



**THE DISTRICT OF SPARWOOD**

**TENDER NO. 07/15**

**TITLE:**

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**DISTRICT OF SPARWOOD PLOW TRUCK**

**-ONE (1) NEW PLOW TRUCK**

**-ONE (1) NEW SAND/SALT SPREADER BODY WITH PREWETTING AND  
LIQUID CAPABILITIES**

**DUE DATE:**

**THURSDAY JULY 23, 2015**

**TIME:**

**3:00 p.m.**

NAME OF TENDERER \_\_\_\_\_

ADDRESS \_\_\_\_\_

TELEPHONE \_\_\_\_\_ FAX \_\_\_\_\_

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| ONE (1) NEW PLOW TRUCK  |       |
| ONE (1) SAND/SALT SPREADER BODY WITH PREWETTING AND LIQUID CAPABILITIES |       |

TITLE: DISTRICT OF SPARWOOD PLOW TRUCK.

**INVITATION TO TENDER**

Sealed tenders, clearly marked "**Tender No. 07/15 - DISTRICT OF SPARWOOD PLOW TRUCK**" will be received by the District of Sparwood Main Office, 136 Spruce Avenue Sparwood B.C. V0B 2G0 up to 3:00 p.m., **Thursday July 23<sup>rd</sup>, 2015** and opened in public at 3:05 p.m. local time on that date in the District of Sparwood main office. The clock in the Main Office will be used for the official closing.

Tender documents may be picked up at the District of Sparwood Public Works Office, 477 Pine Avenue Sparwood B.C. V0B 2G0, or online at [www.sparwood.ca](http://www.sparwood.ca)

The lowest or any tender will not necessarily be accepted.

Melvin Bohmer, CTECH  
Director of Operations

**Notice of Awards**

Bidders will be notified in writing if and when an award has been made. No information will be given out between the time set for tender openings and the time an award has been made. If you wish tender information prior to an award, please attend the tender opening.

**Instructions to Bidders****1 Tender**

- 1.1 Tenders will only be considered when properly submitted on the official form of tender. All submissions are required to be in a sealed envelope identified as “**Tender No. 07/15 – DISTRICT OF SPARWOOD PLOW TRUCK**” and delivered to the District of Sparwood Main Office, 136 Spruce Avenue, Sparwood B.C. before 3:00p.m. local time, **Thursday July 23<sup>rd</sup>, 2015**. The clock at the District of Sparwood Main Office will be used for the official closing. Tenders received after the closing will be returned unopened.
- 1.2 Tenders will be opened publicly at the District of Sparwood Main Office at **3:05 p.m.** local time on **Thursday July 23<sup>rd</sup>, 2015**. Interested Bidders may be present if so desired. Opening will be in accordance to the District of Sparwood purchasing policy.
- 1.3 Faxed tender submissions will **not** be accepted. Tenders may be revised by letter or fax, provided that any revisions concerning financial consideration must state only the amount by which a figure is to be increased or decreased, and not any new revised totals. Revisions must be received prior to **2:45 p.m., Thursday July 23<sup>rd</sup>, 2015** to the District of Sparwood Main Office. Respondents assume **ALL** responsibilities for fax transmissions.
- 1.4 The lowest or any tender will not necessarily be accepted. The bids will be considered on their merits and it is not the intention of the district to buy on price alone. Award will be based on meeting or exceeding the specification, price, trade-in, warranty, local servicing, training and delivery time.

**2 Price**

- 2.1 The price quoted shall be in Canadian funds and shall include all packing, crating, freight, cartage, shipping charges, cost of unloading goods at destination, and all federal sales taxes, tariffs, excise taxes, duties and freight FOB Sparwood unless requested otherwise.
- 2.2 Prices shall include GST and PST shown as a separate item in the Tender.
- 2.3 Pricing shall be held firm for a period of **sixty** (60) days.

**3 Literature**

- 3.1 The Bidder must submit full literature with the tender response. Literature provided must be marked indicating the unit bid, including the item number and model number. The description and numbering of the item is to be carried forward to the specification sheet.

**4 Specifications**

- 4.1 The specifications for this equipment are minimum specifications. Any additions or variations from the minimum specifications must be noted. Any items appearing in the manufacturers published specifications must be outlined in an attached letter.
- 4.2 The specifications and completed tender form shall become part of any contract entered into between the District of Sparwood and the successful Bidder.

**5 Authorization**

- 5.1 The vendor must be fully authorized by the manufacturer to sell, service, and provide warranty support for the proposed equipment. The vendor must identify where servicing is to be provided. Down time of equipment is to be minimized, therefore a preference is made for local servicing.

**6 Signatures and Initials Required**

- 6.1 All tenders must be signed in the place provided on the final page by an officer or employee having authority to bind the Bidder by signature.

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- 6.2 The signature shall be witnessed and the witness shall give his address and telephone number.

**7 Delivery**

- 7.1 Shall mean the number of days from receipt of the purchase order to the guaranteed delivery date to the District of Sparwood.

7.2 **FOB Point**

The District of Sparwood Public Works Office, 477 Pine Avenue, Sparwood, B.C. V0B 2G0.

**8 Inspection**

- 8.1 The District of Sparwood reserves the right to refuse acceptance of any vehicle damaged prior to FOB delivery point.

**9 Acceptance and Rejection of Tenders**

- 9.1 Notwithstanding any custom in the trade, the owner reserves the full right to, in its sole discretion and according to its own judgment and best interest:
- a. Reject any and/or all tenders.
  - b. Waive any minor technical or formal defect in a tender and accept that Tender.
  - c. Award the contract to a tender other than the lowest bidder.
  - d. Accept any tender.
  - e. Reject any/or all irregularities in the tenders submitted.
  - f. Make decisions with due regard to quality of service, experience, compliance with requirements and any other such factors as may be necessary in the circumstances.

- g. Work with any Participant, whose tender, is in the best interest of the District.
- h. Without limiting the generality of the foregoing, disqualify or reject any tender which is incomplete, obscure, irregular, or has erasures or corrections in the form of tender in which prices are omitted or are unbalanced.
- i. To reject any bid that exceeds the budget for this equipment.
- j. To cancel or reissue the tender without any changes, in the event that only one compliant response is received, and /or if the fees submitted exceed the estimated budget for this project.
- k. To accept or reject any trade-in allowances.

## **10 Alternatives and/or Variations to Specifications**

- 10.1 The specifications describe what is considered necessary to meet the performance requirements of the District and Bidders are requested to tender in accordance with such specifications. **In addition to tendering on goods which meet the specifications**, Bidders can also offer alternatives which they believe to be the equivalent.
- 10.2 Bidders shall indicate any variances from the District's specifications or conditions no matter how slight. (The attachment of descriptive literature from which variations may be gleaned will not be considered as a sufficient statement of variations.)
- 10.3 The District will be the sole judge as to what constitutes allowable variations.
- 10.4 All measurements to be stated in metric, unless industry standards are in imperial units.

