5/16" structural channel) below the cross channels running front to rear with a full radius at the front and shall be shipped loose for State personnel to locate.
- Rear discharge chute area of body sill shall be double thickness stainless, fish plated and fully welded at a minimum of 36" from end of sill and further braced for strength.
- The discharge gate shall be 304 stainless, at least 7 ga. with added brace to resist bending and fully adjustable through a heavy duty curbside jack screw type adjustment which shall be a Model #T2103 Manufactured by Canimex or approved equal.
- Position of the gate shall be calibrated.
- The bottom of the gate shall have a 3" full width ½" thick flexible seal strip that extends 1-1/2" below the gate.
- The seal strip to be mounted to the outside of the gate and attached with 4 ea. 3/8" stainless steel fasteners through a full width piece of 1-1/2" X 7 ga. minimum flat bar.
- Eight sectional stainless steel screens (min.) shall be furnished and secured with a minimum of three (3) ea. stainless steel hinges each to a stainless steel 3½" ID heavy duty pipe or structural member with equal resistance to bending, running longitudinally at the center of the hopper and one (1) ea. 3" stainless steel channel iron located midway directly under longitude beam, running horizontally to further support the longitude beam and strengthen sidewalls. Pipe or structural member to be recessed and not rest on top of sander.
- Screen frames shall be 2" X 2" X 1/4" stainless steel angle.
- Screens shall be made of 1/4" diameter stainless steel woven wire or larger, forming a 2-1/2" square opening.
- Woven wire to be positioned on the underside of the SS frames and welded on every rod around the perimeter. The screen frames shall rest inside of the sander lay flat and not increase the overall height of the spreader by more than the material used to make the grate system.

11 CUBIC YARD 304 STAINLESS STEEL SPREADER (con't)

- Unit dimensions shall be suitable for mounting in a dump body 162" long, 84" wide, and 42" deep, with a loaded floor height of 56" .
- Unit shall be capable of being mounted within 4" of the front of the dump body.
- Two (2) ea. adjustable hold down devices shall be provided for installation by DOT personnel.
- Each device shall consist of a 6" section of 3/8" Grade 8 chain, welded on each end to a 6" section of 3/4" Grade 8 threaded rod (with nuts) per attached sketch.
- Two (2) ea. stainless steel (unattached) angle brackets provided shall be 2" X 2" X 3/8" X 3"L and include a 13/16" hole centered on one side.

CONVEYOR:

- Conveyor sprockets for front, rear and mid support under floor idler shaft shall be cast, (flame cut sprockets are unacceptable).
- For standardization purposes, the distance between conveyor shaft drive sprockets shall be 20" O.C. and the conveyor drive shaft shall be 1-3/4" diameter.
- All bearings shall be sealed and self-aligning.
- Two (2) ea. 3/4" heavy spring loaded cadmium plated adjustment screws with a minimum of 6" adjustments shall be provided to maintain proper conveyor adjustment.
- A replaceable stainless steel conveyor chain shield shall be bolted on over the chain.
- Bridge over conveyor shall be supplied if necessary to assure conveyor operation in all valve settings.
- Chain shall be open pintle type rated at a minimum average ultimate strength of 30,900 lbs. per side with cross bar flights made of 3/8" X 1-1/4" steel located on not greater than 4-1/2" centers.
- Pintle chain to weigh 2.56 lbs per foot, thickness of link to be 0.2000. (Drives Brand model D667KC is indicative of the size pintle chain required).
- Vendor to provide specification documentation for chain supplied before or upon delivery.
- Conveyor shall operate on a bolt on replaceable 3/16" wear plate made of 304 stainless steel which will rest on a minimum 1-1/2" X 1-1/2" X 3/16" stainless steel angle iron running longitudinally along both sides and not on individual cross members to reduce the potential for high and low wear surfaces of the floor.

CONVEYOR DRIVE:

- Durst A1126S worm gear speed reducer shall have a speed reduction of 25:1 with thru-drive capability for feedback sensor.
- No other drive types are acceptable.
- Worm gear shall be a hardened and polished gear, running/bathed in oil and driving an aluminum-bronze worm wheel.
- All pipe plugs in cover and case housing to be hex or square head brass or bronze.
- Gear box cover to have drain plug at six (6) o'clock position.
- Relief style vent to be located on top of case housing.
- Speed reducer shall be mounted on the left (driver's) side of the hopper.
- Hydraulic motor used for 25:1 conveyor drive shall be a Char-Lynn Model "S", number 103-3398-012 with a 60 pulse sensor and a M12 style connector and shall include a Compu-spread right angle adapter cable with power indicator, part number 124213.

DISTRIBUTOR:

- The spinner disc shall be 7 gauge stainless steel, 18" diameter with six (6) each straight replaceable stainless steel vanes.
- Material shall be guided from conveyor end to center of distributor disc by an enclosed minimum 8" X 18" rectangular stainless steel flip up (hinged) chute that shall provide means of changing direction of spread pattern.
- The spinner shall be driven by a Char-Lynn Model "H" hydraulic motor, #101-1001-009.
- Spinner shaft shall be supported by two sealed, lifetime lubricated bearings or spinner shall be attached to the hydraulic motor.

11 CUBIC YARD 304 STAINLESS STEEL SPREADER (con't)

- Distributor shall be capable of placing a windrow of material behind and to the outside of the rear wheels on the driver's side and shall consist of a stainless steel chute that attaches to distributor at a minimum 50 degree angle and intercepts material before it hits spinner, delivering material in a windrow.
- Spinner height shall be adjustable to 15" 18" and 21" above the ground when unit is mounted in a body with a loaded floor height of 56".
- A minimum of three adjustable stainless steel baffles shall be provided to control spread width and direction.

HYDRAULIC SYSTEM:

- Hydraulic power shall be provided from existing pump.
- All hydraulic supply and return piping shall be rigid stainless steel.
- Piping to be located on left (drivers) side of hopper, installed through drilled/punched holes that are 3" in from the outside edge of the six (6) vertical gussets.
- Pipes to be separated at least 3" O/C from each other and tack welded to all gussets.
- Return oil piping shall be 1-1/4" nominal I.D. and shall be installed 24" up from bottom of skids and be fitted with a "T" at the rear of the sander.
- Return hose from the conveyor gear box to the "T" shall be an Aeroquip FC-510-12 series installed.
- Return hose from the spinner motor to the "T" shall be an Aeroquip FC-510-8 series uninstalled.
- Supply piping for conveyor shall be 3/4" nominal I.D. and installed 27" up from bottom of the skids with an Aeroquip FC510-12 series high pressure hose to conveyor motor installed.
- Supply piping for spinner shall be 1/2" nominal I.D. and be installed 30" up from bottom of the skids with an Aeroquip FC510-8 series high pressure hose line to the spinner motor.
- Aeroquip swivel type connectors shall be used to connect all hydraulic components.
- All pipes to be the same length and staggered four (4) inches at front and rear. 1-1/4" return oil pipe with 90' elbow in place and is not to extend beyond the front of the sander. (for example: if the 1-1/4" pipe is 4" from the front of the sander then the 3/4" pipe would be 8" from the front of sander and the 1/2" pipe would be 12" from the front of the sander).
- All piping shall be cleaned, and shall terminate in National Pipe Thread with stainless steel 90 degree street elbow fittings pointing upward (parallel to sloping sides) at front and downward at rear with pipe threaded caps to protect threads.
- Each gusset on the left side will have an additional 1" hole in the area of the 1/2" stainless steel pipe to facilitate running a feedback sensor wiring harness.

EQUIPMENT:

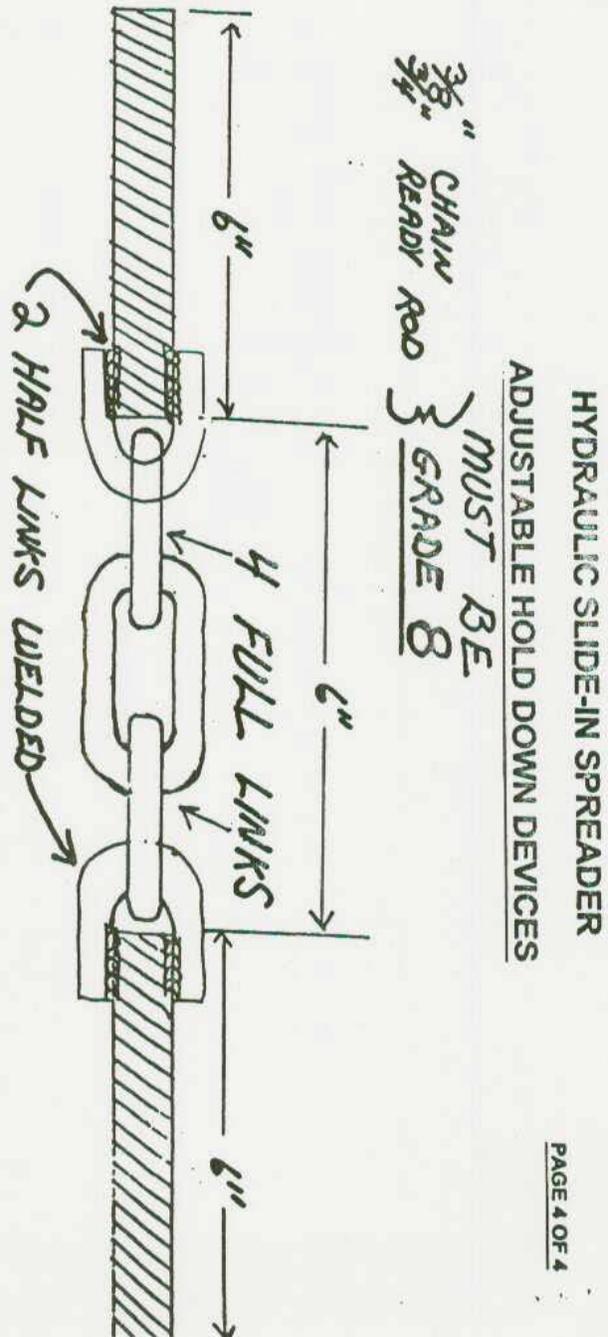
- Furnish all manufacturers standard equipment not in conflict with these specifications.
- All equipment furnished must comply with applicable State of New Hampshire and Federal laws.
- An instruction and parts manual shall be furnished with each spreader.
- MSDS's: Manufacturer shall supply two (2) complete sets of Material Safety Data Sheets for all construction materials used in the construction of all equipment furnished before or upon delivery.

