Definitions

4.

FORM A: BID (See B8)

1.	Contract Title	SUPPLY AND DELIVERY OF SPECIALTY VEHICLE	A TACTICAL BOMB DISPOSAL	
2.	Bidder			
		Name of Bidder		
		Usual Business Name of Bidder as it	appears on Invoice (if different from above)	
		Street		
		City	Province Pc	ostal Code
		Email Address of Bidder		
		Facsimile Number		
	(Mailing address if different)	Street or P.O. Box		
		City	Province Pc	ostal Code
		GST Registration Number (if applicab	le)	
		The Bidder is:		
	(Choose one)	a sole proprietor		
		a partnership		
		a corporation		
		carrying on business under th	e above name.	
3.	Contact Person	The Bidder hereby authorizes the Bidder for purposes of the	the following contact person to re Bid.	epresent
		Contact Person	Title	
		Telephone Number	Facsimile Number	
		Email Address		

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

- 5. Offer The Bidder hereby offers to perform the Work in accordance with the Contract for the price(s), in Canadian funds, set out on Form B: Prices, appended hereto.
- 6. Commencement of the Work The Bidder agrees that no Work shall commence until he/she is in receipt of a notice of award from the Award Authority authorizing the commencement of the Work.
- 7. Contract By submitting a bid in response to this Tender, the Bidder certifies that it has read, understands, and agrees to the terms and conditions of this Tender and that the Tender, in its entirety shall be deemed to be incorporated in and to form a part of this offer notwithstanding that not all parts thereof are necessarily attached to or accompany this Bid.
- 8. Addenda The Bidder certifies that the following addenda have been received and agrees that they shall be deemed to form a part of the Contract:

No. _____ Dated _____

- 9. Time This offer shall be open for acceptance, binding and irrevocable for a period of sixty (60) Calendar Days following the Submission Deadline.
- 10.Indigenous Self-
DeclarationThe City is requesting that Bidders identify if their business is at least
51% owned by one or more Indigenous persons of Canada.

YES, 51% or more Indigenous ownership

NO, it is not

This information is being gathered for statistical purposes only and will not be used for purposes of evaluation.

11. Signatures The Bidder or the Bidder's authorized official or officials have signed this

_____ day of _____ , 20_____ .

Signature of Bidder or Bidder's Authorized Official or Officials

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

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

FORM B: PRICES (See B9)

SUPPLY AND DELIVERY OF A TACTICAL BOMB DISPOSAL SPECIALTY VEHICLE

UNIT PRICES

ITEM	DESCRIPTION	SPEC.	UNIT	QUANTITY	UNIT
NO.		REF.			PRICE
1.	Tactical Bomb Disposal Specialty Vehicle	19013	Each	1	
	venicie				

Name of Bidder

FORM N: DETAILED SPECIFICATIONS 19013

TACTICAL BOMB DISPOSAL SPECIALTY VEHICLE

1. <u>INTENT</u>

- 1.1 It is the intent of these specifications to describe a nominal 22'L x 8.5'W specialty body suitable for use as a bomb disposal vehicle including other equipment as described herein. The bomb disposal body shall be installed on a Class 7 crew cab and chassis vehicle to be supplied by the Contractor (see Cab & Chassis Specifications).
- 1.2 The bomb disposal body shall be the manufacturer's latest model, as may be modified by these specifications. The tactical bomb disposal vehicle, including all auxiliary equipment, shall be furnished complete and ready for use. All parts not specifically mentioned but which are required for the complete unit shall conform in strength, quality of material and workmanship, to the best standards and engineering practice in the industry.
- 1.3 It will be the responsibility of the Bidder to inform the City of any errors or omissions in these specifications, for under this Contract, the Contractor shall be held responsible to ensure that the manufacturer will be responsible for the design, performance, reliability and satisfactory operational function of the unit.
- 1.4 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.

2. OTHER SPECIFICATIONS AND STANDARDS

- 2.1 All applicable SAE Standards form an integral part of the vehicle specifications and shall have precedence in any conflict concerning minimum acceptable standards.
- 2.2 The complete bomb disposal vehicle shall comply with the applicable regulations:
 - Manitoba Highway Traffic Act
 - Canadian Motor Vehicle Safety Standards, CMVSS Transport Canada
 - National Safety Mark, NSM
 - Manitoba/Winnipeg Safety and Health Act, Parts 12, 22
 - Canadian Standards Association, CSA
 - Under Writers of Canada, U/L
 - Society of Automotive Engineers, SAE
- 2.2 All welding and welding designs of the load supporting elements shall conform to the requirements of the Canadian Standards Association Standard (CSA) W47.1-03 and W59-03.
- 2.3 The completed unit shall include a Manitoba Government Inspection with Safety Sticker on the driver's side window.
- 2.4 The completed vehicle shall be complete with a National Safety Mark, NSM.
- 2.4.1 **State** NSM Number:

3. QUALIFICATIONS OF MANUFACTURER

3.1 The manufacturer of the bomb disposal body shall have a minimum of five (5) years continuous experience manufacturing and installing emergency services bodies and equipment of the type being offered. The manufacturer shall have in effect a complete and documented quality control program ensuring the compliance with all applicable standards.

