

**PART A**

**BID SUBMISSION**

**FORM A: BID**  
(See B7)

1. Project Title **SUPPLY & DELIVERY OF CUTAWAY VANS WITH ALUMINUM BODIES**

2. Bidder

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

\_\_\_\_\_  
Street

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

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

(Mailing address if different)

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

\_\_\_\_\_  
City

\_\_\_\_\_  
Province

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

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

\_\_\_\_\_  
e-mail address

4. Definitions

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

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 is in receipt of a Purchase Order 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 Submission.

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    In witness whereof 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 B8)

**CUTAWAY VANS WITH ALUMINUM BODIES**

UNIT PRICES

ITEM NO.	DESCRIPTION	SPEC. REF.	UNIT	APPROX. QUANTITY	UNIT PRICE	AMOUNT
1	Supply & Delivery of Cutaway Vans with Aluminum Bodies	<b>06023</b>	Each	(9)	\$ _____	\$ _____
2	Parts manuals, CD preferred	<b>06023</b>	Each	(2) Sets	\$ _____	\$ _____
3	Technical service manuals, CD preferred	<b>06023</b>	Each	(2) Sets	\$ _____	\$ _____
<p>TOTAL BID PRICE (GST and PST extra) (in figures) \$ _____</p> <p>(in words) _____</p> <p>_____</p>						

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

## FORM N: DETAILED SPECIFICATIONS 06023

### SUPPLY & DELIVERY OF CUTAWAY VANS WITH ALUMINUM BODIES

#### 1.0 TYPE

- 1.1 Shall be a nominal approx. **15FT. ALUMINIUM VAN BODIES INSTALLED ON A CUTAWAY VAN CHASSIS** supplied by the Successful Bidder. The completed vehicle shall be furnished complete and ready for use with all features and auxiliary equipment as described herein.
- 1.2 State make and model of van body being bid: \_\_\_\_\_

#### 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 completed unit and all its components shall comply with all C.M.V.S.S. Canadian Motor Vehicle Safety Standards, M.H.T.A. Manitoba Highway Traffic Act, S.S.A Safety Standards Act, F.M.V.S.S Federal Motor Vehicle Safety Standards, D.O.T Department of Transportation, regulations and requirements including, but not limited to, a Manitoba Government Inspection with Safety Sticker on the driver's side window.

#### 3.0 SERVICE FACILITY

- 3.1 For the purpose of warranty repairs, the Bidder shall have an authorized service facility located within 10 km 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.
- 3.1.1 If a suitable warranty facility is not available within 10 km of the boundaries of the City of Winnipeg, the Bidder may propose that the City of Winnipeg Repair Facility perform warranty work. Any Work performed by the City of Winnipeg Repair Facility shall be charged to the Contractor at the Facility's shop rate in effect at the time the work is performed (**FOR EXAMPLE, SHOP RATE FOR 2007: \$80.00/HOUR AND \$105.00/HOUR FOR OVERTIME AND CALLOUT**).
- 3.2. LOCATION OF THE SERVICE FACILITY LOCATED WITHIN 10 KM OF THE BOUNDARIES OF THE CITY OF WINNIPEG.
- The Bidder shall choose and fill in **ONE** of the Clauses listed below. --- **3.2.1) OR 3.2.2)**
- 3.2.1 Bidder's own facility location. State the location of the service facility below.
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3.2.2 Bidder elects to have warranty work be performed by the City of Winnipeg.

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**4.0 INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS**

4.1 Where requested to do so with exception of Clause 43.2, 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.

4.2 Each bidder is required to fill in every blank. **FAILURE TO DO SO MAY BE USED AS A BASIS FOR REJECTION OF BID.**

**5.0 CUTAWAY CHASSIS SPECIFICATIONS- ELIGBLE MODEL GMC C6500 CUTAWAY CHASSIS OR EQUIVALENT ACCORDING TO B.5 SUBSTITES STATED HERIN.**

5.1	<b>GVWR</b>	25,500 lbs.	_____
5.2	<b>FRONT</b>	8,000 lbs. minimum	_____
5.3	<b>REAR</b>	17,500 lbs. minimum	_____
5.4	<b>GCW</b>	Gross Combined Weight 25,500 lbs. minimum	_____

**6.0 DIMENSIONS-**

6.1 **WHEELBASE** - As required for an approx. 15 ft. interior measurement.  
(Measured from rear of drivers seat to back doors). **STATE WB-** \_\_\_\_\_

6.2 **CAB TO AXLE** - As required for requested finished interior cargo length.  
(Measured from rear of drivers seat to back doors). **STATE CA-** \_\_\_\_\_

**7.0 ENGINE-**

7.1	<u>Type</u>	Diesel, inline 6-cylinder, Caterpillar C7	_____
7.2	<u>Horsepower</u>	230 hp gross minimum	_____
7.3	<u>Torque</u>	540 lb-ft minimum	_____
7.4	<u>Engine shut down</u>	Low oil pressure / high water temperature	_____
7.5	<u>Anti-idling</u>	Programmable anti-idling shut down	_____
7.6	<u>Air intake warmer</u>	Required	_____
7.7	<u>Fuel Shut-off</u>	Electric solenoid type	_____
7.8	<u>Air cleaner</u>	Dry type standard filter element	_____