PAINT:None

- NOTE: The following brands of spreaders, when built to the above specification, are the only ones acceptable: Bonnell, Warren, Frink, Flink, Henderson, Hi-Way, Swenson Tarco and Tarrant.

see "other manufactured makes and models "in the specification compliance

11 CUBIC YARD 304 STAINLESS STEEL SPREADER



SPECIFICATION

Variable Flow, Liquid Pre-Wet System Installed on spreader to include Twin

75-Gallon "Liquid Capacity" tanks that will be controlled by the Trucks Existing Bosch-Rexroth CS550 Salt/Sand Controller

Reservoir Tanks

- Two (2) each 75 gallon liquid capacity reservoir tanks and be designed to fit in the triangular space on the side of a slide in V-box salt/sand material spreader and not protrude past a point that would interfere with mounting in a dump body.
- The tank shall be rotationally molded from linear polyethylene resins, be treated with long term ultraviolet radiation stabilizer and be molded with heavy duty bottom and side walls to resist abrasion.
- Two (2) ea. 6" fill caps to be supplied with gaskets.
- Tanks to be constructed of minimum ¼" material throughout and corners to be minimum 1/2" to ¾" radius.
- Supply ports to be minimum ½" and must not be spin welded.
- Suction ports to be 1-1/2" molded in brass insert.
- Each tank shall be equipped with a ¼-turn PVC ball valve to isolate the liquid in the tank.
- Each tank shall be equipped with a pressure and vacuum vent.
- Each tank shall contain built-in internal baffles.
- Each tank to provide a molded in product level indicator on each end with a minimum of six (6) ea. graduated markings.
- To assure efficient mounting in the triangular space between the spreader sides and the dump body, the tanks shall not exceed the following dimensions: Base width of 15" +/-1", top width of 5", vertical height minimum 20" and shall not to exceed 24" not including filler and cap, and an overall length of not greater than 84".
- Tanks to be cleaned and free of any contaminants or debris.

Tank Mounting Brackets

- For each tank there shall be two (2) each ¼" x 3" # 304 stainless steel "L" shaped mounting brackets. The mounting brackets shall be designed to securely connect to the "V" shaped salt spreader side and to the conveyor housing of the spreader.
- The tanks shall be secured by two 3" nylon tension adjustable straps OR two (2) each 3" stainless steel straps that connect to the "L" brackets.
- All nuts, bolts and washers or additional materials used to attach the mounting bracket and straps shall be stainless steel.
- A 1-1/2" thick pressure treated base shall be bolted to the "L" brackets to support the weight of the tanks when full when the spreader is removed from the dump body.

Spray Bar, Fittings and Hoses

- A 3 nozzle sequential spray bar assembly shall be constructed of brass.
- The spray bar mounting bracket shall be constructed of #304 stainless steel and located on the adjustable gate of the salt spreader (Height to be determined).
- All hoses shall be flexible PVC reinforced with nylon filaments.
- Barb type fittings for calcium/brine connections to hoses with stainless steel, screw type, combination hex & phillips head hose clamps.
- A corrosion resistant check valve shall be provided to prevent siphoning of the melting agents from the tanks through the spray bar.
- Spray system to be constructed and installed to allow the individual control of draining the tank(s) when pumping remaining product back to a facilities main storage tank and shall include a quick coupler assembly as a termination point.
- State to provide hose from coupler to facility storage tank.
- Spray system to be constructed and installed to provide a means for flushing the pump and spray system with water, RTV anti-freeze or a corrosion resistant product to protect the system internally for summer storage.

Filter

- A corrosion resistant, in-line, replaceable element filter shall be provided to protect the system from particles that may cause damage to the pump or clog the spray nozzles. The filter shall be located outside and near the protective pump enclosure in a position to allow easy access.

Pump

- Gear pump style pre-wetting power unit manufactured by BOSCH REXROTH (Part number Ver. 17.2(# 311789 / R 987377133). Pump will be an inverted bronze gear style pump with a built in relief valve that will utilize variable return oil to provide closed loop pre-wetting of road salt.
- Assembly shall include a built-in internal proportional valve and flow meter for feedback loop to controller.
- This unit to be controlled by the trucks existing BOSCH REXROTH CS550 in-cab controller.

Protective Enclosure for Pump and Circuitry

- The pump, electrical components and wiring connections (C4 & M12 connectors) shall be enclosed in a stainless steel enclosure for this equipment.
- All penetrations of the protective enclosure for wiring or hoses shall be equipped with water proof, compression type bulkhead fittings.
- A mounting bracket constructed of #304 stainless steel shall be provided to mount the enclosure to the spreader. (The mounting assembly shall include a stainless steel backing plate to reinforce the back of the protective enclosure and receive mounting hardware for connection of the product pump.
- The dimensions of the enclosure shall be approximately 12" x 10" x 4-1/2". The minimum wall thickness of the enclosure shall be 3/16". The enclosure shall have a hinged door with a water proof gasket to provide easy access to the pump and related components.)
- The entire assembly shall be designed to be easily removed and replaced, if required, during snow removal operations.

Wiring Harness

- The pre-wet wiring harness shall be factory made without splicing and contain C4 and M12 connectors that are ready to connect directly to a trucks' BOSCH REXROTH CS550 salt/sand controller system.
- An additional extender cable shall be required to allow a means of connect/disconnect behind the truck cab.

Miscellaneous

- An operator, installation and parts manual shall be included with each unit.

Warranty

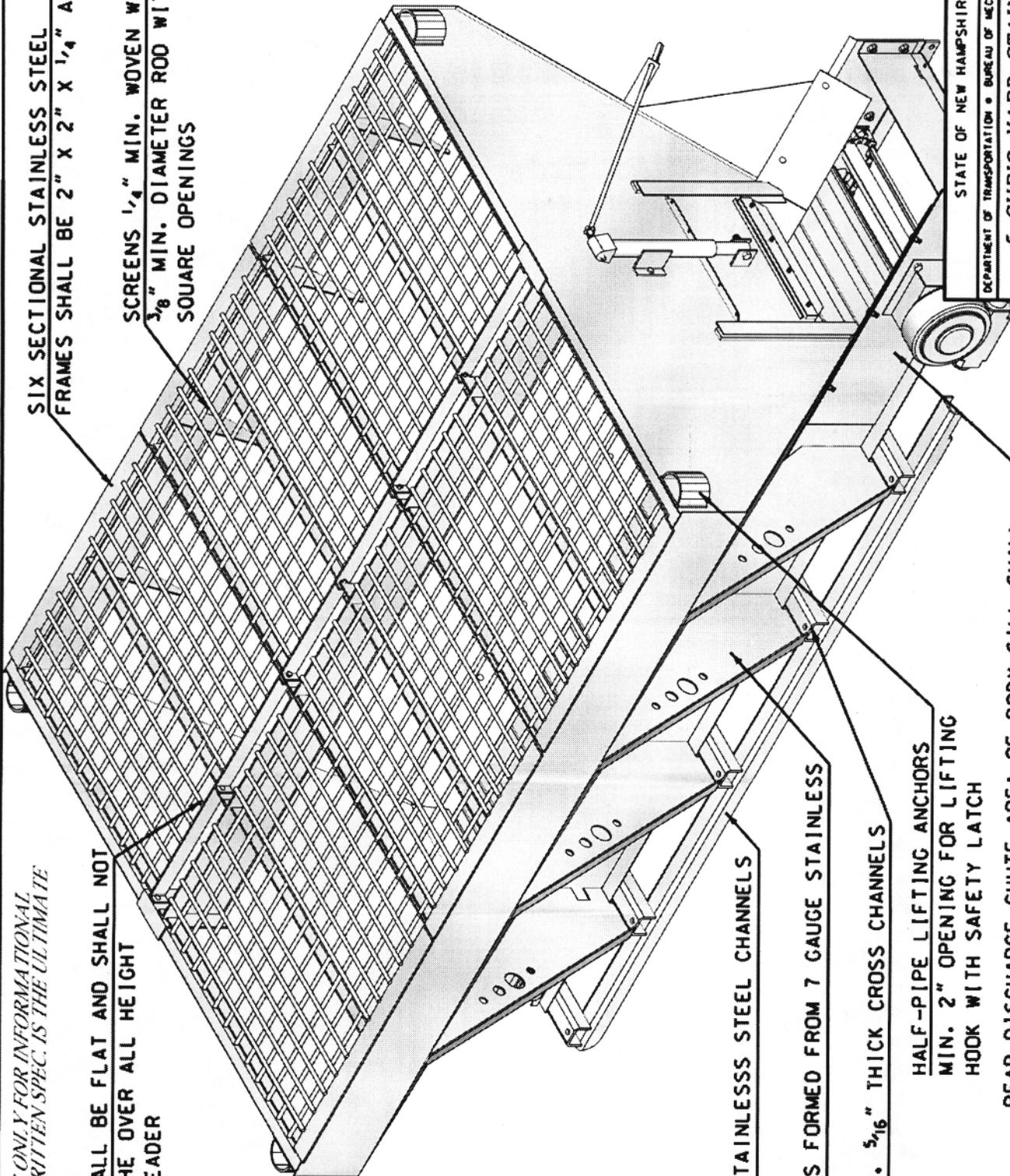
- The tanks shall be fully warranted for a period of two years from date of delivery.
- The pump shall be fully warranted for a period of one year from date of delivery.
- All other components shall be fully warranted for 90 days from date of delivery.

