



National Defence

National Defence Headquarters
Ottawa, Ontario
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Défense nationale

Quartier général de la Défense nationale
Ottawa (Ontario)
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**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

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À :**

By e-mail to: - Par courriel au :
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Attention: - Attention :
Christian Massie, DLP 5-3

Title - Sujet Truck, Van, Emergency Response Vehicle – Véhicule d'intervention d'urgence		Amendment No. - N° modif. 001
Solicitation No. - N° de l'invitation W8476-236632/A	Date of Amendment - Date de modification January 25th, 2023 – 25 janvier 2023	
Address enquiries to: Adresser toute demande de renseignements à : Christian Massie		
Telephone No. - N° de telephone 343-551-0138	E-Mail Address - Courriel christian.massie@forces.gc.ca	
Destination See herein - Voir aux présentes		

Instructions: Municipal taxes are not applicable. Unless otherwise specified herein all prices quoted must include all applicable Canadian customs duties, GST/HST, excise taxes and are to be delivered Delivery Duty Paid including all delivery charges to destination(s) as indicated. The amount of the Goods and Services Tax/Harmonized Sales Tax is to be shown as a separate item.

Instructions : Les taxes municipales ne s'appliquent pas. Sauf indication contraire, les prix indiqués doivent comprendre les droits de douane canadiens, la TPS/TVH et la taxe d'accise. Les biens doivent être livrés « rendu droits acquittés », tous frais de livraison compris, à la ou aux destinations indiquées. Le montant de la taxe sur les produits et services/taxe de vente harmonisée doit être indiqué séparément.

Delivery required - Livraison exigée See herein	Delivery offered - Livraison proposée
Vendor/Firm Name and Address - Raison sociale et adresse du fournisseur/de l'entrepreneur	
Person authorized to sign on behalf of Vendor/Firm (type or print): La personne autorisée à signer au nom du fournisseur/de l'entrepreneur (taper ou écrire en caractères d'imprimerie) :	
Name - Nom	Title - Titre
Signature	Date

Solicitation Closes - L'invitation prend fin

At - à :
2:00 PM - 14:00

On - le :

February 1st, 2023 - 1^{er} février 2023

Time Zone - Fuseau Horaire :
Eastern Standard Time (EST)
Heure normale de l'Est (HNE)

THIS SOLICITATION AMENDMENT IS RAISED TO:

1. Provide clarification and answers to questions from potential suppliers;

QUESTIONS AND ANSWERS:

<p>Question 1</p>	<p>3.18 e) Scene lights must be capable of producing a minimum output of 10,000 lumens.</p> <p>Is the 10,000 lumen requirement for each scene light, all four scene light (2500 lumen per light) or for each side of the vehicle (5000 lumen per light)?</p>
<p>Answer 1</p>	<p>The minimum requirement of 10,000 lumen is for each scene light.</p>
<p>Question 2</p>	<p>3.21 b) The vehicle body must be provided with "C" channel rub rail. c) The rub rail must be spaced from the body to prevent accumulation of debris.</p> <p>Would a marine style rub rail made of composite materials be an acceptable equivalent?</p>
<p>Answer 2</p>	<p>Yes, this would be acceptable. The Purchase Description will be amended to reflect this change.</p> <p>Remove: 3.21 b) The vehicle body must be provided with "C" channel rub rail.</p> <p>Insert: 3.21 b) The vehicle body must be provided with "C" channel rub rail or equivalent.</p>
<p>Question 3</p>	<p>3.22 c) The vehicle with the exception of the roll up doors must be painted using FLNA 3225 Red Akzo-Nobel lead-free, chromate-free high solid LV acrylic urethane paint.</p> <p>Would the OEM chassis red that is the closest color match to FLNA 3225 Red be acceptable? Would Axalta Imron Elite Commercial Transportation polyurethane paint be acceptable?</p>
<p>Answer 3</p>	<p>The paint color and type provided can be an equivalent to FLNA 3225 Red Akzo-Nobel lead-free, chromate-free high solid LV acrylic urethane paint. The Purchase Description will be amended to reflect this change.</p> <p>Remove: 3.22 c) The vehicle with the exception of the roll up doors must be painted using FLNA 3225 Red Akzo-Nobel lead-free, chromate-free high solid LV acrylic urethane paint.</p> <p>Insert: 3.22 c) The vehicle with the exception of the roll up doors must be painted using FLNA 3225 Red Akzo-Nobel lead-free, chromate-free high solid LV acrylic urethane paint or equivalent.</p>
<p>Question 4</p>	<p>3.15 a) IAW NFPA 1901 the alternator provided must have a minimum output at idle to meet the minimum continuous electrical load of the vehicle.</p>