7.9	<u>Air intake restriction</u>	Dash mounted restriction indicator	_____
7.10	<u>Oil drain plug</u>	Magnetic type	_____
7.11	<u>Oil filter</u>	Full flow, spin-on type	_____
7.12	<u>Fuel filter</u>	Spin-on type	_____
7.13	<u>Fuel/water separator</u>	Heated, drainable, mounted under hood, located to be protected from road spray. <b>State location-</b>	_____
7.14	<u>Fuel line primer pump</u>	Required	_____
7.15	<u>Block heater</u>	Immersion type, 1500 Watt minimum w/ covered recessed male plug, located under driver's side door	_____
7.16	<u>Coolant</u>	Extended Life coolant, antifreeze to -34°F	_____
7.17	<u>Coolant filter</u>	Required	_____
7.18	<u>Coolant hoses</u>	Silicone type or Gates Blue Stripe	_____
7.19	<u>Fan Drive</u>	Thermostatically controlled, automatic type	_____
7.20	<u>Air compressor</u>	Air compressor required with minimum 13 cfm	_____
<b>8.0</b>	<b><u>ELECTRICAL SYSTEM</u></b>		
8.1	<u>Electrical connectors</u>	Plug-in, sealed type	_____
8.2	<u>Alternator</u>	Delco Remy 22-SI, 160 Amp	_____
8.3	<u>Starter</u>	Delco Remy 41-MT/OCP 450 Series with thermal protection	_____
8.4	<u>Circuit breakers</u>	Auto-reset, readily accessible	_____
8.5	<u>Batteries</u>	Three (3), 12-volt, group 31, 2100 CCA combined capacity minimum, must be deep cycle batteries.	_____
8.6	<u>Battery Box</u>	Under cab or frame mounted c/w enclosure <b>State Location-</b>	_____
8.7	<u>Remote boost terminal</u>	Remote battery boost terminal, protected from road spray, covered, <b>state location-</b>	_____
8.8	<u>Marker lights</u>	Cab marker lights	_____
8.9	<u>Accessory switches</u>	Three (3) dash mounted rocker switches required, all switches complete and wired for body installation, labeled and backlit.	_____
<b>9.0</b>	<b><u>EXHAUST SYSTEM</u></b>		
9.1	<u>Exhaust System</u>	See item <b>36.14 in miscellaneous</b> section	_____

**10.0 TRANSMISSION**

- 10.1 Model Allison 2200 RDS transmission with PTO provision suitable for requested horsepower, torque and GVWR. Must have Parking Pawl. \_\_\_\_\_
- 10.2 Shift selector Column Shift with Park Pawl, hand lever operated transmission mounted park brake. \_\_\_\_\_
- 10.3 Cooling capacity Water to oil transmission cooler, as per manufacturer's recommendation for severe duty cycle. \_\_\_\_\_
- 10.4 Oil level dipstick Bayonet type with high and low level markings \_\_\_\_\_
- 10.5 Trans. drain plug Magnetic type \_\_\_\_\_

**11.0 FRONT AXLE**

- 11.1 Front axle type 8000 lbs. capacity min., **state make and model-** \_\_\_\_\_

**10.0 REAR AXLE**

- 10.1 Rear axle type 17,500 lbs. capacity min., **state make and model-** \_\_\_\_\_
- 10.2 Ratio For 110 km/hr maximum top speed, **state ratio-** \_\_\_\_\_
- 10.3 Differential Rear limited slip differential \_\_\_\_\_

**11.0 HUB SEALS**

- 11.1 Type Oil lubricated front and rear \_\_\_\_\_

**12.0 FRONT SUSPENSION**

- 12.1 Front Suspension Type Taper leaf front suspension, 8,000 lbs. capacity minimum. \_\_\_\_\_

**13.0 REAR SUSPENSION**

- 13.1 Rear Suspension Type Air ride suspension, 17,500 lbs. capacity minimum, **state make and model-** \_\_\_\_\_