SPEC. PLAN IS ONLY FOR INFORMATIONAL PURPOSES. WRITTEN SPEC. IS THE ULTIMATE AUTHORITY.

SCREENS SHALL BE FLAT AND SHALL NOT INCREASE THE OVER ALL HEIGHT OF THE SPREADER

SIX SECTIONAL STAINLESS STEEL FRAMES SHALL BE 2" X 2" X 1/4" ANGLE

SCREENS 1/4" MIN. WOVEN WIRE OR 3/8" MIN. DIAMETER ROD WITH 2 1/2" SQUARE OPENINGS



104" LONG STAINLESS STEEL CHANNELS

FOUR GUSSETS FORMED FROM 7 GAUGE STAINLESS

5 3"W x 2"D. 5/16" THICK CROSS CHANNELS

HALF-PIPE LIFTING ANCHORS
MIN. 2" OPENING FOR LIFTING
HOOK WITH SAFETY LATCH

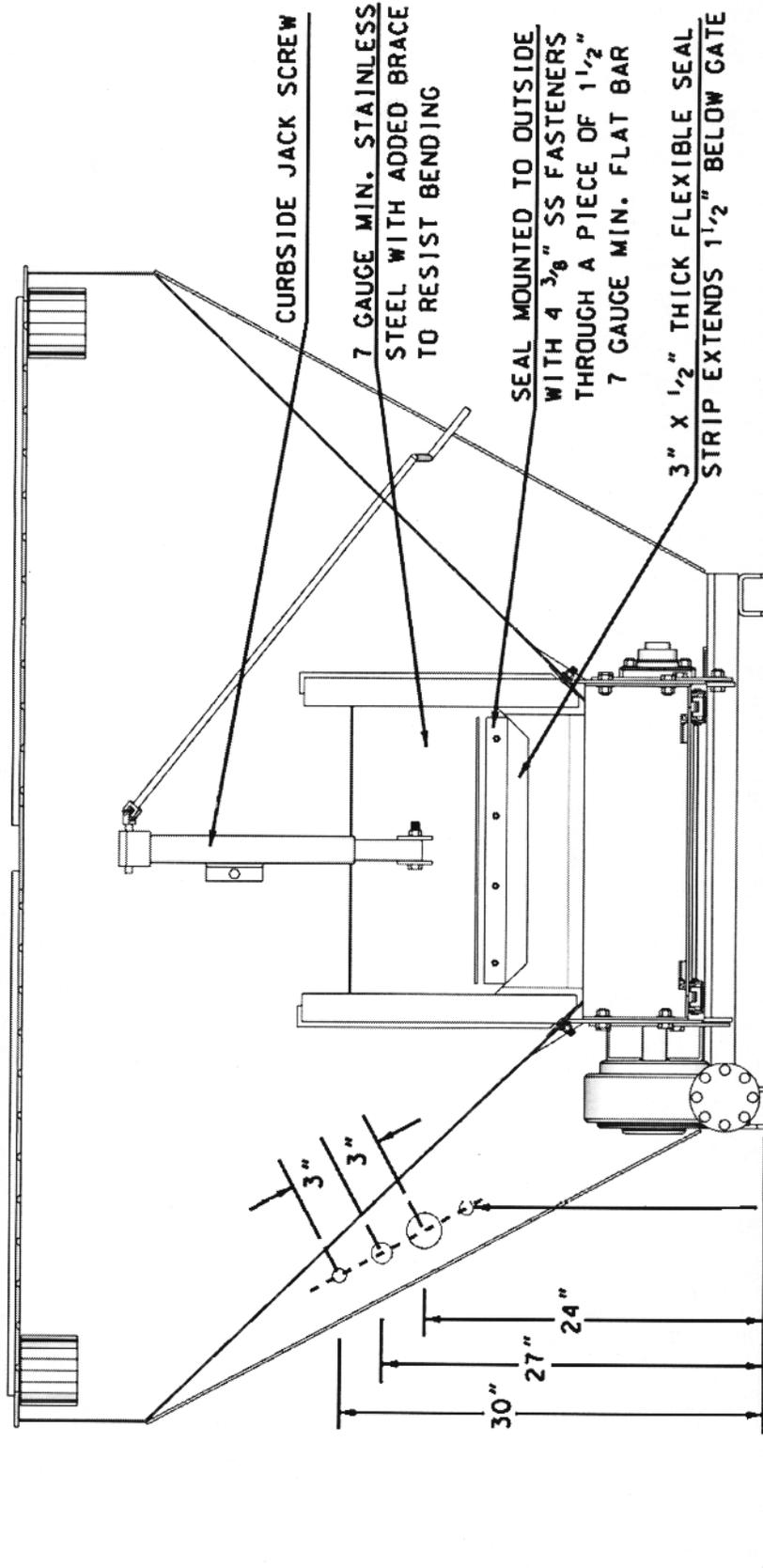
REAR DISCHARGE CHUTE AREA OF BODY SILL SHALL BE DOUBLE THICKNESS STAINLESS, FISH PLATED, AND FULLY WELDED A MIN. OF 36" FROM END OF SILL.

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES

5 CUBIC YARD STAINLESS
STEEL SPREADER

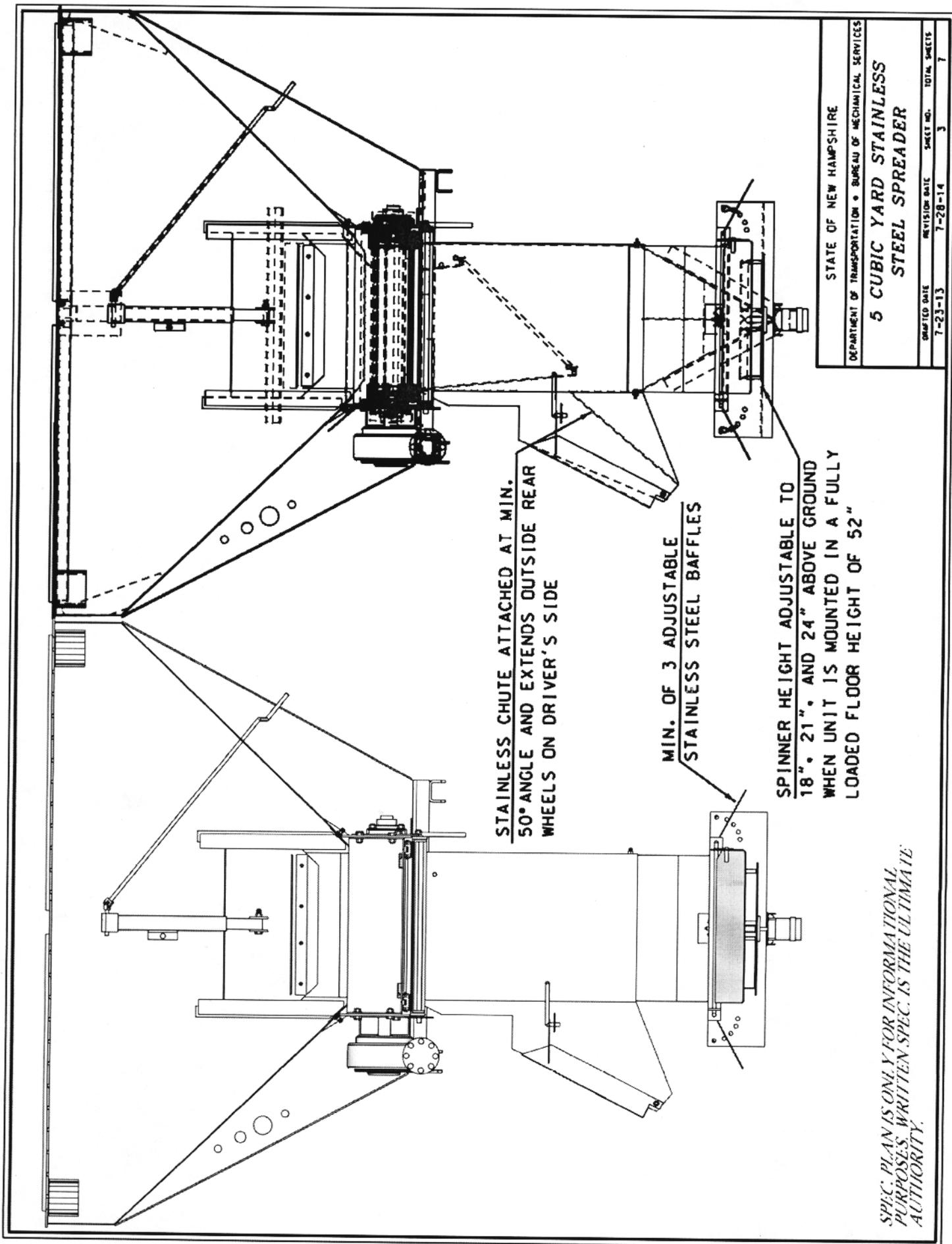
DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
7-23-13	7-28-14	1	7



1" HOLE FOR FEEDBACK
 SENSOR WIRING HARNESS

SPEC. PLAN IS ONLY FOR INFORMATIONAL
 PURPOSES. WRITTEN SPEC. IS THE ULTIMATE
 AUTHORITY.

