FORM N: DETAILED SPECIFICATIONS 22027

SERVICE BODIES

1. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 1.1 All items in these specifications should be answered indicating compliance or non-compliance.
- 1.2 **Bidder 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 Proponent 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 Proponent 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 **Service Bodies** and other equipment and features as specified herein.
- 2.2 The **Service Bodies** shall be a new **2022** model year or newer.
- 2.3 The **Service Bodies** 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 **Service Bodies** 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.

Motor Vehicle Safety Regulations (justice.gc.ca)

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:

Underwriters Laboratories of Canada (ULC)

Form N: Detailed Specifications Page 2 of 26

The City of Winnipeg Tender No. 385-2022

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	Where applicable, 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	Where applicable, 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:

7. PERFORMANCE RELIABILITY

Model:

- 7.1 The responsibility for the design of the <u>Service Bodies</u> 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 <u>Service Bodies</u> 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. SERVICE FACILITY

8.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility. The facility, or a portion thereof, shall be dedicated to the service and maintenance of the type equipment being offered. 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

9. QUALIFICATIONS OF MANUFACTURER & CONTRACTOR

- 9.1 The manufacturer of the <u>Service Bodies</u> shall have five (5) years continuous experience manufacturing Service Bodies.
- 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 **Service Bodies** of the type being offered.

10.	SPECIFICATIONS				
10.1	The Service Body shall be capable of consistent top performance for loading and hauling equipment and supplies of varying payloads year-round in conditions normal to the City of Winnipeg				
	Make and Model				
10.2	Make	State: make:			
10.3	Model	State: model:			
10.4	Model Year	State: model year:			
	Body Weight				
10.5	Body Weight	State: estimated weight of body:			
	Weigh Scale Ticket				
10.6	Weigh Scale Ticket:				
		ertified weigh scale ticket upon delivery of the shall include front and rear axle weights tachments and full of fuel.			
	Installation				
10.7	The Contractor shall install the bodies on the following City owned chassis cab vehicles:				
	Traffic Services:				
	2022 Ford F-550 Five (5) Required				
	 17,500 lbs. GVWR 7.3 L V8 Gasoline Engine 2WD Regular Cab 84 in. CA TorqShift® 6-Spd. Automatic Horizontal discharge exhaust 				
	WFMA Vehicle Unit Number(s): • 2152380 • 2152381 • 2152382 • 2152383 • 2152384				
10.8	Availability	The cab chassis will be available during the third quarter of 2022			

10.9	Pick-Up	The Contractor shall be responsible for	
	·	picking-up the chassis cab vehicles from the City upon commencement of the Contract	
		 The vehicles will be available for pick-up at the Winnipeg Fleet Management Agency, 185 Tecumseh St., Winnipeg, Manitoba 	
		 Pick-up times will be between 8:00 am and 2:00 pm on any Business Day 	
		 The Contractor shall be responsible for any related fuel and Insurance costs to and from their facility 	
		Note: The vehicles will be fully fuelled at the time of pick-up by the Contractor	
	Fibreglass Service Body		
10.10	Material	High impact resistant fiberglass • service body side packs • compartments • doors	
10.11	Compartment Layout	Each side of vehicle to have:	
		 one (1) front vertical compartment one (1) horizontal compartment over the wheel well one (1) rear vertical compartment 	
		Rear of Vehicle: • Left (driver's) side of body to have one (1) rear hot stick door	
	General Dimensions		
10.12	For the purpose of these specifica	ations:	
	 L – Length along or parallel to c H – Height, vertical D – Depth on horizontal plane a 	-	
	Note: Unless otherwise specified	all dimensions are in inches	
10.13	Body Height	Approximately 40 in. State: body height:	_
10.14	Body Length	Approximately 132 in. State: body length:	_
10.15	Body Width	Approximately 90 in. State: body width:	_

Compartment Layout, Left (Street) Side

10.16 Front Vertical Compartment

- Approximately 60L x 40H x 18D
- over-lapping barn style doors
- no centre divider panel



10.17 Horizontal Compartment

10.18

Rear Vertical Compartment

10.19 Street Pole Storage Tubes

Approximately 46L x 20H x 18D

- Approximately 26L x 40H x 18D
- 13 in. H rear hot stick door providing access to street pole storage tubes

The service body shall accommodate:

