

**FORM A: BID**  
(See B8)

1. Contract Title SUPPLY AND DELIVERY OF SANDER SPREADER CHASSIS

2. Bidder

\_\_\_\_\_  
Name of Bidder

\_\_\_\_\_  
Usual Business Name of Bidder as it appears on Invoice (if different from above)

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

\_\_\_\_\_  
Postal Code

\_\_\_\_\_  
Email Address of Bidder

\_\_\_\_\_  
Facsimile Number

(Mailing address if different)

\_\_\_\_\_  
Street or P.O. Box

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

\_\_\_\_\_  
Postal Code

\_\_\_\_\_  
GST Registration Number (if applicable)

The Bidder is:

(Choose one)

a sole proprietor

a partnership

a corporation

carrying on business under the above name.

3. Contact Person

The Bidder hereby authorizes the following contact person to represent the Bidder for purposes of the Bid.

\_\_\_\_\_  
Contact Person

\_\_\_\_\_  
Title

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Facsimile Number

\_\_\_\_\_  
Email Address

4. Definitions

All capitalized terms used in the Contract shall have the meanings ascribed to them in the General Conditions and D3.

5. Offer The Bidder hereby offers to perform the Work in accordance with the Contract for the price(s), in Canadian funds, set out on Form B: Prices, appended hereto.

6. Commencement of the Work The Bidder agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.

7. Contract The Bidder agrees that the Bid Opportunity in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Bid.

8. Addenda The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:

No.	_____	Dated	_____
	_____		_____
	_____		_____

9. Time This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline.

10. Signatures The Bidder or the Bidder's authorized official or officials have signed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature of Bidder or  
Bidder's Authorized Official or Officials

\_\_\_\_\_  
\_\_\_\_\_  
(Print here name and official capacity of individual whose signature appears above)

\_\_\_\_\_  
\_\_\_\_\_  
(Print here name and official capacity of individual whose signature appears above)

**FORM B: PRICES**  
(See B9)

SUPPLY AND DELIVERY OF SANDER SPREADER CHASSIS

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	QUANTITY	UNIT PRICE
1.	58,000 lbs. Tandem Axle Chassis	16013	Each	6	

\_\_\_\_\_  
Name of Bidder

## FORM N: (R1) DETAILED SPECIFICATIONS 16013

### TANDEM AXLE SANDER SPREADER CHASSIS

#### **1.0 DESCRIPTION OF EQUIPMENT**

- 1.1 These specifications describe **Tandem Axle Sander Spreader Chassis** and other equipment and features as specified herein. Six (6) Tandem Axle Sander Spreader Chassis will be re-mounted with current City owned Viking 13' x 8' sander/dump bodies installed at a later date here in Winnipeg Manitoba. The successful bidder will be notified as to the drop ship location to the body manufacturer. It is the responsibility of the bidder to ensure the cab to axle measurement, frame rail after-frame measurement length, cross-member spacing, existing frame clearance and available component space is adequate for the 13' x 8' sander/dump body mid mount spinner and the existing components. Viewing of the existing trucks can be coordinated by the Contract Administrator as per D4.1
- 1.2 The Tandem Axle Sander Spreader Chassis shall be a new 2017 model year or newer.
- 1.3 The Tandem Axle Sander Spreader Chassis and all other items/components shall be the manufacturer's latest model. The vehicles shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the vehicles and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The vehicles and associated attachments, and all parts thereof, shall conform in strength and quality of material and workmanship, to the best standards and engineering practice of the industry.
- 1.4 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract the Contractor shall be held responsible for the satisfactory operational function of the equipment.