## **11 Cancellation**

- 11.1 The District of Sparwood reserves the right to cancel this tender at any time and for any reason, and will not be responsible for any loss, damage, cost or expense incurred or suffered by any Bidder as a result of that cancellation.

**12 Conflict of Interest**

- 12.1 The Bidder warrants that the bidder is not employed by the District of Sparwood, nor is an immediate relative of such employee, if the goods or services supplied under this tender are intended to be supplied to the department in which such employee works.

**13 Confidentiality and Security**

- 13.1 It is the District's policy to maintain confidentiality with respect to all confidential information related to the proposal, but the district is subject to the Freedom of Information and Protection of Privacy Act. If the proponent considers that any of its information is confidential, the proponent shall identify that confidential information and advise the district in its proposal.

**14 Solicitation**

- 14.1 If any director, officer, employee, agent or other representative of a Bidder makes any representation or solicitation to any mayor, councilor, officer or employee of the District of Sparwood with respect to the tender, whether before or after the submission of the tender, the District shall be entitled to reject or not accept the tender.

**15 Disclaimer**

- 15.1 Bidders responding to this competitive process agree to the terms and conditions of the bid opportunity as issued by the District of Sparwood. Submissions shall not contain any alterations to the posted document other than entering data in the spaces provided or including attachments as necessary. Bidders who alter the document as issued may be disqualified from this competition.

**16 Jurisdiction**

- 16.1 Any dispute arising under this contract shall be resolved according to the laws of the Province of British Columbia.



**17 No Claim for Compensation**

- 17.1 Except as expressly and specifically permitted in these Instructions to bidders, no tender shall have claim for any compensation of any kind whatsoever, as a result of participating in the tender, and by submitting a bid each bidder shall be deemed to have agreed that it has no claim.

**18 Form of Tender**

- 18.1 Each Bidder shall state in the space provided on the form of tender, the receipt and inclusion of addenda issued prior to closing.
- 18.2 Failure to include all addenda issued may render the tender invalid.

**19 Clarification of Contract Documents**

- 19.1 The Bidder must carefully examine the Tender documents. Should the Bidder find discrepancies in or omissions from the document or specifications, or should he be in doubt as to their meaning, he should notify the District of Sparwood Public Works Office. The Bidder may not claim, after submission of a tender, that there was any misunderstanding with respect to the conditions imposed by the documents.
- 19.2 No claim by the Bidder of unsuitability or unavailability of material will be accepted unless submitted in writing at least THREE (3) calendar days before the tender closing date, and approval by the owner is granted, prior to the tender closing.
- 19.3 Written addenda will be issued to amend the Tender documents if required.
- 19.4 No verbal agreement or conversation made or had at any time with any officer, agency or employee of the owner shall affect or modify any of the terms or obligations herein stated.

**20 Addenda**

- 20.1 Any and all Addenda to this bid opportunity will be posted on BC Bid and our website at [www.sparwood.ca](http://www.sparwood.ca). It is the sole responsibility of participants to make sure that they are in receipt of all addenda prior to the tender closing.

- 20.2 The District of Sparwood will not issue Addenda less than THREE (3) days prior to the closing date.

## **21 General Conditions For Vehicles and Equipment**

- 21.1 Unit offered under this tender shall be a new, standard production model of the latest design in current production.
- 21.3 Production materials shall be of good commercial quality for the intended service and shall be produced by use of current manufacturing processes.
- 21.4 Material shall be treated to resist rust, corrosion, and wear as needed.
- 21.5 The design of the mechanical members shall be such that the stress imposed through normal shock loads and maximum engine torque shall not cause rupture, permanent deformation, or undue wear on any member.
- 21.6 The contractor shall satisfy the District Director of Operations that he maintains a manufacturer's approved facility or branch. This facility must be staffed with qualified servicemen and have provisions for storing a representative supply of original equipment manufactured (O.E.M) parts for the machine offered, as well as provisions for securing parts from the manufacturer overnight.
- 21.7 Bidders shall submit with their tender the latest printed specifications and advertising literature on the unit they propose to supply.
- 21.8 The bidder shall list on a separate schedule any variations from or exceptions to the conditions and specifications of this tender. This sheet shall be labeled "Exception(s) to Tender Conditions and Specifications" and shall be attached to the tender.
- 21.9 Awards will be made based on the best value offered, and the best value will be determined by the District. Written specific guarantees to cover parts delivery, warranty repairs, machine availability, and resale value may be included. The quality of the unit to be supplied, the conformity with the specifications, the suitability to requirements, delivery terms and guarantee clauses shall all be taken into consideration.
- 21.10 The District reserves the right to accept or reject any or all trade-in proposals deemed in the best interest of the District.

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- 21.11 The District reserves the right to reject any or all tenders, to waive any informality tenders, to accept in whole or part such tenders as may be deemed in the best interest of the District. The lowest or any tender may not necessarily be accepted.
- 21.12 The District may test a Bidder's product and the District reserves the right to accept or reject any or all tenders, based on product performance, as evaluated by the District.
- 21.13 Bids must clearly show warranty or guarantee for the equipment. Any repairs or service in conjunction with the warranty or guarantee shall be at no cost to the District of Sparwood.
- 21.14 There will be no additional cost for freight or technician travel time while under warranty.

**22 All General inquiries must be directed to:**

Mel Bohmer, Director of Operations  
District of Sparwood, Box 1929  
477 Pine Avenue, Sparwood, B.C  
V0B 2G0  
Phone: 250-425-7760 Fax: 250-425-7780  
E-mail: [mbohmer@sparwood.ca](mailto:mbohmer@sparwood.ca)

**FORM OF TENDER**

The undersigned having carefully read the Instructions to Bidders, Form of Tender, Schedule "A" and the Specifications hereby offers to supply the equipment listed in accordance with the said specifications at the following price:

TOTAL PRICE \$\_\_\_\_\_ (Carried forward from Schedule "A")

The total price tendered hereby includes and covers duties, Goods and Services and Provincial Taxes, Trade in Values, Transportation charges, Levies and all other charges to supply the tendered items.

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 2015

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone: \_\_\_\_\_

Fax: \_\_\_\_\_

\_\_\_\_\_  
Signature of Bidder

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Name (please print)

\_\_\_\_\_  
Name (please print)

\_\_\_\_\_  
Address of Witness

\_\_\_\_\_  
Telephone

**Addenda** (See "Instructions to Bidders" Section 21)

Acknowledgement is hereby made of receipt and inclusion of the following Addenda to the contract documents.