	<i>NFPA 1901 stipulates that the alternator needs to be able to sustain the engine running, all lights, all radios (at 10% transmit, 90% receive), all spotlights, all rife pumps or emergency equipment. In order to confirm we will need to know what the current draw and voltage of the radios and all emergency equipment intended to be used in this vehicle will be?</i>
Answer 4	It is manufacturer's responsibility to ensure the proposed alternator has sufficient power to meet the minimum continuous electrical load of the vehicle. All equipment intended to be used on the vehicle are include in the Purchase Description document at the exception of the radio which will be a Motorola APX 8500 or an equivalent.

THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:

1. DELETE in its entirety:

Purchase Description for Emergency Response Vehicle with 12 foot Walk Around Body Rescue dated 2022-12-02.

REPLACE with:

Purchase Description for Emergency Response Vehicle with 12 foot Walk Around Body Rescue dated 2023-01-18.

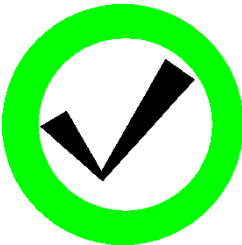
ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.



PURCHASE DESCRIPTION FOR

Emergency Response Vehicle with 12 Foot Walk Around Body Rescue ECC 189123

NOTICE



This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

AVIS

Cette documentation a été révisée par l'autorité technique et ne contient pas de marchandises contrôlées.

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Table of Contents

1.	SCOPE	6
1.1	Scope	6
1.2	Instructions	6
1.3	Definitions	6
2.	APPLICABLE DOCUMENTS	7
2.1	Applicable Documents	7
3.	REQUIREMENTS	7
3.1	Standard Design	7
3.2	Operating Conditions	8
3.3	Safety Standards	8
3.4	Vehicle Performance, Ratings and Dimensions	8
3.5	Engine	9
3.6	Drivetrain	9
3.7	Transmission	9
3.8	Braking System	9
3.9	Suspension System	9
3.10	Steering	10
3.11	Wheels, Rims and Tires	10
3.12	Cab	10
3.13	Video Camera	11
3.14	Accessories	11
3.15	Electrical System	12
3.16	Generator System Components	12
3.17	Batteries	12
3.18	Lighting	12
3.19	Exterior Emergency Warning Lights	13
3.20	Interior Controls	13
3.21	Body	13
3.22	Paint	15
3.23	Decals	15
3.24	Corrosion Protection	16
3.25	Warning, Markings and Instruction Plates	16
4.	INTEGRATED LOGISTIC SUPPORT	16
4.1	ILS Deliverables	16



4.2	Vehicle Manuals	17
4.3	Warranty Letter	19
4.4	Other ILS Deliverables to Technical Authority	19
4.5	Safety Recalls and Servicing Data	20
4.6	Training	20



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1. SCOPE

1.1 Scope

- a) This Purchase Description describes the requirements for a 4x4 Emergency Response Vehicle with a 3.65 m (12 foot) walk around body rescue.

1.2 Instructions

- a) Requirements, which are identified by the word "**must**", are mandatory. Deviations will not be permitted.
- b) Requirements identified with a "will" define actions to be performed by Canada and require no action/obligation on the Contractor's part.
- c) Where "**must**" or "will" are not used, the information supplied is for guidance only.
- d) In this document "provided" **must** mean "provided and installed".
- e) Where a technical certification is referred to in this specification, a copy of the certification or an acceptable Proof of Compliance **must** be supplied for the vehicle when requested by the Technical Authority.
- f) Metric measurements are used to define the requirement. Other measurements are for reference only and may not be exact conversions.

1.3 Definitions

- a) "**Technical Authority**" - The government official responsible for technical content of this requirement.
- b) "**Equivalent**" - Substitutes and alternatives that are equivalent in product, performance or a standard will be considered for acceptance by the Technical Authority where Proof of Compliance for equivalency for the respective requirement is provided for evaluation.
- c) "**Vehicle**" – The entire vehicle including all systems and sub-systems, in a complete manufactured state in accordance with the requirements in this Purchase Description.
- d) "**Road Legal**" – Applies to a self-propelled vehicle designed for or capable of transporting persons, property, material or permanently or temporarily affixed apparatus on a highway.
- e) "**Gross Axle Weight Rating (GAWR)**" - The value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces.
- f) "**Gross Vehicle Weight Rating (GVWR)**" - The value specified by the vehicle manufacturer as the loaded weight of a single vehicle.