#### **2.0 OTHER SPECIFICATIONS AND STANDARDS**

- 2.1 All applicable SAE standards form an integral part of these specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The **Tandem Axle Sander Spreader Chassis** shall comply with the applicable regulations:
- Highway Traffic Act
  - Manitoba Motor Vehicle Act
  - Canadian Motor Vehicle Safety Standards, CMVSS Transport Canada
  - National Safety Mark, NSM
  - Manitoba/Winnipeg Safety and Health Act, Parts 12, 22
  - Canadian Standards Association, CSA
  - Under Writers of Canada, U/L
  - Society of Automotive Engineers, SAE
  - City of Winnipeg Lighting Visibility Standard=<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>.
- 2.3 It will be the responsibility of the Bidder to inform the City of any deficiencies in these specifications, for under this Contract the Contractor shall be held responsible for the design, performance, reliability and satisfactory operational function of the units.

#### **3.0 SERVICE FACILITY-**

- 3.1 For the purpose of warranty repairs, the supplier shall have an authorized service facility located within 10 kilometres of the boundaries of the City of Winnipeg. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. Further to B9.1, Bidders shall provide a description of the service facility including, but not limited to,

number of qualified service staff, years of service experience, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

#### **4.0 REFERENCES**

4.1 If available, please provide five (5) Canadian references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

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#### **5.0 MAKE & MODEL**

5.1 **State** make and model of the Chassis and Roll-Off Container body being bid- \_\_\_\_\_

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#### **6.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS**

6.1 Each bid will be evaluated based on adherence to all terms, conditions and requirements outlined in the Bid Opportunity package.

6.2 All items in these specifications must be answered indicating compliance or non-compliance. **BIDDERS SHALL STATE "YES" FOR COMPLIANCE OR STATE DEVIATION**, or give reply where requested to do so. Deviations shall be clearly stated and fully detailed. Alternatives will be considered subject to evaluation.

6.3 **EACH BIDDER IS REQUIRED TO FILL IN EVERY BLANK. FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID**

#### **7.0 PERFORMANCE RELIABILITY**

7.1 The responsibility for the design of the Tandem Axle Sander Spreader Chassis, its performance and reliability shall rest upon the Contractor.

7.2 The term "repeated failures" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the vehicle inoperative, or requiring repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, of assembly. Minor items or ordinary service adjustments are not included, or considered under the scope of "repeated failures", as well as other factors, such as operational damage due to accidents, misuse or lack of proper maintenance, service and lubrication attention by not following the manufacturer's preventative maintenance schedule.

7.3 Where the Tandem Axle Sander Spreader Chassis develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

7.4 The equipment shall be capable of consistent top performance in City of Winnipeg Environment. **Note: The City of Winnipeg has four seasons with ambient temperatures ranging from approximately 90°F (32°C) to -40°F (-40°C)**

#### **8.0 FUEL**

8.1 The **Tandem Axle Sander Spreader Chassis** must be fully fuelled upon delivery (**no exceptions**).

**9.0 QUALIFICATIONS OF MANUFACTURER & CONTRACTOR**

9.1 The manufacturer of the **Tandem Axle Sander Spreader Chassis** shall have five (5) years continuous experience manufacturing **Tandem Axle Sander Spreader Chassis**.

9.2 The manufacturer shall have in effect a documented quality control program ensuring that the quality of materials and workmanship, including welding, conforms to the best standards and engineering practice of the industry.

9.3 The Contractor shall have five (5) years continuous experience servicing, repairing and maintaining **Tandem Axle Sander Spreader Chassis** of the type being offered.

**10.0 CHASSIS SPECIFICATIONS-**

**GVWR**

10.1	Total GVWR	58,000 lbs.	_____
10.2	Front GVWR	18,000 lbs.	_____
10.3	Rear GVWR	40,000 lbs.	_____
10.4	Weigh scale ticket	The Contractor shall provide a certified weigh scale ticket upon delivery of the completed unit. The scale ticket shall include front and rear axle weights including one (1) operator, and all attachments.	_____

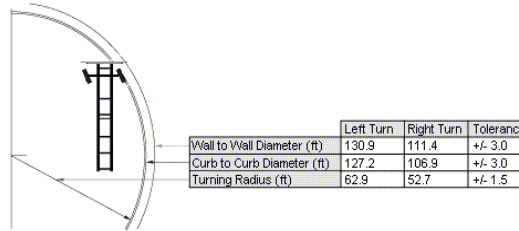
**DIMENSIONS**

10.5	Cab to Axle-	As required for Viking Cives 13' x 8' sander/dump body installed at a later date	_____
10.6	Wheelbase-	As required for Viking Cives 13' x 8' sander/dump body installed at a later date	_____
10.7	After-frame-	As required for Viking Cives 13' x 8' sander/dump body installed at a later date	_____