Addendum No.1                      Date \_\_\_\_\_ No. of pages \_\_\_\_\_

Addendum No.2                      Date \_\_\_\_\_ No. of pages \_\_\_\_\_

Addendum No.3                      Date \_\_\_\_\_ No. of pages \_\_\_\_\_

TITLE: DISTRICT OF SPARWOOD PLOW TRUCK.

**SCHEDULE "A"**

| ITEM | QTY | DESCRIPTION        | UNIT PRICE | EXTENDED PRICE |
|------|-----|--------------------|------------|----------------|
| 1.0  | 1   | Plow Truck Chassis |            | \$ _____       |
| 2.0  | 1   | Sand/Salt Spreader |            | \$ _____       |

**Sub- Total** \$ \_\_\_\_\_

**Trade in Value** \$ \_\_\_\_\_

**GST** \$ \_\_\_\_\_

**PST** \$ \_\_\_\_\_

**Other** \$ \_\_\_\_\_

**Total Price** \$ \_\_\_\_\_

Please carry Total Price forward to "Form of Tender"  
(page 12 of 34)

**Delivery:** Shall be made within \_\_\_\_\_ weeks

**Warranty:** Please state warranty on unit bid: \_\_\_\_\_

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## 1.0 ONE (1) PLOW TRUCK

|    | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|----|--|---|--|
| 1. | Vehicle configuration  |   |  |
| a  | Make and Model   | State                                     | Make<br>Model                          |
| b  | 2015 year model  | Required                                  |  |
| c  | Set back axle - Truck  | Required                                  |  |
| d  | Straight truck provision   | Required                                  |  |
| e  | LH primary steering location   | Required                                  |  |
| f  | End dump body  | Required                                  |  |
| g  | Medium truck warranty  | Required                                  |  |
| h  | Minimum gross vehicle weight capacity  | 43000.0 lbs                               |  |
| 2. | Engine   |   |  |
| a  | Diesel, in line 6 cylinder sleeved engine  | Required                                  |  |
| b  | Minimum net H.P. at rated RPM  | 345 HP (State)                            | HP:                                    |
| c  | Displacement 9 litre minimum   | State                                     |  |
| d  | Minimum net torque   | 1150 lbs-ft                               |  |
| e  | Emission certification   | 2015 Model Year<br>Emission Standards     |  |
| 3. | Engine Equipment   |   |  |
| a  | Alternator minimum 145 amp. Capacity with built-in diode, rectifiers, shield slip rings and brushes                          | State                                     | Make<br>Model                          |
| b  | Engine mounted oil check and fill  | Required                                  |  |
| c  | Butterfly-type engine hood preferred and stationary grill with forward tip hood  | Required                                  |  |
| d  | Two (2) 12 volt maintenance free threaded stud batteries   | Min. 1800 CCA.                            | Make<br>Model                          |
| e  | Battery box frame mounted and easily accessible and mounted in such a way to not interfere with spreader and plow operations | Specify Location                          |  |
| f  | Equipped with remote start terminals   | Required                                  |  |
| g  | Engine governor is to be a built-in type   | Required                                  |  |
| h  | Delco 12V 29MT starter with integrated magnetic switch   | Required (or equiv.)                      |  |
| i  | High temperature and low oil pressure engine protection alarm bell or buzzer device shall be installed                       | Required                                  |  |
| j  | Heavy-duty dry type air cleaner shall be supplied with inside/outside cab controls   | Required                                  |  |
| k  | An automatic, temperature controlled fan clutch shall be supplied  | Required                                  |  |
| l  | Engine block heater  | Required                                  |  |

|    | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|----|--|---|--|
| 3. | <b>Engine Equipment</b>  |   |  |
| m  | Air restriction indicator shall be supplied visible to operator from driver's seat   | Required                                  |  |
| n  | Engine is to have horizontal muffler with vertical exhaust   | Required                                  |  |
| o  | Electronic engine integral shutdown protection system  | Required                                  |  |
| p  | Engine after treatment device, automatic over the road regeneration and dash mounted regeneration request switch                     | Required                                  |  |
| q  | Diesel exhaust fluid tank  | 6 gallon                                  |  |
| r  | Aluminum after treatment device/muffler/tailpipe shield(s)   | Required                                  |  |
| s  | Automatic fan control without dash switch, non engine mounted  | Required                                  |  |
| t  | Antifreeze to -36C, not extended life coolant  | Required (or equiv.)                      |  |
| u  | Lower radiator guard   | Required                                  |  |
| v  | Electric grid air intake warmer  | Required                                  |  |
| 4. | <b>Transmission</b>  |   |  |
| a  | Allison 3000 RDS Automatic transmission with PTO provision   | Required (or equiv.)                      | Make<br>Model                          |
| 5. | <b>Transmission Equipment</b>  |   |  |
| a  | WTEC calibration - 6 speed RDS   | Required                                  |  |
| b  | Electronic transmission customer access connector firewall mounted   | Required                                  |  |
| c  | Magnetic plugs, engine drain, transmission drain, axle(s) fill and drain   | Required                                  |  |
| d  | Push button electronic shift control, dash mounted   | Required                                  |  |
| e  | Transmission prognostics - enabled   | Required                                  |  |
| f  | Water to oil transmission cooler, in radiator end tank   | Required                                  |  |
| g  | Transmission oil check and fill with electronic oil level check  | Required                                  |  |
| h  | Bidder to supply an Allison performance "SCAAN" to verify correct transmission and gear ratio selection for the intended application | Required                                  |  |
| i  | Ground speed sensor for automated spreader control system  | Required                                  |  |
| j  | Synthetic transmission fluid   | Required                                  |  |
| 6. | <b>Front Axle and Equipment</b>  |   |  |
| a  | Front set back axle  | 20,000 lbs capacity minimum. (State)      | Make<br>Model<br>Capacity              |
| b  | Oil lubricated wheel bearing   | Required                                  |  |
| c  | Power steering shall be supplied   | Required                                  |  |