13.2	<u>Suspension Control</u>	Manual dump valve for air suspension c/w dash mounted switch, indicator light, gauge & buzzer.	_____
<b>14.0</b>	<b><u>WHEELS</u></b>		
14.1	<u>Front</u>	19.5 x 6.75 steel disk, hub piloted. Must meet GVWR	_____
14.2	<u>Rear</u>	19.5 x 6.75 steel disk, hub piloted. Must meet GVWR	_____
<b>15.0</b>	<b><u>TIRES FRONT</u></b>		
15.1	<u>Front Tires</u>	Must be steer tires, suitable for Manitoba weather conditions, (mud, snow, rain etc.) <b>state tire make and model-</b>	_____
15.2	<u>Size</u>	19.5 Low Profile, must meet requested GVWR	_____
<b>16.0</b>	<b><u>TIRES REAR</u></b>		
16.1	<u>Rear Tires</u>	Must be drive tires, suitable for Manitoba weather conditions, (mud, snow, rain etc.) <b>state tire make and model-</b>	_____
16.2	<u>Size</u>	19.5 Low Profile, must meet requested GVWR	_____
<b>17.0</b>	<b><u>FRAME</u></b>		
17.1	<u>Type</u>	Single rail, <b>suitable for requested GVWR</b> , outside frame clear of components for body installation.	_____
17.2	<u>Application</u>	Suitable for cutaway van body application	_____
17.3	<u>Chassis fasteners</u>	Grade-8 threaded hex headed frame fasteners	_____
17.4	<u>After frame</u>	As required for cutaway van body application	_____
<b>18.0</b>	<b><u>STEERING</u></b>		
18.1	<u>Steering Type</u>	Power steering required	_____
<b>19.0</b>	<b><u>BRAKES</u></b>		
19.1	<u>Type</u>	Hydraulic, ABS, front & rear brakes	_____
19.2	<u>Parking brake</u>	Transmission mounted parking brakes	_____
19.3	<u>Moisture ejector</u>	Bendix DV-2, heated, required in wet tank.	_____

19.4	<u>Drain valves</u>	Manual, chain or cable operated, required on each air tank	_____
19.5	<u>Air dryer</u>	Heated Air Dryer required	_____
<b>20.0 <u>FUEL TANKS</u></b>			
20.1	<u>Type</u>	Maximum fuel tank(s) capacity available for requested cutaway van body application. Size to be determined during pre-production meeting.	_____
20.2	<u>Tank straps</u>	Steel straps with minimum 1/16 in. rubber or neoprene isolators to prevent galvanic corrosion.	_____
20.3	<u>Fuel separator</u>	Heated, drainable type	_____
<b>21.0 <u>CAB</u></b>			
21.1	<u>Type</u>	<b><u>CUTAWAY STYLE CAB ONLY</u></b> , to accommodate cutaway van body application. Cab must have corrosion inhibitor.	_____
21.2	<u>Construction</u>	Aluminium or galvanized steel construction	_____
21.3	<u>Front axle to (BOC)</u>	State front axle to back of cab measurement-	_____
21.4	<u>Cab mounts</u>	Hystec Hydraulic cab mounts	_____
21.5	<u>Front grille</u>	Stationary type	_____
21.6	<u>Cab interior / trim</u>	Maximum Insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab.	_____
21.7	<u>Cab silencer package</u>	Required for minimal decibel level	_____
21.8	<u>Hood/Firewall/Engine</u>	Insulated hood liner, engine cover and firewall	_____
21.9	<u>Floor covering</u>	Moulded vinyl floor covering with under-padding	_____
21.10	<u>Floor mats</u>	Three (3), rubber floor mats	_____
21.11	<u>Driver's seat</u>	One (1) High back, air suspension w/foldable armrests, heavy-duty cloth upholstery, <b>state make model of seat-</b>	_____
21.12	<u>Passenger seat</u>	One (1) High back, air suspension seats w/foldable armrests, heavy-duty cloth upholstery.	_____
21.13	<u>Sun visors</u>	Dual flip-up type	_____
21.14	<u>Steering wheel</u>	Tilt steering	_____
21.15	<u>12-Volt power outlet</u>	Two (2) Required on dash	_____
21.16	<u>Radio</u>	Factory installed AM/FM/CD	_____
21.17	<u>Starter switch</u>	Key operated c/w three (3) sets of keys	_____
21.18	<u>Interior light</u>	Dome light with driver and passenger door switches	_____

21.19	<u>Heater / Defroster</u>	High output, capable of keeping all windows clear at an outside temperature of -35°F (-37°C)	_____
21.20	<u>Air conditioning</u>	High out put air conditioning required	_____
21.21	<u>Foot Pedals</u>	Hanging type brake and accelerator pedals	_____
21.22	<u>Horn</u>	Dual electric	_____
21.23	<u>Exterior mirrors</u>	Dual black moulded composite aerodynamic mirrors, heated, lighted, 2-way motorized adjustment, exterior mirrors to include convex mirrors, suitable for 102 in. equipment width.	_____
21.24	<u>Down view mirror</u>	Required over passenger door, 5" x 4" approx.	_____
21.25	<u>Windows &amp; windshield</u>	Factory tinted	_____
21.26	<u>Windows and Locks</u>	Power windows and locks	_____
21.27	<u>Windshield wipers</u>	Electric, intermittent	_____
21.28	<u>Wiper blades</u>	OEM Winter Wiper Blades	_____
21.29	<u>Windshield washer</u>	Electric, required with spray nozzles on wiper blades.	_____
21.30	<u>Grab handles</u>	Dual exterior grab handles	_____
21.31	<u>Entrance steps</u>	Dual each side, open grate / grip type with boot brush mounted on driver and passenger sides	_____
21.32	<u>Winter-front</u>	Heavy-duty vinyl w/twist lock or snap type fasteners	_____
<b>22.0</b>	<b><u>INSTRUMENTATION</u></b>		
22.1	<u>Oil pressure</u>	Gauge	_____
22.2	<u>Coolant temperature</u>	Gauge	_____
22.3	<u>Transmission oil temp.</u>	Gauge	_____
22.4	<u>LOP/HWT</u>	Warning light and buzzer	_____
22.5	<u>Voltmeter</u>	Gauge	_____
22.6	<u>Air reservoir pressure</u>	Gauge with LAP warning light and buzzer	_____
22.7	<u>Engine hour meter</u>	Required, non reset able type	_____
<b>23.0</b>	<b><u>TOW HOOKS</u></b>		
23.1	<u>Location</u>	Readily accessible, front frame mounted	_____
<b>24.0</b>	<b><u>FRONT BUMPER</u></b>		
24.1	<u>Type</u>	Front bumper full width	_____

