



W8476-175617/A

**Annex B**

**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.

**PURCHASE DESCRIPTION**

**FOR**

**TRAILER, COMMAND POST AND STOWAGE**

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**OPI: DSVPM 4 – BPR: DAPVS 4**

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## TABLE OF CONTENTS

1.0	SCOPE.....	4
1.1	Scope.....	4
1.2	Instructions.....	4
1.3	Definitions.....	4
1.4	Proposed Plan.....	5
2.0	APPLICABLE DOCUMENTS.....	5
2.1	References.....	5
3.0	REQUIREMENTS.....	5
3.1	Standard Design.....	5
3.2	Operating Conditions.....	6
3.3	Safety Standards.....	6
3.4	Configuration.....	6
3.5	GVWR.....	6
3.6	Weight.....	6
3.7	Speed.....	6
3.8	Towing Ability.....	7
3.9	Trailer Dimensions.....	7
3.10	Trailer Doors The trailer <i>must</i> be provided with:.....	7
3.11	Tongue Support.....	7
3.12	Hitch.....	7
3.13	Jacks.....	7
3.14	Command Post Work Table.....	7
3.15	Floor Channel Mounting System.....	7
3.16	Tool Cabinet.....	8
3.17	Server Rack.....	8

3.18	12 Volt Electrical System .....	8
3.19	12 Volt Lighting .....	8
3.20	Light Guards.....	8
3.21	120VAC Electrical System .....	8
3.22	Generator .....	9
3.23	120VAC Shore Power.....	9
3.24	Transfer Switch .....	9
3.25	Grounding .....	9
3.26	Climate Control .....	9
3.27	License Plate Holder .....	10
3.28	Brake System.....	10
3.29	Axle(s) .....	10
3.30	Wheels, Rims and Tires.....	10
3.31	Ladder .....	10
3.32	Lubricants And Hydraulic Fluids .....	10
3.33	Identification .....	10
3.34	Labels.....	11
3.35	Trailer Delivery Instructions .....	11
4.0	INTEGRATED LOGISTICS SUPPORT .....	11
4.1	Documentation And Support Items.....	11
4.2	Training .....	13
	Appendix 1 of Annex B.....	14
	Appendix 2 of Annex B.....	15

**PURCHASE DESCRIPTION**  
**FOR**  
**TRAILER, COMMAND POST AND STOWAGE**

**1.0 SCOPE**

1.1 **Scope** - This document describes the requirements for one custom built, enclosed, command post and stowage trailer. This includes design, development and fabrication.

**1.2 Instructions**

1.2.1 Requirements, which are identified by the word “**must**”, are mandatory. Deviations will not be .

1.2.2 Requirements identified with a “will” define actions to be performed by Canada and require no action/obligation on the Contractor’s part.

1.2.3 Where “**must**”, is not used, the information provided is for guidance only.

1.2.4 In this document “provided” **must** mean “provided and installed”.

1.2.5 Where a standard is specified and the Contractor has offered an Equivalent, that Equivalent standard **must** be supplied by the Contractor.

1.2.6 Where a technical certification is referred to in this Purchase Description, a copy of the certification or an acceptable proof of compliance **must** be provided for the vehicle when requested by the Technical Authority up until the date of the expiration of the warranty period.

1.2.7 While the metric system **must** be used as the primary system of measurement to define requirements in this Purchase Description, both the metric system and the Imperial system of measurements may be indicated. Conversions from one system of measurement to the other may not be exact.

1.2.8 Dimensions stated as nominal are treated as approximate dimensions. Nominal dimensions reflect a method by which materials or products are generally identified for sale commercially, but which differ from the actual dimensions.

**1.3 Definitions**

1.3.1 “Technical Authority” means the official responsible for the technical content of this Purchase Description.

1.3.2 “Equivalent” means a standard, means, or component type, which the Technical Authority has approved for this requirement as meeting the specified requirements for fit.

1.3.3 “Commercially Provided” means that the vehicle is provided in its standard commercial configuration with no additional government-specific requirements.

1.3.4 “Road Legal” means the vehicle can be legally operated on all Canadian highways and secondary roads, without restrictions or special permits.

1.3.5 “Curb Weight” means the weight of the fully equipped trailer. The curb weight includes trailer, all attached accessories, equipment, fuel, lubricant and coolants. The Curb Weight does not include the Payload or the weight of the crew or their equipment.