- Qty nine (9)
- 3 in. diameter x 114 in. Length PVC tubes
- With a downward slope towards front
- Tube ends fitted with stops to prevent poles from sliding through (both forwards and rearward)
- The tubes shall be secured in place and designed to hold 120 in. L steel pipes with a total combined weight of approximately 200 lbs.
- A heavy duty, rubber covered plate shall be installed at the tube ends to prevent the steel pipes from damaging the service body









Street Pole Storage Door -Closed View



Street Pole Storage Door – Side View



Street Pole Storage Door - Open View

Compartment Layout, Right (Curb) Side

- 10.20 Front Vertical Compartment
- Approximately 60L x 40H x 18D
- over-lapping barn style doors
- · No centre divider panel



- 10.21 Sign Tray
 Front Vertical Compartment
- One (1) 38 in. L approx. full depth, slideout shelf
- Heavy duty sliders and shall allow the shelf to slide-out of the body in its entirety with a 36 x 30 sign in place.
- Shelf divided longitudinally into four (4) equally sized sections with 10 in. H divider panels.
- · Handle required at front of shelf



10.22 Horizontal Compartment

Approximately 46L x 20H x 18D

10.23 Fastener Tray Horizontal Compartment

- Approximately 30L x 3H x 15D
- 1st compartment approximately 10L x 15
 D
- Remaining compartments approximately 4L x 7-1/2D



10.24 Wrench Hooks Horizontal Compartment

• Six (6) wrench hooks on each side wall



- 10.25 Rear Vertical Compartment
- Approximately 26L x 40H x 18D
- Compartment lined with heavy duty rubber on three (3) sides
- 10.26 Hooks Rear Vertical Compartment
- Two (2) hooks on each sidewall
- One (1) shovel hook centred on back wall



Standards

10.27	Compartment Floor Reinforcement	Front drivers side compartment and both rear vertical compartments shall be lined with a $^3/_{16}$ in. steel plate covered with rubber matting	
10.28	Compartment Floor Lining	Both horizontal compartments and front passenger side compartment shall be lined with Dri-Dek material	
10.29	Drain Holes	All body compartments to include a ½ in. drain hole complete with plug	

10.30	Door Latches	Flush mounted with locks for all compartment doorsAll locks shall be keyed alike	
10.31	Compartment Door Handles	 Chrome plated or stainless-steel paddle style handles Barn door handles which shall be chrome plated or stainless-steel D-ring type 	
10.32	Door Hinges and Latches	Chromed or stainless steel with adjustable striker plates	
10.33	Compartment Door Openings	Sealed using automotive type bulb gasket door seal	
10.34	Door Hold-Open Devices	 Over-centre door holders on front and rear compartments Detachable cables on horizontal compartments 	
10.35	Rubber Bumpers	 Installed on the body below the horizontal compartments to prevent contact between the compartment door and the body Two (2) bumpers per door 	
10.36	Wheel Well Area	Shall incorporate a fibreglass or rubber fender flareWheel Well panels are removable	
10.37	Drip Edge	 Installed along the full length of the body above the door openings Designed to prevent water from entering into the storage compartments State: method	
10.38	Mud Flaps	 No name, fabric reinforced, black rubber mud flaps installed fore and aft of rear tires ½ in. diameter steel bar anti-sail brackets 	
	Main Deck Assembly		
10.39	Finish	All steel components of the Main Deck assembly including the Under-Deck Compartments shall be primed and finished	
10.40	Deck	 3/₁₆ in. steel checker plate with an underdeck storage compartment Rain lip or drip moulding to prevent water from entering into the storage compartment 	

10.41	Deck Width	Approximately 54 in. between fibre glass side packs	
10.42	Under Deck Floor	⅓ in. steel plate	
10.43	Under Deck Compartment Tailgate	 ³/₁₆ in. aluminum construction Fold-down type with heavy duty hinges Chrome or stainless-steel paddle style door handle and latch Lubrication Grease fitting required on each hinge Or Hinge assembly and hinge pin is aluminum and has enough clearance that it will not seize up over time The end of the hinge is open and can be sprayed with lubricant if desired 	
10.44	Under Deck Compartments	Otry throo (3) complete with 1/ in thick	
10.44	Onder Deck Compartments	 Qty three (3) complete with ½ in. thick steel dividers Section dimensions from right to left as follows 	
		Note: Widths are measured between wheel wells	
10.45	Under Deck Compartment # 1	Approximately 106L x 7H x 19D	
10.46	Under Deck Compartment # 2	Approximately 73L x 7H x 16D	
10.47	Under Deck Compartment # 2 (Cut-a-Way Stand)	 ³/₁₆ in. steel plate dimensions approximately 4H x 16D Welded near rear of compartment space to prevent pipes/rods from rolling from side to side The plate shall have qty three (3), ½ circles cut into the top of the plate where pipes/rods will rest ½ circle cut outs to be approximately 3 	

