



RETURN BIDS TO:

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TPSGC

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau, Québec K1A 0S5

Bid Fax: (819) 997-9776

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Vehicles & Industrial Products Division

140 O'Connor, Tower East

4th Floor

140 O'Connor, Tour Est

4ème étage

Ottawa

Ontario

K1A 0S5

Title - Sujet Truck, Medium with Box Truck, Medium with Box	
Solicitation No. - N° de l'invitation M9062-215232/A	Amendment No. - N° modif. 003
Client Reference No. - N° de référence du client M9062-215232	Date 2021-08-11
GETS Reference No. - N° de référence de SEAG PW-\$\$\$HP-539-80131	
File No. - N° de dossier hp539.M9062-215232	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Daylight Saving Time EDT on - le 2021-08-23 Heure Avancée de l'Est HAE	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Cafferty, Kathy	Buyer Id - Id de l'acheteur hp539
Telephone No. - N° de téléphone (613) 297-2896 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction:	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

1. This Solicitation Amendment 003 is raised to:
 - a. answer bidders' questions;
 - b. provide an updated Spec; and
 - c. extend the closing date of this solicitation from 02:00 pm on 17 August 2021 to 02:00 pm on 23 August 2021 Eastern Daylight Time.
2. The following are bidder questions and answers:
 - Q1. Tires & Wheels:
Strongly recommend Aluminum (Alcoa) rims
Both front & rear
Reason: Weight, cosmetic, no rust
Please confirm if specifications will be changed.
 - A1. Aluminum rims will be acceptable. Specification is changed.
 - Q2. Fuel Tanks:
Strongly recommend Aluminum fuel tanks
Strongly recommend Aluminum cab access steps
Reason: cosmetic, no rust
Please confirm if specifications will be changed.
 - A2. Aluminum Fuel Tanks will be acceptable.
 - Q3. Alternator:
Is single 325amp acceptable
Please confirm
 - A3. Additional equipment is being installed into the vehicle and will need to be operational.
The Specification will be changed to reflect 350 amp minimum which will ensure that we can operate all equipment needed at the same time.
 - Q4. Driver & Front Passenger seat:
Strongly recommend air ride seats
Reason: Comfort
Please confirm
 - A4. Air ride seats are acceptable. Specification is changed.
 - Q5. Rear seat:
60/40 cloth bench folding
Not available on all model trucks
Please confirm
 - A5. The requirement of 60/40 cloth bench folding seating is to allow large cargo and a passenger to be in the back of the vehicle. After market seats are acceptable to meet specification.

Q6. Air Bags:
Not available on all model trucks
Please confirm

A6. This requirement is for a training unit and for Officer Safety concerns, air bags remain mandatory.

Q7. Cab Heater:
OEM auxiliary cab heater
Not available on all model trucks
Please confirm

A7. The cab heater must be able to instantly warm up the cab while engine is warming up. This an emergency vehicle that needs to be able to respond immediately in all weather conditions. The Auxiliary cab heater if applicable can be after market. Specification is changed to reflect the following: cab heater to assist engine warm up and during idling time.

Q8 Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Engine	V8 Turbo Diesel, 300 hp minimum. Operator Commanded Regeneration, Programmable Engine Shutoff.
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Requiring a V8 Turbo Diesel engine is brand specific and restrictive to open bidding. This should be amended to allow all OEMs to bid.

A8. The requirement for a V8 Turbo can be removed as long as all requirements within the specification are met which includes the total GVWR identified in load capacity. Specification is updated with torque information.

Q9. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Alternator	Dual Heavy Duty, 357 amp. minimum
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Requiring a 357 amp minimum is brand specific and restrictive to open bidding. This should be amended to allow all OEMs to bid. Recommend 300 amp minimum.

A9. See response to Question 3.

Q10. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Batteries	(3) 12V, 900 CCA (2700CCA total)
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Requiring 3 batteries 12V, 900 CCA is brand specific and restrictive to open bidding. This should be amended to allow all OEMs to bid. Recommend total 2700 amp minimum for batteries.

A10. We require 3 12V batteries with a minimum of 2700 CCA total. Specification is updated.

Q11. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Mirrors	Electric Remote Heated, 102" telescoping trailer/body style (must be capable of being folded into a point allowing an overall cab width of 96" or less), with integrated clearance lamps.
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Requiring telescoping trailer/body style (must be capable of being folded into a point allow an overall cab width of 96" or less) with integrated clearance lamps is brand specific and restrictive to open bidding. Recommend asking for West Coast Bright Mirrors with Lights. This should be amended to allow all OEMs to bid.

A11. Specification is changed to reflect the following: Electric Remote Heated, 102" telescoping trailer/body style with integrated clearance lamps. Due to various drivers throughout the day for training, the mirror will be adjusted continuously so electric adjustment is required.

Q12. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Driver & Front Passenger Seat	High back, cloth, manual lumbar (bucket) with full height center console
Rear Seat	60/40 cloth bench folding

Requiring a full height center console and a 60/40 rear seat is brand specific and restrictive to open bidding. This should be amended to allow all OEMs to bid.

A12. This will remain unchanged. The requirement of 60/40 cloth bench folding seating is to allow large cargo and a passenger to be in the back of the vehicle. OEM seats and console are not required, after market air ride seats and console are acceptable to meet specification.

Q13. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Air Bags	Driver & passenger minimum
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Requiring air bag is restrictive to open bidding. Not all OEMs have this feature. This should be amended to allow all OEMs to bid.

A13. See response to Question 6.

- Q14. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Cab Heater	OEM auxiliary cab heater to assist until engine warms up
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Asking for an OEM auxiliary cab heater as a mandatory requirement may place an unnecessary burden on some of the OEMs . Some OEMs do not require an auxiliary cab heater because their primary heat source is sufficient to heat a crew cab. You might want to ask for heating suitable for a crew cab. In addition, you could ask for a premium OEM insulation package which would provide more warmth.