|    | REFERENCE   | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|----|---|---|--|
| 7. | <b>Rear Axle and Equipment</b>  |   |  |
| a  | Single axle dual drive with interaxle locks plus driver controlled full locking differential  | 23,000 lbs capacity minimum               | Make<br>Model<br>Capacity              |
| b  | Single speed rear axle  | Required                                  |  |
| c  | Road speed in low gear at maximum torque RPM shall not exceed 8 km/hr   | Required                                  |  |
| d  | Equipped with on spot chains  | Required                                  |  |
| e  | C.A shall be 144" approx. Clear and usable or as required to accommodate sander/dump box operation and 75 gallon fuel tank (cylindrical)  | Required                                  |  |
| 8. | <b>Suspension</b>   |   |  |
| a  | Front spring capacity at the ground   | 10,000 lbs each                           | Capacity                               |
| b  | Rear spring capacity at the ground (Air Rides)  | 23,000 lbs combined                       | Capacity                               |
| c  | Manual dump valve for air suspension with indicator light, gauge and buzzer   | Required                                  |  |
| d  | Rear air suspension dump valve auto fill with ignition off or >10 kph   | Required                                  |  |
| e  | Single air rear suspension leveling valve   | Required                                  |  |
| f  | Rear shock absorbers - one axle (air ride suspension)   | Required                                  |  |
| 9. | <b>Brake System</b>   |   |  |
| a  | Air brake package   | Required                                  |  |
| b  | ABS brakes (4 channel)  | Required (or equiv.)                      |  |
| c  | Front brake size  | 16.5 x 6" min                             | Make<br>Model                          |
| d  | Rear brake size   | 16.5 x 7" min                             | Make<br>Model                          |
| e  | All brakes to be S cam type   | Required                                  |  |
| f  | Front and rear dust shields   | Required                                  |  |
| g  | Positive rear wheel spring-loaded parking brake, air reservoir and instrument panel control switch  | Required                                  |  |
| h  | Means shall be provided to release the parking brakes from the cab with no pressure in the main air reservoir but the with air pressure remaining in either secondary reservoir. Emergency brake on both rear axles applied automatically with air pressure is below 40 PSI | Required                                  |  |
| i  | Air tank shall be equipped with a Schrader valve which is easily accessible   | Required                                  |  |
| j  | Low-pressure indicator to be supplied   | Required                                  |  |
| k  | The warning device shall operate with ignition key in the 'on' position   | Required                                  |  |
| l  | Air reservoir shall be supplied equipped with a berg pull cord drain cock valve   | Required                                  |  |



|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 9.  | <b>Brake System</b>  |   |  |
| m   | Air compressor   | 15.2 C.F.M minimum                        | Make<br>Model                          |
| n   | Air dryer shall be Bendix AD-9 with heater   | Required (or equiv.)                      | Make<br>Model                          |
| o   | Automatic slack adjusters  | Required                                  |  |
| 10. | <b>Wheelbase &amp; Frame</b>   |   |  |
| a   | Wheelbase (approx.)  | 210" (or as required)                     | State                                  |
| b   | Double channel reinforced frame mandatory  | Required                                  |  |
| c   | Resisting bending moment (section modulus x yield strength)  | 4,000,000 lb.in minimum                   | State                                  |
| d   | Section modulus  | 27.0 minimum                              | State                                  |
| e   | Front frame extension to be installed on chassis   | 12" minimum                               |  |
| f   | Provision shall be supplied to prevent diamond shaping of the frame. The frame shall be bridged by a cross member installed within ten inches of the rear of the cab. Cross member shall be gusseted fore and aft. | Required                                  |  |
| g   | One-piece 14 inch steel center bumper with flexible plastic ends   | Required                                  |  |
| 11. | <b>Fuel Tanks</b>  |   |  |
| a   | Aluminum fuel tank sized and located to not interfere with the clearance requirements of the reversible underbody plow   | 80 gallon/302 litre                       | State                                  |
| b   | Fuel filter/water separator with primer pump   | State                                     | Make<br>Model                          |
| c   | Equipflo inboard fuel system   | Required (or equiv.)                      |  |
| d   | High temperature reinforced nylon fuel line  | Required                                  |  |
| 12. | <b>Wheels and Tires</b>  |   |  |
| a   | Two (2) 20 ply first line steel belted radial tubeless front tires sized to match a GVW of 20,000 lbs.   | State                                     | Make<br>Model<br>Size<br>Load rating   |
| b   | Two (2) 16 ply first line steel belted radial tubeless front tires sized to match a GVW of 23,000 lbs.   | State                                     | Make<br>Model<br>Size<br>Load rating   |
| c   | No dual rear tires   | Required                                  |  |
| d   | Front and Rear treads designed for winter conditions   | Required                                  |  |
| e   | Front Rims shall have load and pressure ratings equal to or greater than those of tires.   | State                                     | Make<br>Model<br>Size<br>Load rating   |

|     | REFERENCE   | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|---|---|--|
| 12. | <b>Wheels and Tires</b>   |   |  |
| f   | Rear Rims shall have load and pressure ratings equal to or greater than those of tires.                                       | State                                     | Make<br>Model<br>Size<br>Load rating   |
| g   | Solid disc wheels shall be supplied   | Required                                  |  |
| h   | Drop centre rims shall be supplied  | Required                                  |  |
| i   | Nylon wheel guards to be supplied front & rear  | Required                                  |  |
| 13. | <b>Cab Exterior</b>   |   |  |
| a   | Flat roof aluminum conventional cab   | State                                     | Height                                 |
| b   | Air ride cab  | Required                                  |  |
| c   | Bug screen front end; mounted behind grille   | Required                                  |  |
| d   | Rubber fender extensions  | Required                                  |  |
| e   | LH & RH grab handles  | Required                                  |  |
| f   | Single air horn   | Required                                  |  |
| g   | Single electric horn  | Required                                  |  |
| h   | Single horn shield  | Required                                  |  |
| i   | Switch, indicator light and wiring for (2) customer furnished beacons   | Required                                  |  |
| j   | Integral headlight/marker assembly  | Required                                  |  |
| k   | (5) Amber marker lights   | Required                                  |  |
| l   | Daytime running lights  | Required                                  |  |
| m   | Standard front turn signal lamps  | Required                                  |  |
| n   | Dual West Coast bright finish heated mirrors with lights  | Required                                  |  |
| o   | Door mounted mirrors  | Required                                  |  |
| p   | LH and RH 8" bright finish convex mirrors mounted under primary mirrors   | Required                                  |  |
| q   | RH down view mirror   | Required                                  |  |
| r   | Standard side/rear reflectors   | Required                                  |  |
| s   | Composite exterior sun visor  | Required                                  |  |
| t   | Manual door regulators  | Required                                  |  |
| u   | Tinted windshield   | Required                                  |  |
| v   | Windshield washer reservoir   | 2 gallon                                  |  |
| w   | Winterfront   | Required                                  |  |
| x   | Switch, indicator light and approximately 10 feet of wire on chassis RH back of cab for customer furnished utility light(s)   | Required                                  |  |
| y   | Electric windshield wipers  | Required                                  |  |
| z   | All sander marker lighting must be LED technology (AL LIGHTech) and meet all federal and provincial transportation standards. |   |  |