4. QUALIFICATIONS OF THE BIDDER

- 4.1 The Bidder shall be a manufacturer or authorized distributor/supplier of customized truck bodies and specialty equipment bodies.
- 4.2 For the purposes 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 major portion thereof, shall be dedicated to the installation, service, and maintenance of customized specialty bodies and equipment being offered.
- 4.3 Further to B11, Bidders shall provide a description of the facility including, but not limited to, number of qualified staff, years of service experience on specialty bodies, and general service capabilities within three (3) Business Days upon request of the Contract Administrator.

5. INSTRUCTIONS FOR COMPLETION OF SPECIFICATIONS

- 5.1 All items in these specifications must be answered indicating compliance or non-compliance. **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.
- 5.2 Each bidder is required to fill in every blank. Failure to do so may be used as a basis for rejection of bid.

6. <u>REFERENCES</u>

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

7. CREW CAB AND CHASSIS SPECIFICATIONS

7.1 STATE YEAR, MAKE AND MODEL BEING BID:_____

GVWR

- 7.2 Total 33,000 lbs.
- 7.3 Front 12,000 lbs.
- 7.4 21,000 lbs. Rear **Chassis Dimensions** 7.5 170 in. approx., suitable for 22 ft. bomb disposal Cab-to-axle body, state CA 7.6 280 in. approx., suitable for 22 ft. bomb disposal Wheelbase body, state WB Engine 7.7 Diesel engine, Tier IV, state make, model and Type

displacement

7.8 Horsepower 300 hp approx., state

7.9	Torque	860 lbf-ft approx., state
7.10	Engine shut down	Low oil pressure / high water temperature
7.11	Air intake warmer	Required
7.12	Fuel shut-off	Electric solenoid type
7.13	Air cleaner	Dry type
7.14		L Dash mounted restriction indicator
7.15	Oil drain plug	Magnetic type
7.16	Oil filter	Full flow, spin-on or cartridge type
7.17	Fuel filter	Spin-on or cartridge type
7.18	Fuel/water separator	Heated, drainable, mounted under hood, located to be protected from road spray
7.19	Block heater	Immersion type, 750 Watt with plastic, covered recessed male plug, located under driver's side door
7.20	Coolant	Extended life coolant, antifreeze to -35°F (-37°C)
7.21	Coolant hoses	Silicone type, Gates Blue Stripe or Premium type
7.22	Fan Drive	Thermostatically controlled, automatic type
7.23	Air compressor	Water cooled, pressure lubricated, 13 cfm
	Electrical System	
7.24	Alternator	270 Amp, state make and model
7.25	Starter	Delco Remy 38MT HD or equivalent
7.26	Batteries	Three (3), 12-volt, group 31, 2250 CCA combined
7.27	Battery Box	Under cab c/w enclosure, readily accessible
7.28	Battery disconnect	In-cab mounted, state location
7.29	Remote boost terminal	Remote battery boost terminal(s), protected from
7.30	Cab marker lights	LED
7.31	Back-up alarm	Required, 97 dBA, located on inside-rear of frame
7.32	Accessory switches	Six (6) required, dash mounted for body installation, labelled and backlit
7.33	Radio circuit	Independent 20 Amp, 2-way radio circuit, ignition powered, wired under dash loose, labelled
	Exhaust System	
7.34	Configuration	Single horizontal muffler with horizontal tailpipe
	Transmission	
7.35	Model	Allison 3000 or 3500 EVS Series, state model
7.36	Shift selector	Push button electronic shift control
7.37	Cooling	Water to oil transmission cooler
7.38	PTO provision	Required with maximum clearance from exhaust
7.39	Oil level dipstick	Bayonet type with high and low level markings