2. APPLICABLE DOCUMENTS

2.1 Applicable Documents

- a) The following documents form part of this Purchase Description. Canada will not be supplying these documents. Sources are as shown:

Motor Vehicle Safety Regulations (MCSR)

CAN/CGSB 3.517 - Diesel Fuel

ULC-S515- 13 R2018 - Automobile Fire Fighting Vehicle

NFPA 1901 – Standard for Automotive Fire Vehicle (latest version)

NFPA 1500 – Standard on Fire Department Occupational Safety, Health, and Wellness Program (latest version)

Safety Code 6 - Health Canada's Radiofrequency Exposure Guidelines

3. REQUIREMENTS

3.1 Standard Design

- a) **Latest Model** - The vehicle design **must** be the manufacturer's latest model.
- b) **Industry Acceptability** - The vehicle design **must** have demonstrated industry acceptability by having been manufactured and sold commercially for at least 2 year, or be manufactured by a company that has at least 5 years' experience in design and manufacturing of a comparable type of equipment of equivalent or greater complexity.
- c) **Engineering Certification** - Original manufacturers engineering certification **must** be provided upon request for major drive train components, and major equipment systems and assemblies, to demonstrate that assemblies are used within their design limitations.
- d) **Regulations** – The vehicle **must** conform to all applicable laws, regulations and industrial standards governing manufacture, safety, noise levels and pollution in effect in Canada at the time of manufacture. International equivalent laws, regulations, and industrial standards will be accepted only if certified for equivalency by a professional engineer.
- e) **Published Ratings** - The vehicle **must** have system and component capacities equivalent to published ratings (i.e. product or component brochures).
- f) **Standard Components** - The vehicle **must** include all standard components, equipment and accessories for the model offered, although they may not be specifically described in this Purchase Description.
- g) **Spare Parts** - The manufacturer **must** select components readily available for a minimum period of 10 years from the date of manufacture.

3.1.1 **Maintainability**

- a) The vehicle **must** be designed to permit access to all items required for servicing and maintenance.

3.2 **Operating Conditions**

3.2.1 **Weather**

- a) The vehicle **must** operate under the extremes of weather conditions found in Canada in temperatures ranging from -40 to 40° C (-40 to 104° F).

3.2.2 **Terrain**

- a) The vehicle **must** operate off-road in terrain conditions that include year round snow, mud, sand and ice.
- b) The vehicle **must** operate on highways, secondary roads and gravel roads.

3.3 **Safety Standards**

3.3.1 **Vehicle Safety Regulations**

- a) The vehicle **must** comply with the Motor Vehicle Safety Regulations (MVSR).
- b) The completed vehicle **must** have Safety Compliance Certification Label with a National Safety Mark (NSM), as a seal of compliance **or** be accompanied by a Vehicle Import Form containing proof of Inspection by the Registrar of Imported Vehicles.

3.3.2 **Human Factors Engineering**

- a) The vehicle **must** be equipped, with warning and instruction plates, non-slip walking surfaces and heat shields, for operator safety.

3.4 **Vehicle Performance, Ratings and Dimensions**

3.4.1 **Performance**

- a) As a minimum, the vehicle **must** meet the fully loaded vehicle performance parameters identified in NFPA 1901 and ULC S515, applicable to the vehicle size.

3.4.2 **Weight Ratings**

- a) The actual gross vehicle weight of a fully staffed, loaded, and equipped vehicle for service **must** not exceed the manufacturers tested weight rating as recorded on the vehicle information data plate, in accordance ULC S515.

3.4.3 **Dimensions**

- a) The vehicle **must** have road legal dimensions across Canada.

3.5 Engine

- a) The engine **must** operate on ultra-low sulphur diesel fuel to the CAN/CGSB Standard 3.517.

3.5.1 Exhaust System

- a) The vehicle **must** be equipped with an exhaust system compliant to NFPA 1901 and shielded to prevent personnel contacting a heated surface.