• ½-circle cut-outs to be approximately 3

in. diameter

10.48	Under Deck Compartment # 3	Approximately 122L x 7H x remaining width	
10.49	Drain Holes	¾ in. drain holes required at front of each under deck compartment	
10.50	Deck Sides	³ / ₁₆ in. aluminum checker plate, extended full height up sides of fibreglass side packs	
10.51	Front Headboard	Aluminum constructionExpanded metalApproximately 27H x width of vehicle	
10.52	Kick Plate, Rear of Body	 ³/₁₆ in. aluminum checker plate Full width below deck floor level 	
10.53	Kick Plate, Front	 3/₁₆ in. aluminum checker plate to protect lower front area of body protruding past chassis cab Each side Approximately 8 in. kick plate height 	
10.54	Sign Storage Provision	 Qty one (1) 1 in. square steel tubing construction Galvanized	



Sign Storage Provision - Front



Approximately 38L x 15H x 10DWill use the brackets and bolt system

Removeable and adjustableRefer to below for design

from to spec 10.58

Sign Storage Provision - Side

10.55 Tailboard

- 6 in. high black poly board
- Mounted towards the front approximately
 7 in. (i.e. towards cab) of the pipe vice
- Adequate cut-away for pipe to extend past body



10.56 Pipe Vice

- Ridgid BC 410, 1/8 in. 4 in. Top Screw Bench Chain Vise
- Mounted on the driver's side rear corner of the deck
- Vice to be oriented so that an inserted pipe runs parallel to the vehicle length.



Location to be determined at preproduction meeting

10.57 Sealant

Deck sides and kick plates caulked along edges using elastomeric sealant

Barricade Storage Brackets

10.58 Construction

- Qty six (6) brackets three (3) per side
- Qty four (4) posts 19 in. L x 1.0 sq. tube
- Brackets shall be a 3W x 7H x ³/₁₆ steel bearing plate bolted to the side packs on the interior of the deck area.
- Spaced approximately 38 in. apart to match Sign Storage Provision spec 10.54
- Height adjustable with a bolt system drilled through all tubes
- Galvanized

Locations to be determined at preproduction meeting



Catwalk Structure

10.	50	Regulations	(Railinge)
TO.	.ວອ	Redulations	(Railinus

Manitoba Workplace Safety and Health Regulation, MR 217/2006, Part 14 Fall Protection

Guard Rails must be:

(a) is at least 900 mm (35.5 in.) high and not more than 1,060 mm (42 in.) above the working surface, with an intermediate rail at between 450 and 530 mm (18 and 21 in.) above the working surface;

and

(b) is constructed and secured to resist a static load of 900 N in any direction in which the load may be applied at any point on the top rail and on any intermediate rail

10.60 Construction

- 1 in. square steel tubing construction
- Wrap around the front, sides and partial rear of the body

10.61 Finish

Galvanized

10.62 Walkway

Platform

10.63

- · Galvanized Grip Strut Safety Grating
- Installed to top of side packs
- Full length x full width
- 4-Diamond + 3-Diamond Grip Strut
- Bolt holes sealed as required
- Curb and street side railing to incorporate a platform
- 1st Platform approximately 18D x 20L
- 3-Diamond + 4-Diamond Grip Strut
- Approximately 18 in. above top of service body at rear corners
- Platforms shall have a railing above platform - three (3) sides



Platform - Front



Platform - Side

10.64 Mounting Bracket (Arrow Board)

Incorporate a mounting bracket or frame suitable for mounting a pair of Traffic Arrows at the rear of the body above the top of the compartment, one per side