STATE OF NEW HAMPSHIRE	
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES	
5 CUBIC YARD STAINLESS STEEL SPREADER	
DRAWN DATE	7-23-13
REVISION DATE	7-28-14
SHEET NO.	2
TOTAL SHEETS	7



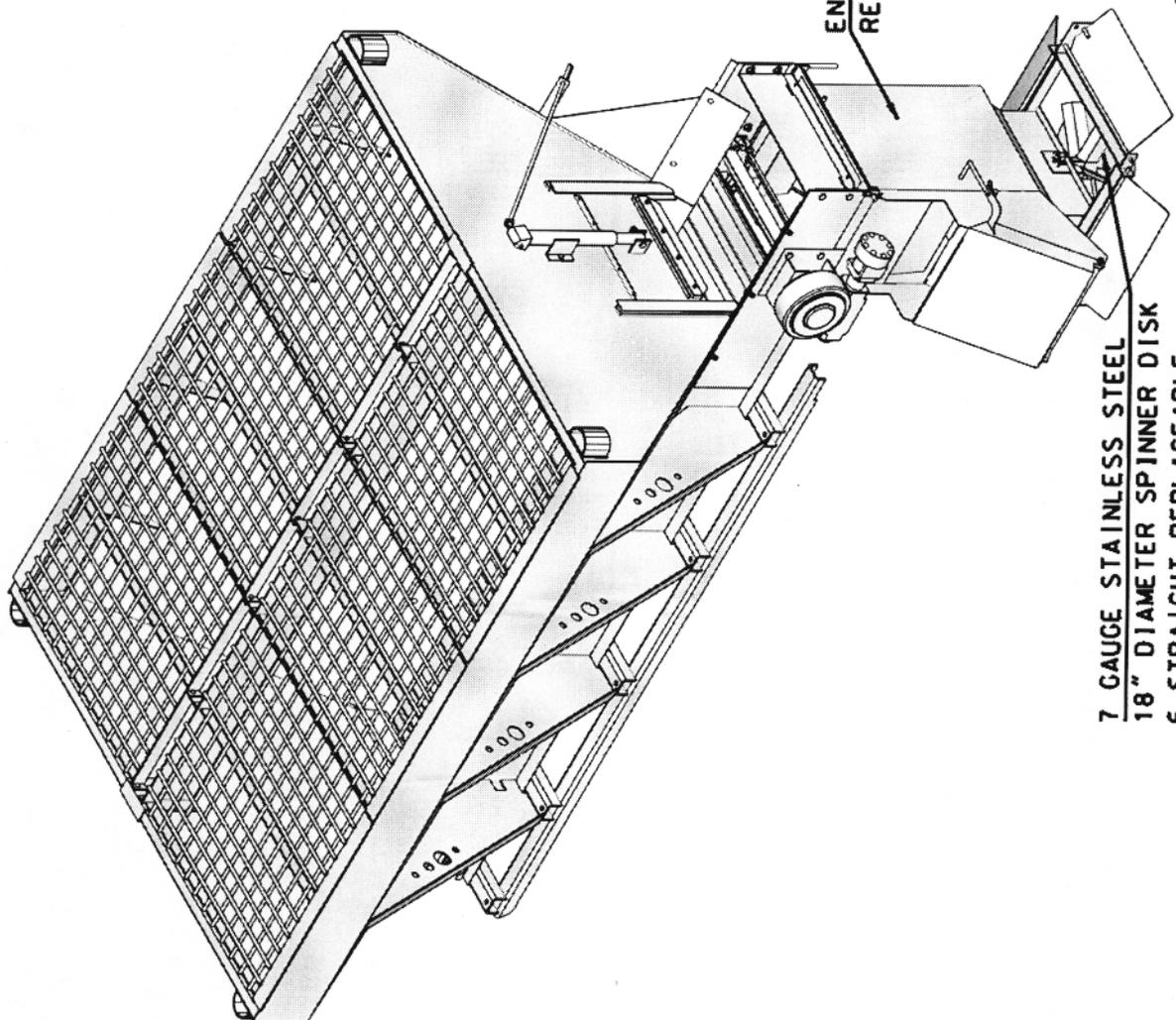
STAINLESS CHUTE ATTACHED AT MIN.
50° ANGLE AND EXTENDS OUTSIDE REAR
WHEELS ON DRIVER'S SIDE

MIN. OF 3 ADJUSTABLE
STAINLESS STEEL BAFFLES

SPINNER HEIGHT ADJUSTABLE TO
18", 21", AND 24" ABOVE GROUND
WHEN UNIT IS MOUNTED IN A FULLY
LOADED FLOOR HEIGHT OF 52"

*SPEC. PLAN IS ONLY FOR INFORMATIONAL
PURPOSES. WRITTEN SPEC. IS THE ULTIMATE
AUTHORITY.*

STATE OF NEW HAMPSHIRE	
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES	
5 CUBIC YARD STAINLESS STEEL SPREADER	
DRAWN DATE	TOTAL SHEETS
7-23-13	7
REVISION DATE	SHEET NO.
7-28-14	3