7.40	Trans. drain plug Front Axle	Magnetic type
7.41	Capacity	12,000 lbs. capacity
	Rear Axle	
7.42	Capacity	21,000 lbs. capacity
7.43	Ratio	For 110 km/hr top speed, state ratio
7.44	Differential lock	Required for rear drive axle w/dash mtd. switch
	Front Suspension	
7.45	Туре	Taper leaf spring suspension, 12,000 lbs. capacity
	Rear Suspension	
7.46	Туре	Air ride suspension, 21,000 lbs. capacity, state make and model of suspension being bid
7.47	Susp. control valve	Manual dump valve for air suspension c/w dash mtd. switch and indicator light
7.48	Auto refill	Required at 5 km/hr
	Rims, Wheels, Hubs	
7.49	Front	22.5 x 8.25 polished aluminum, 10-bolt, hub piloted
7.50	Rear	22.5 x 8.25 polished aluminum, 10-bolt, hub piloted
7.51	Hubs	Aluminum hubs, front and rear
7.52	Hub seals	Oil lubricated front and rear
7.53	Wheel nut indicators	Required on every second wheel nut, front and rear
	Tires, front	
7.54	Size	11R 22.5
7.55	Make & model	Michelin XZE, Goodyear G662 RSA or equivalent 14-ply tires, state tires
	Tires, rear	
7.56	Size	11R 22.5
7.57	Make & model	Michelin XDE M/S, Goodyear G182 or equivalent 14-ply tires, state tires
	Frame _	
7.58	Туре	Single or double rail, to match GVWR, 1,000,000
7.59	Application	Suitable for use with a 22 ft. bomb disposal body
7.60	Chassis fasteners	Grade-8 threaded hex headed frame fasteners or huck-spin fasteners
7.61	Afterframe	As required for bomb disposal body installation, 100 in. approx., state
	Steering	
7.62	Туре	Power
	Brakes	
7.63	Туре	Hydraulic, ABS, power with optional air supply
7.64	Air drier	Wabco System Saver 1200, heated
7.65	Moisture ejector	Bendix DV-2, heated, required in wet tank

7.66	Drain valves	Manual, chain or cable operated, required on each air tank	
7.67	Parking brake	Dash mounted air operated parking brake knob	
	Fuel Tanks		
7.68	Туре	Dual aluminum, 300 L combined capacity approx., fully fuelled upon delivery	
7.69	Tank straps	Steel mounting straps with ¹ / ₁₆ in. rubber or neoprene isolators	
7.70	Fuel separator	Heated, drainable, c/w primer pump	
7.71	DEF tank	Diesel exhaust fluid tank, 22-30 L approx., state size and location	
	Cab		
7.72	Туре	Conventional type, aluminum or steel w/corrosion	
7.73	Hood	Fibreglass tilt	
7.74	Cab mounts	Air suspension	
7.75	Cab interior/trim	Extreme climate insulation including cloth or vinyl headliner on roof, door panels and rear interior of cab. Door panels to include storage pockets	
7.76	Cab silencer package	Required for minimal decibel level	
7.77	Hood/Firewall/Engine	Insulated hood liner, engine cover and firewall	
7.78	Floor covering	Rubber mat with under-padding	
7.79	Floor mats	Two (2), rubber	
7.80	Driver seat	High back, air suspension w/foldable right hand armrest, seat belt, heavy-duty cloth upholstery, Cordura or equal, state material	
7.81	Passenger seat	High back, air suspension w/foldable left hand armrest, seat belt, heavy-duty cloth upholstery, Cordura or equal, state material	
7.82	Sun visors	Dual flip-up type	
7.83	Steering wheel	Tilt type	
7.84	12-Volt power outlet	Required	
7.85	Radio	Factory installed AM/FM with Bluetooth [®] capability, auxiliary input and USB port	
7.86	Starter switch	Key operated c/w four (4) sets of keys	
7.87	Interior light	Dome light with driver and passenger door switches	
7.88	Heater / Defroster	High output, capable of keeping all windows clear at an outside temperature of -35°F (-37°C)	
7.89	Air conditioning	Required	
7.90	Brake & accel. pedals	Hanging type brake and accelerator pedals	
7.91	Horn	Dual electric	
7.92	Exterior mirrors	Dual West Coast, stainless steel or polycarbonate, 7" x 14½" approx.	