**TURNING RADIUS**

10.8 Turning radius-

Turning Radius- **State** the vehicle turning radius, wall to wall and curb to curb-



- a) Wall to Wall (ft)
- b) Curb to Curb(ft)-
- c) Turning Radius (ft)-

10.9	Engine	Tier IV Final, Diesel, inline 6-cylinder	_____
10.10	Horsepower	370 HP gross	_____
10.11	Torque	1250 lbs. ft. torque	_____
10.12	Engine shut down	Low oil pressure / high water temperature	_____
10.13	Anti-idling programming	Programming to be determined upon pre-production meeting.	_____
10.14	Cold Weather Starting aid	Air intake warmer or glow plugs	_____
10.15	Fuel Shut-off	Electric solenoid type	_____
10.16	Air intake	Under hood outside air intake provision c/w under hood air valve, dash mounted actuated, required for snow-plow application.	_____
10.17	Air cleaner	Dry type, suitable for snow-plow application	_____
10.18	Air intake restriction	Dash mounted restriction indicator	_____
10.19	Oil drain plug	Magnetic type	_____
10.20	Oil filter	Full flow, spin-on type	_____
10.21	Fuel filter	Spin-on type	_____
10.22	Fuel line primer pump	Required	_____
10.23	Block heater	Immersion type, 1000 Watt with covered recessed male plug, located under driver's side door	_____
10.24	Coolant	Extended Life coolant, antifreeze to -40°F (-40°C)	_____
10.25	Coolant filter	Required	_____
10.26	Coolant hoses	Premium Silicone type or Gates Blue Stripe	_____

10.27	Fan Drive	Thermostatically controlled, automatic type	_____
10.28	Air compressor	Water cooled, pressure lubricated, 18 cfm	_____
10.29	PTO Provision	Front engine PTO with adapter plate.	_____
<b>ELECTRICAL</b>			
10.30	Electrical Type	Point to Point or Multiplex	_____
10.31	Electrical connector's	Plug-in, sealed type	_____
10.32	<b>Alternator</b>	<b>160-180 amp Delco Remy with thermal over crank protection</b>	_____
10.33	Starter	With over crank protect and thermal protection	_____
10.34	Circuit breakers	Auto-reset, readily accessible	_____
10.35	Batteries	Three (3), 12-volt, group 31, 2750 CCA combined,	_____
10.36	Battery Box	Frame mounted, not to impede with body installation.	_____
10.37	Battery disconnect	In-cab mounted outboard of driver's seat	_____
10.38	Battery boost terminal	Remote battery boost terminal(s) with cover(s)	_____
10.39	Cab marker lights	LED located in exterior sun shade, visor or cab roof mounted.	_____
10.40	Trailer plug wiring	Routed to end of frame plus 3 extra feet of wiring, c/w 6-pole plastic socket. Wiring shall be circuit breaker protected, wired separately from main truck lighting	_____
10.41	2-way radio circuit	Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled	_____
10.42	Accessory switches	Six (6) required, dash mounted for "Beacon", "Plow-Lights" and additional switch labelled "Aux". All switches complete and wired for body installation, labeled and backlit	_____

**EXHAUST**



10.43	Exhaust	Single horizontal, after treatment frame mounted right hand side under cab with vertical tail pipe. Exhaust tip height to be determined upon a Pre-production meeting. Shall not impede with body installation.	_____
10.44	Overall exhaust height	To clear body	_____
10.45	Heat shield	Required over exhaust next to cab door	_____