|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 14. | Cab Interior   |   |  |
| a   | 2-1/2 lb fire extinguisher   | Required                                  |  |
| b   | First aid kit  | Required                                  |  |
| c   | Heater, defroster and air conditioner  | Required                                  |  |
| d   | Standard HVAC ducting  | Required                                  |  |
| e   | Main HVAC controls with recirculation switch                                 | Required                                  |  |
| f   | Denso heavy duty air conditioner compressor                                  | Required (or equiv.)                      |  |
| g   | Binary control, R-134A   | Required                                  |  |
| h   | Extreme climate thermal cab and sleeper insulation                           | Required                                  |  |
| i   | Solid-state circuit protection and fuses                                     | Required                                  |  |
| j   | 12V negative ground electrical system  | Required                                  |  |
| k   | (1) 12V power supply in dash   | Required                                  |  |
| l   | Triangular reflectors without flares   | Required                                  |  |
| m   | 3 point fixed d-ring retractor driver and passenger seat belts               | Required                                  |  |
| n   | Adjustable tilt and telescoping steering column                              | Required                                  |  |
| o   | Driver and passenger interior sun visors                                     | Required                                  |  |
| p   | Black mats with single insulation  | Required                                  |  |
| q   | Forward roof mounted console with upper storage compartments without netting | Required                                  |  |
| r   | In dash storage bin  | Required                                  |  |
| s   | (2) cup holders LH and RH dash   | Required                                  |  |
| t   | Bostrom Talladega 910 high back air suspension driver seat with air lumbar   | Required (or equiv.)                      |  |
| u   | Bostrom high back non suspension passenger seat                              | Required (or equiv.)                      |  |
| v   | Cloth driver and passenger seat cover  | Required                                  |  |
| w   | Power windows  | Required                                  |  |
| 15. | Instruments and Controls   |   |  |
| a   | Driver and centre instrument panels  | State                                     |  |
| b   | Low air pressure light and buzzer  | Required                                  |  |
| c   | (1) single brake application air gauge                                       | Required                                  |  |
| d   | 2 inch primary and secondary air pressure gauges                             | Required                                  |  |
| e   | Intake mounted air restriction indicator without graduations                 | Required                                  |  |
| f   | Backup alarm   | 97 DB Required                            |  |
| g   | Electronic cruise control with switches                                      | Off/Run/Start/Acc                         |  |
| h   | Key operated ignition switch and integral start position; 4 position         | Required                                  |  |
| i   | 2 inch electric fuel gauge   |   |  |

|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 15. | Instruments and Controls   |   |  |
| j   | Programmable RPM control - electronic engine   | Required                                  |  |
| k   | Electrical engine coolant temperature gauge  | Required                                  |  |
| l   | 2 inch transmission oil temperature gauge  | Required                                  |  |
| m   | Inside/outside temperature gauge   | Required                                  |  |
| n   | Engine and trip hour meters integral within driver display   | Required                                  |  |
| o   | Electric engine oil pressure gauge   | Required                                  |  |
| p   | AM/FM/WB radio with front auxiliary input  | Required                                  |  |
| q   | Dash mounted radio   | Required                                  |  |
| r   | (2) Radio speakers in cab  | Required                                  |  |
| s   | Power and ground wiring provision  | Required                                  |  |
| t   | Roof/overhead console CB radio provision with face plate   | Required                                  |  |
| u   | Electronic kph speedometer with secondary mph scale  | Required                                  |  |
| v   | Standard vehicle speed sensor  | Required                                  |  |
| w   | Idle limiter, electronic engine  | Required                                  |  |
| x   | (4) on/off rocker switches in the dash with indicator lights and wire routes to chassis at back of cab | Required                                  |  |
| y   | Single electric windshield wiper motor with delay  | Required                                  |  |
| z   | Marker light switch integral with headlight switch   | Required                                  |  |
| aa  | One valve park brake system with dash valve control auto neutral and warning indicator                 | Required                                  |  |
| bb  | Self canceling turn signal switch with dimmer, washer/wiper and hazard in handle                       | Required                                  |  |
| cc  | Integral electronic turn signal flasher with hazard lamps overriding stop lamps                        | Required                                  |  |

|     | REFERENCE   | MINIMUM SPECS. REQUIRED BY DISTRICT | STATE MANUFACTURER'S SPECIFICATIONS  |
|-----|---|-------------------------------------|--|
| 16. | <b>Hydraulic System</b>   |                                     |  |
| a   | Hydraulic system to provide for all the functions of components used for sanding and plowing. Please attach addition information for the hydraulic system and hydraulic schematics or each major component of the package as well as one of the complete system.  | State                               | Hydraulic system:<br>Working pressure<br>Fluid capacity                    |
| b   | Hydraulic system to employ direct mount variable displacement load-sensing piston pump. Hydraulic pump to be operated by hot shift type PTO. PTO and pump to be adequately sized to support all the functions of truck mounted components used for sanding and plowing s well as hoist assembly operations.   | State                               | PTO:<br>Make<br>Model<br>Min. Flow<br>Max Continuous Flow<br>Max Peak Flow |
| c   | PTO-pump connection to be lubricated without disassembly or be self-lubricating.  | Required                            |  |
| d   | Valve of multi-section type configuration with each section controlling one function of each major component of the package is preferred.   | State                               | Valve:<br>Make<br>Model  |
| e   | System design to provide for "low oil" condition detection. "low oil" warning light along with an audible alarm to be installed in the cab. Design to include "low oil shut down" feature to protect the pump (when "low oil" condition detected PTO with automatically disengage). Manual override actuated with the momentary switch from inside the cab also required to allow the operator to raise the plow. | Required (or equiv.)                |  |
| f   | Shut-off valves (normally open) to be installed in oil lines to allow isolation of tank and pump for servicing.   | Required                            |  |
| g   | Provide test ports for maintenance and servicing of the entire system.  | Required                            |  |
| h   | System to withstand surge pressure equal to four times of working pressures as specified by OEMs to meet current SAE standard.  | Required                            |  |
| i   | Same size hydraulic quick couplers to be colour coded to prevent cross connections.   | Required                            |  |
| j   | Plumbing protection and routing of hoses to be as per SAE J1273 standards.  | Required                            |  |
| k   | Entire hydraulic system to be cleaned and flushed prior to operation.   | Required                            |  |