- A14. See response to Question 7.

- Q15. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Power Outlet	Dash mounted 110V / 400W power outlet
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Requiring the outlet to be dash mounted is brand specific and restrictive to open bidding. This should be amended to allow all OEMs to bid.

- A15. The power outlet does not have to be OEM or dash mounted, after market power outlet can be installed. Specification will be changed to reflect the following: 110V / 400W power outlet installed in dash area or console of vehicle.

- Q16. Appendix 1 to "Annex B" - Mandatory Requirements – Cab & Chassis Specification Date: 2021 Jan 26

Mandatory Requirements

Fire/rescue prep package	Engine programing
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Requiring a Fire/Rescue Prep Package is brand specific and therefore restrictive to open bidding. In order to achieve the intended requirement, you should state that the engine and the transmission included must accommodate a fire rescue vehicle.

- A16. The specification is changed to reflect Fire/Rescue Vehicle Accommodation - Engine & Transmission programming.

- Q17. Due to the extra long life cycle, we recommend the use of aluminum fuel tanks, wheels, and front bumper.

- A17. Steel or aluminum fuel tanks, wheels and front bumper will be acceptable.

- Q18. Is a single minimum 300A alternator acceptable?

- A18. See response to Question 3.

- Q19. Can the requirement for traction control be removed?

- A19. This is a mandatory requirement, specification will not change.
- Q20. Can the requirement for a rear axle stabilizer bar be removed?
- A20. The stabilizer bar is removed from the rear axle requirement. Specification is updated.
- Q21. Can the rear bench seat be 1-piece & non-folding?
- A21. See response to Question 12.
- Q22. Can the requirement for driver & passenger air bags be removed?
- A22. See response to Question 6.
- Q23. Can the 25,000 BTU heater rating be changed to either 1500W @ 120V or 2000W @ 240V?
- A23. The Specification is changed to reflect the minimum rating of 1500W @120V.

3. Attached is an updated Annex "B" – Specification, Appendix 1 and Appendix 2. All references to "Appendix 1 to Annex B – Cab and Chassis" throughout the solicitation must now read "Appendix 1 to Annex B – Cab and Chassis dated 2021 Aug 04". All references to "Appendix 2 to Annex B – Body" throughout the solicitation must now read "Appendix 2 to Annex B – Body dated 2021 Aug 04".

ALL OTHER TERMS AND CONDITIONS OF THIS SOLICITATION REMAIN UNCHANGED.

CANADIAN POLICE COLLEGE

EXPLOSIVES TRAINING UNIT

This specification will be based on a 2021 or newer, 26,000 GVWR (Gross Vehicle Weight Rating), Conventional Crew Cab and Chassis. The box layout must be as per the attached diagrams.

Objective:

The RCMP NHQ combined CBRNE / Explosives Training Unit requires the replacement of 6 aging training / response vehicles. The replacement vehicles will be specifically designed to meet the continuing training needs of the Joint CBRNE / ETU training objectives. Further, be uniquely positioned within the NCR to be pressed into service as an operational response platform to support the National CBRNE Operational Response Team. To be used to augment the NCR CBRNE RT resources during any operational breakdown of their units to ensure that timely response is always available. These units will be used continuously throughout the training season and will operate in all weather conditions. Be used on regularly maintained roadways. The set-up of the response trucks will be designed to properly store Explosives Disposal equipment and provide ample comfortable workspace within the interior of the workspace. All trucks must not exceed 24,000lbs fully loaded in order to be operated on a class G Ontario driver's license for student training.

Deliverables:

A minimum of 5 references on similar vehicle builds that have completed within the last 5 years by the vehicle up-fitter must be included with your proposal. A specification proposal from the manufacturer of the cab & chassis must be submitted with the bid documents.

The successful bidder must submit a Proposed Production Schedule indicating the work to be done in-house and any work to be subcontracted to an off-site second party along with detailed CAD drawings of the layout and cross sections a minimum of two weeks prior to the pre-production meeting.

Meeting:

There will be a meeting between PSPC, the RCMP and the successful bidder prior to construction of this vehicle to ensure that all requirements are understood and will be met. Meeting minutes to be taken by the fabricator and signed off by the RCMP. This pre-production meeting will be held at the fabricators facility. The crown reserves the right to carry out the Pre-Production Meeting via telephone or video conference. There will also be a final inspection prior to shipping to the delivery destination for acceptance in accordance with the terms of the contract.

Travel:

To avoid delay in the proposed production schedule, the fabricator must notify the RCMP a minimum of five (5) working days in advance of a desired inspection date in order that travel arrangements can be made. Travel and accommodations for the preproduction meeting and inspections will be paid for by Canada.

Truck and Box Specification:

This specification must be based on a manufacturers Emergency Service Specification.

The Cab & Chassis and Box are to be considered as a unit and the subject of one tender for all 6 trucks.

Bidders must indicate compliance with the Cab & Chassis specifications and the Box specifications by initialing all areas as indicated in the compliance columns and initialing the bottom of each page and each drawing.

The written specification and the drawings are to be considered as one, notation of an item in one, and not in the other, does not negate the need for the given item.

Dimensions noted in the written specification and on the drawings provided can be considered as approximate and can be adjusted slightly to accommodate the manufacturing requirements on agreement of the RCMP and the successful bidder. RCMP drawings and photos are supplied to illustrate the concept of the intended vehicle only and are not necessarily to scale.

Coatings such as ECK must be used at all points where dissimilar metals may be in contact to eliminate galvanic reaction including hinges, handles, fasteners and hardware.