7.93	Convex mirrors	6 in. aux., stainless steel, mtd. below West Coast mirrors, or integral type with polycarbonate mirrors, one (1) per side
7.94	Downview mirror	Located over passenger door, 5" x 4" approx.
7.95	Windows & windshield	Tinted
7.96	Windshield wipers	Electric, intermittent
7.97	Windshield washers	Electric
7.98	Grab handles	Dual exterior with rubber inserts
7.99	Entrance steps	Dual each side, open grate / grip type
7.100	Winter front	Heavy-duty vinyl w/twist lock or snap type fasteners
	Instrumentation	
7.101	Oil pressure	Gauge
7.102	Coolant temperature	Gauge
7.103	Transmission oil temp.	Gauge
7.104	LOP/HWT	Warning light and buzzer
7.105	Voltmeter	Gauge
7.106	Air reservoir pressure	Gauge with LAP warning light and buzzer
7.107	Engine hourmeter	Required, non-resettable type
7.108	PTO hourmeter	Required, non-resettable type
	Tow Hooks	
7.109	Location	Front mounted
	Front Bumper	
7.110	Туре	Chrome, full width c/w license plate provision
	Colour and Finish	
7.111	Exterior	White
7.112	Interior	Dark grey or black
7.113	Frame & suspension	Primed and finished with black Imron 5000 paint or equivalent
	Accessories	
7.114	Flare kit	Three (3) triangular reflectors, CVSA approved
7.115	Fire extinguisher	5 lb. ABC type, required in cab with mounting
7.116	First aid kit	Required, Provincial 1 approved kit, supplied loose
	Manuals	
7.117	Operator's manual	Required, one (1) per vehicle
7.118	Parts/Repair/Service	Required, including preventative maintenance schedules for life of unit, USB or online manuals preferred
	Warranty	
7.119	Chassis warranty	The Contractor shall provide all detailed published Warranty information (including all exclusions) at the time of delivery of the equipment. State the following:

7.120	Basic vehicle	State	
7.121	Batteries	State	
7.122	Drivetrain	State	
7.123	Cab structure/corrosion	State	
7.124	Frame & crossmembers	State	
7.125	Cab paint	State	
7.126	Engine	State	
7.127	Towing coverage	State	
7.128	Transmission	State	
7.129	Axles, front & rear	State	
7.130	Exhaust system	State	
8. 8.1	TACTICAL BOMB DISI	POSAL BODY ND MODEL BEING BID:	
9.	BODY DIMENSIONS		
9.1	Body length, interior (me	easured to front wall) – 22 ft. approx., state length.	
9.2	Body width, exterior – 1	00 in. approx., state .	
9.3	Body height, interior – 8	2 in. approx., state height.	
9.4	Floor height – 40 in. app	prox., state height.	
9.5		rear 5 ft. of the body, aft of the rear wheels shall of approximately 20 in. lower than the floor level.	
9.6	Overall height – state.		
10.	TRUCK BODY, EXTER	IOR	
10.1	Exterior sidewall materia welded into an integral s construction method.	al – modular body constructed of aluminum, fully structure or aluminum snap lock panels. State body	
10.2	of 200 lbs., covered with	of supporting two (2) people of average weight n diamond plate or equivalent for added support State roof construction materials.	
10.2.1	Roof rail – 6 in. height a	round perimeter.	
10.2.2		ar mounted to allow access to roof c/w a locking unwarranted roof access.	

10.2.3	Framing in roof for Air Conditioning unit and roof vent.
10.3	Body frame – welded tubular steel or aluminum cage.
10.4	Floor frame – welded steel or aluminum floor frame and mounting plates c/w heavy duty cross members.
10.4.1	Rear drop frame – 20 in. approx. aft of rear wheels. Space to be used for storage and transport of bomb disposal robot weighing 550 lbs.
10.5	Floor crossmembers, front – HSS 3"x2"x.125" steel tubing or equivalent on 16 in centres. State material.
10.5.1	Floor crossmembers, rear – HSS 2"x2"x.125" steel tubing or equivalent on 16 in centres. State material.
10.6	Floor longsills – structural C-channels or equivalent. State material.
10.7	Exterior skirting below floor – 20 in. approx.
10.8	Mudflaps – no-name, black rubber type with stainless steel bar anti-sail brackets, installed at front and behind rear tires.
10.9	Rear bumper – full width, heavy-duty step bumper, 14 in. depth c/w a grip strut step surface and tapered ends. Exact bumper design and dimensions to be discussed at a pre-production meeting.
10.9.1	Bumper shall be bolted to chassis frame and to van body, structurally reinforced and fastened with Grade 8 fasteners. Mounting height shall provide a 17-19 in. step height from ground level.
10.10	Wheel wells – shall include stainless steel wheel liners.
10.11	Frame and body frame to be primed with a suitable rust inhibitor primer.
10.12	Insulation, floor – 2-3 in. of spray foam, urethane or equivalent on underside of floor.
10.12.1	Insulation, walls and ceiling – 2 in. Styrofoam SM insulation or equivalent.
11.	EXTERIOR COMPARTMENTS, DOORS AND EQUIPMENT
11.1	For the purpose of these specifications:
	L – Length, along or parallel to chassis frame rails. H – Height or vertical. D – Depth on horizontal plane across chassis.
	Exterior Compartments – General
11.2	Weather stripping – bulb type automotive style for all doors and compartments.
11.3	Drip mouldings – required above each door opening where applicable.
11.4	Compartment door handles – stainless steel paddle type handles or D-ring, Tri-Mark, Eberhard or equivalent.