Rear Bumper and Hitch

10.65 Rear Bumper

- Heavy duty step type bumper
- Tubular steel construction
- Galvanized
- Tapered at outer ends
- 12 in. steel grip strut surface
- · Recess for a Pintle hitch mount
- Approximately 16 in. step height from ground

10.66 Auxiliary Step

- Aluminum grip strut
- Approximately 7 in. L x full width of deck
- Located equidistant between bumper and deck level



Rear Bumper and Auxiliary Step

10.67 Dock Bumpers

- Rear mounted
- One (1) on each side of unit
- Vertically mounted to a heavy-duty tubular steel frame welded to the rear of unit
- Approximately 34-1/2 to centre of bumper from the ground



Exact mounting location to be determined at pre-production meeting

10.68 Combination Hitch

Premier Model 150 with 2 in. ball



10.69 Eye Bolt

(Required for Trailer Safety Chains)

Grab Handles

10.70 Grab Handles

- One (1) each side of hitch
- Buyers Products B56730 or equal.
- Located for ergonomic access to deck
- Qty two (2)
- Diameter 1-1/4 in. (32 mm) 1-1/2 in. (38 mm)
- Spacing behind grab bars approximately 3 in. (76 mm)
- Slip resistant
- Bolt-on construction
- · Primed and painted safety yellow

Design and installation to be determined at a pre-production meeting



Grab Handle



Grab Handle

Running Boards

10.71 Construction

Custom made:

- Extending entire length of underside of front and rear doors, each side.
- AGS 6061 aluminium grip strut, 9-½" x 2" x .08"
- Inside kick plate shall consist of ¹/₈" aluminium checker plate
- Support brackets shall consist of 1½" x 1½" x ¹/₈" RC aluminium square tubing with ¼" aluminium support plates

Cab steps to be mounted using the existing holes in the frame and body where applicable

 Use ³/₈-16 nut inserts to secure the mounting brackets to the body

10.72 Mounting



Running Boards

	•	g	
	Rear Fenders		
10.73	Rear Fenders	 Heavy Duty rear poly half-moon fenders complete with steel mounting hardware or Aluminum wheel well covers 	
	Trailer Equipment		
10.74	Trailer Connector	SAE J560 7-Way Flat trailer receptacle mounted and installed in rear hitch plate complete with all necessary wiring	
		Note: The cab and chassis will be supplied (unattached) with Ford OEM Trailer Plug Socket and Electric Trailer Brake Controller	
		Installation to be determined at pre- production meeting	
	Back-Up Alarm		
10.75	Back-Up Alarm	 SWS model 99901 Mounted between frame rails at rear of vehicle Protected from damage and road spray 	
	Rear View Camera		
10.76	Rear View Camera	 The cab and chassis will be supplied (unattached) with a rear-view camera Rear-view camera prep kit to include camera, screen (or displayed in rear view mirror) mounting hardware and OEM wiring harness To be installed by body supplier 	
	Conspicuity Tape		
10.77	Conspicuity Tape	Truck-Lite 98127 or equal, affixed	
	Grease Fittings		
10.78	Grease Fittings	Required: On tailgate release mechanisms, pivot points and drop-down side linkages	

Inverter

Location

Wiring

Receptacle

10.79 Inverter

10.80

10.81

10.82

CSA approved

• 110 Volt, 2500 Watts minimum

Make: Xantrex

Model: XPower 3000 InverterPart Number: 813-3000-UL

State:

Make: _____

Model:

Upper right corner inside the passenger side front compartment.

Location to be determined at preproduction meeting

 Wired through ignition through dash mounted inverter mfg. remote switch

Labeled

 Inverter to be complete with suitable solenoid and battery isolator

• One (1) required

• Duplex receptacle

- Mounted at front of service body, passenger side
- Forward facing
- Mounted as high as practicable so as not to interfere with interior shelf positioning
- The receptacle shall be GFI, CSA approved
- Weatherproof type with hinged covers



Location to be determined at preproduction meeting

10.83 Deep Cycle Battery

• Group 31, approximately 900 CCA

Mounted on a reinforced top shelf of the compartment

Location to be determined at preproduction meeting

The City of Winnipeg Tender No. 385-2022

10.84 Installation

All exposed inverter terminals shall be:

- Coated with a dielectric grease
- Completely covered with shrink wrap tubing or rubber fittings