Annex “A” - Mandatory Requirements – Cab & Chassis

Specification Date: 2021 Aug 04

RCMP TRUCK SPECIFICATION

**2021 Model Year or Later, Conventional – Crew Cab & Chassis,
26,000 GVWR Minimum**

RCMP CHASSIS SPECIFICATION			
Proposed Manufacturer			
Model:			
		Indicate Compliance, all items must be checked	
		Yes	No
Mandatory Requirements			
Engine	Diesel, 300 hp minimum, Torque 725 lbs/ft minimum. Operator Commanded Regeneration, Programmable Engine Shutoff.		
Alternator	Dual Heavy Duty, 350 amp. minimum		
Batteries	(3) 12V (2700 CCA total minimum)		
Block Heater	110 V		
Transmission	6 Speed Heavy Duty automatic		
Load Capacity (minimum)	Front Axle: 8,500 lbs. min. Rear Axle: 17,500 lbs. min. GVWR: 26,000 lbs. min. Note: GVW must not exceed 24,000 lbs fully loaded for operation with Ontario class G license.		

Front Axle & Suspension	Leaf Springs, Shock Absorbers		
	Stabilizer Bar		
Rear Axle & Suspension	Multi-Leaf		
	Dual Wheels – Single Axle		
	Traction Control		
Power Brake Package	Hydraulic, Disc, ABS		
Wheelbase	236 inches minimum, 254 inches max		
Cab to Axle	126 inches minimum, 144 inches max		
Tow Hooks	Front frame mounted		
Box Body Length	216 inches maximum excluding rear bumper		
Front Tires & Wheels	11R 22.5" G rated, highway tread (minimum requirement)		
	22.5 x 8.5, Steel painted white or aluminum wheels polished		
Rear Tires & Wheels	11R22.5" G rated, traction tread (minimum requirement)		
	22.5 x 8.5, Steel painted white or aluminum wheels polished		
Fuel Tanks	Dual diesel fuel tanks, 435 litres minimum		
Horns	Dual, Electric		
Mirrors	Electric Remote Heated, 102" telescoping trailer/body style with integrated clearance lamps.		
Convex Mirrors	Left/Right hand side		
Glass	Tinted windshield & front side door glass, rear door glass & rear window dark tint (privacy)		
Bumper	Front, steel, chrome		
Cab Interior	Dark pewter/grey, cloth, dark colors preferred		
Door Windows	Power electric, tinted		
Door Locks	Power electric		
Driver & Front Passenger Seat	High back air ride, cloth, manual lumbar (bucket) with full height center console		

Rear Seat	60/40 cloth bench folding		
Floor Covering	Black vinyl / no carpet		
Lamps	Interior roof reading lamps, including a red LED police type dome light		
Air Bags	Driver & passenger minimum		
Instrument Panels & Controls	Electric coolant, transmission temperature & fuel gauges		
	Cruise control		
	Tilt and telescoping steering wheel		
	Back-up alarm (with manual override switch)		
	AM/FM stereo radio with clock		
	Remote, keyless entry		
	Electric windshield wipers, intermittent, wired through ignition		
	Air conditioning/heating, manual control		
	OEM, (Original Equipment Manufacturer) installed upfitter switches, 4 minimum		
	Blue Tooth		
	Four OEM remote key fobs that will control both the doors and OEM alarm system.		
	Up fitter Interface Module		
Cab Heater	Cab heater must be able to instantly warm up the cab while engine is warming up.		
Power Outlet	110V / 400W power outlet installed in dash area or console of vehicle.		
Brake Controller	An electronic brake controller to be mounted in cab to control the trailer braking system		
Camera	Rear view back up camera		
Back-up Alarm	OEM exterior back-up alarm		
Fire/Rescue Vehicle Accommodation	Engine & Transmission programming for increased emergency vehicle performance		

Trailer Connection	7 way trailer plug		
Paint	Cab: White		
	Chassis: Black		

Annex “B” - Mandatory Requirements – Box

Specification Date: 2021 Aug 04

General Box Specifications:

		Indicate compliance, all items must be checked	
		Yes	No
Overall exterior dimensions	Length: 216” max + rear step bumper		
	Width: 102”		
	Height: 156” max from ground		
Interior Dimensions	Length: 212”		
	Width: 96”		
	Height: 90”		
Aerodynamic Front	An aerodynamic over cab front must be attached to the box		

Body Construction:

		Indicate Compliance, all items must be checked	
		Yes	No
1.	All metal body components including under structure is to be aluminum, all welded modular body, complete with the following features:		
2.	One piece $\frac{1}{8}$ ” thickness 5052 body panels welded into 1 $\frac{3}{8}$ ” radius 6061-T6 extruded corners.		
3.	Roof perimeter must have a built-in roof drip rail		
4.	Roof corners to have welded in radius castings		
5.	Roof supports must be 2” X 2” structural square tubing on 16” centers		
6.	Roof must have a 2” crown to assist in water drainage		
7.	Exterior roof panel must be 3/16” NFPA diamond plate non-slip checker plate.		

8.	Body walls must be reinforced by 2" X 2" channel uprights of 6061-T6 alloy on a maximum spacing of 16" centres. Where attachments of interior installed equipment is to be made, or in an area of high stress, specific reinforcements shall be installed. Interior wall between work bench and overhead cabinets must be reinforced in order to support monitors and various other tool racks and accessories.		
9.	To prevent body panel distortion, roof and wall supports shall be bonded to exterior panels using Sikaflex, 3M VHB tape or equivalent products applied to the full contact area.		
10.	Floor structure must incorporate a network of 2" X 4" X ¼" and 2" X 2" X ¼" extruded structural channels on 16" centres along with perimeter angles and mounting rails		
11.	Body floor must consist of 3/16" aluminum, plug welded and sealed to prevent moisture entry covered by a non-slip rubber flooring capable of withstanding the weight and movement of tracked vehicles.		
12.	Body must be installed on chassis using rubber isolation mounts as required.		
13.	Two (2) rows of E-Track must be placed on the floor in the rear robot storage area. One (1) row of E-Track must also be placed on the wall no more than 2 feet off the floor.		
14.	Prior to fitting the interior the entire body shall be properly sealed then walls, doors, and ceiling must be insulated with high-density fibreglass insulation.		
15.	An aluminum checker plate panel must be placed at the front of the lower body to prevent stone chips on both sides, from bottom to cab rocker panel minimum.		

