

FORM N: DETAILED SPECIFICATIONS 21019

TANDEM AXLE CONVENTIONAL CAB & CHASSIS

1. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Bidders shall state “yes” for compliance or state “deviation”**, or give a reply where requested to do so. Deviations and/or equivalents shall be clearly stated and fully detailed. Deviations and/or equivalents will be considered subject to evaluation. In every instance where a brand name or design specifications is used, the City will also consider deviations and/or equivalents.
- 1.3 Lengthy explanations of deviations may be included in a separate document and must reference the appropriate Detailed Specification.
- 1.4 Each Bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.
- 1.5 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these Detailed Specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.

2. DESCRIPTION OF EQUIPMENT

- 2.1 These specifications describe **Tandem Axle Conventional Cab & Chassis** and other equipment and features as specified herein. These units are an integral portion of the City of Winnipeg Forestry Department's equipment fleet as they are used year-round during all seasons. The vehicles will be used for hauling and dumping.
- 2.2 The **Tandem Axle Conventional Cab & Chassis** shall be a new **2021** model year or newer.
- 2.3 The **Tandem Axle Conventional Cab & Chassis** and all other items/components shall be the manufacturer's latest model. The equipment shall be furnished complete and ready for operation. Any parts or accessories not specifically mentioned, but which are required to complete and place the equipment and associated attachments in successful operation shall be furnished as though specifically mentioned in these specifications. The equipment 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.
- 2.4 The ratings specified herein merely state the minimum values acceptable to the City, not implying that those values are sufficient for the design of the particular equipment being bid.

3. OTHER SPECIFICATIONS AND STANDARDS

- 3.1 All applicable SAE Standards form an integral part of the vehicle specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 3.2 Where applicable, the Tandem Axle Conventional Cab & Chassis shall comply with the applicable regulations:

Transport Canada, National Safety Mark, NSM:
<http://www.tc.gc.ca/eng/acts-regulations/acts-road.htm>

Manitoba Safety and Health Regulation, Parts 12, 16, 22:
https://www.gov.mb.ca/labour/safety/pdf/1_2016_wsh_ar_oc.pdf

Canadian Motor Vehicle Safety Standards C.M.V.S.S.
http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1038/section-sched3.html

Manitoba Highway Traffic Act regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker.
<http://web2.gov.mb.ca/laws/regs/index.php?act=h60>

Canadian Standards Association, CSA:
<http://www.csagroup.org/>

Under Writers of Canada, U/L:
<http://www.ulc.ca/>

Society of Automotive Engineers, SAE:
<http://www.sae.org/>

City of Winnipeg Lighting Visibility Standard:
<http://winnipeg.ca/matmgt/pdfs/PublicWorksEquipLightingVisibility.pdf>

Manitoba Building Code:
<https://web2.gov.mb.ca/laws/regs/current/pdf-regs.php?reg=31/2011>

- 3.3 The completed unit shall include a Manitoba Government Inspection with Safety Sticker.
- 3.4 Where applicable, the manufacturer/installer shall affix their National Safety Mark (NSM) certification sticker on each unit.

State NSM number: _____

4. FUEL

- 4.1 The equipment shall be fully fuelled upon delivery (no exceptions).

5. REFERENCES

- 5.1 Provide five (5) references where this equipment is used in a working environment where climatic conditions are similar to the City of Winnipeg.

6. MAKE & MODEL

- 6.1 State year, make and model being bid:

Model Year: _____

Make: _____

Model: _____

7. PERFORMANCE RELIABILITY

- 7.1 Shall be capable of consistent top performance for transporting and dumping of cut trees during all seasons which are normal to the City of Winnipeg.
- 7.2 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. WEIGHT DISTRIBUTION

- 8.1 The completed vehicle shall not exceed the City of Winnipeg's limits gross vehicle weight, axle and tire loads with the unit (including the chassis) fully fuelled and operational with two (2) operators and including a full payload of cut trees.

Note:

The City of Winnipeg and the Province of Manitoba limits the gross vehicle weight and axle and tire loads to

- **Front axle (steering axle) – 7300 kg (16,094 lbs.)**
- **Rear axle (single axle) – 9100 kg (20,062 lbs.)**

- **Tire load – 9 kilograms for each millimetre width of tire (approx. 500 lbs. per inch of tire width)**

9. WEIGH SCALE TICKET

9.1 Where applicable, 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 fully fuelled and operational including two (2) operators.