Lighting

10.85 Mini Light Bar – Amber

- Whelen R2LPPA Series Amber LED Mini Light Bar
- Mounted to centre top of cab
- Protected by Branch Guard heavy duty construction
- Mini Light Bar shall be wired "Hot" (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled "Light Bar" with a permanent type, engraved style label
- Switch shall be capable of amber mode



10.86 Amber Strobe Lights (Warning)

- Four (4) total
- Whelen 5GA00FAR
- · Mounting grommets
- Two (2) located outside of 3-Light cluster, rear facing in rear kick plate
- Two (2) located on rails, side facing near front
- Amber Strobes shall be wired "Hot" (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled "Strobes" with a permanent type, engraved style label



Locations to be determined at preproduction meeting 10.87 Traffic Advisors

- SWS 67301
- 1-piece aluminum with 1-1/2 square frame
- Aluminum front and rear panels
- Approximate size 44 in. H x 22 in. W x 3-3/8 in. D
- 10 dual optic, LED modules with half sun shade
- Six (6) flash patterns
- 20 ft. of cable per half
- In-cab controller SWS 77501 with 10A auxiliary port
- Traffic Arrows shall be wired "Hot" (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled "Traffic Advisors" with a permanent type, engraved style label



10.88	Light Switch	Configuration(S)

- Amber strobes (rear ovals) controlled with one switch
- Mini Light Bar controlled with one switch capable of amber mode
- Traffic Advisor separate controller
- 10.89 Combination Turn/Stop and Taillights
- One (1) per side
- Truck-Lite 44302R with P/N 44710 mounting grommets
- Flush mounted
- Mounted in rear of body at maximum practicable height

10.90 Back-Up Lights

- One (1) per side
- P/N Truck-Lite 44206C with P/N 44710 mounting grommets
- Mounted in rear of body

10.91	3-Light Cluster	 Three (3) Truck-Lite10250R with P/N 10403 mounting grommets 	
		Or	
		 Truck-Lite 3-Lamp ID light assembly 33740R 	
		 Located to protect from damage above auxiliary step 	
		Locations to be determined at pre- production meeting	
10.92	Clearance Lights	 Grote 49333 and 49332 with mounting grommets 	
		 Truck-Lite 33050R and 33050Y with 3370 mounting grommets 	
		Note: shall not protrude beyond the Service body	
10.93	Harness	 Truck-Lite 50 Series or equivalent harness system Properly routed Internally grounded 	
		Secured	
10.94	Compartment Lights	 LED continuous "rope" style lighting in all service body compartments Properly secured to prevent damage Wired through ignition and through chassis manufacturer's OEM dash mounted switch Labelled "Bin Lights" 	
10.95	Work Lights	 Four (4) Truck-Lite P/N 80395 total Two (2) rear facing one on each side of front railing Two (2) front facing one on each side of sign board brackets Work lights to be wired through the ignition, wired through two (2) OEM dash mounted switches Labelled "Curb Work Lights" and "Street Work Lights" 	
		Locations to be determined at pre- production meeting	
10.96	License Plate Light	 Complete with license plate bracket P/N Truck-Lite 36140 (Light) P/N Truck-Lite 36710 (Bracket) 	

Standards (Where Applicable)

	Finish	(Where Applicable)	
10.97	Fibreglass	Fibreglass service body gel coat colour impregnated to match chassis cab colour	
10.98	Aluminum Components	Unfinished	·
10.99	Deck	 Deck surface properly cleaned and coated with: Rust-Oleum AS5400 Anti-Slip Floor Covering Black 	
10.100	Preparation	All steel components unless otherwise noted in these specifications shall be sandblasted, properly cleaned and primed	
10.101	Primer	Epoxy or Polyurethane	
10.102	Paint	Epoxy or Polyurethane	
	Welding		
10.103	Welds	Continuous welds	
10.104	Standard	CSA Standard W47.1-30 and W59-03	
10.105	Weld Spatter	Weld spatter to be removed prior to finish	
	Clearance		
10.106	Clearance	Clearance between Service body and back of truck cab shall be a minimum 3 in. in accordance with the Cab & Chassis Incomplete Vehicle Manual	
10.107	Tire Clearance	Body shall provide for approximately 4 in. clearance with rear springs fully loaded	
	Installation		
10.108	Not-Permitted	Drilling on chassis frame flangesWelding on the chassis frame	
10.109	Holes	 Holes in the frame shall be drilled and reamed to fit bolts Holes required to run wires through shall be drilled (not punched), grommeted and sealed as required 	
10.110	Isolators	 All interfaces between aluminium and steel are to be separated by an approximately ¹/₁₆ in. thick rubber or neoprene sheet Shall be bolted through with stainless steel bolts and non-conductive bushings 	