**25.0 COLOUR**

25.1	<u>Exterior</u>	White	_____
25.2	<u>Interior</u>	Blue or grey	_____
25.3	<u>Frame &amp; suspension</u>	Primed and finished with black Imron 5000 paint	_____
25.4	<u>Wheels</u>	Powder coated white	_____

**26.0 CUTAWAY VAN BODY DIMENSIONS AND WEIGHTS**

26.1	<u>Interior Cargo length</u> - Bulk head wall to back door approx 12 ft.	_____
26.2	<u>Overall Body Length</u> - To accommodate approx.15 ft. finished interior length with a cutaway style chassis with 3 <sup>rd</sup> row seating as per specified herein. <b>State overall body length-</b>	_____
26.3	<u>Overall height</u> - 124 in. maximum, <b>state-</b>	_____
26.4	<u>Body width exterior</u> - 96 in. maximum, <b>state-</b>	_____
26.5	<u>Interior height</u> – 78-80 inches finished height, <b>state-</b>	_____
26.6	<u>Floor height</u> – Approx. 36 inches from ground level.	_____
26.7	<u>Unit weight including chassis</u> – <b>state-</b>	_____

**27.0 INTERFACES**

27.1	<u>All interfaces</u> between aluminium and steel are to be separated by a minimum of 1/16 in. thick rubber or neoprene sheet and are to be bolted through with stainless steel bolts and non-conductive bushings.	_____
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**28.0 WALL CONSTRUCTION**

28.1	<u>Walls</u> -smooth aluminium, construction method to be either snap-lock panels - min. 0.125 in. thick on 12 in. centres; or frame and skin construction - 1½ in. "Z" type extrusions on 12 in. centres with min. 0.125 in. panels fastened with aluminium rivets. <b>State construction method-</b>	_____
28.2	<u>Insulation</u> -Two (2) inches minimum spray foam, (R7 rating per inch.)	_____
28.3	<u>Complete interior lining</u> -Interior walls must be lined with minimum 3/8" plywood and lined over with white glass board (Kemlite).	_____

**29.0 ROOF**

29.1	<u>Construction</u> - Smooth aluminium stressed-skin, walk-on style roof minimum 10 gauge aluminium.	_____
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29.2 Roof bows - Hat type on 12 in. centres. \_\_\_\_\_

29.3 Insulation - Two (2) inches, **state type-** \_\_\_\_\_

29.4 Roof lining - ¼ in. plywood covered with glass board (Kemlite) panel. \_\_\_\_\_

**30.0 STORAGE KICK**

30.1 Storage kick- Van roof to be cut-out as required and equipped with a sloped 'kick-over", aluminium construction with open storage area. walk-through to be full height, approx. 30" wide. Upper storage area shall be c/w a 2 inch lip. \_\_\_\_\_

**31.0 FLOOR**

31.1 Cross sills- Full width 2 in. x 2 in. x 0.125 in. hollow structural steel tubing or equivalent on 16 in. centres. **State material-** \_\_\_\_\_

31.2 Long sills- Structural C channels or equivalent. **State material-** \_\_\_\_\_

31.3 Floor material- Extruded aluminium non-skid safety floor material- \_\_\_\_\_

31.4 Insulation- 3" in. of spray foam urethane insulation on underside of floor \_\_\_\_\_

**32.0 REAR DOORS  
(SEE REAR ELEVATION DRAWING)**

32.1 Rear doors- Two (2) hinged type, approx. 72" H X 30" W right hand door and 10" W left hand door, complete with safety glass, top and bottom on right hand door. Doors to open maximum distance, manufacture shall choose adequate hinge system to achieve maxim fully opened positions. \_\_\_\_\_

32.2 Safety glass- Two (2) required on right hand door, min. 20" H X 14" W each. \_\_\_\_\_

32.3 Hinges- Three (3) heavy-duty stainless steel hinges per door, **state type-** \_\_\_\_\_

32.4 Door Latch System- Manufacture's heavy duty standard slam action type. Rod-actuated with locking exterior handle. \_\_\_\_\_