10. SPECIFICATIONS

Cab and Chassis Specifications

10.1 Make **State:** make: _____

10.2 Model **State:** model: _____

GVWR

10.3 Total 56,000 lbs.
State: _____

10.4 Front 16,000 lbs.
State: _____

10.5 Rear 40,000 lbs.
State: _____

10.6 GCWR **State:** GCWR: _____

Dimensions

10.7 Wheelbase (WB) As required for an 18' x 8' Forestry Dump Body
State: WB: _____

10.8 Cab to Axle (CA) As required for an 18' x 8' Forestry Dump Body
State: CA: _____

10.9 After Frame (AF) As required for an 18' x 8' Forestry Dump Body
State: AF: _____

Engine

10.10 Type Tier IV Final Diesel, inline 6-cylinder _____

10.11 Horsepower Approximately 300 HP gross
State: HP: _____

10.12 Torque Approximately 860 lb-ft
State: torque: _____

10.13 Radiator

- Aluminum
- Approximately 1200 square inch

State: size: _____

10.14	Fan Drive	<ul style="list-style-type: none"> • Two-speed type • Direct drive • Residual torque device for disengaged fan speed • Complete with dash switch 	_____
10.15	Air Cleaner	<ul style="list-style-type: none"> • Single element, dry type • Suitable for application 	_____
10.16	Coolant	<ul style="list-style-type: none"> • Extended Life Coolant • Freeze protection to -40°C 	_____
10.17	Block Heater	<ul style="list-style-type: none"> • Immersion type • Approximately 1000 Watt • Covered with recessed plug • Mounted below Driver's door 	_____
10.18	Engine Shut Down	Low oil pressure / high water temperature	_____
10.19	Anti-Idling Programming	<ul style="list-style-type: none"> • Anti-Idle shut down to be provided • Programmed for customer preference <p>Note: Programming to be determined at pre-production meeting</p>	_____
10.20	Air Intake Warmer	Required:	_____
10.21	Fuel Shut-Off	Electric solenoid type	_____
10.22	Air Intake	Dual under-hood/outside air intake	_____
10.23	Air Intake Restriction	Dash mounted restriction indicator	_____
10.24	Oil Drain Plug	Magnetic type	_____
10.25	Oil Filter	Full flow, spin-on type	_____
10.26	Fuel Filter	Spin-on type	_____
10.27	Fuel Line Primer Pump	Required:	_____
10.28	Coolant Filter	If Available	_____
		<p><u>Or</u></p> <p>Coolant Maintenance Program Extended life coolant maintenance is test strip every approximately 500 hours and fluid change at 10,000 hours.</p> <p>State:</p> <ul style="list-style-type: none"> • type: _____ • test strip and fluid change intervals: _____ 	
10.29	Coolant Hoses	Silicone type, Gates Blue Stripe or premium type hoses State: type: _____	_____

10.30 Air Compressor

- Water cooled
- Pressure lubricated
- Approximately 18 cfm

State: cfm: _____

10.31 PTO Accommodation

Supply any necessary equipment for the operation of a PTO

Future Programming:

- To disengage the PTO when 5 kph is reached
- To disengage the PTO to prevent the driver from driving off when the Forestry Dump Body is up
- Power take-off engagement switch
- OEM dash mounted switch c/w warning light, labelled
- All switches and programming for body operations to be the responsibility of the chassis supplier

Transmission

10.32 Transmission

- Allison 3500 RDS with 6-speed programming
- Ratio shall be as per inter-city application.
- Transmission shall come with Load Base Management Programming
- Transmission to PTO to operate the Forestry Dump body

10.33 Allison SCAAN **Required:** Provided at time of delivery _____

10.34 Transmission Fluids Synthetic _____

10.35 Shift Selector Column mounted shifter
State: type: _____

10.36 Cooling Capacity

- Water to oil transmission cooler
- Per Manufacturer's recommendation for severe duty cycle