|     | REFERENCE  | MINIMUM SPECS. REQUIRED BY DISTRICT | STATE MANUFACTURER'S SPECIFICATIONS   |
|-----|--|-------------------------------------|---|
| 17. | <b>Controller</b>  |                                     |   |
| a   | Unit to be supplied with an Epomaster III controller or approved equivalent. Controller must have integrated multi-function joystick with a capability to control multiple functions such as under body plow and gravel box with ergonomically designed armrest and attached to operators seat to "float" with ride of truck. All functions will be clearly labelled and backlit for night operations. | Required (or equiv.)                |   |
| b   | Data collection system for transferring data from controller to office PC.   | Required                            |   |
| c   | All controller functions for dry and liquid materials to be road speed related from 0-70 km/h  | Required                            |   |
| d   | Controller to allow on the go operator adjustments of:   | Required                            | Spreading Width<br>Spreading Symmetry<br>Spreading Quantity<br>Maximum "Blast"  |
| e   | Controller screen to display application rates, settings, spread width, and material selected  | Required                            |   |
| f   | Controller to have all functions fully labelled and backlit for night operations   | Required                            |   |
| g   | Control system to have a self diagnostic capabilities and the controller screen to display errors in graphical symbology   | Required                            |   |
| h   | Controller to be programmable and incorporate password protection to four levels of allowed programmability  | Required                            |   |
| i   | Liquid and dry material empty sensors to be provided and the controller screen to indicate when dry material hoper or liquid tanks are empty (dry material sensor required)  | Required                            |   |
| j   | Controller to include (2) PCMCIA slots to allow for upload of any future software enhancements to control system   | Required                            |   |
| k   | Data production system - data output to two separate RS232 ports with up to 35 data streams for collection of by others. A new event occurs each time that:  | Required                            | Start / Stop - dry material<br>Start / Stop - liquid Pre-wetting on / off Width setting is changed<br>Symmetry setting is changed<br>Quantity setting is changed<br>Function buttons<br>Alarms and status<br>Distance travelled<br>Time logging |

|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 18. | Gravel Box   |   |  |
| a   | Outside dimension to be 13' 6" x 8' and able to hold a material capacity of 10.9 m <sup>3</sup> or 14.25 cubic yards.  | Required                                  |  |
| b   | Side wall height   | 32 inches plus side board                 |  |
| c   | End wall height  | 42 inches                                 |  |
| d   | Trapezoidal long sills   | 8 inches                                  |  |
| e   | Side walls must be full double wall for maximum dent resistance. Outer wall must be minimum 12 gauge steel with formed horizontal stiffness. Inner wall must be minimum 10 gauge hi tensile steel.                         | Required                                  |  |
| f   | Front wall construction must be minimum sectional 10 gauge hi tensile steel with weld on sloped interior longitudinal stiffeners c/w a reinforced cylinder well housing and reinforced cylinder trunnion mounting brackets | Required                                  |  |
| g   | Rear tilt hinge to be a one piece, hi tensile steel, 2 inch diameter trunnion type with reinforced grease lubricated mounting brackets   | Required                                  |  |
| h   | Interior corner slope sheet maximum height   | 4 inches                                  |  |
| i   | Formed heavy duty sideboard brackets to accommodate 2 inch thick sideboards with brackets in centre and on both ends   | Required                                  |  |
| j   | Floor construction to be 3/16 inch hi tensile steel flat bottom design with incorporated 45 degree bottom corners on side walls. Weld on 8 inch bottom rail extrusions   | Required                                  |  |
| k   | Heavy duty tail gate trip latches and top catch lugs c/w remote in cab air trip preferable centrally located with other gravel box controls and adjustable spreader chains. Trip latches must be greasable                 | Required                                  |  |
| l   | Heavy duty 5.5 inch, 4 stage hoist cylinder. Must have nitrated and trunnion mount c/w minimum two year warranty   | Required                                  |  |
| m   | Dump box tipping angle   | min. 50 degrees                           |  |
| n   | Front head of body with be completely clean and clear of any type of recesses or protrusions into the body including hoist dog house, bulk heads, etc.   | Required                                  |  |
| o   | Hinge diameter   | 2.5 inches                                |  |
| p   | Ratchet type tie downs to be incorporated on gravel box to secure Epoke sander Unit to be delivered with sander secured by heavy duty straps   | Required                                  |  |

|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 18. | <b>Gravel Box</b>  |   |  |
| q   | Three brackets to accommodate hand tools such as shovels and brooms to be incorporated at the front of gravel box. Tools shall be easily accessible by operator either from the ground or truck cab steps  | Required                                  |  |
| r   | Folding ladder must be incorporated to facilitate gravel box inspection and maintenance. Treads must be aggressive antislip, with adequate width for safety. Ladder must have handholds on side and top and must be collapsible with a permanently mounted, secure, and easy to operate locking mechanism. | Required                                  |  |
| s   | Gravel box metal to be sandblasted, primed and painted with acrylic urethane paint.  | Required                                  |  |
| t   | End gate must swing right to facilitate complete obstruction free rear access to dump body and remain with unit during operation when in position. Pivot points on end gate must have heavy duty greasable pins.   | Required                                  |  |
| u   | End gate must have 3 individually controlled hot mix asphalt gates. Pivot points must be greasable.  | Required                                  |  |
| v   | Gravel box to have 1/2 inch J-hooks welded on driver's side of body every 18 inches to store sander hydraulic hoses  | Required                                  |  |
| w   | Gravel box to have heavy duty vibrator with remote in cab control preferably centrally located with other gravel box controls.   | Required                                  |  |
| x   | Gravel box to have a blocking feature that will safely block the box in the upright position for inspection, maintenance and cleaning purposes   | Required                                  |  |
| 19. | <b>Plow - Underbody Scraper</b>  |   |  |
| a   | Underbody plow to be heavy duty type suitable for winter road maintenance activities such as snow and ice removal.   | State                                     | Make<br>Model                          |
| b   | Size (length)  | 11'                                       |  |
| c   | Dry weight of the offered scraper assembly including mounting hardware (hangers etc.)  | State                                     |  |
| d   | Plow design to provide for moldboard rotation in relationship to the centre line of truck chassis in either direction with infinite position/adjustment within range limits  | Required                                  |  |
| e   | Moldboard design to include safety trip mechanism to ensure that objects which slightly protrude above the road surface like manhole covers etc. are not damaged during plowing operation  | Required                                  |  |



|     | REFERENCE  | MINIMUM SPECS.<br>REQUIRED BY<br>DISTRICT | STATE MANUFACTURER'S<br>SPECIFICATIONS |
|-----|--|---|--|
| 19. | <b>Plow - Underbody Scraper</b>  |   |  |
| f   | Based on installation height of the plow proponent will determine optimum size (height) of cutting edge in order to achieve proper angle between the edge and road surface (plowing angle).                            | State                                     | Optimum plowing position:              |
| g   | Scraper assembly to be equipped with central greasing system that allows lubrication of all rotating joints (hinge points) from maximum of (2) easily accessible stations preferable mounted on top of the hangerboard | Required                                  |  |
| h   | Scraper design to provide for "plow down" ("blade down") condition detection   | Required                                  |  |
| i   | Hydraulic system of the scraper to provide a down pressure relief valve as a blade saver option  | Required                                  |  |
| j   | Plow functions to be controlled with dual axis joystick assembly   | Required                                  |  |
| k   | All scraper functions to be operated via integrated truck hydraulic/control system. Controls to be located in the cab. See chapters Hydraulics and Controls for more details   | Required                                  |  |
| l   | (2) utility spot lights one on each side of the truck to be installed to illuminate the plow. Lights to be mounted on the outside of truck frame rails behind the cab.   | State                                     | Make<br>Part #                         |
| m   | Scraper assembly to be sand blasted, primed and painted with minimum one coat of epoxy type paint.   | State                                     | Finish details                         |