- 1.3.6 "Payload" means the maximum cargo load carrying capacity of the trailer. The payload is the calculated difference between the Curb Weight and the Gross Vehicle Weight Rating and **shall** include the weight of the UAS of 46 KG.
- 1.3.7 "Gross Vehicle Weight" (GVW) means the sum of the Curb Weight, the weight of the crew (80 kg per person) and the Payload. The GVW cannot exceed the Gross Vehicle Weight Rating (GVWR);
- 1.3.8 "Gross Vehicle Weight Rating" (GVWR) means the maximum operating weight of the trailer as stated by the manufacturer.

#### 1.4 **Proposed Plan**

- 1.4.1 The Contractor **must** submit a proposed trailer design to the TA for approval.
- 1.4.2 The Contractor **must** begin work only upon approval of that design.

### 2.0 **APPLICABLE DOCUMENTS**

- 2.1 **References** - The following documents form part of this Purchase Description. Canada will not be supplying any reference documents. Sources are a shown:

**Canadian Motor Vehicle Safety Standards (CMVSS)**

Transport Canada,  
Road Vehicle and Motor Vehicle Regulation,  
330 Sparks Street,  
Ottawa, Ontario K1A 0N5  
<http://www.tc.gc.ca/acts- regulations/GENERAL/M/mvsa/menu.htm>

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

<http://laws-lois.justice.gc.ca/eng/acts/H-3/>

**International Organization for Standardization (ISO)**

ISO Central Secretariat1, ch. de la Voie-Creuse  
CP 56, CH-1211 Geneva 20  
Switzerland  
<http://www.iso.org/iso/home.htm>

**SAE Standards**

SAE World Headquarters  
400 Commonwealth Dr.,  
Warrendale, PA, 15096-0001  
<http://www.sae.org>

### 3.0 **REQUIREMENTS**

#### 3.1 **Standard Design**

- 3.1.1 The trailer **must** be the latest model from a manufacturer who has demonstrated acceptability by selling, in North America, this type and size class of trailer for at least three (3) years;
- 3.1.2 The trailer **must** have engineering certification available, upon request, at no cost to Canada, for this application from the original manufacturers of major equipment, systems and assemblies;

3.1.3 The trailer **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; and

3.1.4 The trailer **must** not have systems and components operating at capacities beyond those published by the system or component manufacturer.

### 3.2 **Operating Conditions**

3.2.1 **Weather.** The trailer **must** operate under the extremes of weather conditions found in Canada in temperatures ranging from -35°C to 40°C.

3.2.2 **Terrain.** The trailer **must** be capable of being operated on highways, secondary roads, and gravel and dirt roads. Terrain conditions **must** include year round operations on snow, mud, sand and ice.

### 3.3 **Safety Standards**

3.3.1 Vehicle Safety Regulations.

- a) The trailer **must** meet the provisions of the Canada Motor Vehicle Safety Act in effect on the date of manufacture of the trailer;
- b) The trailer **must** have a non-skid floor; and
- c) The trailer **must** carry the National Safety Mark when produced in Canada.

3.3.2 Hazardous Materials - The contractor **must** comply with Hazardous Products Act of Canada concerning the use of hazardous materials, ozone depleting substances, polychlorinated biphenyls, asbestos and heavy metals used in the manufacture and assembly of the product supplied.

### 3.4 **Configuration**

3.4.1 The contractor **must** provide a tandem axle, V-nose, enclosed trailer.

3.4.2 The forward approximately half of the trailer interior **must** be configured as a command post.

3.4.3 The rear approximately half of the trailer **must** be configured for stowage.

3.4.4 The contractor **must** adhere to Appendix 1 for dimension details and layout.

3.5 **GVWR** - The trailer Gross Vehicle Weight Rating (GVWR) **must** be no more than 4,536 KG.

### 3.6 **Weight**

3.6.1 The trailer **must** operate when carrying materiel weighing at least 680 KG.

3.6.2 The drawbar load **must** be limited to 15% of the trailer weight plus its rated capacity.

3.7 **Speed** - The trailers must be capable of being towed with a full load on highways and secondary roads at speeds of no less than 110 km/h.

### 3.8 **Towing Ability**

3.8.1 The trailer **must** follow the towing vehicle without weaving or side sway.

3.8.2 The trailer **must** provide horizontal articulation up to 60 degrees without interference with the towing vehicle.