10.37 Oil Level Dipstick

- Bayonet type
- High and low level markings

10.38 Transmission Drain Plug Magnetic type _____

Front Axle

10.39 Front Axle

- Meritor 16,000 lbs. capacity
- With synthetic fluid

State: capacity: _____

Rear Axle

10.40 Rear Axle (Tandem)

- Meritor 40,000 lbs. capacity
- With synthetic fluid

State: capacity: _____


10.41	Ratio	For 110 km/hr State: ratio: _____	_____
10.42	Inter-Axle Lock	Required: with dash mounted switch	_____
10.43	Differential Lock	Required: for drive axle with dash mounted switch	_____
10.44	Hub Seals	Oil lubricated front and rear type	_____
	Front Suspension		
10.45	Type	<ul style="list-style-type: none"> • Taper-leaf spring • 16,000 lbs. capacity 	_____
	Rear Suspension		
10.46	Rear Suspension	<ul style="list-style-type: none"> • Air ride suspension • 40,000 lbs. capacity 	_____
10.47	Weigh Scale System	<ul style="list-style-type: none"> • Rear Suspension Load Gauge • Display Message in Cluster Display 	_____
10.48	Suspension Control Valve	<ul style="list-style-type: none"> • Manual dump valve for air suspension Dash mounted switch • Indicator light • Gauge and buzzer 	_____
10.49	Auto Refill	Required: at 5 km/hr	_____
		Exact speed will be determined at a pre-production meeting	
	Cab		
10.50	Type	Conventional with corrosion inhibitor	_____
10.51	Cab Construction	Aluminum or Galvanized Steel State: material type: _____	_____
10.52	Cab Mounts	Air suspension	_____
10.53	Grab Handles	Dual exterior State: locations: _____	_____
10.54	Grab Handles	Dual Interior	_____
10.55	Entrance Steps	<ul style="list-style-type: none"> • Dual each side, • Open grate / grip type 	_____
10.56	Air Conditioning	Required:	_____
10.57	Hood	<ul style="list-style-type: none"> • High visibility hood • Tilting • Stationary chrome grille State: hood type: _____	_____
10.58	Hood Fender Extensions	<ul style="list-style-type: none"> • Front • Rubber 	_____

10.59	Cab Interior / Trim	<ul style="list-style-type: none"> • Extreme climate insulation • Cloth or vinyl headliner on roof, door panels and rear interior of cab 	_____
10.60	Cab Silencer Package	Required: for minimal decibel level	_____
10.61	Hood/Firewall/Engine Insulations	Insulated: <ul style="list-style-type: none"> • Hood liner • Engine cover • Firewall • Splash panels 	_____
10.62	Floor Covering	Rubber mat with under-padding	_____
10.63	Floor Mats	<ul style="list-style-type: none"> • Qty two (2) • Rubber 	_____
10.64	Driver's Seat	<ul style="list-style-type: none"> • High back • Air suspension • Foldable armrests • Seatbelt • Heavy-duty cloth upholstery 	_____
10.65	Passenger Seat	<ul style="list-style-type: none"> • High back • Air suspension • Foldable armrests • Seatbelt • Heavy-duty cloth upholstery 	_____
10.66	Dashboard	Ergonomic (Wing) Design State: design: _____	_____
10.67	Sun Visors	Dual flip-up type	_____
10.68	Cab Interior / Trim	<ul style="list-style-type: none"> • Extreme climate insulation • Cloth or vinyl headliner on roof, door panels and rear interior of cab 	_____
10.69	12-Volt Power Outlet	Required: Two (2) with independent circuit	_____
10.70	Radio	<ul style="list-style-type: none"> • Factory installed • AM/FM • Blue Tooth capability • USB input • Auxiliary input 	_____
10.71	Radio Auxiliary Control	<ul style="list-style-type: none"> • Mounted in steering wheel • Radio function control • Bluetooth answer/disconnect 	_____
10.72	USB Ports	<ul style="list-style-type: none"> • Qty two (2) • Located in instrument panel 	_____