10.111	Mounting Brackets	Shall be bolted to frame using Grade-8 fasteners.	
10.112	Mounting Standards	Mounting of the body shall be in accordance with the chassis manufacturer's guidelines for body mounting, including but not limited to, guidelines for tire and suspension clearance and fuel filler installation	
10.113	Mounting Standards	 The fibreglass side packs shall be mounted to the steel deck using cadmium plated carriage bolts and fender washers Bearing plates shall be used in high stress areas 	
10.114	Mounting Standards	Any holes required in frame must be drilled and reamed to fit bolts	
10.115	Mounting Standards	All non-continuous body seams (joints) shall be caulked with an automotive grade elastomeric sealant	
	Lighting and Electrical		
10.116	Conformance: LED Lighting C.M.V.S.S. Manitoba Highway Traffic Act. City of Winnipeg Lighting Visibil http://winnipeg.ca/matmgt/pdfs/Pu	lity Standard ublicWorksEquipLightingVisibility.pdf	
10.117	Lighting: • Supplier installed • High count LED		
10.118	Visibility: Taillights, back-up lights and warning lights to be fully visible when tailgate is lowered to horizontal position No clearance light shall protrude beyond Service body		
10.119	Identification: • All warning lights and switches to be identified with permanent, engraved type labels		
10.120	LED Strobe Lights: • Shall be wired "Hot" (i.e. able to use without the key on), wired through a single OEM dash mounted switch or on the control panel enclosure, labelled "Strobes" with a permanent type, engraved style label		
10.121	Connection System: • Weather Pack Sealed Connection System		
		on System	

10.123	Harnesses:	
	 Harness system, properly routed and secured. 	
	 All harnesses shall be internally grounded, no exceptions 	
	Colour coded or numbered	
10.124	Junction Box:	
	 Complete with necessary compression fittings, required for all vehicle 	
	lighting harness connections	
	Securely located Parallily according to the force or delicer.	
	Readily accessible for servicingWaterproof	
	Protected from road spray	
	· · · · · · · · · · · · · · · · · · ·	
10.125	All Plug-In Connectors:	
	All plug-in connectors shall be coated with Truck-Lite NYK Corrosion	
	Preventive Compound prior to assembly	
10.126	Wiring:	
	All wiring to be colour coded, loomed and properly secured.	
40.407		
10.127	Electrical Connectors:	
	 All electrical connectors to be crimped, soldered and then sealed using heat shrink tubing 	
	ommit (doing	
10.128	Joining of Wires:	
	All joining of wires to be soldered and sealed using heat shrink tubing or	
	approved OEM weather tight connections	
	Note: Crimp on electrical connectors for joining wires are not acceptable	
10.129	Wiring Routing:	
31. — 3	 Any holes required to run wires through shall be drilled (not punched), 	
	grommeted and sealed	

11.0	<u>WARRANTY:</u>			
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 Service Bodies 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 by the City of Winnipeg	from the date the equipment is put into service		
11.3	Factory Warranty - Body	State: Terms:		
11.4	Inverter	State: Terms:		
11.5	Electrical	State: Terms:		
11.6	Battery	State: Terms:		
11.7	Paint	State: Terms:		
12.0	DELIVERY:			
12.1	Delivery Point:			
	The complete unit shall be serve with the freight prepaid, including WFMA 185 Tecumseh Street, N			
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 equipment.	e Contract Administrator prior to delivery of the		
12.4	<u>P.D.I:</u>			
		be performed by the Contractor on the tion including completed check list		

13.0	MANUALS:	
13.1	The following manuals shall be supplied with the units when delivered:	
	 Operator's Manual – Two (2) per unit. One (1) Operator Manual shall be sent to the Equipment Operator Training Branch 	
	 Parts and Service Manuals – One (1) complete set including preventative maintenance schedules. CDs or USB Drives are preferred. 	
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	