32.5 Door stays- Designed to hold rear doors in fully open position, "Grabber" U-style (Cast Products Inc.), no substitutes. \_\_\_\_\_

**33.0 INTERIOR BULKHEAD**

- 33.1 Bulkhead- Full width, 12 gauge aluminium with sufficient soundproofing, located directly behind third passenger seat. \_\_\_\_\_
- 33.2 Bulkhead shall be designed to permit full rearward seat travel with the seat in a comfortable reclined position. A 1" (inch) space shall be provided between the bulkhead and the seat to prevent rubbing. \_\_\_\_\_
- 33.3 Bulkhead door - centre, swinging door with minimum two (2), 18 in. x 18 in. Lexan window located in upper and lower door. Lower window shall be located to provide driver rear visibility when bulkhead door is closed. Door shall be designed in a secure manner to prevent rattling and have a heavy duty locking system. \_\_\_\_\_

**34.0 PASSENGER SIDE  
(SEE CURBSIDE INTERIOR ELEVATION DRAWING)**

- 34.1 Storage seat- (3<sup>rd</sup>) passenger storage seat. Seat design to accommodate 1 operator to use as a passenger seat during transportation. Storage seat shall be approx. 36"L x 24"D. Seat must be CSA and UL approved. \_\_\_\_\_
- 34.2 Work bench- 102"L x 24"D with approx. 34 in. working height. Bench top to be laminated wood, approx. 2 in. thick. \_\_\_\_\_
- 34.3 Drawers- Three (3) pull-out, 24" W x 24" D x 30" H, latch able, drawers to have heavy-duty sliders to maintain min. 300 lbs capacity. \_\_\_\_\_
- 34.4 Storage cabinet # 1- 39"Wx 24" D x 30" H c/w two (2) height adjustable shelves. Cabinet shall have swinging, latch able doors. \_\_\_\_\_
- 34.5 Storage cabinet # 2 – 39"Wx 24" D x 30" H, c/w two (2) height adjustable shelves. To accommodate (1) Webasto Air Top 3500 12-volt diesel. \_\_\_\_\_
- 34.6 Vice- 5 in. Record with swivel mounted to top, right-hand side of work bench. \_\_\_\_\_
- 34.7 Rear heater – Webasto Air Top 3500 12-volt diesel fired heater located at or near floor level. Heater duct(s) shall be c/w round, swivel type air deflector(s). Air intake to be constructed for sufficient air flow as recommended by heater manufacture. Intake air shall be located near upper outside wall in order to keep contaminants and dirt out of the air intake. \_\_\_\_\_

34.8 Rear heater cover- Aluminium construction covering top and sides, removable using clamp fasteners or pull-down latches. Air intake end to be constructed for sufficient air flow as recommended by heater manufacture. Heater cover shall include a 2 inch top lip.

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34.9 Rear Heater Control- Shall be ergonomically located within driver's reach and easily serviceable. Exact mounting location to be determined at time of installation.

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34.10 Floor Mounting Ducting Locations- Mounting and ducting locations to be determined at pre-production production meeting.

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34.11 Storage cabinets and drawers to be mounted on a 4 in. riser.

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34.12 Upper Workbench shelf- 108" L X 12" wide, with a 2" wrap around lip, mounted 1' below ceiling to accommodate miscellaneous tools and equipment, min. 300 lbs Capacity.

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**35.0 DRIVER SIDE**  
**(SEE INTERIOR ROADSIDE ELEVATION DRAWING)**

35.1 Computer Work station– 48" working height, approx. 38" W X 24" D, bottom 24" left as open area, with three (3) 6"H X 38"W X 24" D drawers with heavy duty sliders. Wall mounted LED or fluorescent work light with switch on fixture. Location behind drivers seat directly in front of bulkhead wall. Exact working height to be determined upon pre-production meeting.

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35.2 Literature holder- Weather Guard model 8870, located near computer station area.

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35.3 Clothing storage compartment- 72" H x 30" W x 24" D approx., aluminium construction mounted on 4" riser, with double over lapping doors and latch able lock located on driver.

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35.3.1 Shelf- full width and full depth, located 18 in. from top of locker with 1 in. front lip.

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35.3.2 Clothes hooks- five (5) hooks, one right and left side, three on rear side.

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35.4.3 Shelving Material- 10 gauge aluminium minimum, **state-**

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35.5 Cabinet (1)- Minimum 40 "W- Cabinet (1) with 2 heavy duty deep sliding Drawers to accomedate 300 lbs.

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35.6 Steamer hose storage spool – shall safely and ergonomically store 50 ft. of steam hose, hand-crank type, retractable.

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35.7 Shelving Unit- Approx. 32"W X 80"H X 24". One (1) fixed shelf and 32"H with 1" lip, and (2) adjustable shelves with a 1"lip.

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35.8 Boot holder - aluminium, mounting location to be pre-determined prior to production.