Back Up Alarm:

16.	A back-up alarm must be installed on the vehicle with an override switch		
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Mud Guards:

17.	Reinforced rubber/steel mudguards must be placed on both the front and rear of all wheels from floor to bottom of skirt.		
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Awning:


18.	A self-contained (box awning) manually operated awning must be installed on the curb side exterior wall of the vehicle. The awning must be centered on the area between the front man door to the rear of the body and must be a minimum of 14'.		
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Exterior Storage:

19.	Outside storage compartments must be installed along both sides of the truck body. Final dimensions to be discuss at pre-production meeting as CA and WB will impact overall length.		
20.	Each compartment must be equipped with a 12V red/white (police car type) dome light activated by a manual switch. <div data-bbox="220 800 527 1106" data-label="Image"> </div> <div data-bbox="730 800 1036 1106" data-label="Image"> </div>		
21.	A switch must by placed at the bottom of each compartment door opening connected to a light on the dash board to warn of the operator of an open compartment door.		
22.	Each door must be keyed alike with "Abloy" lock cylinders with "Protect Key". All compartment locks must be equipped with a weatherproof cover. Handles must be paddle style with multiple latching points. D-ring styles not acceptable.		
23.	All compartment doors must open upwards on a piano hinge. Each door is to be equipped with non-ferrous hold open devices that will keep the door open in as high a position as possible. To allow for easy access.		
24.	Each door must utilize the maximum height and depth available (approximately 20" X 24") as determined by the box configuration.		
Curb Side			
25.	There must be one exterior storage compartment between the front man door and the rear wheel well. This compartment will be approximately 4' long.		
26.	There must be one exterior compartment between the rear wheel well and the rear of the body having a width of approximately 5'.		


Street Side			
27.	There must be two exterior compartments between the front corner of the body and the rear wheel well. The one at the front edge must be used for the generator with the other for the cable reel, inverter and batteries.		
28.	There must be one exterior compartment between the rear wheel well and the rear of the body having a width of approximately 5'. This compartment must have a vented door as it will be used for fuel storage.		

Module Doors:

29.	The modular body must be fitted with a man door on the front curb side of the body and a rear door with a ramp located behind the door. A pull out aluminum ramp must be placed under the floor surface. The ramp must pull out on a slide system and lock when fully extended or stored. Ramp must be engineered to be operated by a single person. Surface must be non-slip, minimum 38"W x 96"L with a 3" lip on each edge. Ramp must support a weight of 1,000lbs.		
30.	All doors to be constructed using a single piece of 1/8" 5052 aluminum panel welded and bonded to a specific extruded 6061-T6 perimeter frame with 2" X 2" channel stiffeners installed in strategic locations. A 1/8" diamond plate aluminum panel must line the interior of the door. Insulation must be placed between the panels. Both doors to have an RV style window with a vinyl snap on cover.		
31.	All door must be fitted with a 2 1/2" stainless steel piano hinge with a 1/4" pin. Hinges must be bolted to the door and frame using 1/4" bolts on 4" centres.		
32.	Specific extruded door jambs must be welded into the door openings complete with integral automotive style bulb seals.		
33.	<p>The man door and rear door must be fitted with a double stage 206 approved rotary latches. Each latch must be control through metal rods by inside and outside by recessed "Eberhard" series 2110 handles or equivalent. Handles must be lockable and unlockable from inside and outside Both entry doors must be keyed alike with Abloy cylinders.</p> 		
34.	Curb side man door entry must incorporate the maximum interior steps possible with an exterior retractable step unit for the balance. Stainless steel		

	assist handles must be placed on the interior door skin as well as on the outside adjacent to the door frame for both doors. Both doors must also be fitted with a non-ferrous hold open device.		
35.	An “Abloy 1297N” dead bolt must be installed on both doors. https://securitysnobs.com/Abloy-Protect2-Jimmy-Proof-Deadlock-Deadbolt.html		
			
36,	The rear robot door must be installed in the center of the rear truck body. A retractable sliding ramp system must be placed at the bottom of the door for the robot. Capacity to be not less than 1,000LBS.		



Rear Bumper:

37.	A full rear aluminum step bumper must be constructed meeting Canadian Motor Vehicle Safety Standards (CMVSS) for truck bumpers.		
			
38.	The bumper must be constructed of 3” and 4” structural aluminum channels bolted directly to the chassis frame (with rubber isolation).		
39.	The bumper must be covered with 1/8” diamond plate NFPA non slip aluminum or equivalent non slip surface excluding tape.		
40.	The lowest step must be folding and placed in a manner that it is functional when the robot ramp is deployed. A spring bolt assembly must be installed to retain the step in the transport position.		
41.	A 2” class IV receiver shall be installed in the rear bumper complete with safety loops with a rating of 10,000 lbs minimum. A 7 pin harness shall be installed at this location with an RV style trailer plug.		
42.	A ladder must be mounted to the right of the rear robot door to allow access to the roof area. There must be a locking security panel covering the ladder when it is not in use.		