### 3.9 **Trailer Dimensions**

3.9.1 **Length** - The trailer **must** have a nominal length of 8.5m (28ft).

3.9.2 **Width** - The trailer **must** not exceed the maximum allowable highway width under the Canada Motor Vehicle Safety Act.

3.9.3 **Height** - The trailer **must** have an internal ceiling height of no less than 1.98m (6.5ft)

3.9.4 **Cargo Area**. The trailer **must** have a cargo area length of a minimum of 3.81m from the inside of the rear wall.

### 3.10 **Trailer Doors The trailer must be provided with:**

- a) A lockable full-width rear ramp with a minimum width dimension of 1.83 m;
- b) A curb side man-door; and
- c) Lockable folding bar and lock.

### 3.11 **Tongue Support**

- a) The trailer tongue **must** be provided with a support for the tongue capable of lifting and supporting a fully loaded trailer; and
- b) The tongue support **must** be capable of being stowed when the trailer is being towed.

3.12 **Hitch** - The trailer **must** be provided with a hitch suitable to attach to a 2 5/16 inch trailer ball.

3.13 **Jacks** The trailer **must** have an electrical driven leveling jack at each corner of the trailer, less v-nose.

### 3.14 **Command Post Work Table**

3.14.1 The forward half of the trailer **must** be provided with a continuous work table suitable for four operator workstations (see Appendix 1 for locations).

3.14.2 Each operator workstation **must** be provided with one 15 amp, 120VAC duplex outlet on the wall above the worktable.

3.14.3 An under desk cable-trough **must** be installed that runs from the far left end of the work station desk to the far right end of the desk at the edge of the V nose.

### 3.15 **Floor Channel Mounting System**

3.15.1 The rear half of the trailer interior **must** be provided with a recessed channel floor mounting system.

- 3.15.2 The floor mounting system **must** include no less than four longitudinal channels with a nominal length of 3500mm.
- 3.15.3 The trailer **must** be provided with 5 sets of 9.0 m (39.5ft) long ratcheting cargo straps each rated at 50 KG, and mounting fixtures compatible with the floor channel mounting system.
- 3.16 **Tool Cabinet** - The interior forward half of the trailer **must** be provided with a tool cabinet on the right side of the trailer as shown in Appendix 1:
- a) Be no less than 1.5 m wide, 0.9 m high and 0.5 m deep;
  - b) Be constructed of aluminium; and
  - c) Be securely attached to the trailer wall.
- 3.17 **Server Rack** - The trailer **must** be equipped with a server rack with space for at least six rack mounted pieces of hardware. An industry standard 19 inch wide rack with a minimum depth of 30 inches **must** be located as shown in Appendix 2
- 3.18 **12 Volt Electrical System**
- 3.18.1 The trailer **must** be provided with a negative ground electrical system in accordance with CMVSS.
- 3.18.2 The trailer **must** be capable of functioning with vehicles operating with 12 volt electrical systems.
- 3.18.3 The trailer **must** have a 7 pin commercial connector.
- 3.19 **12 Volt Lighting**
- 3.19.1 The trailer **must** have external 12 volt lights and reflectors in accordance with CMVSS.
- 3.19.2 Lights **must** be recessed or otherwise protected from damage with all components easily accessible for servicing.
- 3.19.3 Lighting **must** be LED.
- 3.19.4 The trailer **must** be provided with at least internal roof-mounted 12 volt lights. Sufficient lights **must** be provided to effect office-type illumination for the entire trailer front and back with a minimum of 500 lux (lumen/m<sup>2</sup>), 50 foot candles.
- 3.20 **Light Guards** All lighting **must** be protected by guards or mounted in a location to prevent damage.
- 3.21 **120VAC Electrical System**
- 3.21.1 The trailer **must** be provided with a 30 amp, 120VAC electrical system.
- 3.21.2 The electrical system **must** be provided with a circuit breaker box.
- 3.21.3 The trailer **must** be provided with six wall-mounted 120VAC duplex receptacles as shown in Appendix 1