11.5	Door keys – four (4) sets required, keyed alike where available.	
11.6	Compartment door hardware – chrome or stainless steel with adjustable striker plates.	
11.7	Rubber bumpers required on exterior door compartments where applicable.	
	Driver Side, front to back	
11.8	Compartment 1, diesel generator compartment – suitable sized to accommodate a 5 kW Onan diesel generator, mounted on a slide-out tray. Compartment shall be sufficiently insulated. Door(s) to be louvered, vertically hinged, lockable. Fuel for the generator shall be supplied from truck fuel tank. State make and model of generator being bid.	
11.9	Compartment 2, under floor battery compartment – 28"L x 22"H x 24"D approx., c/w a slide-out tray for batteries. Tray to be lined with neoprene liner. Door to be louvered, vertically hinged, lockable.	
11.10	Compartment 3 – located under floor in front of wheels, 40"L x 22"H x 24"D approx. c/w one (1) vertical center divider. Door to be vertically hinged and lockable.	
11.11	Compartment 4 – located aft of rear wheels, 45 "L x 60"H x 26"D approx. with locking Amdor roll-up door. Right side of compartment to be outfitted with a rack for six (6) SCBA bottles, sloped downwards c/w rubber liners. Bottle dimensions are 7" diameter x 24" long.	
	Passenger Side, front to back	
11.12	Entry door – located near front of body, 36"L x 90"H approx., right side hinged, c/w three (3) inside steps, middle step to have a 12 in. deep storage box with $\frac{1}{2}$ in. plywood lining.	
11.12.	1 Door locks/handles – stainless steel or nickel plated paddle style handle or heavy duty refer style handle/latch, lockable. State type.	
11.12.	2 Grab handles – two (2) large grab handles with rubber inserts, ergonomically located for entry and egress.	
11.12.3	3 Window – approx. 12"L x 18"H fixed, tinted window c/w applicable safety markings.	
11.12.4	4 Door stay – approx. 150° heavy duty mechanical door check, suitable for high winds.	
11.13	Compartment 5 – located under floor in front of wheels, 57"L x 22"H x 24"D approx. c/w four (4) vertical dividers. Floor to be lined with a $1/_{16}$ in. rubber floor liner. Door to be vertically hinged, louvered and lockable.	
11.14	Ramp door – 42"W x 78"H approx. on passenger side rear drop section, capable of loading/unloading a tracked robot weighing 550 lbs. Roll-Camlock design with two (2) large grab handles. Bottom of door to include three (3) or four (4) heavy duty stainless steel hinges. Surface of ramp to be anti-slip aluminum grip strut with two (2) rubber bumpers on the outside top to protect door from ground.	

12. INTERIOR LAYOUT

- 12.1 Interior height 80 in. approx., **state** height.
- 12.2 Floor material $-\frac{3}{4}$ in. marine grade plywood in front and rear dropped floor.
- 12.2.1 Interior floor covering heavy duty smooth black rubber floor or equivalent seamless non-skid flooring. The joints where the floor and cabinets/wall meet shall roll up 90 degrees to prevent seepage of fluids under the cabinets/wall.
- 12.2.2 State any floor design options and corresponding price.
- 12.3 Ceiling and side wall material white, moisture and impact resistant fibreglass reinforced plastic panels or equivalent, **state** material.
- 12.4 Insulation cavities between the interior and exterior body panelling and doors shall be filled with R8 insulation. Flooring shall have an R5 insulation value.
- 12.5 Fire extinguisher one (1) 5 lb. ABC type installed in the rear area. Exact location to be determined at pre-production meeting.

Front Interior Wall

- 12.6 Walkthrough entryway to cab area c/w rubber boot and finished fabric into cab. Sliding door sliding towards road side with non-locking handle.
- 12.7 Blast box cabinet approx. 34"W x 24"D x full-height cabinet facing rearwards, i.e., alongside the front portion of the entry steps. Blast box to meet federal standards.
- 12.7.1 Top portion of the cabinet to include two (2) height adjustable shelves @ 2 in. increments, a 2 in. lip on each shelf, and an Ambor roll-up door.
- 12.7.2 Lower portion to include two (2) aluminum doors latched in the center. An approx. 24"W x 17"H x 17"D Blast Box shall be mounted in the cabinet. The Blast Box shall meet federal standards and shall be constructed on all six (6) sides of ¼ in. steel plate with ⁷/₈ in. Armortex lining, a ¼ in. plywood liner, and another inside liner of ¼ in. steel. The top shall be rear hinged with heavy duty steel hinges including a hasp for a padlock c/w lock protector. Steel flanges on either ends shall be provided to bolt the Blast Box down to the floor.

