



National Defence

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Ottawa, Ontario  
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Défense nationale

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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 :  
Wo il Lee DLP 5-3-5

<b>Title - Sujet</b> Over Center Line Truck – 18m Platform - Camion à engin élévateur à nacelle de 18 m		<b>Amendment No. - N° modif.</b> 003
<b>Solicitation No. N° de l'invitation</b> W8476-226546/A	<b>Date of Amendment Date de modification</b> March 28, 2022 - 28 mars 2022	
<b>Address enquiries to: - Adresser toute demande de renseignements à :</b> Wo il Lee <b>Telephone No. - N° de telephone</b> <b>E-Mail Address - Courriel</b> 343-572-4779      Woil.lee@forces.gc.ca		
<b>Destination</b> 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.

<b>Delivery required Livraison exigée</b> See herein - Voir aux présentes	<b>Delivery offered Livraison proposée</b>
<b>Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur</b>	
<b>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) :</b>	
<b>Name - Nom</b>	<b>Title - Titre</b>
<b>Signature</b>	<b>Date</b>

<b>Solicitation Closes - L'invitation prend fin</b> At - à : 2:00 PM - 14:00  On - le : April 14, 2022 – 14 avril 2022  Time Zone - Fuseau Horaire : Eastern Daylight Time (EDT) Heure avancée de l'Est (HAE)
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**THIS SOLICITATION AMENDMENT IS RAISED TO:**

1. Provide clarification and answers to questions from potential suppliers; and
2. Amend the solicitation (Annex A, Requirement – Purchase Description) to clarify and reflect the questions received.

**QUESTIONS AND ANSWERS:**

<b>Question 1</b>	What size motor do you want? Is a 9L (300ho / 860lbs-ft) paired with an Alisson 3500 accepted?
<b>Answer 1</b>	The manufacturer is responsible to determine the required size motor for the vehicle.
<b>Question 2</b>	What type of axle and capacity do you want? Is a GVWR of 33,000 lbs acceptable?
<b>Answer 2</b>	The manufacturer is responsible to determine the required vehicle axle capacity for the requirement.
<b>Question 3</b>	What type of rear suspension? (leaf spring or air?)
<b>Answer 3</b>	The manufacturer is responsible to determine the type of suspension to be used on the vehicle.
<b>Question 4</b>	What kind of braking? Drum or disc, air or hydraulic?
<b>Answer 4</b>	The manufacturer is responsible to determine the type of braking system to be used on the vehicle.
<b>Question 5</b>	Exhaust location? Vertical behind the cab or horizontal under the frame?
<b>Answer 5</b>	The manufacturer is responsible to determine the location of the exhaust system.
<b>Question 6</b>	Regarding the seats air or not, can you give details on the material.
<b>Answer 6</b>	Air seats is not a requirement but acceptable. The manufacturer is responsible to determine the type of seat cover material to be used.
<b>Question 7</b>	Can you give information on the electrical group (windows and doors)?
<b>Answer 7</b>	Electric windows controls for driver and passenger doors is acceptable but not mandatory. Driver and passenger doors for the cab must be provided with power locks.
<b>Question 8</b>	Battery capacity? (2 or 3? Number of CCAs?)
<b>Answer 8</b>	The manufacturer is responsible to determine the number of batteries required for the requirement. Vehicle must meet requirements of art. 3.2.1.
<b>Question 9</b>	Fuel tank capacity? 1 or 2 tanks?
<b>Answer 9</b>	The manufacturer is responsible to determine the fuel tank capacity. Two fuels tanks is acceptable but not a requirement.
<b>Question 10</b>	Maintenance and Operation Manual: Available in English only. Is it acceptable?
<b>Answer 10</b>	The maintenance manual and the operator's manual must be provided both in English and in French.
<b>Question 11</b>	Parts manual: works online and in English only (impossible to obtain a CD-Rom or a USB key). Is it acceptable?