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35.9 Wall Hose Bracket- Wall Hose Bracket mount located at rear drivers Side wall. Exact location to be determined during pre-production meet.

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**36.0 MISCELLANEOUS**

36.1 Rear bumper - heavy-duty full width, bolted to chassis frame, approx. 9 in. deep with grip strut step surface and recess for pintle hitch mount. Bumper to have boot brush mounted clear of operators exit and entry.

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36.2 Bumper- shall be bolted to chassis frame and to van body, structurally reinforced and fastened with Grade 8 bolts. Shall provide a low step height from ground level. Exact height to be discussed at a pre-production meeting.

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36.3 Mud flaps - No-name black rubber type with steel bar anti-sail brackets, installed behind rear tires.

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36.4 Combination hitch- Mounted on receiver Buyers Products BH8-2000, adjustable mounting height, secured to insert flange with Grade-8 fasteners.

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36.5 Receiver Hitch mounts- to be recessed such as to provide minimum intrusion into access area. Incorporate into bumper design

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36.6 Trailer Hitch reinforcement - "A" frame, bolted to chassis frame web.

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36.7 Electric Brakes- Electric Brake controller required for electric trailer. State make and model-

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36.8 Lunnette eyes for trailer safety chains- mounted under side of bumper, two (2) required, one on each side of hitch, each rated at full capacity of hitch, Buyers Products B56727 or equal.

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36.9 Directional Signal- One (1) ArrowStik Code 3 Inc. P/N AS-847HS C/w 8 segment ArrowStik, 47 inch length, 1156 bulbs, basic controller mounting Location to be rear facing above roofline at rear of van c/w branch guard. Exact location of in-cab controller to be determined at time of installation.

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36.10 Valve key Doors and Tubes - Two (2) only 13 ft. x 4½ in. diameter PVC



tubes, and two (2) only 72 in. x 4½ in. diameter PVC tubes per side. Valve key tubes to be enclosed at a 5° angle in a false wall on interior of van, complete with rear access doors. Doors must be 14" higher than top tube. Note: All tubes to be in line vertically and spaced accordingly. Refer to Rear Elevation Drawing. Dimensions approximately 8" W X 45"H.

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36.11 Tubes- shall provide for adequate drainage to exterior of van for cleaning purposes

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36.12 Rear access door handles- Tri-mark, stainless steel, two stage, paddle type handles.

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36.13 Roof vent- (2) Fan-Tastic, model 4000 power vents with 3 speed reversible fan, installed in roof of cargo area, switch panel actuated. See Interior Floor Plan for location.

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36.14 Vertical rear exhaust w/muffler guard - located on left side corner (driver side)at rear, oval type design. Exhaust tip shall be complete with 90° bend and 45° cut-off. Exhaust shall be located to provide minimal obstruction for rear access doors and lighting.

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36.15 Exhaust modifications on underside of vehicle shall be routed over rear axle.

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36.16 Hose Exit port- Hose exit port to be located right rear wall at floor level. Port must be of latch style.

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36.17 Exterior Storage- two (2) required, one (1) per side, aluminium construction under-body, frame mounted, approx. 6'L X 17" H X 20" D each. Driver side storage box to have a 24" divided slit partition and will require venting to outside in order to store fuel containers and oil containers. Compartment dimensions shall be designed to provide sufficient ground Clearance. Complete with compartment floor liner- Heavy Duty rubber matting. **State Dimensions-**

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36.18 2-way radio circuit-Independent 20 Amp circuit, ignition powered, wired under dash loose, labelled.

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36.19 Flare kit - three (3) triangular reflectors, CVSA approved.

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36.20 Fire Extinguisher- 10 pound Fire Extinguisher mounted secured and accessible to operators.

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36.21 Third Seat Exterior Window- 20" X 20" exterior window beside 3<sup>rd</sup> passenger seat. Window to be vented type.

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36.22 Wall Hooks- Twelve (12) heavy-duty wall hooks, locations to be determined during pre-production meet.

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36.23 Facility Entrance Dimensions- Completed vehicle must clear shop with width

of the doors of 117" W X 124" H. It is the responsibility of the Contractor to facilitate the completed design fits the shop doors at the Water & Waste Department located at 552 Plinquet Street Winnipeg, Manitoba.

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**37.0 INTERIOR LIGHTING LAYOUT**

37.1 Interior lights- Four (4) Groté 61511, actuated through switch panel

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37.2 Light Mounting Locations- Five (5) mounted above centre isle, evenly spaced, one (1) located on driver's side ceiling near workbench. All interior lights shall actuate through one (1) switch and door switches.  
**GENERALLY SHOWN ON INTERIOR FLOOR PLAN DRAWING.**

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37.3 Interior Cab Dome Lights- Two (2) OEM style overhead lights, one (1) roof mounted driver side, one (1) roof mounted passenger side. Lights to be actuated through OEM dash mounted switch and door switches.