|     | REFERENCE  | MINIMUM SPECS. REQUIRED BY DISTRICT | STATE MANUFACTURER'S SPECIFICATIONS |
|-----|--|-------------------------------------|-------------------------------------|
| 20. | Plow - Front Mounted Reversible Plow   |                                     |                                     |
| a   | Front mounted plow to be heavy duty Reversible type.   | State                               | Make<br>Model                       |
| b   | Plow design to include safety trip mechanism to ensure that objects which slightly protrude above the road surface like manhole covers etc. are not damaged during plow operations | Required                            |                                     |
| c   | Specify size and dry weight of the offered plow assembly including mounting hardware   | Required                            |                                     |
| d   | All plow functions to be operated via integrated truck hydraulic/control system. Controls to be located in the cab. See chapters Hydraulics and Controls for more details          | Required                            |                                     |
| e   | Plow design to provide for "plow down" ("blade down") condition detection  | Required                            |                                     |
| f   | Plow assembly to be sand blasted, primed and painted with minimum one coat of epoxy type paint.  | State                               | Finish details                      |
| g   | Sander trucks equipped with front mounted plows to be equipped with front plow lights as per current regulations   | Required                            |                                     |
| 21. | Warranty   |                                     |                                     |
| a   | A copy of the warranty statement, including any conditions and limitations, is to be included with the tender  | Required                            |                                     |

## 2.0 Sand/ Salt Spreader Bodies with Prewetting and Anti-ice Capabilities

### Specifications

| REFERENCES  | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|---|---|--|
| State the Make and Model of the spreader.<br>Product brochure to be submitted with bid.   | State                                     | Make:<br>Model:  |
| This spreader must apply: <ul style="list-style-type: none"> <li>• Dry material</li> <li>• Straight Liquid</li> <li>• Variably pre-wet dry material from 5% to 30% to 12m spread width</li> </ul>     | Required                                  |  |
| Spreader, control system and liquid system to be supplied from a single, ISO certified manufacturer. All functions to be tested before leaving the factory and a copy of the run test to be provided. | Required                                  |  |
| Dry material hopper capacity  | Min. 4 m <sup>3</sup>                     |  |
| Liquid capacity   | Min. 1500 Litres                          |  |
| Tank design must be made from LDPE and must be UV stable.   | Required                                  |  |
| Stated the unladen tare weight of spreader.   | State                                     |  |
| States the dimensions of spreader.  | State                                     | Height:<br>Width:<br>Length:   |
| State the build type of the spreader  | State                                     |  |
| State how all material surfaces will be protected for durability (i.e. Steel shot blasted, zinc dust coats, etc.)   | State                                     |  |
| State the bracing inside of the hopper  | State                                     |  |
| Hopper to be all steel construction   | Required                                  |  |
| Hopper must be continuous seamlessly welded   | Required                                  |  |
| All fasteners are to be stainless steel.  | Required                                  |  |

| REFERENCES  | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|---|---|--|
| All paints must be applied with wet electrostatic processed. Powder coating not acceptable. Total coat thickness must be 120 my or more.  | Required                                  |  |
| Hopper screens shall be mounted to an 8 degree sloped "A" frame. Screen to be constructed of 3/8" wire welded on 3" centers allowing for 3"x 3" openings. The screen assembly must be completely hot dipped galvanized. | Required                                  |  |
| Conveyor belt is a chain over belt design.  | Required<br>State Specs                   | Chain Material:<br>Belt Material:<br>Belt Thickness:<br>Other:                                 |
| State the tension roller design.  | State                                     |  |
| Conveyer tension roller must have adjustment rods and support axle that can be mechanically positioned and mechanically locked.   | Required                                  |  |
| Serviceability of conveyor with a laden hopper  | State                                     |  |
| Shaft bearings are greasable.   | Required                                  |  |
| Main rear mounted hydraulic valve must be fully enclosed in the machine house. All hydraulic lines and fittings must also be fully enclosed.  | Required                                  |  |
| Main valve block must be designed for a threaded valve spool installment. Quick spool interchangeability for simple trouble shooting must be possible.  | Required                                  |  |
| State the main valve hydraulic block construction design (one-piece, stacked, etc.)   | State                                     |  |
| Main valve block must be designed for a threaded valve spool installment. Quick spool interchangeability for simple trouble shooting must be possible.  | Required                                  |  |
| Rear mounted hydraulic control valve must be a PWM Bucher (or equiv.). Must be integrated with PWM test control start button. Fully self-calibrating.   | State                                     |  |

| REFERENCES   | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|--|---|--|
| Hydraulic test port must be mounted inside a rear enclosure.   | Required                                  |  |
| Hydraulic pressure test gage must be included for constant pressure display.   | Required                                  |  |
| Valve control connector must be square DIN type with a stainless clamping screw.   | Required                                  |  |
| Spreader valve must include a high pressure 10 micron inline filter. Must include a built in filter element pressure rated by-pass valve.  | Required                                  |  |
| PWM valves must be industrial grade. Manual valve adjustment must stay in control position.  | Required                                  |  |
| Main valve block must also have a built in pressure cushioned dial gage.   | Required                                  |  |
| Main wire harness to consist of 6 wires only. All wires to be wrapped in one industrial duty cold temperature rated wire loom.   | Required                                  |  |
| Wire loom to be internal dry powder lubricated design, allowing for long life and high flexibility cold temperature rating to -30 °C. All wires must be black with individual white labeling every one inch under loom sheath. Wire to be fine braid 10 gauge on 4 power conductors and 18 gauge on communication circuit. | Required                                  |  |
| Main wire plug strain relief must be stainless nut with compression rubber seal.   | Required                                  |  |
| Spreader control box must be stand-off mounted to limit vibration and to allow air flow around unit. Surface mounted control box not acceptable.   | Required                                  |  |
| Beacon Light Specifications (Material, Mounting Type, etc. )   | State                                     |  |
| External power circuits IE beacon lights, work lights, must be routed through a drain box enclosure terminal junction. Direct wire entry not permitted. (Drain boxes must be included).  | Required                                  |  |
| Control box must have no exposed connectors or pins. Also, all wire harness plug points shall have no "single wire" entry points into plugs.   | Required                                  |  |