Exterior Finishes:




43.	The exterior of the body must be painted white to match the OEM cab of the truck using manufacturer's recommended practices for the best possible finish.		
44.	Diamond plate surface and exterior cabinet interiors are not to be painted.		
45.	The underside must be fully undercoated.		


Heating and Cooling:

46.	The interior body heating and cooling must be provided by the following units:		
47.	A roof mounted MaxxFan Deluxe Roof Vent w/12V Fan, Thermostat and Remote, model MA00-07500K or equivalent must be mounted on the roof of the vehicle towards the front of the work area. Fan must be usable rain or shine without an additional cover or shield.		
48.	An RV style roof vent must be installed in the centre of the roof and must be pre-wired for a future roof top air conditioner.		
49.	<p>An electric fan heater with a minimum 1500W @ 120V rating must be placed on the center of the front wall with a second unit in the rear robot area, locations to be determined at pre-production meeting.</p> 		
50.	<p>A diesel fired Airtronic D5 or equivalent 18,800BTU minimum heater must be placed in the rear body, location to be determined at pre-production meeting. Heater must draw from cab and chassis fuel tank.</p> 		

Electrical AC/DC:

51.	Main body wiring harness is to be fully accessible through 4" removable raceways, removable shelves and/or access panels in the interior where the ceiling and wall meet. A removable raceway must be provided from the ceiling area to the workbench.		
52.	Wiring harness is to be protected by manual reset circuit breakers. Wiring is colour-coded, numbered and flame retardant and must be wrapped in split loom tubing to prevent abrasion where required.		
53.	Wiring must be rated at 125% of anticipated loads, designed to prevent interference to radio and telemetry equipment on board and minimize total electrical loads.		
55.	CAD drawn as-built schematics must be provided with each body along with a complete parts list of electrical components.		
56.	The main electrical panel must located on the interior front wall of the body.		
57.	A master power disconnect for all installed body equipment shall be installed in the cab, accessible to the driver and from the ground (with the driver door open).		
58.	<p>A Xantrex Freedom SW 3012 (true sine wave) inverter/charger or equivalent, with an automatic transfer switch, must be installed in the street side exterior compartment as previously mentioned. It must charge the auxiliary batteries and chassis batteries from either an AC or generator power source. The control panel must be installed on the forward compartment wall near the electrical panel.</p> 		
59.	Two (2) 8D Absorbent Glass Mat (AGM) deep discharge batteries, connected in parallel must be installed in the inverter/charger compartment on a slide tray. Batteries must be charged through the inverter/charger and vehicle alternator. Main feed cable (not generator start) shall be protected by a marine type fuse as per the inverter/charger manufacturer's directions.		
60.	The vehicle battery is to remain independent of the electrical system operating in the box (install battery isolator) and remain dedicated to the starting of the vehicle only.		
61.	Emergency start switch. Install solenoid between both battery systems, (chassis		

	and box) controlled by a momentary switch mounted on the dash to connect all batteries together in case of drained engine battery in order to start the truck engine.		
62.	<p>A 10KW Onan Commercial Quiet Diesel Generator QD10000 or Equivalent must be supplied and installed in the forward street side compartment. A ventury vent tube kit or equivalent must be supplied with the generator to route exhaust upwards.</p> 		
63.	<p>A Shoreline Reels RH54331RMK Motorized 50 amp Power Cord Reel or equivalent must be installed with 30' of 50 amp electrical cord for shore power. A 50A to 30A and a 30A to 15A adapters must be provided. .</p> 		
64.	<p>A Shoreline Reels RV2061 Under Coach Roller Guide & Floor Hatch or equivalent must be installed to protect the electrical cord.</p> 		
65.	<p>There must be a switch console mounted at the interior of the curb side and rear entry doors to control the following installed equipment:</p> <p>One (1) switches at each entry door to control the ceiling mounted 12V Grote LED 61281 48" light bars or equivalent installed on the ceiling. Light bars must run down the center of the ceiling from the front to the rear of the body. Three (3) additional light bars must be placed above the work bench area under the overhead storage cabinets with a switch on the wall at the work bench.</p>		

	 <p>A series of 110v LED lights must also be mounted to the ceiling in conjunction with the 12V lighting with switches mounted at the same location as the 12V lighting.</p>		
66.	A switch console installed at the front wall electrical panel to control the following lights, one switch for the curb side scene lights, one switch for the street side scene light and one switch for the rear scene lights. Switches must be lighted when in the on position.		
67.	A 4" X 4" wire chase must be fabricated with removable covers all around the interior side walls at the ceiling as mentioned in #51.		
68.	<p>The generator must feed a distribution panel with breakers installed for the following:</p> <ul style="list-style-type: none"> • A double 50 amp back feed main breaker. • One GFI circuit for each of the exterior outlets located on the curb side and street side of the box, GFI exterior boxes must be protected with weatherproof covers. • A circuit for the future roof mounted A/C unit (pre-wire only). • A circuit for each wall heater. • A circuit for the inverter/charger. • A 50 amp breaker to feed the transfer switch. • Ten interior duplexes located as follows (two duplexes maximum per circuit); <ul style="list-style-type: none"> -Four above the work bench -One in each of the full height cabinets, street side and curb side. -One under the work bench to provide power for the refrigerator. -One on the interior front wall. -Two on the wall at the robot storage area. 		
69.	One 30' 50Amp power cord must be included and mounted on a reel as pictured in item #63. This reel will also be the shore power access point for the vehicle and will be wired to the main junction box. The wire must feed an automatic transfer switch then a distribution box with circuit breakers provided for the same branch circuits as fed by the generator.		