**TRANSMISSION**

10.46	Transmission	Allison 3000 RDS with 6-speed programming, Ratio shall be as per inter-city sander spreader application. Transmission shall come with load base Management Programming. (Bidder must provide An Allison performance SCAAN with the bid submission)	_____
10.47	Ground speed signal	Ground speed signal provision required	_____
10.48	Shift selector	Digital push-button type, dash mounted	_____
10.49	Cooling capacity	Water to oil transmission cooler, as per manufacturer's recommendation for severe duty cycle	_____
10.50	Oil level dipstick	Bayonet type with high and low level markings	_____
10.51	Fluid	Synthetic	_____
10.52	Trans. drain plug	Magnetic type	_____

**FRONT AXLE**

10.53	Front Axle	Set back axle, Meritor, 18,000 lbs. capacity	_____
10.54	Fluid	Synthetic fluid	_____

**REAR AXLE**

10.55	Rear Axle	Meritor 40,000 lbs. capacity,	_____
10.56	Ratio	As per in city usage, sander spreader snow plow and dump application and for 110 km/hr top speed, <b>state</b> ratio-	_____
10.57	Inter-axle lock	Required w/dash mtd. switch	_____
10.58	Differential lock	Required for both drive axles w/dash mounted switch	_____

10.59 Fluid Synthetic fluid \_\_\_\_\_

**HUBS/ HUB SEALS**

10.60 Hub Seals Oil lubricated front and rear type \_\_\_\_\_

10.61 Hubs Aluminum front & rear hubs \_\_\_\_\_

**FRONT SUSPENSION**

10.62 Front Suspension Taper leaf spring suspension 18,000 lbs. capacity \_\_\_\_\_

**REAR SUSPENSION**

10.63 Rear Suspension Air ride suspension, 46,000 lbs. capacity. Suspension must be suited for sander spreader snow-plow and dump application. \_\_\_\_\_

10.64 Suspension control valve Manual dump valve for air suspension c/w dash mounted switch, indicator light, gauge and buzzer \_\_\_\_\_

**RIMS, WHEELS**

10.65 Front Wheels 22.5 x 12.25 aluminum wheels, aluminum hub \_\_\_\_\_

10.66 Rear Wheels 22.5 x 8.25 aluminum wheels, aluminum hub \_\_\_\_\_

**TIRES**

10.67 Front Tires (Mud & Snow) Front steer tires must be suitable for application and Province of Manitoba weather conditions, **state make & model of tires-** \_\_\_\_\_

10.68 Front Tire Size 385/65R 22.5, 20-ply rated for requested front GVWR \_\_\_\_\_

10.69 Rear Tires (Mud & Snow). Rear Drive tires must be suitable for application and Province of Manitoba weather conditions, **state make & model of tires-** \_\_\_\_\_

10.70 Rear Tire Size 11R 22.5, 16-ply rated for request rear GVWR \_\_\_\_\_

### FRAME

10.71	Frame	Single rail only, suitable for requested GVWR and application. Frame rail must meet the RBM strength required for the request Gross Vehicle Weight Rating	_____
10.72	Front Frame Extension	Integral type, 20-24 in., <b>state length-</b>	_____
10.73	Application	To be suitable for sand spreader, snow-plow and dump body application with a mid-mount spinner.	_____
10.74	Chassis fasteners	Grade-8 threaded hex headed frame fasteners	_____
10.75	After-frame	As required for aluminum 13' x 8' U-Body Combination Dump/Spreader Body/Snow- Plow	_____

### STEERING

10.76	Steering	Heavy-duty power, synthetic oil preferred, rated for GVWR	_____
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### BRAKES

10.77	Brakes	Air, ABS, S-cam drum brakes, front & rear	_____
10.78	Slack adjusters	Meritor (clearance sensing), automatic type	_____
10.79	Parking brake	Spring set, four (4) chamber system	_____
10.80	Brake pots	Vented type	_____
10.81	Dust shields	Required, front and rear	_____
10.82	Moisture ejector	Bendix DV-2, heated to wet tank	_____
10.83	Drain valves	Manual, chain or cable operated, required on each air tank	_____
10.84	Air dryer	Wabco Heated System Save 1200	_____
10.85	Air Tanks	Must be aluminum or Stainless steel or aluminum straps with minimum 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion	_____