| REFERENCES  | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|---|---|--|
| All electrical plugs to be weather proof and sealed. No open exposed connector pins. No wire shall be rubbing on metal surfaces.  | Required                                  |  |
| All hydraulic controls, including drive motors, valves, and all electronic controls are to be housed in a sealed compartment at rear of the spreader  | Required                                  |  |
| Rear compartment must be constructed of metal and integrated and welded to the spreader hopper body.  | Required                                  |  |
| Replaceable wire harness. All wires and looms must be available by part number. No wire harness fabrication in field repairs will be accepted. All harness must terminate using cannon plug style connectors. Wire harness diagram must be applied as a permanent adhesive label on the inside of each control box cover. | Required                                  |  |
| All sensors to be attached to components in rear enclosure only. Only the spinner sensor will be external mounted. Conveyor and liquid pump sensors must be housed in an enclosed environment.  | Required                                  |  |
| Internal electronic components of control system must be replaceable, board style. Replaceable by city staff.   | Required                                  |  |
| All wires and hoses entering the rear enclosure must be sealed. Hydraulic and liquid hose must use bulk head fittings. Electrical lines must enter through purpose built rubber bellows mounted on a welded strain relief port.   | Required                                  |  |
| Rear enclosure must be sloped to prevent spilled material build up on rear enclosure.   | Required                                  |  |
| Rear mounted access ladders with dual hand holds and safety grip steps to provide access to rear compartment.   | Required                                  |  |
| Rear ladder access steps to be a minimum of 12" x 1.63", each of open non-slip surface.   | Required                                  |  |
| Weight rating of the ladder   | State                                     |  |
| Distance from top step to top of hopper to be less than 40".  | Required                                  |  |

| REFERENCES  | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|---|---|--|
| Spreader shall be able to spread from 2- 12 m wide for all material types and "crown/strip" spread with the spreader disc. Describe if you must add additional components to switch from broadcast to strip spread. | Required                                  |  |
| Hydraulic off-loading of the spreader to be possible with the spinner and drop chute in the upright position.   | Required                                  |  |
| Safety device to prevent the spinner from being activated when in the upright position to be supplied.  | Required                                  |  |
| A driver activated over ride switch must be located at the rear of machine near the spinner.  | Required                                  |  |
| Time required mounting / dismounting the slide in spreader to / from the dump body not to exceed 5 minutes.   | Required                                  |  |
| State the front roller design (Number of wheels, etc.)  | State                                     |  |
| Front Leg Specifications (Design, Material, Weight Rating, etc.)  | State                                     |  |
| Rear Leg Specifications (Design, Material, Weight Rating, etc.)   | State                                     |  |
| Storage legs and front roller to remain on spreader while in use.   | Required                                  |  |
| Material delivery to spinner drop chute via an unloaded rubber belt conveyor demountable.   | Required                                  |  |
| Liquid pump must be multi-chamber diaphragm design with a minimum of 30 litres / minute (8 gallons / minute) at 20 bar (300 psi). Pump housing must be oil amerced such that the pump may run dry without damage.   | Required                                  |  |
| Liquid pump must be easily rebuildable.   | Required                                  |  |
| Prewetting to be programmable and variable from 5% to 30% in 1% increments of the dry rate.   | Required                                  |  |

| REFERENCES   | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|--|---|--|
| An in-line (2" inlet/outlet) 40 mesh filter shall be provided to supply filtered liquid to the prewetting pump.  | Required                                  |  |
| Filter shall have a built in check valve and be easily accessible and serviceable with liquid tanks full without loss of liquid.   | Required                                  |  |
| Tanks shall be sumped and baffled and be secured to body by means of recessed steel brackets and bolts.  | Required                                  |  |
| A sight gauge easily seen from the filling position for liquid level shall be provided.  | Required                                  |  |
| Tanks to be filled from a single poly 2" cam lock male port nipple with shutoff valve and be located near spinner chute frame. Port nipple to be oriented at a 45 degree angle towards ground. | Required                                  |  |
| Bottom ported and vented tank lines will fill and drain all tanks equally. Filling and draining of tanks must not affect the center of gravity.  | State<br>Required                         | Single or Dual Port  |
| Liquid crossover equalization hose (2" dia) shall not cross from side to side between or under the conveyor belt at any point. (must be at front or rear of hopper)                            | Required                                  |  |
| Liquid filling must be 2" full port and must accept filling rates of up to 200 GPM and must stay fully equalized during filling procedure,   | Required                                  |  |
| Symmetry adjustments must function by moving the deflector at the chute base. Spinner head must remain stationary.   | Required                                  |  |
| A single liquid tube to be mounted at the spinner (minimum diameter of 1"). Nozzle must not be stationary and adjust with symmetry function.   | Required                                  |  |
| Chute opening at the base above the spinner must have a minimum opening area of 10 X 6".   | Required                                  |  |
| Spinner safety shield must be manufactured of a minimum of 8 gauge galvanized metal.   | Required                                  |  |
| A metal stand-off bracket must be integrated into the lower spinner shield such that a safe distance is created for the operator   | Required                                  |  |



| REFERENCES   | MIN. SPECS<br>REQUIRED BY<br>THE DISTRICT | STATE<br>MANUFACTURER'S<br>SPECIFICATIONS<br>(If a response is "No",<br>please state variance) |
|--|---|--|
| Safety shield must not allow access to the top of the spinner at any time. There must also be an integrated safety rail mounted to the back and side of the shield. This prevents the operator from getting too close to the moving spinner. | Required                                  |  |
| Spinner disc and wings must be of stainless. Wings must be replaceable and feature 3 adjustable bolts on areas for each wing.  | Required                                  |  |
| Step arrangement must be accessible to operator when the spinner is in the operating position. Step angle must be arranged in a safe position.   | Required                                  |  |
| Double hand hold brackets must be available for driver safety from ground level. (Single hand hold not acceptable).  | Required                                  |  |
| Inspection pedestal must be located half way up the ladder. This platform must be 14 X 14" and feature a nonslip surface.  | Required                                  |  |
| State the Warranty of the Spreader   | State                                     |  |
| Two parts and operator manuals to be provided.   | Required                                  |  |
| Operator training to be included.  | Required                                  |  |
| Ongoing factory technical training and support.  | Required                                  |  |
| State where technical support is located from.   | State                                     |  |
| State the location and personnel detail, and parts value stocked in the nearest North American parts warehouse location.   | State                                     |  |
| State the length in time above location has been in operation.   | State                                     |  |