3.5.1.1. Vehicle Mounted Diesel Exhaust Filter System

- a) A vehicle mounted, direct source capture, exhaust filter system **must** be provided with the apparatus that prevents exposure to, and contamination from, exhaust emissions in addition to the manufacturers after treatment device (ATD) in accordance with NFPA 1500.
- a) The system **must** be installed after the engine manufacturers ATD and before the diffuser tip in the end tailpipe.
- b) The filter system **must** work automatically whenever the Apparatus exits or returns to the Fire Hall.
- c) The filter system **must** have the capability to be used while on-scene, outside the Fire Hall.
- d) The diesel exhaust removal system **must** travel with the Apparatus.
- e) The system **must** not require building modifications or hanging hoses for the system to operate.
- f) The vehicle mounted exhaust filter system **must** meet all NFPA, NIOSH and OSHA standards for preventing exposure to carcinogenic compounds that exist in diesel exhaust.

3.6 Drivetrain

- a) The vehicle **must** be 4x4 drive.

3.7 Transmission

- a) The vehicle **must** be equipped with an automatic transmission.
- b) An audible back-up alarm **must** be installed to alert personnel that the vehicle transmission is in reverse.
- c) An OEM dash mounted rear camera **must** be provided.

3.8 Braking System

- a) The braking system **must** include disk brakes on all wheels and an anti-lock (ABS) brake system.

3.9 Suspension System

- a) The vehicle at GVWR **must** sit level both front and back and side to side when parked on a level surface.

3.10 Steering

- a) The vehicle **must** be provided with a power steering system.
- b) The steering system **must** be provided with a telescopic and tilting steering column.

3.11 Wheels, Rims and Tires

- a) Tires **must** have a mud and snow tread pattern for use in the operating conditions described in Paragraph 3.2.
- b) The vehicle **must** be equipped with steel-belted, tubeless radial tires.
- c) Rear inner tires **must** be equipped with an extension to ease tire pressure verification.

3.12 Cab

- a) The vehicle **must** be equipped with a minimum four person weatherproof cab.
- b) Cab steps full length below cab door **must** be provided.
- c) Four doors **must** be provided with power locks and have keyless entry.
- d) All seating **must** be upholstered with a material that reduces the absorption of toxins, promotes ease of cleaning, repels water, and is wear resistant, applicable to firefighting operations.
- e) Two (2) dedicated USB charging ports **must** be installed within reach of the driver and officer.
- f) A ventilation/heater and defrosting system **must** be provided, with a multi-speed fan, applicable for the operating conditions as specified in Paragraph 3.2.1.
- g) An air conditioning system **must** be provided equipped with all components and controls required for regulation of the cab interior temperature.
- h) The cab floor or floor mats **must** be weatherproof.
- i) The cab floor **must** not be carpet.
- j) An AM/FM stereo radio with an auxiliary port **must** be provided.
- k) Two heavy-duty, powered and heated exterior side mirrors, with convex section, **must** be provided with in-cab controls.
- l) OEM windshield wipers and washer system **must** be provided.
- m) Given the size differential between cab and body, OEM mirror extender **must** be provided. Aftermarket mirror extender will not be acceptable.
- n) The cab **must** be equipped with a 2.3 kg (5 lb) ULC approved and rechargeable dry chemical fire extinguisher, with a minimum rating of 3A10BC, equipped with a pressure gauge, service inspection tag, and accessible to the operator.

- o) Motorola Antenna Part # 0180355A99 **must** be mounted on the highest point on the vehicle.
- p) A main power, ground, ignition sense harness and antenna cable **must** be wired into the vehicle, with a service loop terminating in the cab for future installation of radio equipment.
- q) Storage space and restraints **must** be provided in the cab for one medical bag and one automated external defibrillator (AED). Medical bag and AED will be supplied by Canada after vehicle delivery.

3.12.1 **Cab Seating**

- a) The Self-Contained Breathing Apparatus (SCBA), MSA G1 model.
- b) One (1) mechanical adjustable driver's seat **must** be provided.
- c) One (1) mechanical adjustable officer's seat **must** be provided.
- d) Two (2) SCBA style, front facing rear passenger seats with high back **must** be provided.
- e) Rear seats cushion **must** lift and hold in the upright position.

3.13 **Video Camera**

- a) A video camera installed in the cab **must** be provided to capture emergency scene response and activity for review and training enhancement.
- b) The video camera system **must** record automatically whenever the emergency lighting switch is activated.
- c) The video camera system **must** be able to record for a minimum duration of 2 hours.
- d) The process of retrieving such video **must** be performed during Pre-Delivery Inspection and be covered in the operator manual.