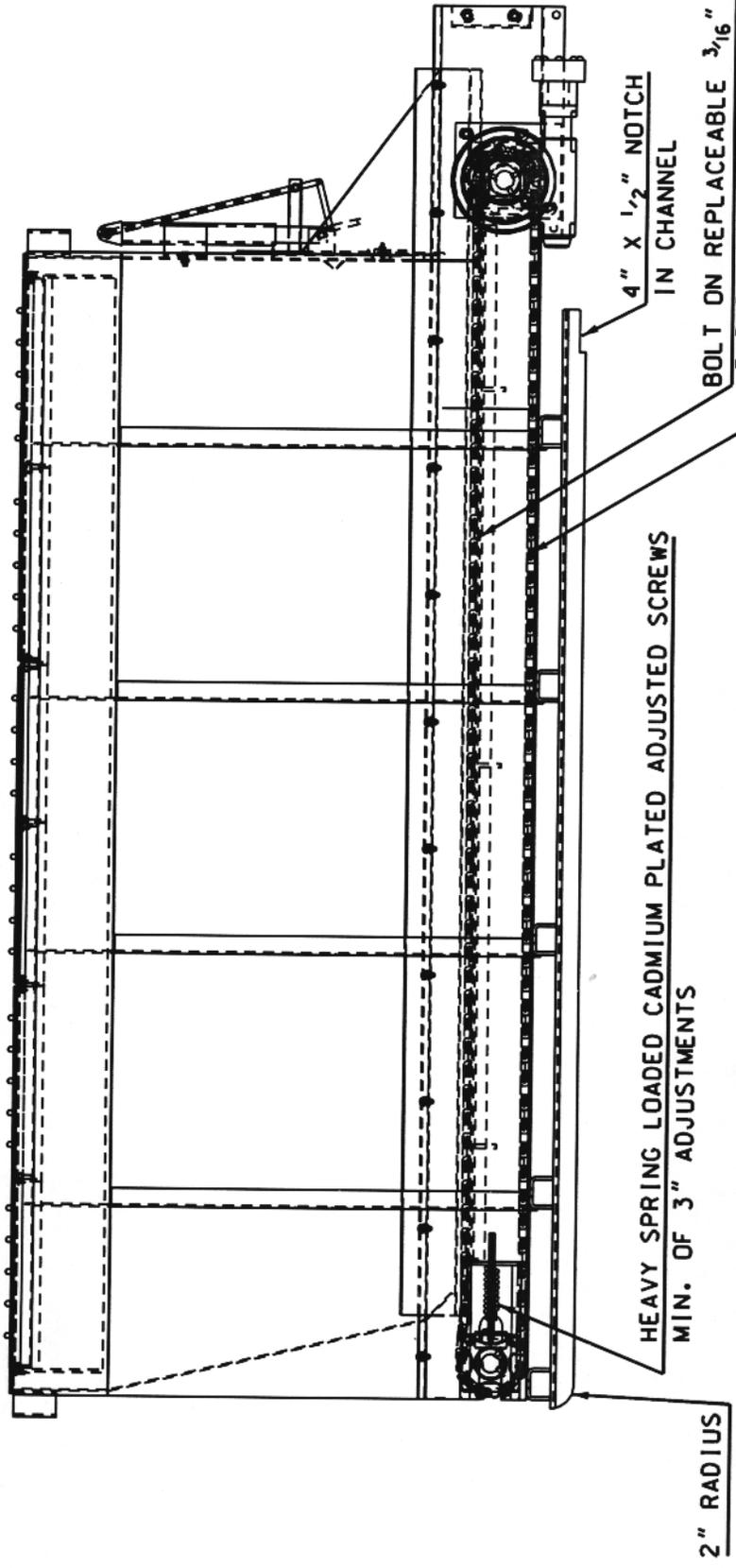


ENCLOSED MINIMUM 8" X 18"
RECTANGULAR STAINLESS CHUTE

7 GAUGE STAINLESS STEEL
18" DIAMETER SPINNER DISK
6 STRAIGHT REPLACEABLE
STAINLESS STEEL VANES

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STATE OF NEW HAMPSHIRE	
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES	
5 CUBIC YARD STAINLESS STEEL SPREADER	
DRAWN DATE 7-23-13	REVISION DATE 7-28-14
SHEET NO. 4	TOTAL SHEETS 7



4" X 1/2" NOTCH
IN CHANNEL

BOLT ON REPLACEABLE 3/16"
WEAR PLATE MADE OF 304 STAINLESS
(SEE PAGE 7)

HEAVY SPRING LOADED CADMIUM PLATED ADJUSTED SCREWS
MIN. OF 3" ADJUSTMENTS

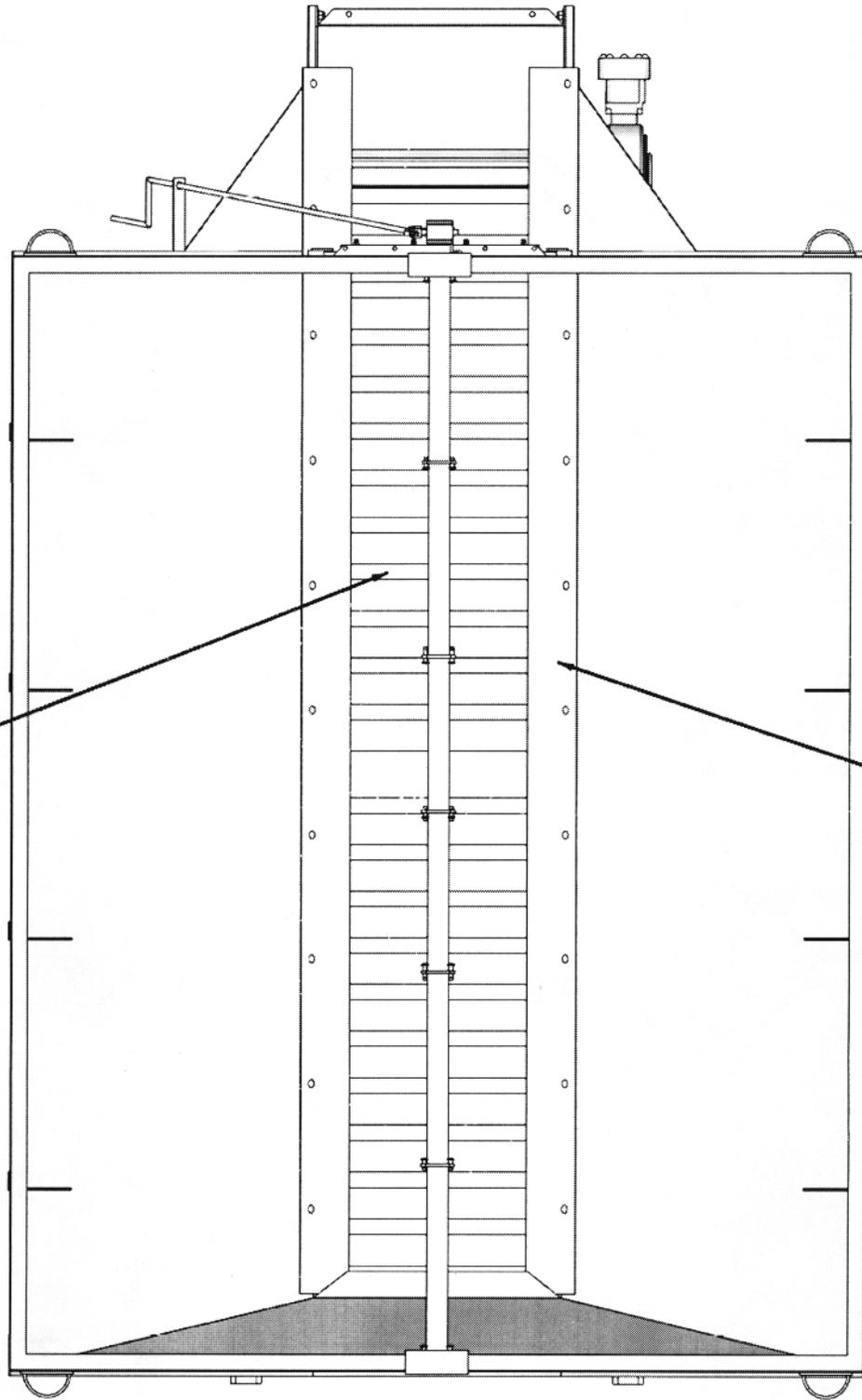
OPEN PINTLE TYPE CHAIN WITH MIN. ULTIMATE
STRENGTH OF 30,900 LBS.
2.56 LBS/FT WITH LINK THICKNESS OF 0.2000

2" RADIUS

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STATE OF NEW HAMPSHIRE	
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES	
5 CUBIC YARD STAINLESS STEEL SPREADER	
DRAFTED DATE 7-2-13	REVISION DATE 7-28-14
SHEET NO. 5	TOTAL SHEETS 7

CHAIN CROSS BAR FLIGHTS OF $\frac{3}{8}$ " X $1\frac{1}{4}$ "
LOCATED ON NOT GREATER THAN $4\frac{1}{2}$ " CENTERS



REPLACEABLE STAINLESS CONVEYOR CHAIN
SHIELD SHALL BE BOLTED ON OVER CHAIN

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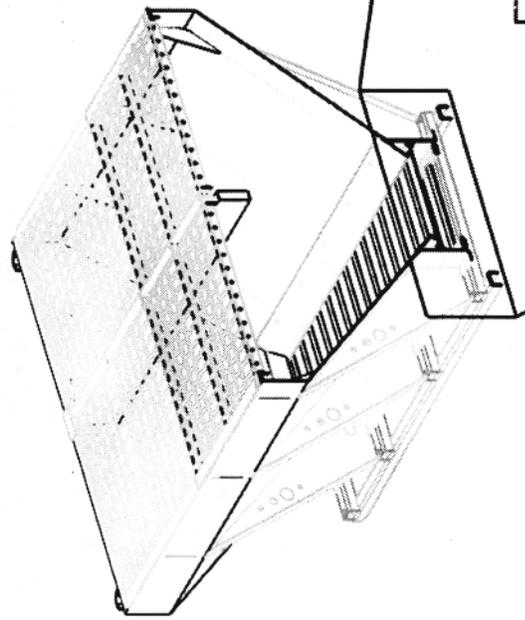
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES

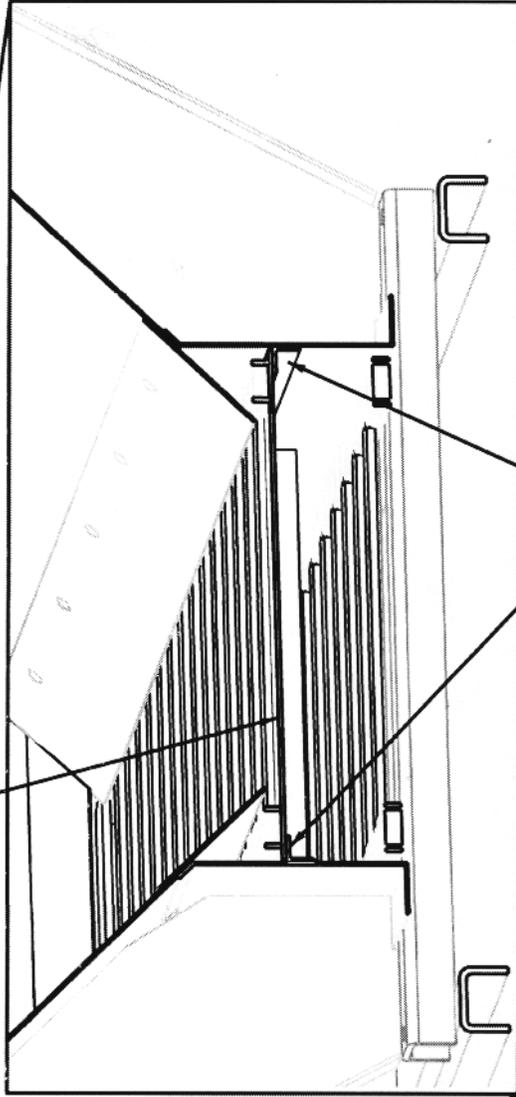
5 CUBIC YARD STAINLESS
STEEL SPREADER

DRAWN DATE 7-23-13 REVISION DATE 7-28-14 SHEET NO. 6 TOTAL SHEETS 7

SPEC. PLAN IS ONLY FOR INFORMATIONAL PURPOSES. WRITTEN SPEC. IS THE ULTIMATE AUTHORITY.