<b>Answer 11</b>	If the parts manual is only available online, then the bidder must provide links to access the parts manual. Links must be available for the life of the vehicle.
<b>Question 12</b>	What color should the truck be?
<b>Answer 12</b>	Refer to the Purchase Description art. 3.25.
<b>Question 13</b>	Point 3.14.f : What are the dimensions of the hot stick?
<b>Answer 13</b>	The dimension of the telescopic hot stick are approximately 95 mm diameter by 1.77 m long.
<b>Question 14</b>	Point 3.16.c / 3.17.c: Is a 20,000 lb winch with 157 ft (48) cable accepted?
<b>Answer 14</b>	No
<b>Question 15</b>	Point 3.18.b : How many cones and supports are required? Where will they be installed?
<b>Answer 15</b>	A minimum of five orange traffic cones, 457 mm high (18 inch) are required. The purchase description was amended to reflect this change. Please refer to Para 3.18.b) Manufacturer to determine location of support.
<b>Question 16</b>	Point 3.21.d : Current converter? Is the charger integrated? Connected to batteries? If so, what type of batteries you want?
<b>Answer 16</b>	The inverter can be connected to the vehicle battery. The option of using the inverter only when the truck is running can be provided.
<b>Question 17</b>	Point 3,24,c: Can you give more details to explain what this is?
<b>Answer 17</b>	This is to indicate to the driver that the boom is in the stowed position to allow the vehicle to be driven,
<b>Question 18</b>	Point 4.4.4.c : Must be provided at tender or at contract award?
<b>Answer 18</b>	A drawing must be provided with the bid to demonstrate the dimensions of the proposed vehicle. Following contract award, when the final drawings of the vehicle are completed, the drawings must be provided.
<b>Question 19</b>	The delivery time of 300 days is not feasible. Can you extend it up to 600 days?
<b>Answer 19</b>	Please provide your best delivery date in your bid as per the RFP 3.5.1.1.

**THIS SOLICITATION IS HEREBY AMENDED AS FOLLOWS:**

- 2.1 DELETE: "ANNEX A PURCHASE DESCRIPTION FOR Over Center Line Truck – 18m Platform ECC 145215 dated 2022-02-15" in its entirety.  
INSERT: "ANNEX A PURCHASE DESCRIPTION FOR Over Center Line Truck – 18m Platform ECC 145215 dated 2022-03-25" See attached.

**ALL OTHER TERMS AND CONDITIONS REMAIN THE SAME.**



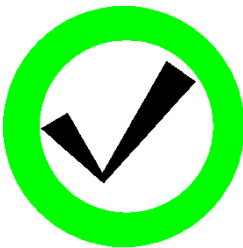
## ANNEX A

# PURCHASE DESCRIPTION

## FOR

### Over Center Line Truck – 18m Platform

### ECC 145215



#### 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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## 1. SCOPE

### 1.1 Scope

- a) This document describes a 4x2 service platform truck, over centre and hydraulically powered aerial device.

### 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 or 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.
- g) Nominal dimensions reflect a method by which materials or products are generally identified, but which differ from the actual measured dimensions.

### 1.3 Definitions

- a) “**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.
- b) “**Vehicle**” – The entire vehicle including all systems and sub-systems, in a complete manufactured state in accordance with the requirements in this Purchase Description.
- c) “**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.
- d) “**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.
- e) “**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:

#### **Canadian Occupational Health and Safety Regulations (COHSR)**

**Hazardous Products Act, Government of Canada, Department of Justice**

#### **Motor Vehicle Safety Regulations (MVSR)**

**CAN/CGSB 3.517 - Diesel Fuel**

**CAN/CSA C225-20 - Vehicle Mounted Aerial Devices**

**ANSI/SIA A92.2-2015 - Vehicle-Mounted Elevating and Rotating Aerial Devices**

## 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.

- h) **Measurements** – Values for labels and indicators provided with equipment **must** be presented in metric units, or **must** have both imperial and metric units with metric dominant.

### **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 37° C (-40 to 99° F).

#### **3.2.2 Terrain**

- a) 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.
- c) The vehicle **must** be designed and built in accordance with the latest version of ANSI /SIA A92.2 and CSA C225.