10.73	Keyless Entry System	Remote with: <ul style="list-style-type: none">• Panic alarm and horn beep lock confirmation• Auxiliary buttons for other functions• Include three (3) key Fobs State: auxiliary functions that are available: _____ _____	_____
10.74	Dome Light	Dome light with driver and passenger door switches	_____
10.75	Heater / Defroster	<ul style="list-style-type: none">• High output• Capable of keeping all windows clear at an outside temperature of -40°C	_____
10.76	Brake, Accelerator, Pedals	Floor or hanging type brake and accelerator pedals State: style: _____	_____
10.77	Horn	Dual electric	_____
10.78	Air Horn	<ul style="list-style-type: none">• Single trumpet• Lanyard pull cord	_____
10.79	Exterior Mirrors	<ul style="list-style-type: none">• Approximately 7.5 in. x 14 in. flat glass• Include 7.5 in. x 7 in. convex mirrors for 102 in. load width• Heated• Lighted• 4-way motorized adjustment• Mounted on doors	_____
10.80	Down-View Mirror	<ul style="list-style-type: none">• Convex• Over passenger door• Approximately 6 in. x 10.5 in.	_____
10.81	Hood Mounted Mirrors	<ul style="list-style-type: none">• Convex• Hood mounted• Approximately 7.5 sq. ins.	_____
10.82	Windows & Windshield	Tinted	_____
10.83	Power Windows	Power driver and passenger side	_____
10.84	Doors	Power door locks	_____
10.85	Windshield Wipers	Electric intermittent	_____
10.86	Wiper Blades	Heavy duty with winter type boot	_____
10.87	Windshield Washers	Electric, with spray nozzles on wiper blades	_____
10.88	Bug Screen	Mounted behind grille	_____
10.89	Winter Front	Heavy-duty vinyl with twist lock or snap type fasteners	_____

10.90	Exterior Sunshade Frame	Includes integral clearance/marker lights	_____
10.91	Frame	<ul style="list-style-type: none"> • Single rail • Heat treated alloy steel 	_____
10.92	Rust Inhibitor (Frame/Cross Member)	Applied prior to body installation State: type and brand:	_____ _____
10.93	Chassis Fasteners Front Bumper	Grade-8 threaded hex headed frame fasteners	_____
10.94	Type	<ul style="list-style-type: none"> • Heavy duty • Chrome steel • Full width • License plate bracket 	_____
Towing			
10.95	Tow Hooks	Front and rear	_____
10.96	Rear Frame Towing Provisions	<ul style="list-style-type: none"> • Wiring routed to end of frame with two (2) extra feet • Air lines routed to end of frame with two (2) extra feet • Separated from main truck lighting • 7-way pin receptacle • Circuit breaker protected 	_____
10.97	Trailer Auxiliary Circuit	<ul style="list-style-type: none"> • Electric trailer brake • Controlled by ignition switch 	_____
Brakes			
10.98	Brakes	<ul style="list-style-type: none"> • Air • ABS 	_____
10.99	Slack Adjusters	<ul style="list-style-type: none"> • Front and rear • Clearance sensing • Automatic type • Greasable slack adjuster pins 	_____
10.100	Parking Brake	Required:	_____
10.101	Parking Brake Alarm	Alarms sounds when vehicle park brake is "NOT" SET, with ignition "OFF" and any door opened	_____
10.102	Brake Chambers	<ul style="list-style-type: none"> • Front and rear • Vented type 	_____
10.103	Dust Shields	Front and rear	_____

10.104	Air Compressor	Approximately 18 cfm State: cfm: _____	_____
10.105	Air Tanks	Aluminum tanks State: qty: _____ State: locations: _____	_____
10.106	Tank Straps	<ul style="list-style-type: none">• Aluminum, stainless-steel or 3/16 dia. nylon coated aircraft cable• 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion State: strap type: _____	_____
10.107	Moisture Ejector	Required: Wabco, heated in all air tanks	_____
10.108	Drain Valves	Required: for each tank <ul style="list-style-type: none">• Manual• Chain or cable operated	_____
10.109	Air Dryer	Air dryer with heater State: make: _____ State: model: _____ State: location: _____	_____
Steering			
10.110	Type	<ul style="list-style-type: none">• Power• Tilt and telescopic	_____
Exhaust System			
10.111	Configuration	<ul style="list-style-type: none">• Stationary extreme outboard single right hand• Chrome vertical discharge on passenger side• Under-frame routing• Vertical portion cab mounted• Discharge tip shall have a backslash type end	_____
10.112	Overall Exhaust Height	Approximately 12 in. higher than Forestry Dump Body	_____
10.113	Exhaust Heat Shield	<ul style="list-style-type: none">• Chrome• Over exhaust next to cab door	_____
Electrical Systems			
10.114	Chassis Wiring	<ul style="list-style-type: none">• Multiplex wiring• Colour coded• Continuously numbered	_____
10.115	Electrical Connectors	<ul style="list-style-type: none">• Plug-in• Sealed type	_____