### FUEL TANK

10.86	Fuel Tank	Aluminium, 225 L capacity, fully fuelled	_____
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10.87	Tank straps	Steel straps with 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion	_____
10.88	Fuel Water Separator	Heated, drainable, mounted under hood, located to	_____
<b>CAB</b>			
10.89	Cab	Conventional w/corrosion inhibitor	_____
10.90	Cab Construction	Aluminum or galvanized steel construction	_____
10.91	<b>Bumper to Back of Cab</b>	<b>BBC 106-117 in. (excluding front frame rails)</b>	_____
10.92	Cab mounts	Air suspension	_____
10.93	Front grille	Stationary type	_____
10.94	Cab interior / trim	Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab	_____
10.95	Cab silencer package	Required for minimal decibel level	_____
10.96	Hood/Firewall/Engine insulations	Insulated hood liner, engine cover and firewall	_____
10.97	Floor covering	Rubber mat with under-padding	_____
10.98	Floor mats	Two (2), rubber	_____
10.99	Driver's seat	High back, air suspension w/foldable armrests, heavy-duty cloth upholstery, Cordura or equal	_____
10.100	Passenger seat	High back, air suspension w/foldable armrests, heavy-duty cloth upholstery, Cordura or equal	_____
10.101	Sun visors	Dual flip-up type	_____
10.102	Steering wheel	Tilt and telescopic type	_____
10.103	12-Volt power outlet	(2) required with independent circuit	_____
10.104	Radio	Factory installed AM/FM/ with "hand free" Blue Tooth capability	_____
10.105	Starter switch	Key operated c/w three (3) sets of keys	_____
10.106	Interior light	Dome light with driver and passenger door switches	_____
10.107	Heater / Defroster	High output, capable of keeping all windows clear at an outside temperature of (-40°C)	_____
10.108	Air conditioning	Required	_____

10.109	Brake, accelerator, pedals	Floor or hanging type brake and accelerator pedal, <b>state-</b>	_____
10.110	Horn	Dual electric	_____
10.111	Exterior mirrors	Mirrors heated, 4-way motorized adjustment (with convex mirrors), suitable for 102 in. equipment width	_____
10.112	Down-view mirror	Required over passenger door, 5" x 4" approx.	_____
10.113	Windows & windshield	Tinted	_____
10.114	Power windows	Required on driver and passenger side controls for both windows required on driver side	_____
10.115	Windshield wipers	Electric, intermittent	_____
10.116	Wiper blades	Heavy duty snow type with winter type boot	_____
10.117	Windshield washers	Electric, required with spray nozzles on wiper Blades preferred	_____
10.118	Grab handles	Dual exterior	_____
10.119	<b>Door Window</b>	<b>Lower right hand door with Fresnel lens (preferred)</b>	_____
10.120	Entrance steps	Dual each side, open grate / grip type	_____
10.121	Winter front	Heavy-duty vinyl w/twist lock or snap type fasteners	_____
10.122	Exterior Sun Visor	Required	_____
10.123	Fender extensions	Front Fender extensions required	_____
10.124	Dash	Wing type dash for operator convenience preferred	_____
10.125	Back-Up Camera	Required	_____
	<b>SNOW PLOW LIGHTS &amp; MIRRORS</b>		
10.126	Fender Mounted Mirrors & Snow-Plow Lighting	Factory installed fender mounted mirrors with snow-plow lighting	_____
10.127	Strobe LED lights	Dual amber LED class I strobe lights with stainless brackets	_____

## INSTRUMENTATION

10.128 Instrumentation Oil pressure gauge, Coolant temperature gauge, Transmission oil temperature gauge, Voltmeter gauge, Air reservoir pressure gauge with LAP warning light and buzzer, Low Oil Pressure High Water Temperature Warning light and buzzer and non-resettable type Engine hour-meter \_\_\_\_\_