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37.4 Map Light- Passenger side mounted, Hella 87141. Exact location to be determined at time of installation.

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**38.0 ELECTRICAL & LIGHTING**

38.1 All vehicle lighting shall conform to C.M.V.S.S. and Manitoba Highway Traffic Act requirements.

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38.2 All body supplier installed wiring shall be numbered, colour coded, loomed, properly secured and protected from damage.

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38.3 All electrical connectors shall be crimped and soldered, then sealed using heat shrink tubing.

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38.4 All joining of wires shall be soldered and sealed using heat shrink tubing (crimp on electrical connectors for joining wires are not acceptable).

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38.5 All holes required for routing wiring shall be drilled (not punched), grommetted and sealed as required.

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38.6 Wiring access panel- Wiring for interior lights, switch panel wiring, outlets, etc., shall be accessible from an access panel running along the inside corner of the ceiling.

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**39.0 SUPPLIER INSTALLED LIGHTING SHALL BE LED TRUCK LITE (EXCEPT WHERE OTHERWISE NOTED) AND SHALL INCLUDE THE FOLLOWING:**

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39.1 Combination Stop, turn and tail lights – P/N 44302R, one (1) per side with P/N 40700 mounting grommets, flush or recessed mounted.

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- 39.2 High mounted stop, turn and tail lamps - P/N 44302R, one (1) per side with P/N 40700 mounting grommets, flush or recessed mounted. \_\_\_\_\_
- 39.3 Turn signal flash rate- 70-90 flashes per minute. \_\_\_\_\_
- 39.4 Back-up lights- P/N 44206C, one (1) per side with 40700 mounting grommets. \_\_\_\_\_
- 39.5 Three Light Cluster- Three (3) only P/N 10250R with P/N 10700 mounting grommets. \_\_\_\_\_
- 39.6 Clearance Lights- P/N 10250r and 10250Y with P/N 10700 mounting grommets. \_\_\_\_\_
- 39.7 License plate lamp – P/N 15040, complete with license plate bracket \_\_\_\_\_
- 39.8 Lighting harnesses – Truck-Lite 50 Series Harness System, properly routed and secured. \_\_\_\_\_
- 39.9 Junction box – P/N 50400, complete with necessary compression fittings, required for all vehicle lighting harness connections, located inside rear of truck frame. \_\_\_\_\_
- 39.10 All plug-in connectors shall be coated with Truck-Lite NYK compound prior to assembly. \_\_\_\_\_
- 39.11 Back-up alarm – STAR 62-097, 97 dB(A) rating, installed at rear of of body, located to be protected from damage. \_\_\_\_\_
- 39.12 Rear Work lights- two (2) utility lamps, Truck-Lite 80394, mounted above Rear doors. Lights shall be wired through neutral safety switch, switch Panel actuated. \_\_\_\_\_
- 39.13 Valve key storage compartment lights- located top inside of doors, one (1) per compartment, Truck-Lite 40244 with rubber grommets. actuated through “rear work lights” switch on switch panel. \_\_\_\_\_
- 39.14 Warning light system - six (6) Truck-Lite 92690Y lights, amber lens, switch Panel actuated. \_\_\_\_\_
- 39.15 Warning Light mounting locations:
- i) Front - two (2) top corner mounted. \_\_\_\_\_
  - ii) Sides - one (1) per side, top-centre mounted. \_\_\_\_\_
  - iii) Rear - two (2) top corner mounted. \_\_\_\_\_
- 39.16 Lights shall be sequentially wired in alternating flash pattern \_\_\_\_\_
- 39.17 Side mounted scene lights- Four (4) Whelen 90E000ZR c/w trim ring, installed near roofline, one (1) per side, mounted approx. 4 inches to \_\_\_\_\_

the rear of the warning lights, switch panel actuated on two separate switches.

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39.18 Inverter- Xantrex RS 2000, powered from auxiliary battery, switch panel actuated, mounted above driver in storage kick area.

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39.19 Electrical Outlets- Five (5) 120 Volt duplex outlets required, GFI, CSA approved. Two (2) located over workbench, one (1) located at rear drivers side, one in computer stations to operate computer, one (1) to be located van body exterior, locations to be determined at time of production.

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39.20 Trailer connector - 6-pole, Dominion Auto 76-4009, wired as per Detailed Specifications 06010 installed in hitch plate.

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39.21 Continuous duty solenoid - Cole Hersee part # 24059 or 24016, controlled by "ACC" & "RUN" on ignition switch.

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39.22 Switch panel - wired through ignition. Required for fast idle, interior fans, roof vent, rear work-lights, warning lights, side mounted scene lights, interior lights, inverter, and two (2) additional blank space. switch panel shall be equipped with indicator lights and back lighting, Wired Rite Systems Inc.or equal. State make and model being bid.

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39.23 Mounting location - directly above windshield, driver's side.

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#### **40.0 INSTALLATION**

40.1 Upon request by the Contract Administrator, Bidders shall supply a final diagram and description showing the body manufacturers recommended body to chassis mount. Diagrams shall be supplied within twenty (20) Calendar days upon request.