#### **3.3.2 Human Factors Engineering**

- a) The vehicle, all systems, and components **must** comply with the relevant sections of the COHSR.
- b) 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) The vehicle, at GVWR, **must** sustain a speed of 100 km/h (62.1 MPH) on a level paved road.

#### **3.4.2 Weight Ratings**

- a) The GVWR of the vehicle **must** not be less than the sum of the unloaded vehicle mass, the cargo carrying capacity, and the product obtained by multiplying the designated seating capacity by 68kg and as defined in the *Motor Vehicle Safety Regulations (C.R.C., c. 1038)*.
- b) Axle loads **must** comply with all the provincial weight restrictions across Canada.

#### **3.4.3 Dimensions**

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

### **3.5 Outriggers or Stabilizers**

- a) Stabilizers or outriggers **must** be provided in accordance with safety requirements in ANSI/SIA A92.2 or CSA 225.

### **3.6 Engine**

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

#### **3.6.1 Engine Components**

- a) A replaceable air filter(s) **must** be provided.
- b) A combustion air cleaning system **must** be provided, with an air cleaner restriction indicator visible to the operator.
- c) A full flow replaceable oil filter **must** be installed.
- d) An engine shutdown or de-rate system **must** be provided, including a visual warning indicator visible from the operator position.

#### **3.6.2 Cold Weather Starting Aids**

- a) A low temperature engine starting aid **must** be provided to meet the operating conditions specified in Paragraph 3.2.
- b) A thermostatically controlled water separator, fuel filter **must** be provided.
- c) A 110-volt engine block heater(s) **must** be provided
- d) A 110-volt battery heater(s) **must** be provided.

### **3.7 Drivetrain**

- a) The vehicle **must** be 4x2 drive.
- b) The drivetrain **must** include a "Park" or "Neutral" starting interlock.
- c) The drivetrain **must** include limited slip or driver controlled locking differential(s) on the drive axle(s).

### **3.8 Transmission**

- a) The vehicle **must** be equipped with automatic drive transmission.
- b) The transmission **must** have an oil cooler.
- c) An audible back-up alarm **must** be installed to alert personnel that the vehicle transmission is in reverse.

### **3.9 Braking System**

- a) The vehicle **must** be equipped with a power assisted braking system, including a parking brake.

#### **3.9.1 Brake Interlock**

- a) A brake interlock **must** be provided to prevent the vehicle from being moved when the outriggers or stabilizers are activated.

### **3.10 Steering**

- a) The vehicle **must** be provided with a front wheel 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 tread pattern for use in the operating conditions described in Paragraph 3.2.
- b) The wheels, tires and rims **must** include valve extensions for inner tires, if used, to allow for easy access;

### **3.12 Cab**

- a) The vehicle **must** be equipped with a two person weatherproof cab.
- b) A minimum of two (2) doors **must** be provided with power locks, be keyed alike.
- c) A ventilation/heater and defrosting system with a multi-speed fan **must** be provided.
- d) An air conditioning system **must** be provided equipped with all components and controls required for regulation of the cab interior temperature.
- e) The cab floor or floor mats **must** be weatherproof.
- f) The cab floor **must** be a material that reduces absorption of toxins and promotes ease of cleaning.
- g) A back-up camera system **must** be installed in the cab.
- h) An AM/FM stereo radio with an auxiliary port **must** be provided.
- i) Two heavy-duty, powered and heated exterior side mirrors, with convex section, **must** be provided with in-cab controls.
- j) 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.