3.14 **Accessories**

- a) Front and rear license plate holder **must** be provided.
- b) Rear license plate holder **must** be provided with a light.
- c) Mud flaps **must** be provided.
- d) Wheel chocks **must** be provided with storage. Mounting location to be determined during Pre-Production Meeting.
- e) Front accessible frame mounted tow hooks **must** be provided, with strength to permit a direct pull on a single towing hook.
- f) Rear accessible frame mounted towing eyes and d-rings **must** be provided, with strength to permit a direct pull on a single towing eye.

- g) Two (2) towing straps with loops **must** be provided rated to 5,000 Kg capacity.

3.15 Electrical System

- a) The vehicle **must** be equipped with a 12 volt electrical system.
- b) IAW NFPA 1901 the alternator provided **must** have a minimum output at idle to meet the electrical load of the vehicle.
- c) Wiring **must** be protected by insulating grommets, where passing through metal.

3.15.1 Generator system

- a) A portable generator **must** be provided with sufficient kilowatt to supply power to Edraulic rescue tool system, electrical cord reel and portable lights.

3.16 Generator System Components

- a) Generator restraint **must** be provided.
- b) A 15.24 m (50 feet) portable electric cord reel with compartment restraint **must** be provided with deux (2) 5-15P outlets.
- c) A portable LED scene light capable of producing a minimum output of 10,000 Lumens with compartment restraint **must** be provided.
- d) A 4.5 liter (1 gallon) Rotopax style jerry can or **equivalent** with compartment restraint **must** be provided.
- e) Location of the generator components will be determined at Pre-Production meeting.

3.17 Batteries

- a) The vehicle **must** be supplied with heavy-duty, maintenance free batteries, compliant with ULC-S515 Chapter 12.
- b) The batteries **must** be rated to exceed the draw, in the required operating conditions.
- c) Provision for maintaining the vehicle batteries along with bar display graph on a dedicated 15 amps auto-eject connection on driver side **must** be provided.

3.18 Lighting

- a) All exterior lighting **must** be LED. Original Manufacturer Cab and Chassis halogen bulbs are acceptable (head lights, turn signals).
- b) Two (2) adjustable pole mounted LED scene lights **must** be provided at the front of the compartment body.
- c) Two (2) LED scene lights **must** be provided on each side of the compartment body.

- d) Scene lights **must** be controlled independently (side to side) inside the cab.
- e) Scene lights **must** be capable of producing a minimum output of 10,000 lumens.
- f) IAW NFPA 1901 the vehicle **must** be provided with sufficient ground lighting.
- g) Ground lighting **must** be controllable in the cab.

3.19 Exterior Emergency Warning Lights

- a) Exterior emergency warning lights complying with NFPA 1901 **must** be provided.
- b) All exterior emergency warning lights **must** be LED.
- c) An emergency light bar **must** be provided over the cab roof.
- d) All emergency lighting switches **must** be accessible from the driver and officer seat.

3.20 Interior Controls and Instruments

- a) Each control **must** be permanently marked to identify the function, in both English and French or international symbols as defined by SAE J1362.
- b) Controls **must** not restrict the operator's field of view.
- c) Control panel lights **must** be provided for adequate lighting for nighttime operations.
- d) Instruments **must** be metric.

3.21 Body

- a) The vehicle body **must** be equipped with enclosed weather resistant compartments for equipment storage.
- b) The vehicle body **must** be provided with "C" channel rub rail or **equivalent**.
- c) The rub rail **must** be spaced from the body to prevent accumulation of debris.
- d) IAW NFPA 1901 the vehicle body **must** be provided with access hand rails based on body design.
- e) IAW NFPA 1901 the vehicle body **must** be provided with access steps based on body design.
- f) IAW NFPA 1901 the vehicle body **must** be provided with a rear tailboard step.
- g) Compartment lights **must** automatically turn on when the door is opened and turn off when the door is closed.
- h) Compartment lights **must** have an override allowing to turn them off during maintenance/day operation activities.

- i) Compartments design **must** maximise available compartment storage volume (height, width and depth).