10.116	Anti-Corrosion Electrical Package	<p>Controllers and sensitive electrical components (PCM, Harnesses etc.) mounted in cab State: location: _____</p>	_____
			
10.117	Alternator	<p>Delco Remy 36SI Heavy Duty, Brushless type 160 -180 Amp Pad Mount Remote Sense State: make: _____ State: model: _____</p>	_____
10.118	Starter	<p>Delco Remy 39MT Heavy Duty Thermal Over-Crank Protection State: make: _____ State: model: _____</p>	_____
10.119	Circuit Breakers	<ul style="list-style-type: none"> • Auto-reset • Readily accessible 	_____
10.120	Batteries	<ul style="list-style-type: none"> • Three (3) batteries • Maintenance free • 12-volt, Group 31 • Approximately 2700-2850 CCA combined • Exposed connectors sealed with dielectric grease 	_____
10.121	Batteries Location	<ul style="list-style-type: none"> • Under cab or frame mounted • Complete with battery box – steel with cover • Readily accessible <p>Note: Batteries not to impede with the installation of the Forestry Dump Body</p> <p>State: location: _____</p>	_____
10.122	Battery Disconnect Switch	<ul style="list-style-type: none"> • In-cab mounted • Lockable with padlock <p>State: location: _____</p>	_____
10.123	Battery Boost Terminal	<ul style="list-style-type: none"> • Remote battery boosts terminal(s) • Protected from road spray <p>State: location: _____</p>	_____
10.124	Cab Marker Lights	<ul style="list-style-type: none"> • Cab or Sun Visor Marker Lights • LED 	_____

10.125 2-Way Radio Circuit

- Independent 20 Amp circuit
- Ignition powered
- Wired under dash loose
- Labelled

10.126 Accessory Switches

Required: Six (6)

- Complete and wired for body installation
- Wired through the ignition and Acc circuit
- PTO, Beacon and Auxiliary
- Labeled
- Backlit

10.127 Mega Fuse Box

- Located in-cab or under-cab
- Sealed, protected from road spray

State: location: _____

10.128 Work Lights

- Toggle Switch - Lighted; on Instrument Panel
- Wiring Effects for Body Installer
- Furnished Back of Cab Light

Fuel Tanks

10.129 Fuel Tank

- Aluminum
- Approximately 265 L capacity
- Mounted left side, under cab
- Shall not impede in the installation of the body

State: capacity: _____

10.130 Diesel Exhaust Fluid (DEF) Tank

- Approximately 36 L capacity
- Heated
- Frame mounted outside left rail, under cab
- Labelled "DEF ONLY"

State: capacity: _____

10.131 Tank Straps

- Aluminum or stainless-steel straps
- 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion

10.132 Fuel/Water Separator

- Heated
- Drainable
- Includes water-in-fuel sensor
- Mounted under hood, on engine
- Protected from road spray

Rims, Wheels and Hubs

10.133 Front Wheels

- Aluminum
- Hub piloted
- Rated for requested GVWR

10.134 Rear Wheels

- Aluminum
- Hub piloted
- Rated for requested GVWR

10.135	Hub Seals	Oil lubricated	_____
10.136	Wheel Nut Indicators	Required: on all wheel nuts	_____

Tires

10.137	Front Tires	<ul style="list-style-type: none"> • 385/65R22.5 20-ply • Load Range J • Snow, mud and ice rated 	_____
10.138	Rear Tires	<ul style="list-style-type: none"> • 11R 22.5 16-ply • Load Range H • Snow, mud and ice rated 	_____

10.139 Mud Flaps

10.140	Mud Flaps, Front	<ul style="list-style-type: none"> • OEM • Moulded 	_____
10.141	Mud Flaps, Rear	<ul style="list-style-type: none"> • Temporary style • Removable 	_____



Instrumentation

10.142	Instrumentation	<ul style="list-style-type: none"> • 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 Warning Light and Buzzer • High Water Temperature Warning Light and Buzzer • Speedometer and odometer 	_____
10.143	Engine Hour-Meter	<ul style="list-style-type: none"> • Non-Resettable Hobbs Engine Meter • Dedicated • Integrated into the dash • Visible to operators at all times 	_____