10.129 Weigh Scale Systems Model Air Weigh scale system required for front and rear axles. System must be tested and calibrated prior to delivery. \_\_\_\_\_

## TOW HOOKS

10.130 Tow Hooks Front mounted and Rear mounted \_\_\_\_\_

## COLOUR

10.131 Exterior Colour White \_\_\_\_\_

10.132 Interior Colour Grey \_\_\_\_\_

10.133 Frame & suspension Primed and finished with black Imron 5000 paint \_\_\_\_\_

## ACCESSORIES

10.134 Flare kit Three (3) triangular reflectors, CVSA approved \_\_\_\_\_

10.135 Fire Extinguisher 5 lbs. Fire Extinguisher ABC type, state location \_\_\_\_\_

10.136 First Aid Kit Required, state location \_\_\_\_\_

10.137 Auto Greasing System Groeneveld Single Line EP0 Auto-greasing system Required \_\_\_\_\_

10.138 Nut Indicators Wheel nut indicators on all wheel lug nuts required \_\_\_\_\_

**WARRANTY**

- 10.139 All warranty information shall be detailed and include all exclusions. The successful bidder shall provide all published warranty information upon delivery of the equipment. Bidder shall state all warranty information. \_\_\_\_\_
- Basic Vehicle One (1) year, unlimited km, **state-** \_\_\_\_\_
  - Batteries One (1) year, unlimited km **state-** \_\_\_\_\_
  - Drivetrain Two (2) years, unlimited km **state-** \_\_\_\_\_
  - Cab structure/corrosion Five (5) years, unlimited km **state-** \_\_\_\_\_
  - Frame & Cross-members Five (5) years, unlimited km **state-** \_\_\_\_\_
  - Cab paint One (1) year or 160,000 km **state-** \_\_\_\_\_
  - Engine Three (3) years or 240 000 km **state-** \_\_\_\_\_
  - Transmission Two (2) years, unlimited km **state-** \_\_\_\_\_
  - Axles, front & rear- Two (2) years or 161 000 km **state-** \_\_\_\_\_
  - Body Warranty- One (1) year unlimited km body warranty **state-** \_\_\_\_\_

11.0 **DELIVERY**

- 11.1 Delivery Point: The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.I.V.S. (if applicable) to the WFMA 185 Tecumseh Street, Winnipeg MB. The successful bidder shall be notified by the Contractor Administrator the delivery address prior to issuance of the purchase order \_\_\_\_\_
- 11.2 Delivery Time: **Twelve to sixteen (12-16) calendar weeks** from the date of award. Equipment shall be delivered between 8:00 am and 3:00 pm on Business Days. \_\_\_\_\_
- 11.3 Delivery Contact: The Contractor shall contact the Contract Administrator prior to delivery of the equipment. \_\_\_\_\_
- 11.4 P.D.I: A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list \_\_\_\_\_

12.0 **MANUALS**

- 12.1 Manuals supplied under this Contract. The manuals shall cover the complete equipment including all components thereof, CD or USB flash drive is preferred where available. \_\_\_\_\_

12.2 The following manuals shall be supplied with the units when delivered:

- a) Operator's manual – Two (2) per unit (one operator manual shall be sent to the Equipment Operator Training Branch) \_\_\_\_\_
- b) Parts and service manuals – One (1) complete sets including preventative maintenance schedules. CDs or USB flash drive are preferred. \_\_\_\_\_

**13.0 FIRST SERVICE PREVENTATIVE MAINTENANCE KIT**

13.1 In order to assure minimum downtime of the equipment in future service, the Contractor shall provide one (1) complete replacement set of new OEM filters for each unit purchased. The set of required filters shall include (if applicable to the equipment type) air, fuel, oil, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing. \_\_\_\_\_

13.2 The Contractor shall provide a list of factory recommended lubricants to be used with the equipment, as well as a complete cross reference guide for all warranty approved lubricants and filters that can be used during preventative maintenance servicing. \_\_\_\_\_