3.21.1 **Perimeter Compartments**

- a) The compartments **must** be equipped with interior door seals.
- b) The compartments **must** be equipped with roll up doors.
- c) A minimum of three compartments **must** be provided on the left side of the vehicle.
- d) A minimum of three compartments **must** be provided on the right side of the vehicle.
- e) A rear compartment **must** be provided.
- f) The compartment floors **must** be designed to allow easy sweep out of debris, be ventilated, and have provisions for drainage of moisture.
- g) The compartment shelves and slide out trays **must** be provided with PVC compartment matting.
- h) Compartment interiors **must** be lit using protected LED lighting.
- i) A minimum of one (1) transverse tray for easy access of equipment on both sides **must** be provided.
- j) Storage and equipment restraint for two spine boards **must** be provided in the trough compartment. The spine boards will be supplied by Canada after vehicle delivery.
- k) A slide out tray **must** be provided at the bottom of all perimeter compartments.
- l) One (1) adjustable shelf **must** be provided in all compartments.
- m) A second adjustable shelf **must** be provided in the non-transverse side compartments (L3 & R3).
- n) The rear compartment **must** be provided with storage and equipment restraints for the following Hurst EDraulic rescue tools. Tooling will be supply by Canada.
 - i. Cutter model S700 E;
 - ii. Spreader model SP777 E2;
 - iii. Combination Tool model SC250 E2; and
 - iv. RAM model R 421 E2
- o) One (1) Hurst EDraulic spare batteries with charger base compatible to rescue tools **must** be provided. Location will be determined during Pre-Production Meeting.
- p) One (1) EDraulic 110V power supply compatible with rescue tool **must** be provided.

- q) Storage and equipment restraints **must** be provided for a minimum of four (4) 60 minutes pressured SCBA bottles. The bottles will be supply by Canada after vehicle delivery.
- r) Storage and equipment restraints **must** be provided for a minimum of one (1) Self-Contained Breathing Apparatus (SCBA), MSA G1 model located in L1 compartment.

3.22 Paint

- a) All metal surfaces **must** be protected.
- b) The prime coating **must** be a high durability, corrosion resistant type, such as an epoxy.
- c) The vehicle with the exception of the roll up doors **must** be painted using FLNA 3225 Red Akzo-Nobel lead-free, chromate-free high solid LV acrylic urethane paint or **equivalent**.

3.23 Decals

- a) All lettering **must** be applied in the ARIAL BLOCK font, sized to accommodate the required text, in the outlined areas.
- b) Lettering and identification numbers **must** be gold colour with black outline.
- c) Room permitting the text **"FIRE FEU"** in reverse **must** applied to the front of the vehicle.
- d) IAW NFPA 1901 white reflective striping **must** be placed horizontally around the cab and sides of the body. The preferred combination of stripes design to be 100 mm (4 in) high for the centre stripe and 25.4mm (1 in) for top and bottom stripes. Stripes to be silver on roll-up doors.
- e) The vehicle identification number sized 150 mm in height **must** be provided on the front of the vehicle applied to the left and right furthest location between the windshield and the bumper.
- f) The vehicle identification number sized 150 mm in height **must** be provided at the rear of the vehicle.
- g) The vehicle identification number sized and positioned to fit the available space **must** be provided on both rear cab passenger doors.
- h) The vehicle identification number sized 300 mm in height **must** be provided on the top of the vehicle.
- i) The National Defence Fire Service Crest **must** be applied to both the driver and officer doors, sized and positioned to fit the available space.
- j) The National Defence logo **must** be applied to each side of the vehicle.
- k) The rear facing sections of the vehicle **must** be provided with red and yellow chevrons in accordance with NFPA 1901.
- l) Decals **must** be applied using high quality vinyl with a clear polyurethane coating, or **equivalent**.

3.24 Corrosion Protection

- a) The vehicle **must** be designed and manufactured to prevent galvanic corrosion.
- b) The materials used in the vehicle manufacturing **must** resist damage or deterioration as a result of cleaning with hot or cold water, steam, or detergents.
- c) A commercial rust prevention coating **must** be applied to the vehicle, such as Krown Rust Control or Rust Check.
- d) A decal and warranty papers for the rust prevention coating **must** accompany the vehicle.

3.25 Warning, Markings and Instruction Plates

- a) All identification, instructional, and warning labels **must** be bilingual or International symbols defined in SAE J1362.
- b) All identification, instructional, and warning labels **must** within view of the operator.
- c) All indicators and controls **must** be permanently labelled.

3.25.1 Vehicle identification

- a) The vehicle identification information **must** be permanently affixed in a conspicuous and protected location.
- b) Identification information **must** include the cab and chassis manufacturer's name, model number, serial number, and model year.
- c) Identification information **must** include the body manufacturer's model and serial number.
- d) Identification information **must** include the equipment manufacturer's model and serial number.
- e) Identification information **must** include the GVWR and GAWR ratings.