### 3.13 Storage Cabinets

- a) The vehicle **must** be equipped with a minimum of four (4) weather proof fiberglass body storage cabinets on the right side of the vehicle.
- b) Stairs located on the right side of the vehicle providing access from the ground to the vehicle back deck **must** be provided.
- c) The vehicle **must** be equipped with a minimum of five (5) weather proof fiberglass body storage cabinets on the left side of the vehicle.
- d) The storage cabinet fiberglass body **must** be a minimum 2.74 m (108 inch) cab to axel length.
- e) Storage compartments **must** be equipped with a mechanism designed to hold the compartment doors open at a minimum of 110 degrees.
- f) Removable shelves with a minimum load capacity of 45 kg **must** be provided in each cabinet.
- g) Maximum load capacity of each shelve and drawer **must** be clearly marked.
- h) Shelves and bottom of storage cabinets **must** be equipped with PVC compartment matting.
- i) All storage cabinet doors **must** be equipped with a locking system.
- j) All storage cabinets **must** be equipped with LED strip lighting.

### 3.14 Accessories

- a) Front licence plate holder **must** be provided.
- b) Rear licence plate holder with LED light **must** be provided.
- c) Mud flaps **must** be provided.
- d) A grounding reel and a minimum of four (4) grounding studs **must** be provided.
- e) The vehicle **must** be equipped with one storage compartment for a minimum 4.3 m ladder.
- f) The vehicle **must** be equipped with a storage compartment for a telescopic hot stick.
- g) The vehicle **must** be equipped with a removable vice holder complete with a 150 mm vice mounted holder.
- h) Towing hooks **must** be provided at the front and rear of the vehicle rated to tow a vehicle of equivalent GVWR. Rear towing hooks can be combined with rear safety chain towing shackles.
- i) Stone deflectors **must** be incorporated under the rear wheel wells.

### 3.15 Aerial Device

- a) The vehicle **must** be provided with articulate over centre aerial device.

- b) The aerial device **must** be certified category “C” according to ANSI/SIA A92.2 standard.
- c) The aerial device **must** have a minimum height of 18 meters (59.05 feet), measured from the ground to the bottom of the platform.
- d) The aerial platform **must** be equipped with a lower boom lift eye with a minimum lifting capacity of 315 kilograms (694 pounds).
- e) The aerial platform **must** have a minimum 350 degree rotation about the vertical axis to allow for free rotation at the rear of the vehicle.

#### 3.15.1 **Aerial Device Controls**

- a) Upper and lower controls **must** be provided.
- b) Upper controls **must** be one hand, one-lever, pistol grip type controls.
- c) Upper and lower controls **must** include two-speed throttle control and a bucket dump feature.

#### 3.15.2 **Emergency Aerial Device Operation**

- a) An emergency 12 Volt system **must** be provided to allow an operator in the bucket to lower himself to safety if the engine or hydraulic system become inoperative; and
- b) An emergency 12 Volt system **must** be provided to retract the outriggers or stabilizers if the engine or main hydraulic system becomes inoperative.

#### 3.15.3 **Platform**

- a) One two-man, fibre-reinforced bucket with integral external access steps **must** be provided.
- b) The platform **must** be equipped with an insulating liner constructed from non-conductive material certified category “C” (46 kV and below).
- c) The platform **must** have a minimum rated payload capacity of 227 kilograms (500 pounds).
- d) The platform **must** have an automatic hydraulic bucket levelling system.
- e) The platform **must** have a mount to include a hydraulic bucket rotator to provide bucket rotation from the stowed position to the boom tip.
- f) The platform **must** rotate a minimum of 90 degrees about the boom tip.
- g) The platform **must** have anchorage points for personal fall arrest equipment.
- h) The platform **must** have a bucket covering system.
- i) The platform **must** have a removable tool tray.

#### 3.15.4 **Jib Winch**

- a) A hydraulic jib winch **must** be provided.
- b) The minimum bare drum rated jib winch capacity **must** be at least 454 kilograms (1000 pounds).
- c) The jib winch **must** be equipped with a minimum 21 meter (70 feet) synthetic rope.
- d) The jib winch synthetic rope **must** be supplied with a mechanical spliced eye at the end.