CONVEYOR SHALL OPERATE ON A BOLT ON REPLACEABLE $\frac{3}{16}$ " WEAR PLATE MADE OF 304 STAINLESS STEEL



WEAR PLATE WILL REST ON MINIMUM $1\frac{1}{2}$ " X $1\frac{1}{2}$ " X $\frac{3}{16}$ " SS ANGLE IRON RUNNING LONGITUDINALLY ALONG BOTH SIDES

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES

5 CUBIC YARD STAINLESS STEEL SPREADER

DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
7-23-13	7-28-14	7	7

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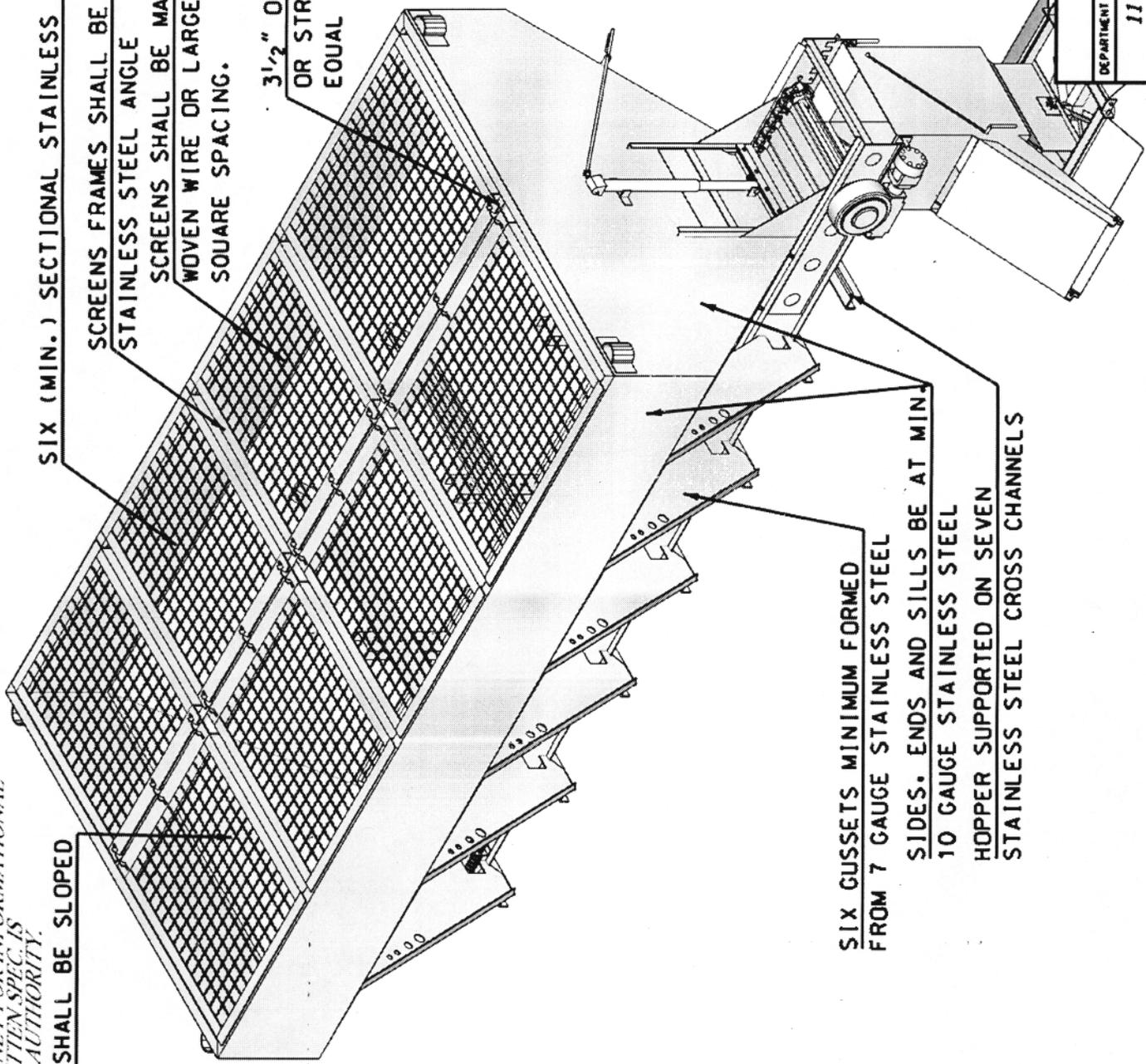
FRONT WALL SHALL BE SLOPED

SIX (MIN.) SECTIONAL STAINLESS STEEL SCREENS

SCREENS FRAMES SHALL BE 2" X 2" X 1/4" STAINLESS STEEL ANGLE

SCREENS SHALL BE MADE FROM 1/4" DIAMETER WOVEN WIRE OR LARGER WITH 2 1/2" MAX. SQUARE SPACING.

3 1/2" O.D. HEAVY DUTY PIPE OR STRUCTURAL MEMBER WITH EQUAL RESISTANCE TO BENDING



SIX GUSSETS MINIMUM FORMED FROM 7 GAUGE STAINLESS STEEL

SIDES. ENDS AND SILLS BE AT MIN. 10 GAUGE STAINLESS STEEL HOPPER SUPPORTED ON SEVEN STAINLESS STEEL CROSS CHANNELS

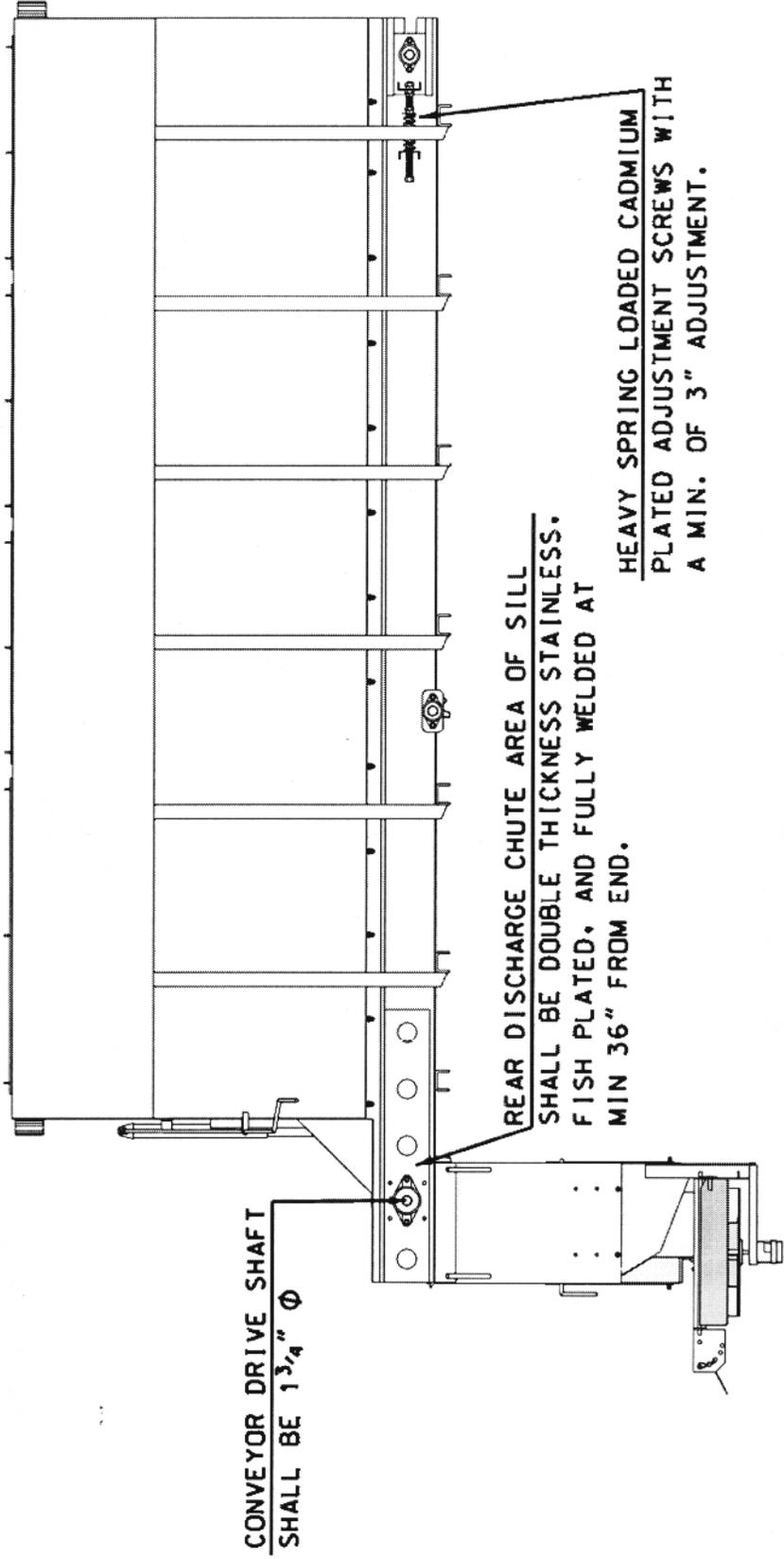
STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES

11 CUBIC YARD STAINLESS STEEL SPREADER

DRAFTED DATE 10-15-13 REVISION DATE 7-28-14 SHEET NO. 1 TOTAL SHEETS 6

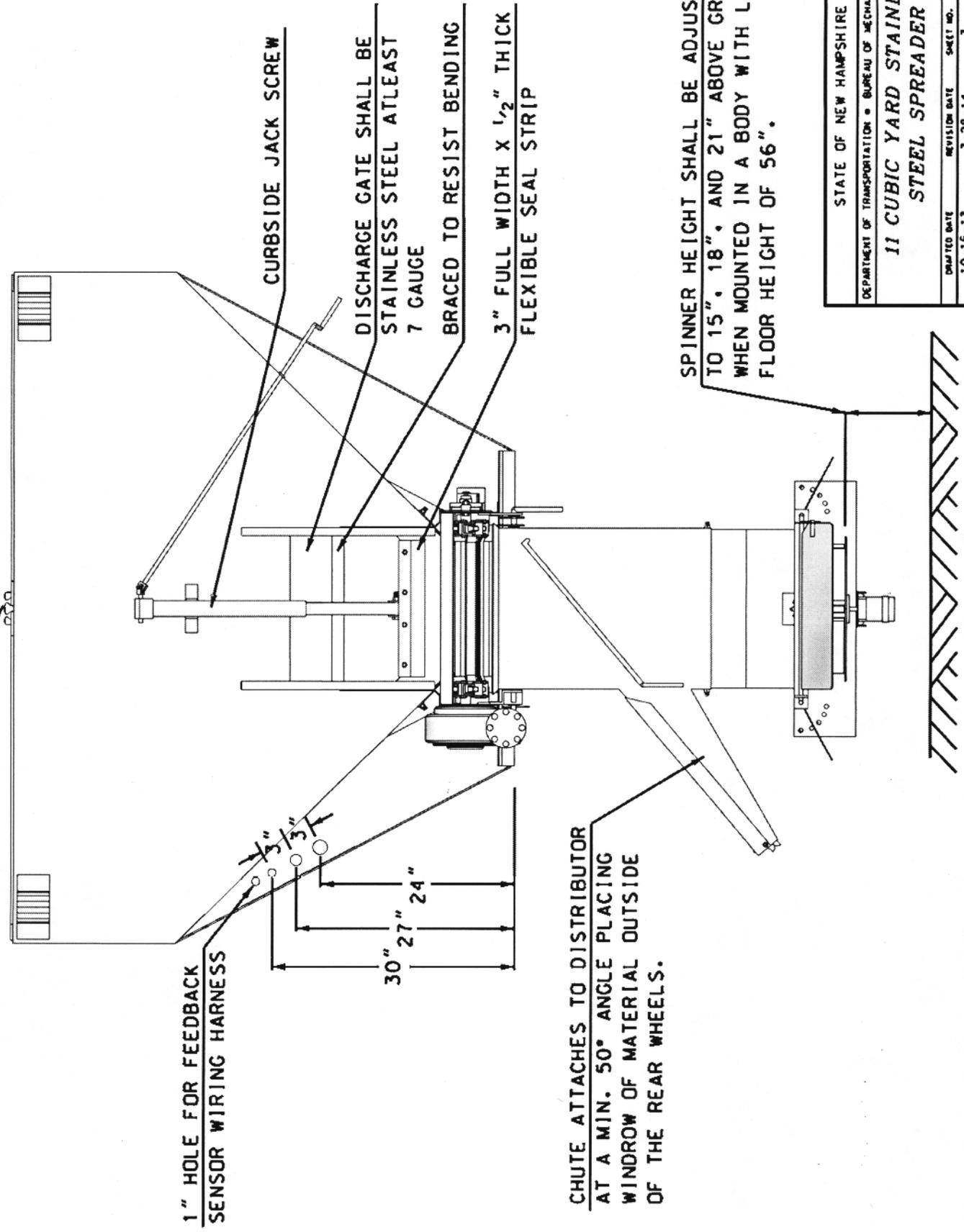
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STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES			
11 CUBIC YARD STAINLESS STEEL SPREADER			
DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
10-15-13	7-28-14	2	6

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SCREENS SHALL BE FLAT AND SHALL NOT INCREASE THE OVERALL HEIGHT OF THE SPREADER



1" HOLE FOR FEEDBACK SENSOR WIRING HARNESS

CURBSIDE JACK SCREW

DISCHARGE GATE SHALL BE STAINLESS STEEL ATLEAST 7 GAUGE

BRACED TO RESIST BENDING

3" FULL WIDTH X 1/2" THICK FLEXIBLE SEAL STRIP

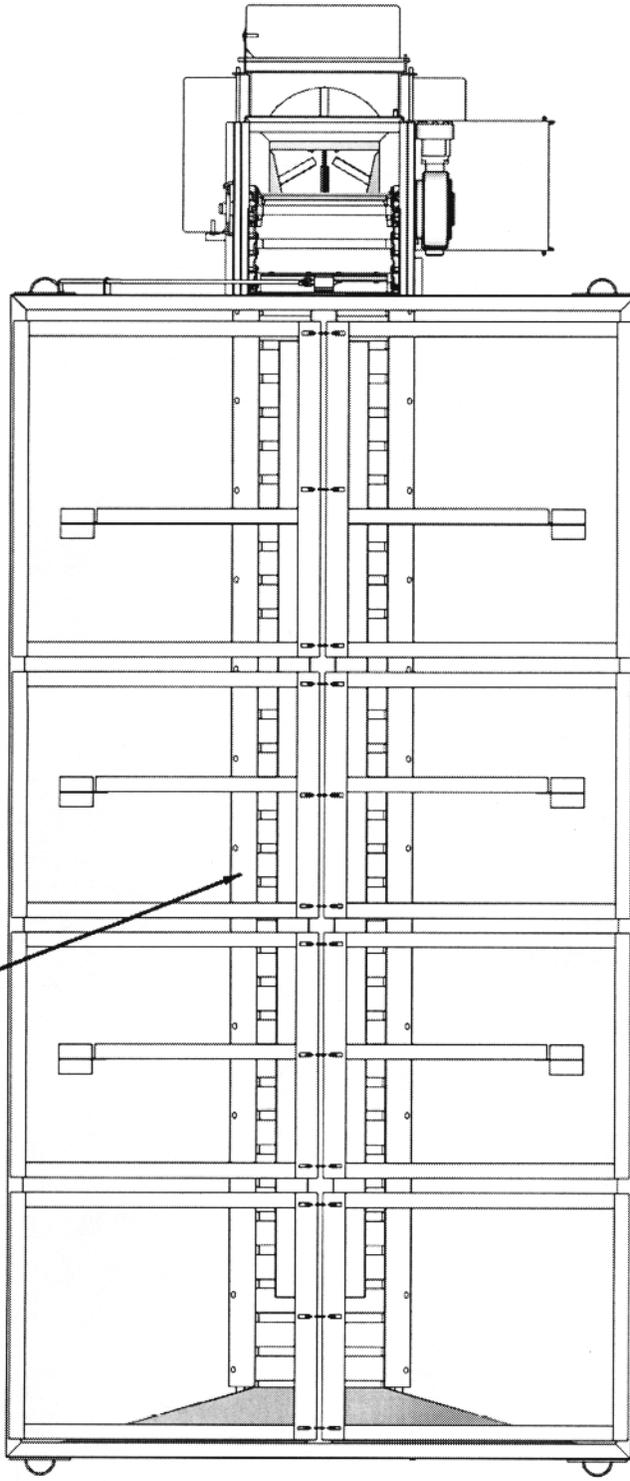
CHUTE ATTACHES TO DISTRIBUTOR AT A MIN. 50° ANGLE PLACING WINDROW OF MATERIAL OUTSIDE OF THE REAR WHEELS.

SPINNER HEIGHT SHALL BE ADJUSTABLE TO 15", 18", AND 21" ABOVE GROUND WHEN MOUNTED IN A BODY WITH LOADED FLOOR HEIGHT OF 56".