### 3.22 **Generator**

- 3.22.1 A 4kW diesel powered generator **must** be provided.
- 3.22.2 The generator **must** be mounted at the left front of the V nose of the trailer, not external to the A frame. .
- 3.22.3 The generator **must** have both 15A and 30A 120VAC outlets.
- 3.22.4 The generator **must** be provided with automatic emergency shut offs such as high temperature or low oil level shut offs.
- 3.22.5 The generator **must** be weather resistant or mounted within a weather resistant enclosure.
- 3.22.6 The enclosure **must** not impede the generator operation or generator maintenance.
- 3.22.7 The generator **must** be provided with electric start.
- 3.22.8 The generator **must** be provided with a remote starter located inside the trailer.
- 3.22.9 The generator **must** be dismountable from the trailer and be operational through the shore power cable within 10 minutes. The generator may not be connected to the remote starter when dismounted.
- 3.22.10 A work light **must** be affixed to the trailer that **must** illuminate the generator. It **must** be capable of operating on either the 12 VDC or 120 VAC systems.

### 3.23 **120VAC Shore Power**

- 3.23.1 The trailer **must** be provided with a stowed shore power cable.
- 3.23.2 The shore power cable **must** be at least 10m long.
- 3.23.3 The shore power cable **must** be terminated with a 120VAC NEMO TT-30P RV/trailer plug.

### 3.24 **Transfer Switch**

- 3.24.1 The generator and shore power cable **must all** be connected to the trailer 120VAC electrical system through a transfer switch.
- 3.24.2 The transfer switch **must** give priority to the generator.

- 3.25 **Grounding** – The trailer **must** be provided with a grounding point and ground rod with electrical connector.

### 3.26 **Climate Control**

- 3.26.1 **Air Conditioner** - The trailer **must** be provided with a thermostatically controlled externally roof mounted air conditioner of at least 15,000 BTU capacity.
- 3.26.2 **Heater(s)** - The trailer **must** be provided with thermostatically controlled 110VAC electric heater(s) with a total combined output of 16,000 BTUs.
- 3.26.3 The air conditioner and heater(s) **must** be positioned to primarily cool or heat the forward section of the trailer.

- 3.26.4 The trailer **must** be insulated to an R-38 value on the roof and floor and an R-9 value on the walls.
- 3.27 **License Plate Holder** - The trailer **must** be provided with a rear mounted license plate holder.
- 3.28 **Brake System** - The trailer **must** be provided with the manufacturer's standard electric brake system.
- 3.29 **Axle(s)**
- 3.29.1 Trailer axle(s) **must** have a capacity of no less than maximum payload plus trailer weight.
- 3.29.2 The suspension **must** be the manufacturer's standard. The manufacturer **must** maintain a file containing the trailer axle compliance documents, which would be required for the National Safety Mark.
- 3.30 **Wheels, Rims and Tires**
- 3.30.1 The tires **must** have tire manufacturer certification that tires and rims provided are suitable and adequately sized for this application.
- 3.30.2 Tire size and ply ratings **must** comply with Tire and Rim Association Standards.
- 3.30.3 The wheel assembly **must** have sufficient load capacity so the trailer loaded to rated capacity and provided with all options does not exceed the manufacture's load ratings.
- 3.30.4 Tire pressure **must** be marked near the tire location.
- 3.30.5 The tires **must** be tubeless radial tires with all-weather treads.
- 3.30.6 The rims **must** be single piece steel rims.
- 3.30.7 The trailer **must** be provided with a spare wheel assembly mounted on the trailer and ready for service, of same size and ply rating as tires furnished with vehicle. The Technical Authority **must** approve the spare tire mounting location. The right front side of the V nose is suggested.
- 3.31 **Ladder** - A ladder **must** be attached to the left front of the V nose to enable a person to access the roof mounted accessories.
- 3.32 **Lubricants And Hydraulic Fluids**
- 3.32.1 Manufacturer's standard synthetic non-proprietary lubricants and hydraulic fluids **must** be provided.
- 3.32.2 Lubrication fittings **must** conform to SAE J534 or an Equivalent North American Standard.
- 3.32.3 **Paint** The trailer **must** be painted white using the manufacturer's standard commercial painting.
- 3.33 **Identification** The following information **must** be permanently marked in a conspicuous and protected location:
- 3.33.1 Manufacturer's name, model and serial number.