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40.2 Mounting brackets shall be bolted to chassis frame using Grade-8 fasteners.

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40.3 Mounting of the body shall be in accordance with the chassis manufacture's guidelines for body mounting, including, but not limited to, guidelines for tire and suspension clearance and fuel filler installation.

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40.4 Tire Clearance- Bumper pad clearance plus 3" minimum

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40.5 Operator Entry- The van body shall be mounted as low as practicable and shall incorporate wheel wells.

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40.6 All holes for latches, outlets, etc. shall be neatly cut and de-burred

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40.7 All edges and corners shall be rounded to prevent accidental injury

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40.8 Any holes required in the chassis frame web must be drilled and reamed to fit bolts, no exceptions.

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40.9 Drilling on chassis frame flanges are not permitted.

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40.10 Welding on the chassis frame is not permitted.

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**41.0 FINISH**

41.1 The complete van body shall be properly cleaned, primed and finished as follows:

i) Exterior - entire van body (excluding roof) shall be painted white, to match chassis cab with two (2) coats of polyurethane Enamel, Dupont Imron or Akzo Sikkens.

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ii) Interior - brackets, mounts, and any other unfinished Cabinets etc., shall be painted white with two coats of White enamel.

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iii) Bumpers - Grey or argent.

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iv) Rear Bumper-painted with two (3) coats of grey argent Enamel.

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**42.0 PERFORMANCE RELIABILITY**

42.1 The responsibility for the design of the complete unit, its performance and reliability shall rest upon the Contractor.

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42.2 The term "*repeat failures*" as used herein is defined to mean that the same component, subassembly, or assembly develops repeated defects, breakdowns and/or malfunctions rendering the unit inoperative, or required repeated shop correction, service and/or replacement during the warranty period applicable for said component, subassembly, or 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 schedules.

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42.3 Where the unit develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

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**43.0 WARRANTY**

43.1 The Contractor shall warrant **all body equipment** and all parts thereof, against any defects in workmanship, construction and materials, and agrees to repair or replace without cost to the City any article that has become defective and not proven to have been caused by negligence

on the part of the user within **one (1) year** from the date the equipment is put into service by the City of Winnipeg.

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43.1.1 A new one (1) year warranty period shall be provided for any article that is repaired or replaced under the terms of the "repeat failures" clause (Clause 42.0 Performance Reliability). The new warranty period shall be effective from the date of acceptance of the repaired or replaced article.

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43.1.2 The Contractor shall warrant **all chassis equipment** and all components thereof, against any defects in workmanship, construction and materials, and agrees to repair or replace without cost to the City any article that has become defective and not proven to have been caused by negligence on the part of the user within **three (3) years or 60,000 km** bumper to bumper (lights excluded) from the date the equipment is put into service by the City of Winnipeg.

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43.2 The City of Winnipeg may choose to purchase extended warranty on the Chassis upon initial purchase. (Note: these figures do impact the Form B: Prices nor is evaluated. Please state the prices for the following Extended Warranty:

i) **Cat ESC plus** (Covers all the engine except turbo, water pump, injectors) 84 months (7) years- 150,000 km's. **State- \$** \_\_\_\_\_

ii) **Cat Maintenance Component Products** ( covers extra turbo, water pump, injectors) 84 months (7) years-150,000 km's. **State-\$** \_\_\_\_\_

iii) **Towing Coverage** for 60 months (5) years 161,000 km's. **State-\$** \_\_\_\_\_

iv) **Allison transmission** warranty 5 years, unlimited km's. **State-\$** \_\_\_\_\_

v) **Axle warranty** 5 years, unlimited km's. **State-\$** \_\_\_\_\_

#### 44.0 **MANUALS**

44.1 The following manuals shall be supplied with the unit when delivered. The manuals shall be in English and shall cover the complete vehicle including the engine and all attachments:

44.1.1 Operator's manual – one (1) per unit. Operator's manuals are required for cab & chassis, steamer, inverter and heater.

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44.1.2 Parts, repair and service manuals, including preventative maintenance schedules for the life of unit – two (2) total, (CD preferred). (2) parts, repair and service manuals are required for cab & chassis and rear

heater.

- 44.2 Data Collection Sheets- Data Collection Sheets to be completely filled out. See clause D.6 (PMDCS)

**45.0 PRODUCTION DRAWINGS**

- 45.1 Drawings – the Contractor shall submit for approval, detailed production drawings of the interior and exterior of the van body prior to construction upon request of the Contract Administrator.

**46.0 DELIVERY DATE**

- 46.1 The equipment shall be serviced, ready for operation and delivered F.O.B. with the freight prepaid to the City of Winnipeg, Fleet Management Agency Office, 185 Techumseh Street, Winnipeg, Manitoba **within fifty-two (52) calendar weeks** from the date of official notification of award of Contract. The Contractor shall contact the Contract Administrator prior to delivery of the equipment.