Exterior Lighting:

70.	<p>All exterior lighting as required by CMVSS must be installed including the following:</p> <ul style="list-style-type: none"> -Rear tail/stop (two per side) and back up lamps must be LED sealed shock mount type. -Compact LED clearance lights. -Mid ship turn signal indicators on the truck body. 		
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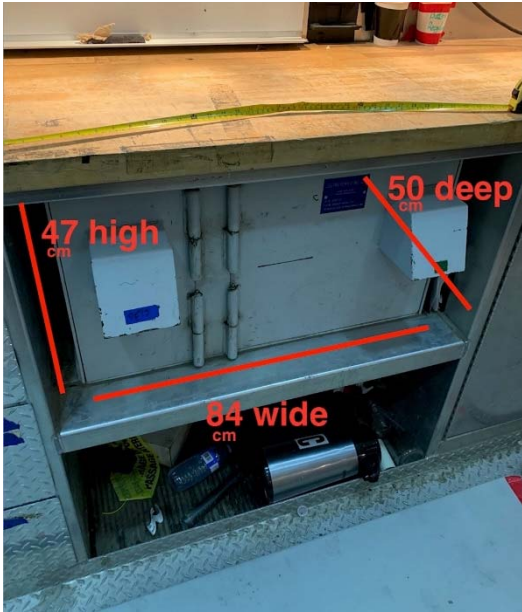
	-LED license plate lamp complete with license plate bracket.		
71.	Two (2) 12V LED flush mount work lights located under the awning on the curb side with a switch located at the front man door interior wall to illuminate the exterior work area while the awning is deployed.		

Emergency Lighting:

72.	A switch console with internal siren shall be installed in the cab in a suitable location so that the driver can access the panel. This unit shall incorporate indicator lights, back lighting and heavy-duty switches operating the following installed equipment:		
73.	Eight (8) Tomar 7" x 9" RECT-79LL-RB Series LED light heads with mounting bezels or equivalent must be mounted as follows: One at each front top corner of box, one at each rear top corner. Two on each side of box, one at each top corner.		
74.	Eight (8) Tomar RECT-16LS/V-RB Series LED Mini Warning Lights with required mounting brackets or equivalent must be mounted as follows: One at each front side leading corner of front fender area. One at each street and curb side rear lower corner of box. One on each street and curb side front lower corner of box. One at each lower rear corner of box.		
75.	Whelen LED Front Load Duo TADF6 Red/Blue or equivalent must be mounted front grille or front bumper area.		
76.	One (1) Whelen 100 Watt Siren Speaker SA315P or equivalent. Mounting location under hood to be determined.		
77.	One (1) Whelen CenCom Sapphire Control Panel CCSRN3 must be mounted in switch console. (Supplied by RCMP)		
78.	Six (6) Tomar 7" x 9" R79L-13 Series LED Scene Lights with mounting bezels or equivalent must be mounted as follows: One at each rear top box corner next to red/blue light heads. One at each (street & curb) top side of box next to red/blue light heads. Switches for these as per previous description in item #66 (inside near the electrical panel,		
79.	Alternating flashing headlamp system with body builder controlled engagement must be installed. Switch must be in switch console accessible to the driver.		


Cabinets and Interior Finish:

80.	All cabinets must be constructed of 1/8" aluminum and installed as per drawings.		
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81.	Workbench must be butcher block style finished hardwood.		
82.	All shelving and drawers must be lined with heavy duty rubber mats, incorporate a 4" lip to prevent items from falling out. All shelving must be mounted on Unistrut or equivalent tracks for infinite adjustment.		
83.	<p>A 6 drawer heavy duty Rousseau RM-2929-551A tool chest or equivalent must be placed under the work bench. Drawer configuration (size) to be discussed at pre-production meeting.</p> 		
84.	<p>A Protexplo explosives magazine or Equivalent that complies with the NRCan/ERD-EDU standards & Quebec regulations, must be placed under the workbench directly under the counter as high off the floor as possible.</p> 		
85.	Interior cabinets must be powder coated in a lite grey or white color. Ceiling must be white Kemlite panels or equivalent.		
86.	A Danby 4.4 cu ft or equivalent refrigerator must of be placed under the forward end of the workbench as per diagram.		

87.	A small microwave must be installed under the overhead cabinets above the workbench in a fashion not interfering with the counter space.		
88.	Two rows of E-Track must be placed on the floor at the rear of the street side body to fasten the robot. One row on the wall in the same area at approximately 2-3 feet from the floor.		

Fall Arrest:

89.	<p>A full length cable with two anchor points for fall arrest must be installed on the roof area. This must meet CLC (Canada Labour Code) stress standards of 5000 lbs minimum, SOR/86-304.</p> 		
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Icor Antenna Mounts:

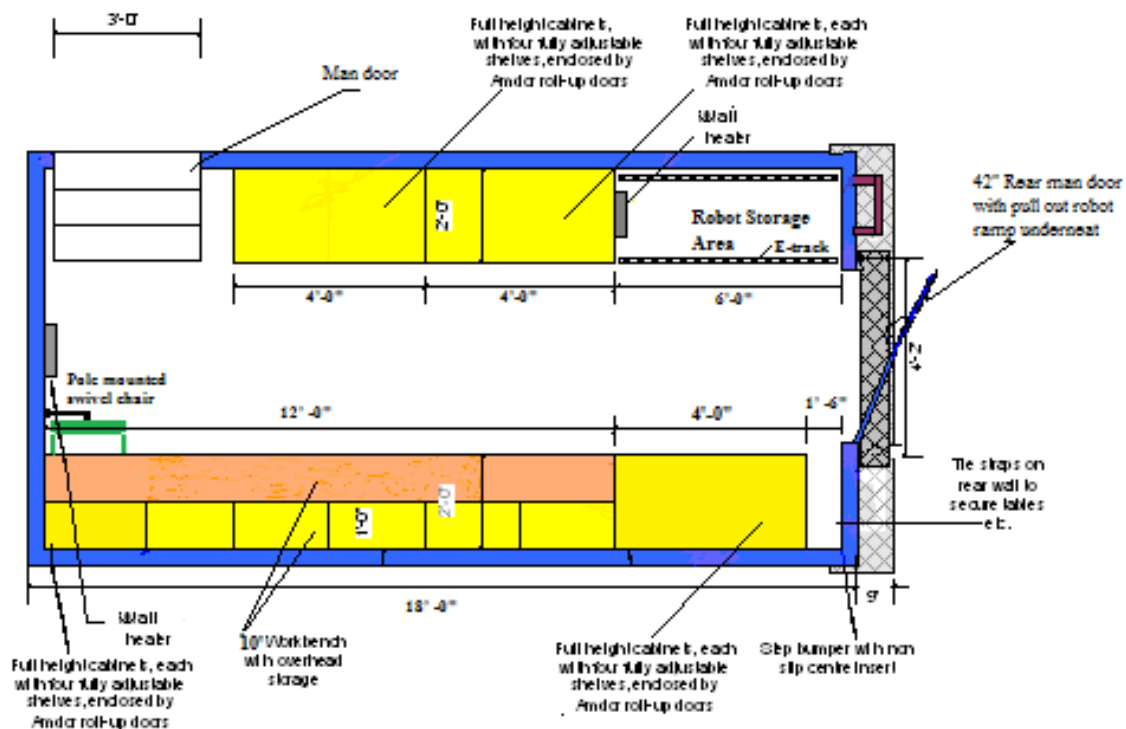
90.	Icor antenna mounts must be placed on the front curb side of the box body in a manner that they are accessible when standing on the cab and chassis running boards. A mouse hole must be placed below the antenna mounts to pass the antenna cables. A loop system must be placed on the interior wall from the mouse hole to the desk area to hang the wiring when in use.		
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Warranty / Manuals:

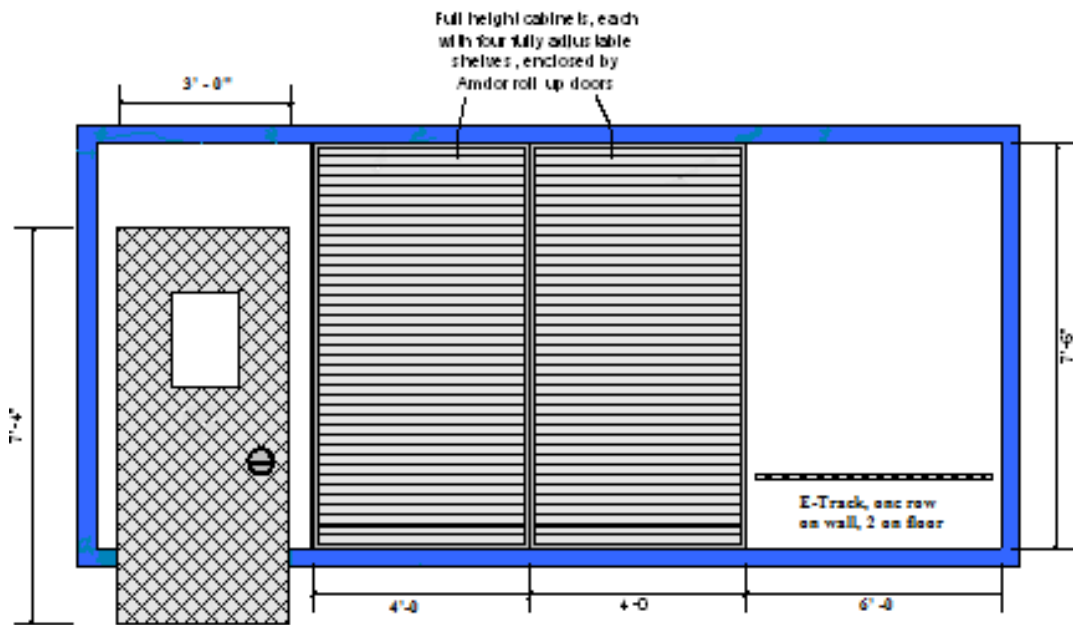
91.	<p>The successful contractor must provide a minimum;</p> <ul style="list-style-type: none"> -Ten year warranty against manufacturing and material defects on the truck body build including galvanic reaction. -A five year warranty on electrical wiring for AC and DC installed by the contractor. -A two year warranty on all sub components installed by the contractor. -A two year warranty on paint completed by the contractor. <p>The above warranties will be administered through the Contractor from the date of delivery including work completed by sub-contractors if any.</p>		
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	A signed letter from the Contractor on company letterhead must be provided stating the above warranties prior to or at delivery.		
92.	At delivery the contractor must supply the RCMP with AC and DC wiring diagrams, CEC, ESA certification documentation. The Contractor must provide Transport Canada NSM Certification (National Safety Mark).The Contractor must also provide an instruction manual (printed or electronically) on the mechanical/electrical workings of the entire vehicle and all equipment/owner's manuals of installed equipment.		
93.	The contractor must provide a reasonable training to the client on the workings of all the installed systems on the vehicle prior to delivery at the contractor's location.		