Colours

10.144	Exterior Colour	White	_____
10.145	Interior Colour	Grey	_____
10.146	Frame and Suspension	Primed and finished with Black Imron 5000	_____

Air Solenoids

- 10.147 Air Solenoids
 - For Body Installer _____
 - Programmable (chassis supplier responsibility)
 - Provides (3) Normally Closed Pilot Air Source
 - Approximately 4 CFM
 - Includes Latched Switch in Cab
 - Air Available Only with Key in "Ignition" or "Accessory" Position
 - Air Will Exhaust with key in "Off" Position

Safety

- 10.148 Flare Kit
 - Three (3) triangular reflectors _____
 - CVSA approved.
 - Kit must be mounted or secured
- 10.149 Fire Extinguisher
 - 5 lbs. Fire Extinguisher ABC type _____
 - Installed and secured
 - State:** location: _____
- 10.150 Back-Up Cameras
 - Required:** Quantity two (2) _____
 - Location # 1 - back of vehicle
 - Location # 2 - top of cab complete with protective guard
 - Switch provided for second camera



Cameras to be installed by Body Installers

- 10.151 Back-Up Camera Screen
 - In-Dash (Ergonomic (Wing) Dashboard) _____
- 10.152 Back-Up Alarm
 - Approximately 102 dBA _____
 - Mounted to be protected from damage
- 10.153 Dump Body Stowage Warning System
 - Required:** _____
 - Warning light and buzz system shall be installed on the dash and shall be actuated when:
 - Dump Body is not in the fully stowed position
 - Tail Gate open

- 10.154 Pre-Trip Exterior Light Inspection **Programmed:** _____
- When activated, the vehicle lights repeatedly flash in a specific sequence to allow the operator to verify that the exterior lights are functioning.
- The light test sequence tests:
- Park Lights
 - Headlights (low and high beams)
 - Right/left front/rear turn lights
 - Brakes Lights
 - Beacon(s)
 - Strobe Lights
 - Clearance Lights
- 10.155 Warning Light Over Ride **Programmed:** _____
- Rear strobe lights to be programmed to allow for an over-ride for turn signals and brake lights when strobe lights are on.
- Other drivers will be able to determine if the truck is stopping or turning when strobe lights are on.

11.0 **WARRANTY:**

11.1 All warranty information shall be detailed and **include all exclusions.** _____

The Contractor shall provide all published warranty information upon delivery of the equipment.

Bidder shall state all warranty information.

11.2 The warranty for the **Tandem Axle Conventional Cab & Chassis** shall cover the complete equipment, and all parts thereof against any defects of workmanship, construction and materials. _____

Any equipment that has become defective during said warranty period and has not proven to have been caused by negligence on the part of the user shall be repaired or replaced at no cost to the City.

The warranty shall be effective from the date the equipment is put into service by the City of Winnipeg

Chassis Cab Warranty

11.3 Basic Coverage **State:** Terms: _____

11.4 Engine Coverage **State:** Terms: _____

11.5 Axles – Front and Rear **State:** Terms: _____

11.6 Cab Structure / Corrosion **State:** Terms: _____

11.7 Drivetrain **State:** Terms: _____

11.8 Batteries **State:** Terms: _____

11.9 Frame and Cross Members **State:** Terms: _____

11.10 Cab Paint **State:** Terms: _____

11.11 Electrical **State:** Terms: _____

11.12 Transmission **State:** Terms: _____

12.0 **DELIVERY:**

12.1 **Delivery Point:** _____

The complete unit shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid, including invoice and N.V.I.S. (if applicable) to the Winnipeg Fleet Management Agency (WFMA) 185 Tecumseh Street, Winnipeg MB.

12.2 **Delivery Time:** _____

Equipment shall be delivered between 8:00 am and 2:00 pm on Business Days.

State: earliest delivery time from date of award: _____

12.3 **Delivery Contact:** _____

The Contractor shall contact the Contract Administrator prior to delivery of the equipment.