Driver Side, front to back

- 12.8 Cabinet 1 approx. 30"L x 76"H x 30"D with a side-hinged door. Cabinet to be equipped with four (4) height adjustable shelves at 2 in. increments. Shelves to have a 3 in. lip and shall have room for communication equipment. ____
- 12.9 Work counter approx. 36"L x 40"H x 30"D, arborite finish work surface. Space above work counter shall be used for electrical panels and controls including cabinet(s) with 12V and 110V duplexes/outlets. Lower section to include two (2) aluminum doors latched in the center. The lower

section shall include a second Blast Box as described in 11.3.2. All doors above and below work counter to be of same size.

- 12.10 Cabinet 2 approx. 40"L x 76"H x 30"D with locking Amdor roll-up door. Cabinet to be equipped with four (4) height adjustable shelves at 2 in. increments. Shelves to have a 3 in. lip and shall be lined with rubber matting.
- 12.11 Cabinet 3 identical to cabinet 2.
- 12.12 Locker approx. 33"L x 76"H x 30"D with heavy duty hanging bar for storage and transportation of bomb suits. The locker shall include a locking Amdor roll-up door.
- 12.13 Storage compartment located above exterior compartment 4 on the inside of the van body. 55"L x 22"H x 30"D approx. with two (2) bottom hinged doors. Top of storage compartment to include a 3 in. lip.

Passenger Side, front to back (aft of entrance door)

- 12.14 Workbench 94"L x 40"H x 30"D approx. with non-sparking white arborite finish workbench top. Below left shall be a framed opening for an approx. 70L 120V refrigerator and a single pull-out drawer directly above. To the right of the refrigerator shall be a double door, framed area approx. 44"L c/w louvers in doors for a water tank c/w a 2 in. high aluminum drip pan. Directly above the double doors shall be two (2) pull-out drawers, side-by-side, 8"H approx.. To the right of the water tank area shall be a 4-drawer, stacked drawer set approx. 22"L with varying heights. Exact heights to be discussed at a pre-production meeting.
- 12.15 Above workbench, left to right two (2) dual door framed-in cupboard sections, 30"L x 26"H x 16"D approx. each c/w one (1) height adjustable shelf per section. Remaining area above workbench shall accommodate a microwave oven with an aluminum shelf with a 2 in. lip above the microwave. Shelf to be lined with rubber matting.
- 12.16 Heater cabinet framed heater cabinet above wheelwell with removable faceplate for servicing, approx. 10"H.
- 12.17 Cabinet 4 32"L x 72"H x 30"D approx. with locking Amdor roll-up door. Full width height adjustable shelf with 2 in. increments and a 2 in. lip. Shelf initially installed at approx. 12 in. from ceiling. Additional equipment to include two (2) duplex receptacles, a 21 in. TV monitor and DVD player mounted to wall with a bracket(s), a coax outlet and S-video receptacles wired to TV outlet on the rear wall.

Rear wall

12.18 Television – rear wall mounted, facing forward, securely mounted, with bracket and protective shield, 48 in. LCD flat screen with multiple HDMI inputs/outputs.

13. ELECTRICAL & LIGHTING

- 13.1 All vehicle lighting shall conform to C.M.V.S.S. (latest revision) and Manitoba Highway Traffic Act requirements.
- 13.2 Supplier installed lighting to be LED Whelen, Truck-Lite or equivalent.

13.3 Brake light - two (2) Whelen M Series. 13.4 Turn signal flash rate – two (2) Whelen M Series. 13.5 Back-up lights – two (2) Whelen M Series. 13.6 3-light cluster – three (3) $2\frac{1}{2}$ in. lights c/w mounting grommets. 13.7 Clearance lights – 2¹/₂ in. clearance lights c/w mounting grommets. 13.8 Licence plate lamp – LED c/w license plate bracket. 13.9 Lighting harnesses – all harnesses shall be internally grounded, properly routed and secured, protected from damage. 13.10 Junction box – Truck-Lite P/N 50400 or equivalent, complete with necessary compression fittings, required for all vehicle lighting harness connections, located inside rear of truck frame, protected from road debris including all harness connections. 13.11 All plug in connectors shall be coated with a di-electric grease or anticorrosion compound prior to assembly. 13.12 Antennas and specialty cabling – the City of Winnipeg will supply five (5) antennas and cabling to be installed by Contractor on vehicle roof. Access ports required for servicing antennas. Additional structural metal required for antenna ground plates. Exact locations and terminations to be discussed at pre-production meeting. Note: Antennas and specialty cabling are the only City of Winnipeg supplied equipment. 13.13 Warning lights, body mounted – seven (7) red Whelen M-Series and seven (7) blue Whelen M-Series lights with chrome flanges, alternating flash patterns, mounted as follows: i) Front facing – one red, one blue on front section. ii) Rear facing - two red, two blue. iii) Side facing, driver's side - two red, two blue. iv) Side facing, passenger side - two red, two blue. 13.14 Warning lights, grille mounted – four (4) Whelen ION Series, two red, two blue, front facing in truck grille. 13.15 Warning lights shall be wired "hot" (i.e., able to use without the key on), wired through a single, chassis manufacturer's OEM dash mounted switch, labelled "Warning Lights" with a permanent type label. 13.17 Siren package - required with speaker, including one full function hands free siren, one (1) Whelen SA315 series with speaker bracket. 13.18 Scene lights/flood lights – six (6) Whelen M9 Series, two per side, two rear mounted. All switches and warning lights shall be identified with permanent engraved 13.19