**14.0 DISCOUNT FOR PARTS AND LABOUR**

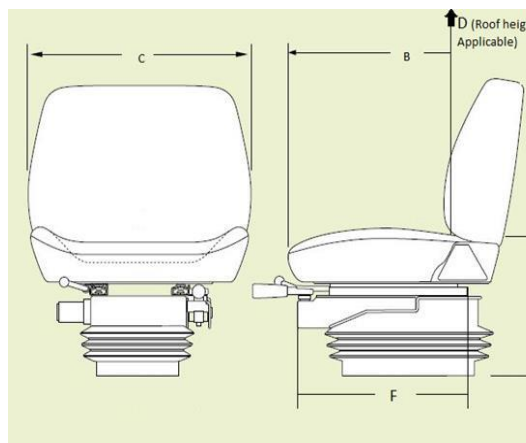
14.0 **State** Parts and Labor discount- \_\_\_\_\_ %  
 \_\_\_\_\_ %

**15.0 ERGONOMICS**

**Entry/ Exit**

- 15.1 First step entry height **State**, height of first step in inches \_\_\_\_\_
- 15.2 First handhold entry height **State**, first handhold entry height in inches \_\_\_\_\_
- 15.3 Access to equipment **State**, door opening height in inches \_\_\_\_\_
- 15.4 Access to equipment **State**, door opening width in inches \_\_\_\_\_
- 15.5 Designed to prevent slipping Anti-slip steps/handholds **(Y or N)?** \_\_\_\_\_

**Seat (use below diagram to answer questions)**





- 15.6 Sitting height range from floor (where feet rest) (A) **State**, seat height range in inches \_\_\_\_\_
- 15.7 Seat length/depth (B) **State**, seat length/depth in inches \_\_\_\_\_
- 15.8 Seat width (C) **State**, seat width in inches \_\_\_\_\_
- 15.9 Cab height from seat to roof (if applicable) (D) **State**, cab height range in inches \_\_\_\_\_
- 15.10 Back rest height (E) **State**, back rest height in inches \_\_\_\_\_
- 15.11 Seat travel range (F) **State**, seat travel in inches \_\_\_\_\_
- 15.12 Lumbar support Is lumbar support provided **(Y or N)?** \_\_\_\_\_
- 15.13 Head rest Is head rest provided **(Y or N)?** \_\_\_\_\_
- 15.14 Seat is made of breathable material **State**, type of seat material \_\_\_\_\_

**Operation**

- 15.15 a) Reaching distance to usual work **State**, reaching distance in inches \_\_\_\_\_
- 15.16 b) Maximum reaching distance **State**, maximum reach distance in inches \_\_\_\_\_
- 15.17 Adjustable pedals (accelerator/brake/clutch) Are pedals adjustable **(Y or N)?** \_\_\_\_\_
- 15.18 Adjustable steering wheel Is steering wheel adjustable **(Y or N)?** \_\_\_\_\_
- 15.19 Adjustable shoulder belt Is belt adjustable and anchored **(Y or N)?** \_\_\_\_\_

**Cargo Area**

- 15.20 Lid opens to provide adequate space Adequate space provided **(Y or N)?** \_\_\_\_\_
- 15.21 Loading height **State**, trunk height in inches \_\_\_\_\_

**Environment**

- 15.22 Operator compartment is insulated from equipment noise (while operating) **State**, dBA inside cab while operating \_\_\_\_\_
- 15.23 Operator insulated from equipment vibration Is operator insulated from vibration **(Y or N)?** \_\_\_\_\_
- 15.24 Heating/cooling systems **State**, cab temperature range \_\_\_\_\_
- 15.25 Cab lighting **State**, lumens inside cab \_\_\_\_\_

## **Maintenance/ Inspection**

- 15.26 Lift assistance provided (when necessary) Is lift assistance provided **(Y or N)**? \_\_\_\_\_
- 15.27 Easy access to compartment doors Is easy access provided **(Y or N)**? \_\_\_\_\_
- 15.28 Include any other relevant ergonomic specifications and applicable range of adjustment
- \_\_\_\_\_
- \_\_\_\_\_