4. INTEGRATED LOGISTIC SUPPORT (ILS)

4.1 ILS Deliverables

- a) The following table indicates the ILS elements that the Contractor **must** deliver, including the medium, the expected means of delivery and the reference paragraph.

Element	Format/Medium	Delivered to TA	Supplied with each vehicle/equipment	Reference Paragraph
Set of Manuals	Digital	X	X	4.2
Warranty Letter	Digital	X		4.3

Data Summary	Digital	X		4.4.1
Photographs	Digital	X		4.4.2
Dimensioned Drawing	Digital	X		4.4.3

4.2 Vehicle Manuals

- a) All manuals required for the description, operation, maintenance and repair of the complete equipment, including sub-systems, **must** be provided.

4.2.1 Operator's Manuals

- a) The operator's manuals **must** be bilingual (English and French).
- b) The operator's manuals **must** include instructions for the safe operation of the vehicle.
- c) The operator's manuals **must** include daily operator maintenance instructions/checks (including lubrication).
- d) The operator's manuals **must** include safety warnings.
- e) The operator's manuals **must** include hand signals (as necessary).

4.2.2 Parts Manual(s)

- a) The parts manual(s) **must** be in English.
- b) The parts manual **must** have illustrations showing all components of the vehicle including equipment and accessories from other manufacturers that are supplied to meet the requirements of the contract, with numbers for the itemization of the parts.
- c) The parts manual **must** have a listing for all itemized parts showing the Original Equipment Manufacturers (OEM) part number, the part name and a brief description of the item.
- d) The parts manual **must** cross reference the OEM part number to the correct illustration and item number.
- e) The parts manual **must** have a representation of bilingual warning signs and identification labels delivered on the equipment.

4.2.3 Maintenance Manuals

- a) The maintenance manual **must** be bilingual (English and French).
- b) The maintenance manual **must** include a troubleshooting guide, showing the steps and tests required to determine the exact cause of a problem and an explanation of the steps required to correct a problem.

- c) The maintenance manual **must** include a listing of the necessary tolerances, torque levels, and fluid volume (including item part numbers).
- d) The maintenance manual **must** include information on the order of disassembly and assembly of the systems and components of the vehicle.

4.2.4 **Manual Delivery to Technical Authority**

- a) Sample manuals **must** be submitted to the Technical Authority (TA) prior to the delivery of the vehicle for each model and or sub-system for approval. Sample manuals will not be returned. TA will provide approval or comments on the manuals within 30 days.
- a) One (1) complete set of approved manuals (Operator's, Maintenance, and Parts) in electronic format **must** be delivered to the Technical Authority.

4.2.5 **Manual Delivery with Vehicle**

- a) One (1) complete set of manuals (Operators, Maintenance, and Parts) **must** accompany each vehicle, shipped to each location.
- b) The manuals **must** be in electronic format.

4.2.6 **Electronic Manuals**

- a) Electronic manual **must not** require installation, password and/or Internet connection to be accessed and be an unlocked PDF in a searchable format.

4.2.7 **Provisional Manuals**

- a) In the event that approved manuals are not available at the time of delivery of the equipment, manuals marked "Provisional" **must** be supplied with the equipment.
- b) The contractor **must** deliver replacement approved manuals to all destinations where Provisional manuals were delivered.

4.2.8 **Manual Supplements**

- a) The contractor **must** supply manual supplements (Operator's, Maintenance and Parts) to support dealer-installed equipment not covered in the Vehicle Manuals.
- b) Manual supplements **must** be delivered in accordance with 4.2.4 and 4.2.5.

4.2.9 **Changes to Manuals**

- a) During the period of the contract, changes to equipment, which affect the contents of manuals, **must** be reflected in the revision of the manuals.
- b) Changes to the manuals **must** conform to the same format and presentation requirements as the original manuals.

- c) The revised electronic version of the manual **must** be sent to the Technical Authority by the Contractor.

4.3 Warranty Letter

- a) The warranty letter **must** include a list of all Canadian designated warranty service providers that will honour the warranty for the equipment and attachments (if applicable) procured under this contract, including the contact person and phone number at each warranty service provider.
- b) The warranty letter **must** include additional warranty coverage of sub-systems and a copy of the warranty letter from each sub-system's Original Equipment Manufacturer (OEM).
- c) The warranty letter **must** include warranty period as negotiated in the contract.
- d) The warranty letter **must** include Contractor contact information, name and phone number, for warranty support.