12.4 **P.D.I:** _____

A pre-delivery inspection shall be performed by the Contractor on the equipment. Proof upon inspection including completed check list

13.0 **MANUALS:**

13.1 **Manuals:** _____

The following manuals shall be supplied with the equipment when delivered:

Operator – Two (2) Copies

- One (1) copy shall be sent to the Equipment Operator Training Branch
- One (1) copy to be left with the equipment

Parts and Service

- One (1) complete set including preventative maintenance schedules

Note: CD or USB flash drive is preferred where available

14.0 **PARTS/LABOUR PRICING:**

14.1 Bidder to provide City of Winnipeg Parts Discount % Pricing from retail parts pricing. _____

State: percentage discount

14.2 Bidder to provide City of Winnipeg Labor Discount % Pricing from Retail shop labor rate. _____

State: percentage discount

15.0 **FIRST SERVICE PREVENTATIVE MAINTENANCE KIT:**

15.1 If applicable, in order to assure minimum downtime of the Equipment in future service, the Contractor must 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, transmission, cab and hydraulic, or otherwise all known necessary common replacement filters required for the first preventative maintenance servicing and first transmission service.

15.2 The Contractor must 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.

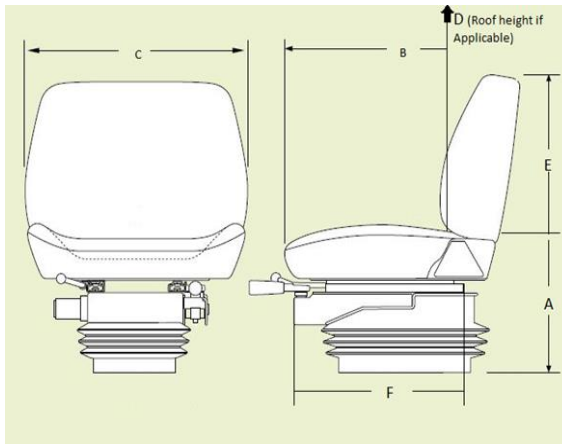
16.0 **ERGONOMIC SPECIFICATIONS**

Entry/ Exit

- 16.1 First step entry height **State:** height of first step in inches: _____
- 16.2 First handhold entry height **State:** first handhold entry height in inches: _____
- 16.3 Access to equipment **State:** door opening height in inches: _____
- 16.4 Access to equipment **State:** door opening width in inches _____
- 16.5 Designed to prevent slipping Anti-slip steps/handholds **(Y or N)?** _____

Seat

16.6 Use diagram to answer questions.



- 16.7 Sitting Height Range (from floor (where feet rest) (A)) **State:** seat height range in inches: _____
- 16.8 Seat Length/Depth (B) **State:** seat length/depth in inches: _____
- 16.9 Seat Width (C) **State:** seat width in inches: _____
- 16.10 Cab Height (from seat to roof (if applicable) (D)) **State:** cab height range in inches: _____
- 16.11 Back Rest Height (E) **State:** back rest height in inches: _____
- 16.12 Seat Travel Range (F) **State:** seat travel in inches: _____
- 16.13 Lumbar Support Is lumbar support provided **(Y or N)?** _____

16.14 Head Rest Is head rest provided (**Y or N**)? _____

16.15 Seat is made of breathable material
State: type of seat material: _____

Operation

16.16 Reaching Distance (to usual work) State: reaching distance in inches: _____

16.17 Maximum Reaching Distance State: maximum reach distance in inches: _____

16.18 Adjustable Pedals (accelerator/brake/clutch) Are pedals adjustable (**Y or N**)? _____

16.19 Adjustable Steering Wheel Is steering wheel adjustable (**Y or N**)? _____

16.20 Adjustable Shoulder Belt Is belt adjustable and anchored (**Y or N**)? _____

Cargo Area

16.21 Lid opens to provide adequate space Adequate space provided (**Y or N**)? _____

16.22 Loading Height State: trunk height in inches: _____

Environment

16.23 Operator compartment is insulated from equipment noise (while operating) State: dB inside cab while operating: _____

16.24 Operator insulated from equipment vibration Is operator insulated from vibration (**Y or N**)? _____

16.25 Heating/Cooling Systems State: cab temperature range: _____

16.26 Cab Lighting State: lumens inside cab: _____

Maintenance/ Inspection

16.27 Lift Assistance (when necessary) Is lift assistance provided (**Y or N**)? _____

16.28 Easy Access (to compartment doors) Is easy access provided (**Y or N**)? _____

16.29 Include any other relevant ergonomic specifications and applicable range of adjustment: _____