- 3.33.2 Manufacturer's Vehicle Identification Number (VIN).
- 3.33.3 Trailer Capacity rating **must** be marked on the drawbar.
- 3.34 **Labels** - All warning and instruction labels **must** be in a bilingual format or ISO symbol format.
- 3.35 **Trailer Delivery Instructions**
- 3.35.1 If the trailer requires assembly at destination, the contractor **must** be responsible for all manpower and equipment to perform assembly.
- 3.35.2 The space for assembly at destination will be provided, if required.
- 3.35.3 For shipment verification, items such as wheel wrenches, jacks, and all other tools, equipment and accessories, which are shipped loose, **must** be listed on the shipping certificate or to an attached packing note.
- 3.35.4 Lubricant viscosity provided **must** be in accordance with the manufacturer's specifications for the destination and the season of delivery.

#### **4.0 INTEGRATED LOGISTICS SUPPORT**

##### **4.1 Documentation and Support Items**

###### **4.1.1 Items Provided To Technical Authority.**

- a) **Data Summary.** A bilingual data summary **must** be provided for each configuration with data and a trailer picture in the Technical Authority provided format;
- b) **Manuals for Approval.**
- (i) One set of manuals, including operator, parts and maintenance (shop repair) manuals, in both digital and paper format, **must** be provided;
  - (ii) All manuals **must** be provided in a bilingual format as a package;
  - (iii) Digital copies **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection. Digital copies **must** be provided on a CD or DVD. It is preferred that digital copies are provided in a searchable PDF format;
  - (iv) Manuals will not be returned; and
  - (v) Approval or comments on the manuals will be provided within 15 working days of receipt.
- c) **Warranty Letter**
- (i) A paper copy of the completed bilingual warranty letter in the approved format (provided by the Technical Authority) **must** be provided to the Technical Authority; and
  - (ii) The warranty letter **must** include the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada.

- d) **Photographs**
  - (i) Two (2) digital pictures, one left-front three-quarter view, and one right-rear three-quarter view of each configuration **must** be provided;
  - (ii) It is preferred that pictures have an uncluttered background; and
  - (iii) Pictures **must** have a resolution of at least eight (8) Mega pixels.
- e) **Material Safety Data Sheets**
  - (i) The contractor **must** provide a listing of all hazardous materials used on the trailer;
  - (ii) If there are no hazardous materials used, this **must** be stated on the listing; and
  - (iii) The contractor **must** provide material safety data sheets of all hazardous materials in the list.

#### 4.1.2 **Items with Each Trailer**

- a) **Operator's Manuals**
  - (i) An operator's manual for the safe trailer operation including all supplied attachments **must** be provided with each trailer shipped;
  - (ii) The operator's manual **must** be provided in a bilingual format as a package;
  - (iii) A digital copy of the operator's manual **must** be provided, in addition to the paper copy, with each trailer shipped; and
  - (iv) The digital copy **must** be functional without the requirement for a password, an auto-run installation procedure or an Internet connection. Digital copies **must** be provided on a CD or DVD. It is preferred that the digital copy be provided in a searchable PDF format.
- b) **Warranty Letter**
  - (i) A paper copy of the completed bilingual warranty letter in the approved format (provided by the Technical Authority) **must** be provided with each trailer shipped;
  - (ii) The warranty letter **must** include the name and contact information of the closest designated warranty provider and other designated warranty providers across Canada; and
  - (iii) Designated warranty providers **must** honour the warranty letter.
- c) **Keys** - Four (4) keys **must** be provided.