type labels or chassis manufacturer's OEM labels. No labels allowed on

	upper surface of dash.	
13.20	Interior lights – continuous Luma Bar LED lighting in rear drop section, under passenger side cabinets, under electrical cabinet and two (2) continuous strips along main isle way. LED step lights required in passenger side entrance steps.	
13.21	Generator – Onan QD 5000 quiet diesel generator installed in Compartment 1. The generator shall have a remote start feature, accessible from the interior of the vehicle.	
13.22	Body load disconnect switch – required.	
13.23	Electrical package – 120V, 30-Amp including 110V inlet, 30 ft. shore power cord c/w auto eject, 50-Amp electrical box, 50-Amp main breaker and 50-Amp transfer switch.	
13.24	Converter – 120V to 12V, 30 Amp with charger.	
13.25	Wiring access panels – covered bulkhead/access panels running along driver's and passenger's side interior near roof for the purpose of running cabling after build is complete.	
13.26	Duplex receptacles, interior – twelve (12) required with locations to be outlined in the Contractor's pre-production drawings. The receptacles shall be GFI, CSA approved.	
13.27	Duplex receptacles, exterior – one (1) located in Compartment 3 and one (1) located on passenger's side near front of body.	
13.28	Deep cycle batteries – two (2) Trojan 6V batteries joined in series and securely mounted in Compartment 2 c/w power level indicator mounted in electrical cabinet on driver's side. Batteries to be charged from the truck alternator or the shoreline converter.	
13.29	Roof mounted power vents – two (2) ceiling mounted, 3-speed fan, reversible airflow with controls.	
13.30	Back-up camera – rear mounted c/w 7 in. dash mounted screen, Zone Defence 323 or equivalent.	
13.31	12 Volt lines – two (2) 12V lines to mast area wired to switch by ramp door for up/down of mast.	
13.32	Communications cable – required from computer cabinet (Cabinet 4) to mast area.	
13.33	Master disconnect switch – to disable all electrical systems for repair or long-term storage. State location.	
13.34	All wiring installed by body manufacturer/installer (including accessories, work lights, etc.) shall be colour coded, loomed, properly secured and protected from damage.	
13.35	All electrical connectors shall be crimped & soldered, then sealed with heat shrink tubing.	
13.36	All joining of wires shall be soldered and sealed using heat shrink tubing (crimp-on electrical connectors for joining wires are not acceptable).	