#### 3.16 **Front Vehicle Winch**

- a) A hydraulic front vehicle winch **must** be provided.
- b) The hydraulic winch **must** have a minimum capacity of 9071 kilograms (20 000 pounds).
- c) The front winch **must** include a 76 meter (250 feet) long cable.
- d) The front winch cable **must** be supplied with a mechanical spliced eye at the end.
- e) The front winch **must** include an automatic drag and safety brake, a hydraulic overload device, a free spooling feature, a 900 millimetres (3 feet) leader chain with hook and a roller fairlead.
- f) The front winch **must** operate using a wireless remote control unit, powered in both directions.
- g) The front winch **must** include a snatch block rated to withstand a double line pull capacity of the winch.
- h) The front winch **must** be equipped with cable guide roller system assembly.

#### 3.17 **Rear Vehicle Winch**

- a) A hydraulic rear vehicle winch **must** be provided.
- b) The hydraulic winch **must** have a minimum capacity of 9071 kilograms (20 000 pounds).
- c) The rear winch **must** include a 76 meter (250 feet) long cable.
- d) The rear winch cable **must** be supplied with a mechanical spliced eye at the end.
- e) The rear winch **must** include an automatic drag and safety brake, a hydraulic overload device, a free spooling feature and a roller fairlead.
- f) The front winch **must** operate using a wireless remote control unit, powered in both directions.
- g) The rear winch **must** be powered in both directions.
- h) The rear winch **must** include a swivel pulley installed at the rear of the body to accommodate 12 millimetre cable.



### **3.18 Miscellaneous Equipment**

- a) Two safety harnesses and fall arrest shock absorbing type lanyards **must** be provided.
- b) A minimum of five (5) orange traffic cones, 457 mm high (18 inch) complete with cone holder **must** be provided.
- c) First aid kit **must** be provided.

### **3.19 Towing**

- a) The vehicle **must** have a minimum towing capacity of 9,071.8 kg (20 000 lbs).
- b) The vehicle **must** be equipped with a rear pintle hook complete with appropriate chassis frame reinforcement.
- c) The vehicle **must** be equipped with two safety chain towing shackles located on either side of the pintle hook.
- d) A 7-pin electrical trailer socket **must** be provided in accordance with SAE J560.

### **3.20 Hydraulic System**

- a) A hydraulic oil cooler **must** be provided.
- b) Hydraulic filter change indicators **must** be provided.

### **3.21 Electrical System**

- a) The vehicle **must** be equipped with a 12 Volt electrical system
- b) Wiring **must** be protected by insulating grommets, where passing through metal.
- c) A master disconnect switch, accessible from the ground, **must** be provided.
- d) An inverter **must** be provided with three 120 Volt, 60 Hertz power outlets.

### **3.22 Lighting**

- a) The vehicle **must** be equipped with LED lights, where possible.
- b) Lights **must** be recessed or otherwise protected from damage with all components accessible for servicing.
- c) One amber coloured beacon light mounted **must** be provided with 360 degree view.
- d) At least three adjustable LED work lights **must** be provided, mounted to illuminate the rear of the vehicle and each of the sides.
- e) One driver operated, remote controlled, multi-directional (260 degrees), weather-sealed, white spot/flood lamp **must** be provided in a location near or at the top of the vehicle.

### **3.23 Controls**

- a) Each control **must** be permanently marked to identify the function, in both English and French or international symbols.
- b) Vehicle controls **must** be grouped together in the cab.
- c) Equipment controls **must** be grouped together in the cab.
- d) Controls **must** not restrict the operator's field of view.
- e) Control panel lights **must** be provided for adequate lighting for nighttime operations.

### **3.24 Instruments**

- a) The OEM standard instrument cluster **must** be provided.
- b) An hour-meter with numeric display, which accurately records accumulated engine running time up to at least 9,999 hours **must** be provided.
- c) A boom stowed position indicator mounted in the cab **must** be included.
- d) An indicator light within the cab **must** be provided to indicate when the outriggers or stabilizers are deployed.

### **3.25 Paint**

- a) All metal surfaces **must** be protected.
- b) The vehicle colour **must** white.
- c) The chassis components **must** be painted black.