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES			
11 CUBIC YARD STAINLESS STEEL SPREADER			
DRAFTED DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
10-15-13	7-28-14	3	6

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REPLACEABLE STAINLESS CONVEYOR CHAIN SHIELD SHALL BE BOLTED ON OVER THE CHAIN



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES			
11 CUBIC YARD STAINLESS STEEL SPREADER			
DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
10-15-13	7-28-14	4	6

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LIFTING HOOK ALLOWING A 2" MIN. OPENING FOR LIFTING HOOK WITH SAFETY LATCH. FRONT AND BACK

CHAIN SHALL BE OPEN PINTLE TYPE WITH MIN. AVG. ULTIMATE STRENGTH OF 30,900 LBS

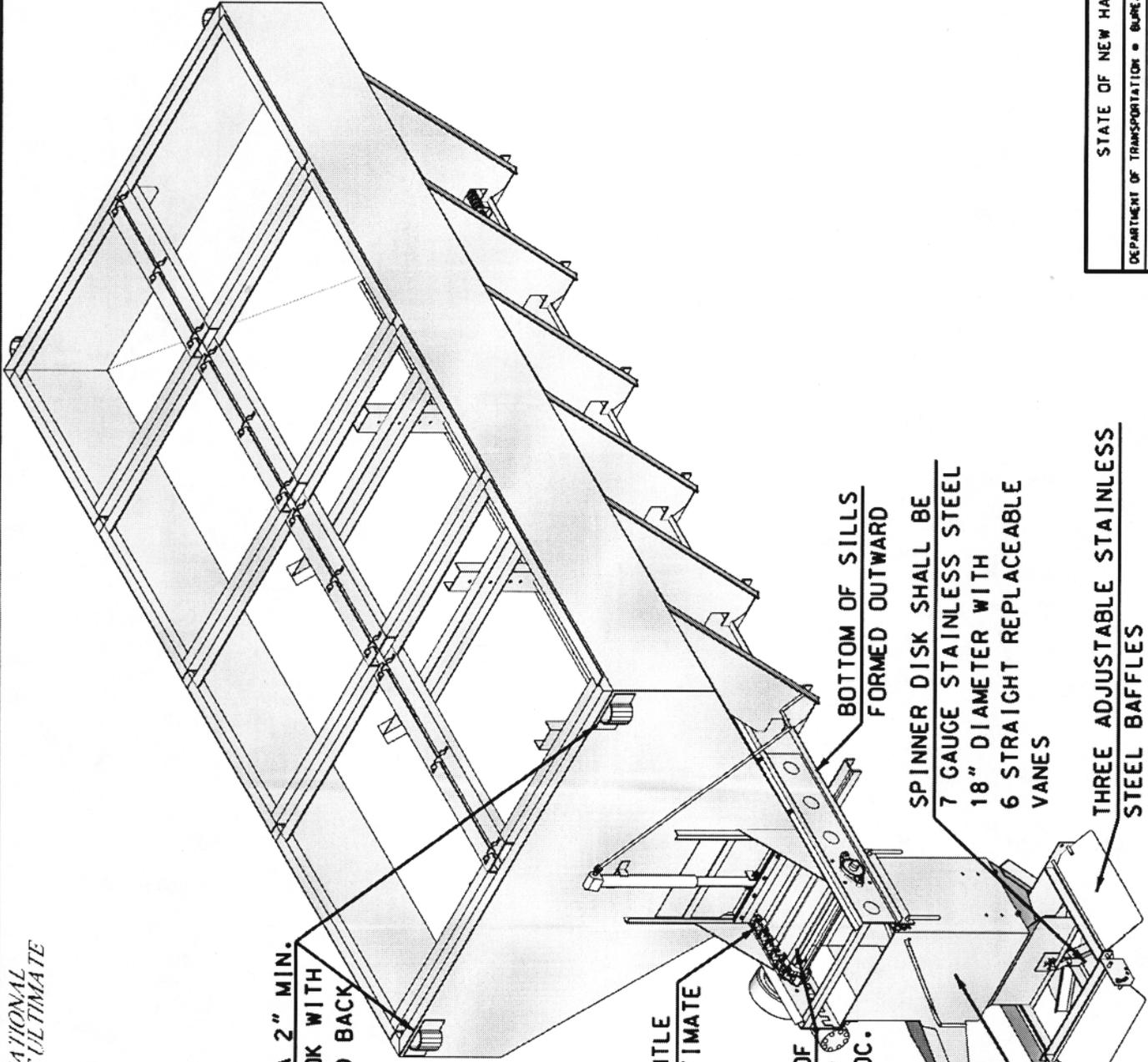
CROSS BAR FLIGHTS MADE OF $\frac{3}{8}$ " X $1\frac{1}{4}$ " STEEL. SPACED NO GREATER THAN 4 $\frac{1}{2}$ " OC.

ENCLOSED MINIMUM 8"X18" RECTANGULAR STAINLESS CHUTE

BOTTOM OF SILLS FORMED OUTWARD

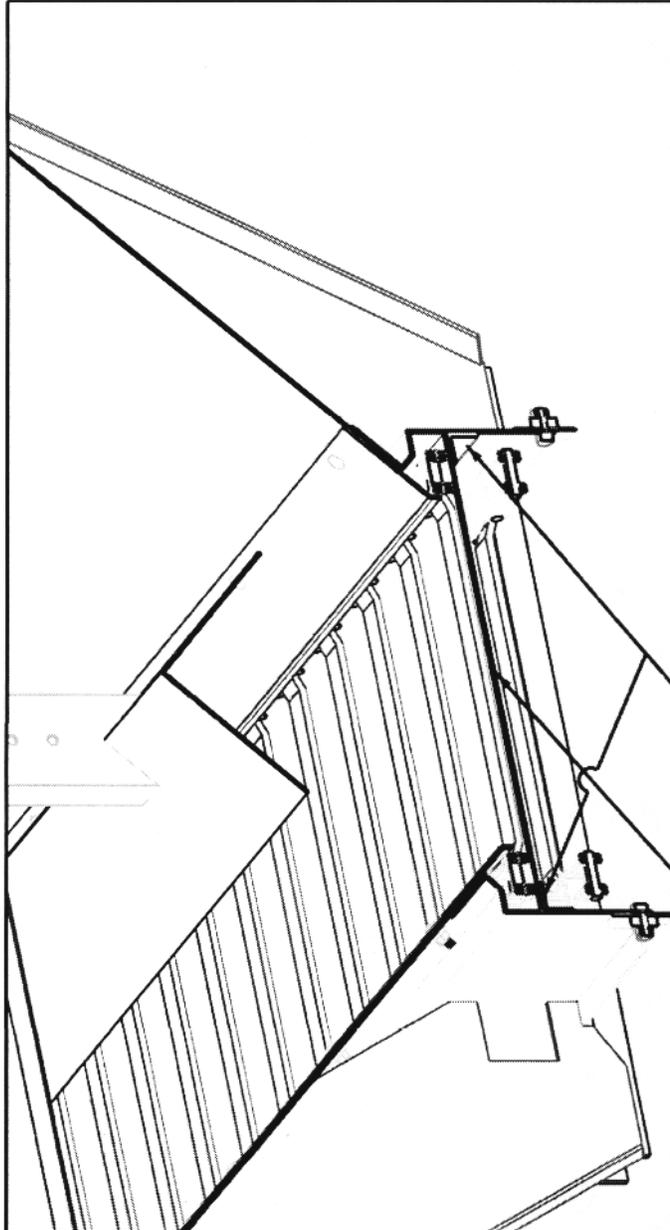
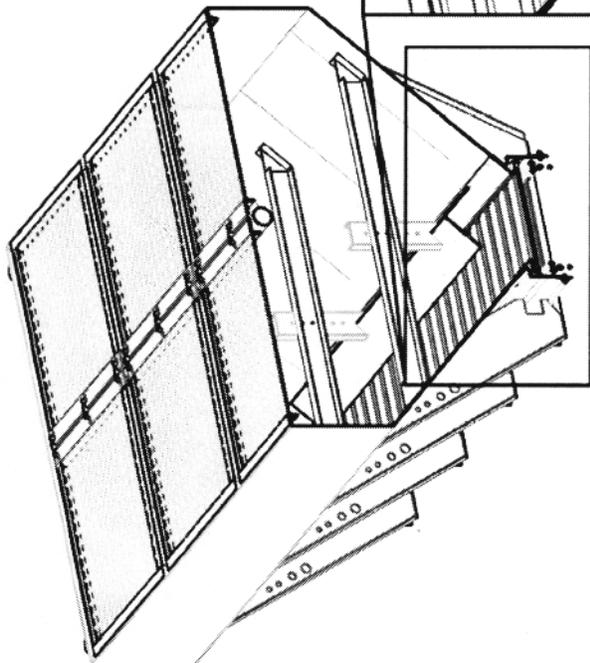
SPINNER DISK SHALL BE 7 GAUGE STAINLESS STEEL 18" DIAMETER WITH 6 STRAIGHT REPLACEABLE VANES

THREE ADJUSTABLE STAINLESS STEEL BAFFLES



STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES			
11 CUBIC YARD STAINLESS STEEL SPREADER			
DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
10-15-13	7-28-14	5	6

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CONVEYOR SHALL OPERATE ON A BOLT ON REPLACEABLE $\frac{3}{16}$ " WEAR PLATE MADE OF 304 STAINLESS STEEL

WEAR PLATE WILL REST ON MINIMUM $1\frac{1}{2}$ " X $1\frac{1}{2}$ " X $\frac{3}{16}$ " SS ANGLE IRON RUNNING LONGITUDINALLY ALONG BOTH SIDES

STATE OF NEW HAMPSHIRE			
DEPARTMENT OF TRANSPORTATION • BUREAU OF MECHANICAL SERVICES			
11 CUBIC YARD STAINLESS STEEL SPREADER			
DRAWN DATE	REVISION DATE	SHEET NO.	TOTAL SHEETS
10-15-13	7-28-14	6	6