#### 4.1.3 **Items Shipped to the Trailer Supporting Unit**

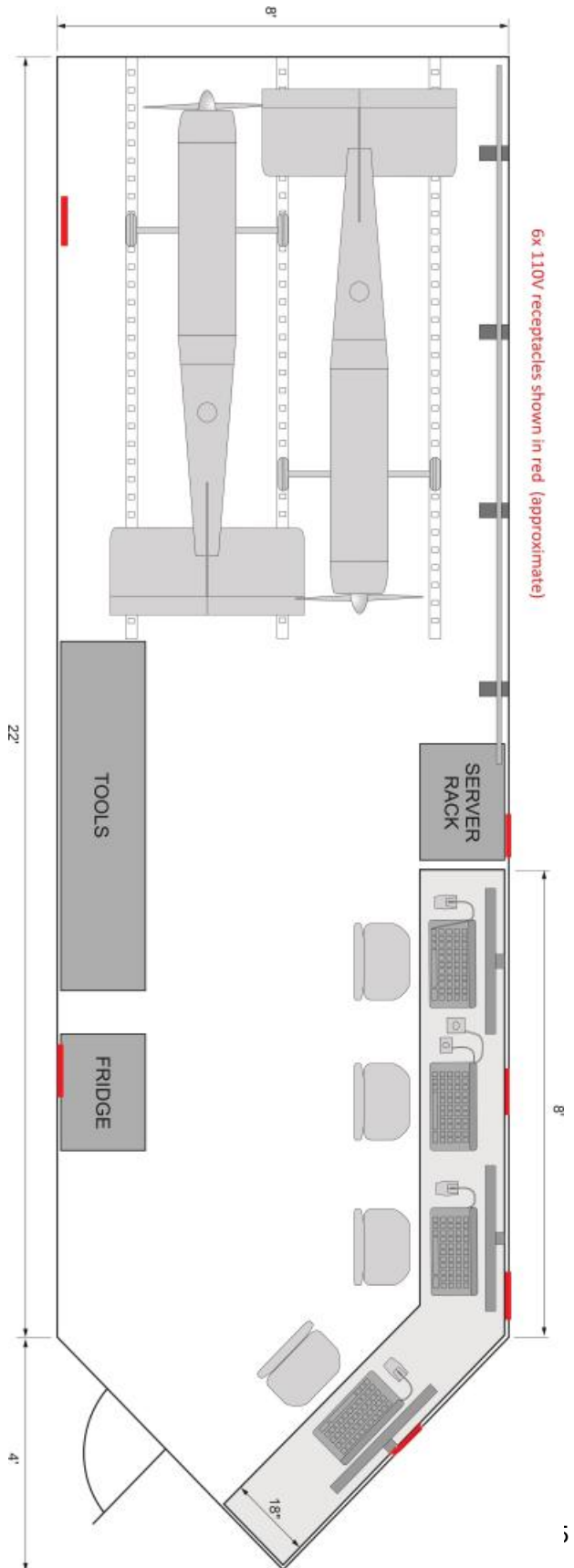
- a) **Operator's Manuals** - The contractor **must** provide a bilingual operator's manual in both paper and digital format. Digital copies **must** be provided on a CD or DVD.
- b) **Parts Manuals** - The contractor **must** provide the Parts Manuals in a bilingual format or as 2 manuals in a single binder (one English, and one French), in both paper and digital format. Digital copies **shall** be provided on a CD or DVD.

- c) **Maintenance (Shop Repair) Manuals** - The contractor **must** provide the Maintenance (Shop Repair) Manual in a bilingual format or as 2 manuals in a single binder (one English, and one French), in both paper and digital format. Digital copies **must** be provided on a CD or DVD.
- d) **Material Safety Data Sheets** - The contractor **must** provide material safety data sheets for all hazardous materials in the list provided to the Technical Authority.

#### 4.2 **Training** – Familiarization

- 4.2.1 The contractor **must** provide a familiarization course.
- 4.2.2 The familiarization course **must** include operation and maintenance segments demonstrating, as a minimum, all safety measures required for safe trailer use and maintenance, differences between new and existing trailers and responses to questions.
- 4.2.3 The familiarization course **must** include training, for operators and for technicians.
- 4.2.4 The operator's familiarization **shall** include safety precautions to be observed while operating and servicing the trailer, trailer operating characteristics, pre-operating and pre-shutdown procedures and daily/weekly operator servicing procedures. The course **must** include a minimum of two (2) hours operating experience per operator.
- 4.2.5 The operator's familiarization **must** include sub-systems, including automatic greasing systems and pre-heaters.
- 4.2.6 The maintainer's familiarization **must** include operation of any special tools and test equipment (if any).
- 4.2.7 The familiarization course **must** accommodate up to 8 personnel.
- 4.2.8 The familiarization course **must** be provided at the delivery destination.
- 4.2.9 The familiarization course **must** be in the official language requested.
- 4.2.10 An outline of the familiarization course **must** be provided, for approval, to the Technical Authority, prior to the conduct of training.
- 4.2.11 The date for the familiarization course **must** be arranged with the Technical Authority.
- 4.2.12 After completion of familiarization course, the contractor **must** have the "**PROOF OF FAMILIARIZATION**" certificate signed by the senior course attendee. The Technical Authority will supply this document in a digital format.

- 8'
- 18"
- 6x 110V receptacles shown in red (approximate)
- SERVER RACK
- TOOLS
- FRIDGE



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Appendix 2 of Annex B

June 22 2017

SERVER RACK