4.3.1 Warranty Letter Delivery

- e) The Contractor **must** provide a warranty letter both in English and French to the Technical Authority. Technical Authority will provide the Contractor a template for the DND acceptable format of the warranty letter.

4.4 Other ILS Deliverables to Technical Authority

4.4.1 Data Summary

- a) The Contractor **must** provide a Data Summary both in English and in French for each make/model/configuration of vehicle by completing Technical Authority's template with data and a vehicle picture.

4.4.2 Photographs

- a) The Contractor **must** provide photographs in colour, taken against a plain background, and in digital JPEG format with a minimum 10 megapixel resolution.
- b) One left front three-quarter view of a completed unit **must** be provided.
- c) One right rear three-quarter view of a completed unit **must** be provided.

4.4.3 Dimensioned Drawing

- a) One side, front, rear and top view drawing showing the vehicle dimensions **must** be provided.

4.4.4 Major Equipment Serial Numbers

- a) The Contractor **must** provide a list of the serial numbers recorded during manufacturing which contains description, model and serial numbers. Either electronic or work copy will be acceptable.

4.5 Safety Recalls and Servicing Data

- a) Safety recalls, and manufacturer’s technical service bulletins, or equivalent **must** be provided to the technical authority and the final delivery locations on a continuing basis, throughout the life expectancy of the vehicle or for no less than 10 years.

4.6 Training

4.6.1 **Training Deliverables** – The following table indicates the ILS Training elements that the Contractor **must** deliver, including the expected means of delivery and the reference paragraph.

Element	Format/ Medium	Delivered to TA by E-mail for approval	Remarks	Reference Paragraph
Course Syllabus	Digital	X	-	4.6.2 d) & 4.6.4 d)
Maintenance Training	-	-	Delivery in person, at the location specified in the contract.	4.6.2
Operator Training	-	-	Delivery in person, at the location specified in the contract.	4.6.4
Proof of Training Certificate	Digital	X	TA will provide template	4.6.2 e) & 4.6.4 e)

4.6.2 **Maintenance Training**

- a) The Contractor **must** provide a maintenance training course.
- b) The course **must** be given at the delivery destination and be available in both official languages.
- c) The course **must** have a minimum duration of one day to provide training of up to eight (8) maintenance personnel and have the final dates arranged with the Technical Authority.
- d) The course **must** have a syllabus or course outline and schedule available for review fifteen (15) days prior to the course commencement date.
- e) After completion of the course, the Contractor **must** have a “*PROOF OF MAINTENANCE TRAINING*” certificate signed by a Canada Representative for the destination. The Technical Authority will supply the document in an electronic format.

4.6.3 **Maintenance Training Curriculum**

- a) Operator’s training detailed in Paragraph 4.6.4 below **must** be included in the curriculum.
- b) Operation and maintenance safety precautions **must** be included in the curriculum.

- c) Preventive maintenance including servicing schedules **must** be included in the curriculum.
- d) Trouble shooting, testing, and adjustments **must** be included in the curriculum.

4.6.4 **Operator Training**

- a) The Contractor **must** provide an operator training course.
- b) The course **must** be given at the delivery destination and be available in both official languages.
- c) The course **must** have minimum duration of one day to provide training for up to eight (8) operators and have the final dates arranged with the Technical Authority.
- d) The course **must** have a syllabus or course outline and schedule available for review fifteen (15) days prior to the course commencement date.
- e) After completion of the course the Contractor **must** have a “*PROOF OF OPERATOR TRAINING*” certificate signed by a Crown Representative for the destination. The Technical Authority will supply the document in an electronic format.

4.6.5 **Operator Training Curriculum**

- a) Safety precautions to be observed while operating and servicing the vehicle **must** be included in the curriculum.
- b) Vehicle operating characteristics **must** be included in the curriculum.
- c) Vehicle operating procedures **must** be included in the curriculum.
- d) Pre-operating and pre-shutdown procedures **must** be included in the curriculum.
- e) Daily/weekly operator servicing procedures **must** be included in the curriculum.

4.6.6 **Training Materials**

- a) Training materials (preferably in PowerPoint format) **must** be provided to each attendee, in French for locations in Quebec.
- b) Training materials **must** include a list of topics to be covered;
- c) Training materials **must** include an approximate timetable showing when topics are scheduled to be covered and how much time is scheduled for each topic;
- d) Training materials **must** list any reference material; and
- e) Training materials **must** make available any reference material used.