13.37	Any holes required to run wires through body, cab, steel sections, etc. shall be drilled (not punched), grommeted and sealed.	
14.	INSTALLATION	
14.1	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.	
14.2	Welding to truck chassis frame is not permitted.	
14.3	Mounting brackets shall be bolted to chassis frame using Grade-8 fasteners.	
14.4	Any holes required in chassis frame web must be drilled and reamed to fit bolts.	
14.5	All non-continuous body seams (joints) shall be caulked with an automotive grade elastomeric sealant.	
14.6	Departure angle of completed unit – 12° approx. State angle.	
14.7	Overall height decal – engraved type, installed in chassis cab.	
14.8	Isolators – all interfaces between aluminum and steel are to be separated by $^{1}/_{16}$ in. thick rubber or neoprene sheet to prevent galvanic corrosion. Bolts used on aluminum or between aluminum and steel shall be bolted through with stainless steel bolts and non-conductive bushings.	
15.	MISCELLANEOUS	
15. 15.1	MISCELLANEOUS Robot antenna – curbside body mount for a portable robot antenna including a mounting plate between 5-6 ft. from ground with a covered plug wired to inside of vehicle. Mounting plate must be adjustable to the height of the roof.	
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15.8	Rope rings – four (4) heavy duty rope rings in dropped floor area and eight (8) mounted in exterior of roof. Exact locations to be determined at a pre-production meeting.			
15.9	Microwave – mounted in microwave shelf.			
15.10	Refrigerator – 120V fridge as specified under passenger side workbench.			
15.11	Water tank – 200 L approx. mounted in water tank cabinet including:			
	i) 2 in. drain line with valve plumbed through floor.			
	ii) 2 in. aluminium coupler with plug for over flow drain.			
	iii) 1 in. supply line to water pump and ball valve plumbed to open fitting	J		
	iv) City water fill in curb side exterior wall to fill water tank.			
	v) Site glass on side for capacity gauge.			
15.12	Air compressor – 120V air compressor with small air tank c/w 15 ft. hose, mounted in left side of Compartment 3.			
15.13	Rear mast – EM40 telescoping mast mounted to rear wall and bumper including:			
	i) 25 lb. capacity / 103.75 in.			
	ii) Hand winch.			
	iii) Mast powder coated white to match cab.			
	iv) Bumper mount.			
	v) WCA-E261NR PTZ colour camera, 26X zoom, stabilizer.			
	vi) PTZC20 controller for camera.			
	vii) NC40 30 ft. NyCoil coiled plastic cable management.			
	viii) 12VDC motor upgrade for mast with limit switches.			
16.	COLOUR AND FINISH			
16.1	Van body – shall be painted white to match chassis cab with two (2) coats of polyurethane enamel, Dupont Imron, Akzo Sikkens or equivalent.			
16.2	Roof – coated with a black spray-on non-skid coating on walking area			
16.3	Floor, underside – steel and aluminum sections of deck, sub-frame and under body shall be undercoated with an asphalt and rubber based material Proform or equivalent, applied as per manufacturer's recommendations.	,		
16.4	Rear bumper – black powder coated finish.			
16.5	Aluminum or stainless steel components, unfinished.			

17. TECHNICAL DOCUMENTS AND MANUALS

- 17.1 Bidders shall provide the following, within five (5) Business Days upon request of the Contract Administrator:
- 17.1.1 Three (3) view drawings showing complete unit including chassis, body and interior views.
- 17.1.2 Estimated front and rear axle weights of the complete unit (chassis, body, etc. including full fuel, full water tank and two operators).
- 17.1.3 Service facility description.
- 17.1.4 Body to frame mounting plans.
- 17.2 Prior to final inspection the Contractor shall provide the following;
 - a) Weigh scale ticket of the completed unit, fully fuelled, including two (2) operators.
 - b) Operator's manuals for cab & chassis and Onan generator two (2) sets required.
 - c) Parts and maintenance manuals two (2) sets required with the following comprising a set:
 - i) Maintenance manual.
 - ii) Unit parts book.
 - iii) Electric wiring diagram (as built) of the completed unit.

NOTE: The manuals supplied with this Contract must be in English and shall be specifically for the unit supplied. General purpose manuals are <u>not acceptable</u>. Contract will not be considered complete until these sets of manuals have been delivered. Manuals must be supplied at the time the unit is delivered. USB format preferred.

17.3 Bidder shall provide information on any manuals that are available in an electronic format.

18. <u>DELIVERY</u>

- 18.1 The completed unit shall be serviced, ready for operation and delivered F.O.B with the freight prepaid to the City of Winnipeg, Winnipeg Fleet Management Agency, 185 Tecumseh Street, Winnipeg, Manitoba within **fifty-two (52) calendar weeks** from the date of award. The Contractor shall contact the Contract Administrator prior to delivery of the equipment. Equipment shall be delivered within 8:00 am and 3:00 pm on Business Days.
- 18.2 A pre-delivery inspection shall be performed by the Contractor on all equipment.
- 18.3 The Contractor shall contact the Contract Administrator prior to delivery

of the equipment.

19. PERFORMANCE RELIABILITY

- 19.1 The responsibility for the design of the complete I-DENT vehicle, its performance, and reliability shall rest upon the Contractor.
- 19.2 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, 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.
- 19.2.1 Where the vehicle develops "repeated failures" in service, the Contractor shall make any necessary engineering changes, repairs, alterations or modifications in order to guarantee reliability of performance.

20. WARRANTY

- 20.1 The warranty on the cab & chassis is listed above in 7.119 7.130
- 20.2 The Contractor shall provide all detailed published warranty information (including all exclusions) at the time of delivery of the equipment. **State** the following warranties:
- 20.3 Body, exterior state.
- 20.4 Body, interior state.
- 20.5 Mast and related equipment **state**.
- 20.6 Electrical, lighting, etc. **state**.
- 20.7 Generator **state**.
- 20.8 Finish, i.e., paint, gelcoat, powder coat, etc. **state**.
- 20.9 Provide details on any extended Warranty coverage available.