### **3.26 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.

### **3.27 Warning, Markings and Instruction Plates**

- a) All identification, instructional, and warning labels **must** be in both English and French or International symbols.
- b) All identification, instructional, and warning labels **must** within view of the operator.

c) All indicators and controls **must** be permanently labelled.

3.27.1 **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** - The following table indicates the ILS elements that the Contractor **must** deliver, including the medium (paper or digital), 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
	Paper		X	
Warranty Letter	Digital	X	X	4.3
Data Summary	Digital	X		4.4.1
Photographs	Digital	X		4.4.2
Line Setting Ticket	Digital	X	X	4.4.3
Dimensioned Drawing	Digital	X	X	4.4.4
Special Tool List	Digital	X		4.4.5
Preventive Maintenance Replacement Parts Kit List (PMRPKL)	Digital	X		4.4.6
Recommended Spare parts List (RSPL)	Digital	X		4.4.7

**4.2 Vehicle Manuals**– 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 in both 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.

**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 both in 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, fluid volume, and special tools (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.
- e) The maintenance manual **must** include special tools list as per 4.4.5.

#### 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 calendar days.
- b) The contractor **must** provide responses to the TA comments.
- c) 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 (Operator's, Maintenance, and Parts) **must** accompany each vehicle, shipped to each location.
- b) The manuals **must** be in paper and electronic format.

#### 4.2.6 **Electronic Format**

- a) Electronic format **must not** require installation, password and/or Internet connection to be accessed and **must** 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 electronic and paper version 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.
- d) The TA will provide approval or comments on the manuals within 30 calendar days.

### **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**

- a) The Contractor **must** provide a warranty letter in both English and French to the Technical Authority and with each vehicle. If the Technical Authority requires the letter to be in DND format, then they 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 Data Summary in both English and 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 Line Setting Ticket**

- a) The contractor **must** provide the chassis manufacturer's Line Setting Ticket, or **equivalent**, describing the components provided on the cab and chassis.

#### **4.4.4 Dimensioned Drawing**

- a) One side and front view sketch showing the vehicle dimensions **must** be provided.

#### **4.4.5 Special Tools List - The Contractor **must** provide an itemized list of specific special tools required for the servicing and repair of the vehicle and include:**

- a) Item name;

- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Quantity recommended per delivery location;
- e) Unit price; and
- f) Unit of issue.

4.4.6 **Preventive Maintenance Replacement Parts Kit List (PMRPKL)** - The contractor **must** provide a list detailing the parts that are required to perform preventive maintenance to the system for a period of 12 months, and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;
- h) Unit price; and
- i) Unit of issue.

4.4.7 **Recommended Spare Parts List (RSPL)** - The Contractor **must** provide a list detailing the spare parts deemed necessary to maintain the vehicle for a period of 12 months exclusive of any warranty period, and include:

- a) Item name;
- b) Contractor's part number;
- c) Manufacturer's part number (OEM);
- d) Manufacturer's NATO Supply code (NCAGE) or name and address;
- e) NSN (NATO Stock Number) (if known);
- f) Quantity per equipment;
- g) Quantity recommended;

- h) Unit price; and
- i) Unit of issue.

4.4.8 **Cataloguing Information**

- a) The contractor **must** provide the Technical Authority, upon request, the information necessary to catalogue the parts for the vehicle.
- b) The cataloguing information **must** include the NSN of the part, if known.
- c) If the NSN is provided no other supporting technical data needs to be provided for that item.
- d) If the NSN is not provided, then the information **must** be sufficient to allow the Technical Authority to identify, classify and fully describe the part(s) to a NATO standard. This could include specifications, standards, drawings, or catalogues with brief description(s) of relevant dimensional, material, mechanical, electrical and physical/ performance characteristics. Drawings sent to the Technical Authority will not be sent to other suppliers for production and will remain the property of the contractor.

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 English and French.
- c) The course **must** have a minimum duration of 1 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 seven (7) 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 this 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.
- e) Special tools and test equipment **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 English and French.
- c) The course **must** have minimum duration of 1 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 seven (7) 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 this 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 **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.
- e) Training materials **must** make available any reference material used.