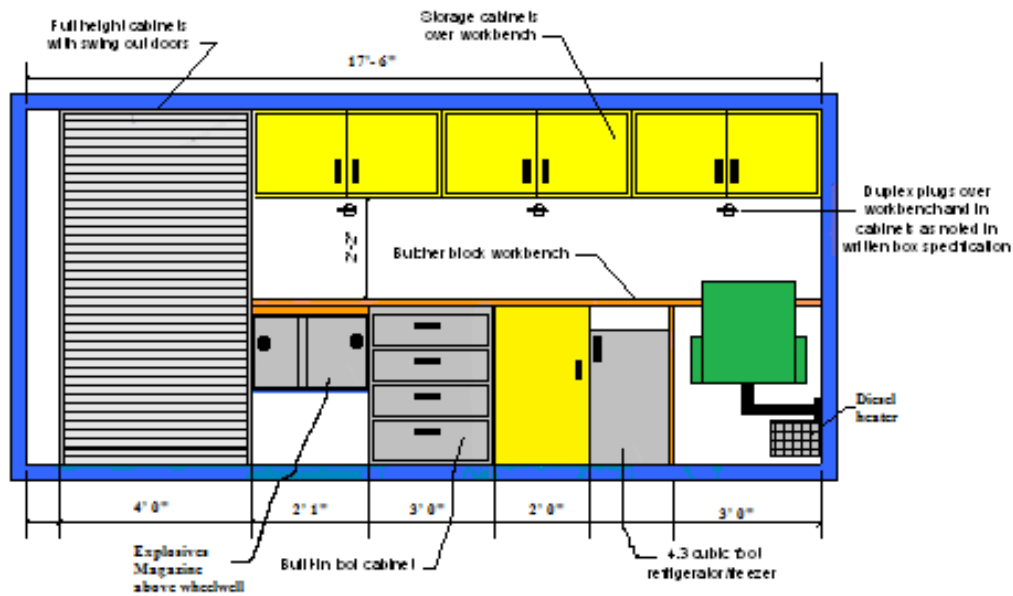
Overhead view of box configuration:



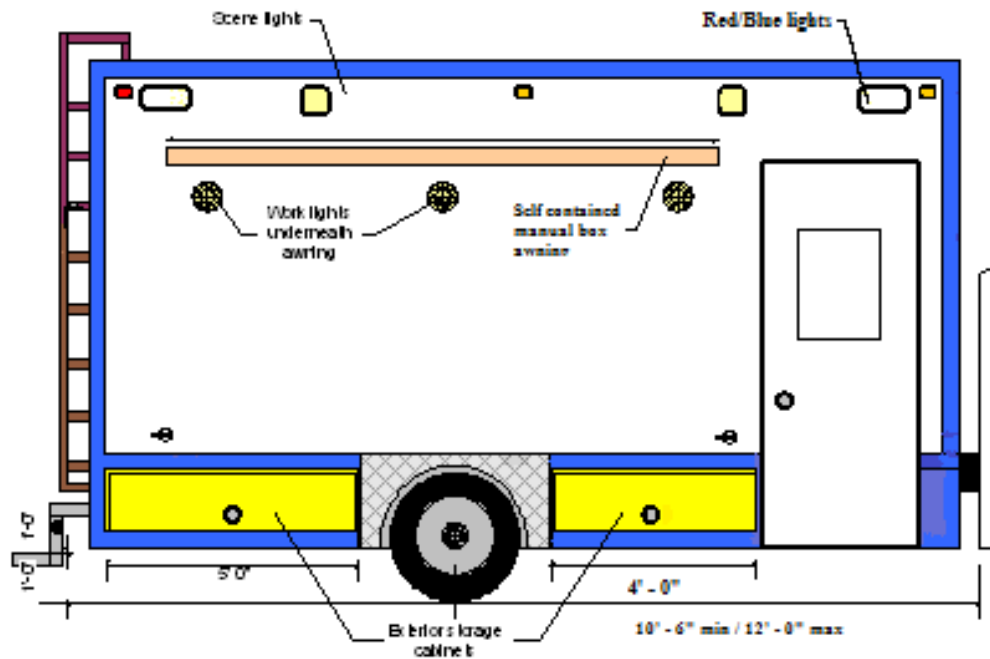
Curb side interior configuration:



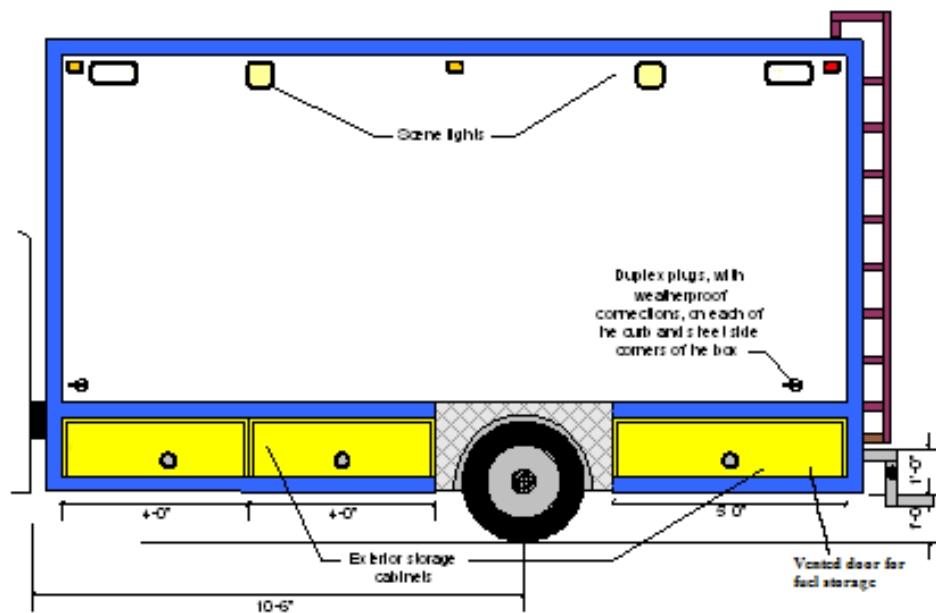
Street side interior configuration:



Curb side exterior configuration:



Street side exterior configuration:



Exterior rear configuration:

