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## Tender Details

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Print

**Basic Details**

<b>Organisation Chain</b>	Ministry of External Affairs  MEA-E and SA Divison		
<b>Tender Reference Number</b>	Lil/P/103/6/18		
<b>Tender ID</b>	2019_MEA_421877_1		
<b>Tender Type</b>	Open Tender	<b>Form of contract</b>	Supply
<b>Tender Category</b>	Goods	<b>No. of Covers</b>	1
<b>General Technical Evaluation Allowed</b>	No	<b>ItemWise Technical Evaluation Allowed</b>	No
<b>Payment Mode</b>	Offline	<b>Is Multi Currency Allowed For BOQ</b>	No
<b>Is Multi Currency Allowed For Fee</b>	No		

**Payment Instruments**

Offline	S.No	Instrument Type
	1	Bank Guarantee
	2	Demand Draft

**Cover Details, No. Of Covers - 1**

Cover No	Cover	Document Type	Description
1	Fee/PreQual /Technical /Finance	.pdf	Supply of 10 Unit of Ambulance to High Commission of India, Lilongwe

**Tender Fee Details, [Total Fee in ₹ \* - 0.00]**

<b>Tender Fee in ₹</b>	0.00		
<b>Fee Payable To</b>	Nil	<b>Fee Payable At</b>	Nil
<b>Tender Fee Exemption Allowed</b>	No		

**EMD Fee Details**

<b>EMD Amount in ₹</b>	12,00,500	<b>EMD Exemption Allowed</b>	No
<b>EMD Fee Type</b>	percentage	<b>EMD Percentage</b>	4.9%
<b>EMD Payable To</b>	High Commission of India, Lilongwe	<b>EMD Payable At</b>	Lilongwe

**Work /Item(s)**

<b>Title</b>	Supply of 10 Unit of Ambulanc				
<b>Work Description</b>	Supply of 10 Units of Ambulance to the Ministry of Health, GoM through High Commission of India, Lilongwe				
<b>Pre Qualification Details</b>	As per tender document				
<b>Independent External Monitor</b>	NA				
<b>Tender Value in ₹</b>	2,45,00,000	<b>Product Category</b>	Vehicles/Vehicle Spares	<b>Sub category</b>	Ambulance
<b>Contract Type</b>	Tender	<b>Bid Validity(Days)</b>	180	<b>Period Of Work(Days)</b>	90

<b>Location</b>	High Commission of India, Lilongwe	<b>Pincode</b>	300000	<b>Pre Bid Meeting Place</b>	NA
<b>Pre Bid Meeting Address</b>	NA	<b>Pre Bid Meeting Date</b>	NA	<b>Bid Opening Place</b>	High Commission of India, Lilongwe

**Critical Dates**

<b>Publish Date</b>	18-Mar-2019 05:00 PM	<b>Bid Opening Date</b>	09-Apr-2019 03:00 PM
<b>Document Download / Sale Start Date</b>	18-Mar-2019 06:00 PM	<b>Document Download / Sale End Date</b>	08-Apr-2019 12:00 PM
<b>Clarification Start Date</b>	18-Mar-2019 06:00 PM	<b>Clarification End Date</b>	20-Mar-2019 09:00 AM
<b>Bid Submission Start Date</b>	20-Mar-2019 10:00 AM	<b>Bid Submission End Date</b>	08-Apr-2019 12:00 PM

**Tender Documents**

NIT Document	S.No	Document Name	Description	Document Size (in KB)
	1	Tendernotice 1.pdf	Supply of 10 units of Ambulances to the High Commission of India, Lilongwe	2526.66

  

Work Item Documents	S.No	Document Type	Document Name	Description	Document Size (in KB)
	1	Tender Documents	10 ambulance bid CPP Portal Tender revised on 18.03.2019.pdf	Supply of 10 Unit of Ambulance	2526.66

**Tender Inviting Authority**

<b>Name</b>	Anil Suri, Head of Chancery
<b>Address</b>	High Commission of India, Lilongwe, 9/55 Lilongwe-03, Malawi

**Tender Creator Details**

<b>Created By</b>	Anil Suri
<b>Designation</b>	Head of Chancery
<b>Created Date</b>	18-Mar-2019 02:37 PM

**HIGH COMMISSION OF INDIA  
LILONGWE (MALAWI)**

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**REQUEST FOR PROPOSAL**

**FOR**

**SUPPLY OF 10 UNITS OF AMBULANCES**

**TO MINISTRY OF HEALTH AND POPULATION, LILONGWE MALAWI**

**Request for Proposal**

1. Bids are invited single stage 2 bid system (technical bid + financial bid) from eligible bidders for supply of 10 units of ambulances (as per technical specifications outlined below) to the High Commission of India in Lilongwe, Malawi (henceforth refer to as 'Buyer'), for the purpose of further gifting the ambulances to Ministry of Health, Government of Malawi.

2. Technical Specifications of Ambulances: Attached.

**3. Terms & Conditions for the Bidding Process**

**3.1 Address for submitting Bids or seeking clarifications regarding this RFP:**

High Commission of India  
Area 9, Plot 55  
Lilongwe  
Email: hoc.malawi@mea.gov.in

**3.2 Manner of depositing the Bids:**

(3.2.1) Sealed Bids should be either handed over physically at Reception of High Commission of India, Lilongwe at the above address, or sent by registered post at the above address. Bids by FAX or e-mail will not be considered.

(3.2.2) Bids should be prepared on the original memo/ letter pad of the Bidder, furnishing, inter alia, details like VAT number, copy of Government license letter, Bank account number (US Dollar Account, if applicable) and bank address etc. and complete postal & e-mail address of the Bidder.

(3.2.3) Technical and Financial Bids should be prepared separately and submitted in two separate sealed envelopes, both of which should be further enclosed in a larger sealed envelop superscribed with the words "Bid for Supply of 10 Units of Ambulance".

(3.2.4) The following documents shall form part of the bid:

- RFP (this document).
- Any Addenda to the RFP issued by Buyer.
- Technical Bid.

- Financial Bid.
- Certificate of dealership attested by dealer with stamp.

**3.3 Last Date for Submission of Bids:** The bid should reach the Buyer by (21 days from the date of issue of RFP). Late bids will not be considered. No responsibility will be taken for postal delay or non delivery/non-receipt of Bid documents.

**3.4 Earnest Money Deposit (EMD):** An EMD of **USD 17,000/-** shall be submitted by the bidder, along with the bid in the form of a Bank Draft/Bank Guarantee in favor of High Commission of India, Lilongwe from a scheduled bank registered in Lilongwe.

**3.5 Clarification regarding contents of the RFP:** A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarifications sought not later than 14 (fourteen) days prior to the date of opening of the Bids. Copies of the query and clarification by the purchaser will be sent to all prospective bidders, who have received the bidding documents.

**3.6 Modification and Withdrawal of Bids:** A bidder may modify or withdraw his bid after submission provided that the written notice of modification or withdrawal is received by the Buyer prior to deadline prescribed for submission of bids. A scan copy of withdrawal notice may be sent by e-mail but it should be followed by an original signed confirmation copy of withdrawal notice to be sent by post and such signed confirmation should reach the Buyer not later than the deadline for submission of bids. No bid shall be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and expiration of the period of bid validity specified.

**3.7 Clarifications regarding contents of Bids:** During evaluation and comparison of bids, the Buyer may, at its discretion, ask the bidder for clarification of his bid. The request for clarification will be given in writing and no change in prices or substance of the bid will be sought, offered or permitted. No post-bid clarification on the initiative of the bidder will be entertained.

**3.8 Rejection of Bids:** Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke rejection of bid. Conditional bids will be rejected.

**3.9 Validity of Bids:** 180 days from the last date of submission of Bids.

**3.10 No. of Bids per make/model:** Each bidder shall submit only one bid for a particular make/model of Ambulance. A bidder who submits more than one bid for the same make/model shall be disqualified.

**3.11 Cost of bidding:** The bidder shall bear all the costs associated with the preparation and submission of bid and the buyer shall not be responsible or liable for these costs.

**3.12 Amendment of bidding document:** The High Commission of India, Lilongwe may amend the bid document by issuing Addenda, before the deadline for submission of bids

**3.13 Language:** All documents relating to the bid shall be in English language.

**3.14 Eligibility of Bidder:** Only authorized suppliers/dealers of India- manufactured vehicles are eligible to participate in this tender. Further, the bidding companies should have minimum 3 years experiences of supply/dealership of such vehicles. Bidders must have completed at least one similar orders of a value not less than USD 280,000 OR two similar orders of a value not less than USD 175,000 OR three similar orders of not less than USD 140,000. Further, the Bidders must have Average Annual Financial turnover during the last 3 years, ending 31<sup>st</sup> March of the previous financial year, of at least of USD 105,000.

**3.15 Price details to be specified in Bid:** The price shall be quoted CIF, up to Lilongwe excluding any Customs and other Government duties or taxes (from India to Lilongwe). All rates shall be quoted in US Dollars. Clearing and forwarding charges of all ambulance, if any, should be included in the bid itself.

SI. No.	Description of Item	Quantity	Rate per unit (In USD both in figures and in words)	Total price (In USD both in figures and in words)
1.	Ambulance with minimum specifications as given above	10 Nos.		
2.	Clearing, Port Charges (as per actuals)			
3.	Clearing, Port Charges (as per actuals)			
	<b>Total</b>			

**Note:** Only basic price (excluding taxes and duties) should be quoted against serial number 1 and 2, Clearing, Port charges and port handling charges should be mentioned at Sr. no. 3 & 4. shall be included in the bid itself.

**3.16 Evaluation of all bids and announcement of successful bidder:**

The bid will be opened on 9 April 2019 at 1500 hrs. at the High Commission of India, Lilongwe. The Bidders may depute their representatives, duly authorized in writing, to the opening of Bids on the due date and time. Rates and important commercial/technical clauses quoted by all Bidders will be read out in the presence of the representatives of all the Bidders. This event will not be postponed due to non-presence of representatives of any bidder. The name of successful bidder will be announced at the same time. If there is any doubt about the bid process, the concerned bidder should give his/her representation in writing on the same day. No such representation will be considered later.

**3.17 Evaluation Criteria-** The broad guidelines for evaluation of Bids will be as follows:

(3.17.1) All the technical Bids will be opened first. Bids that are not compliant with all the eligibility and qualifying requirements of the RFP will be discarded.

(3.17.2) The financial bids of those bidders who pass the Technical Bid evaluation will be opened next. The successful bidder will be decided on the basis of the lowest price quoted, as per the Price Format specified earlier.

#### **4. Terms & Conditions after selection of successful bidder (henceforth ‘Supplier’)**

**4.1 Delivery Period:** Within 90 days from and date of award of work.

**4.2 Delivery delayed charges:** In case of delay in delivery of ambulance by the stipulated date, the supplier shall be liable to pay delayed charges @ 1.0% of the value of supply order for each day of delay, subject to maximum penalty of 10% of the contract amount.

**4.3 Signing of Agreement:** An Agreement will be signed between the Buyer and Supplier, as per format specified in Appendix- A.

**4.4 Exemption from Government Levies:** As the Ambulance are being procured for gifting from Government of India to Government of Malawi, they shall not attract any duties or taxes levied by Government of Malawi. High Commission of India, Lilongwe, shall issue necessary letter to the concerned tax authorities Malawi regarding exemption from taxes and duties. The supplier shall submit original invoice and details of chassis number and engine number of all ambulance well in advance to obtain necessary tax exemption from the relevant authorities of Government of Malawi.

**4.5 Manufacturer’s Warranty:** The Supplier shall provide warranty of Ambulances against manufacturing defects and free services throughout Malawi for period of two years or 100,000 km whichever is later. The supplier shall have authorized service provider in Malawi.

**4.6 Technical documentation to be provided along with the Ambulance:** Standard documents accompanying the Vehicle i.e Detailed User Manual, Warranty Certificate, etc.

**4.7 Pre- delivery Inspection:** The Supplier shall conduct pre-delivery inspection of Ambulance and remove all mechanical, electrical, and physical defects, if any, before delivery of all Ambulances to the Buyer. The Supplier shall submit the Pre-Inspection Report of the company along with the original documents before claiming the payment.

**4.8 Inspection by the Buyer:** The High Commission of India, Lilongwe, shall also undertake physical inspection of all Ambulances at Lilongwe (after arrival of Ambulances at Lilongwe), through its representatives before taking their delivery. This shall, however, not be treated as discharge of the responsibility of Supplier for pre-delivery inspection of Ambulances.

**4.9 Payment:** Payment of basic cost of Ambulances shall be made by US\$ bank transfer in favor of the Supplier, after satisfactory delivery of Ambulances to the Buyer.

**4.10 Affixing of sticker/Logos:** The Supplier shall rivet the following text and logo the all ambulance supplied:

Description	Size
1. Round shaped Logo with slanting flags of Malawi and India in cross with the text “Bharat-Malawi Sahyog” and “India-Malawi Cooperation” as per specifications given by High Commission of India  On front and rear side	<b>15” diameter 21” diameter</b>

On both sides	
<b>Text ‘ Gifted by Government of India’</b> on both sides	<b>11’ x 8” inches</b>

**4.11) Performance Bank Guarantee:** The successful bidder will submit, within 30 days from receipt of supply order, a PBG equivalent to 10% of the order value. This Bank Guarantee should remain valid till the Warranty period of the vehicles is over.

**AGREEMENT FOR SUPPLY OF 10 AMBULANCES TO HIGH COMMISSION OF INDIA,  
LILONGWE (MALAWI)**

1. **THIS AGREEMENT** is made on the day.....2019 between **High Commission Of India, Lilongwe, M a l a w i** (hereinafter referred to as "**the Buyer**") of the one part and..... hereinafter called "**the Supplier**" ) of the other part.
2. WHEREAS the Buyer is desirous of procurement of 10 units of Ambulances vehicles for gifting to Ministry of Health and Population, Government of Malawi in accordance with all the requirements as set out in the contract.
3. AND WHEREAS the Supplier has submitted bid and the Buyer has accepted the bid submitted by Supplier for the total amount of **US\$ (approx INR only)** towards basic price of (10 Ambulances) of [details of the exact make and model specified in the winning bid]. No extra amount will be paid for cost of logos/stickers etc. to be affixed on the Ambulances.
4. The Whole supply comprised in this Agreement shall be completed within 90 days from placing of order. In case of delay in delivery of 10 Ambulances, by the stipulated date, the supplier shall be liable to pay delayed charges @ 0.1% of the value of supply order for each day of delay.
5. The Supplier shall provide warranty of Ambulance against manufacturing defects and free services throughout Malawi for a period of two years or 1,00,000 km whichever is later. The Supplier shall have authorized service provider in Malawi.
6. The successful bidder shall conduct pre-delivery inspection of Ambulances vehicles and remove all mechanical, electrical, and physical defects, if any, before delivery of all Ambulance vehicles to the Embassy of India. The bidder shall submit the Pre-Inspection Report of the company, along with original documents, before claiming the payment.
7. The High Commission of India, Lilongwe, shall also undertake physical inspection of all Ambulances through its representatives before taking their delivery. This shall, however, not be treated as discharge of the responsibility of suppliers for pre-delivery inspection of Ambulances .
8. Payment of cost of 10 Ambulances shall be made through Bank transfer in favour of the manufacturer, payable in India / Lilongwe by High Commission of India, Lilongwe Malawi after satisfactory delivery of 10 Ambulances vehicles to the High Commission of India.
9. In this agreement words and expressions shall have the same meaning as are respectively assigned to them in RFP No. \_\_\_\_\_ dated \_\_\_\_ issued by the Buyer.
10. The following documents shall be annexed to this Agreement, and shall form part thereof;

- a. RFP No.\_\_\_\_ dated \_\_\_\_\_ issued by Buyer
- b. Bid dated \_\_\_\_\_ submitted by Supplier

The aforesaid documents shall be taken as complementary and mutually explanatory of one another, but in the case of ambiguities or discrepancies the terms and conditions specified in the RFP shall be final.

- 11. In consideration of the payment to be made by the buyer to the supplier as hereinafter mentioned, the supplier hereby covenants with the buyer to deliver, complete and maintain all 10 Ambulance in conformity in all respects with the provisions of the Agreement .
- 12. The Buyer hereby covenants to pay the Supplier in consideration of the supply, delivery and maintenance, the price at the time and in the manner prescribed by the Agreement .
- 13. Disputes of any kind arising out of supply, acceptance, warranty, maintenance etc. shall be referred by either Buyer or Bidder/Supplier, after issuance of 30 (Thirty) days notice in writing to the other party, to a single arbitrator acceptable to both the parties. The applicable arbitration law/norms of Malawi/India shall apply to the arbitration proceedings .

**IN WITNESS WHEREOF** the parties hereto have caused their respective Common Seals to be hereunto affixed (or have hereunto set their respective hands and seals) the day month and year first above written .

Signed on \_\_\_\_\_ (date) \_\_\_\_\_ at Lilongwe by :

For and on behalf of  
High Commission of India, Lilongwe  
(Buyer)

For and on behalf of  
(Supplier)

Witnesses:

1.

2.

## Technical Specifications Advanced Life Support Ambulance As Requested by the Indian High Commission to Malawi

### **1. The Fully Equipped Advanced Life Support Ambulance - Body Type Van**

The base vehicle should be as per Manufacturer's integral van with two divided rear doors with 270 degrees opening and external side wall latching of the doors in the open conditions. Also must have a side sliding door.

Below are vehicle and engine specifications.

Item No.	Technical Specification items	Specification required including applicable standards
A	<i>b</i>	
	<b>Engine and Drive Train</b>	
	Engine code	2kd-ftv
	Bore x Stroke (mm)	92.0x93.8
	Compression Ratio	18:5:1
	Displacement (cm <sup>3</sup> )	2494 to 4000
	Valve Mechanism	16.DOHC
	Emission Control	Euro 2
	Engine Capacity (Litre)	2.5
	Engine Coolant	LLC 30%
	Engine Oil Level warning	Standard
	Fuel Filter	Standard
	Fuel System	Diesel common Rail
	Maximum Power (kw@r/min)	75@3600
	Maximum Torque (Nm @ r/min)	260@ 1600-2400
	Stabilizer	Front only
	Starting system	Rotary (mechanical)
	Suspension front	Double wishbone
	Suspension (rear)	Leaf spring
	Transmission	Manual E-speed
	1 <sup>st</sup> gear ratio	4.313
	2 <sup>nd</sup> gear ratio	2.330
	3 <sup>rd</sup> gear ratio	1.436
	4 <sup>th</sup> gear ratio	1.000
	5 <sup>th</sup> gear ratio	0.838
	Reverse gear ratio	4.220
	Timing belt warning	Standard
	Tool set	Basic
B	<b>Comfort and Convenience</b>	
	Assist Grip	Standard
	Clock	Standard Digital
	Centre Console Box	Standard
	Cup holders	Standard 2
	Door Inside handles	

Item No.	Technical Specification items	Specification required including applicable standards
	Door trim	Moulded
	Front Headrest	Adjustable
	Glove Box	Not lockable
	Rear view Mirror	Day & Night
	Key reminder warning	Standard Buzzer
	Meter illumination control	Standard
	Room lamp	Standard
	Steering wheel	4 spoke/urethane
	Pedometer	Analog
	<b>Convenience</b>	
	Foot rest	Standard
	Light remind warning	Standard buzzer
	Heater/ Air conditioner	Manual
	Speakers	Standard 2
	Electric window	Front/ One touch Driver only
	Front seat reclining	Manual
	Illuminated Entry	Standard
	Power steering	Hydraulic
	Steering Column adjustment	Manual/tilt
	Sun Visor	Standard

Item No.	Technical Specification of items required including applicable standards	
A	B	
	<i>Exterior Features</i>	
	Antenna	Standard
	Daytime Running light	Standard
	Door outside handles	
	Deck Hook	Standard
	Tow Hook	Standard
	Front Bumper	
	Rear Bumper	
	Front grille	
	Windshield Glass	Laminated, green Tempered
	Front side glass	UV, green, reinforced
	Rear side glass	Steel panel
	Rear quarter glass	Steel panel
	Back glass	UV, Green

Item No.	Technical Specification of items required including applicable standards	
	Front windor wiper	Intermittent
	Headlights	Halogen/ LED
	High-mounted Brakelights	Standard LED
	Side Mirrors	
	<b>Styling</b>	
	Side step	
	Mud guards	
	<b>Wheels and Tyres</b>	
	Wheel and tyre	F:195-R15steel/R:195-R15steel
	Spare tyre	Full 195-R15steel
	<b>Dimensions</b>	
	Performance	
	Top speed	120 minimum
	<b>Dimensions and Capacities</b>	
	Length (mm)	4800 minimum
	Width (mm)	1880
	Height (mm)	Minimum of 1700
	Interior width (mm)	Minimum of 1800
	Wheelbase (mm)	Minimum 3110
	Turning circle (tyres)	6.2
	Front tread (mm)	1655
	Rear tread (mm)	1650
	Approach angle(*)	17.5
	Departure Angle (*)	19.5
	Fuel tank size (litres)	70
	Gross combination mas (GCM)	4200
	Gross Vehicle Mass (GVM)	3000 minimum
	Towing Capacity-unbraked (kg)	400
	Towing capacity Braked (kg)	1000

Item No.	Technical Specification of items required including applicable standards	
A	B	
	<b>Safety and Security</b>	
	Front Airbag (s)	Standard
	Anti-Theft system	Silent/Immobiliser
	Power Door lock	Standard

Item No.	Technical Specification of items required including applicable standards	
	Front seat belt	ELP pretension
	Seat belt warning	
	<b>Driver Support Systems</b>	
	Ant-lock braking system	Standard
	<b>Service plan and warranty</b>	
	Service plan	Every 5000 Km for 5 years
	Service intervals	5000km

### **1. POST CONVERSION ADVANCED LIFE SUPPORT (ALS) AMBULANCE SPECIFICATION**

The ALS ambulance shall be complete with the operating accessories, as specified below. The layout in the vehicle and the specified equipment should permit accessibility for servicing, replacement, and adjustment of component parts and accessories with minimum disturbance to other components and systems.

#### **Painting, Markings and Others**

1. The vehicle and the patient compartment painted white according to acceptable industry standards.
2. Green star of life placed on both sides of the vehicle.
3. A high quality wrap around Bull bar fitted directly to the chassis of the vehicle.
4. A high quality wrap around unit fitted at the rear directly to the chassis of the vehicle incorporate a step to ensure that it is comfortable for a patient to step into the vehicle

#### **Interior**

1. GPS should be installed in all the ambulances
2. Inverter of DC to AC 220V50Hz with double socket outlet of three pin British standard
3. Anti-Static Insulation

#### **Body**

1. Flashing red LED lights
2. Multi flashing red LED light
3. Electric siren with amplifier, microphone and speaker
4. Coax Antenna (1) 3DB antenna RG58 from ceiling to behind driver's seat

### **Patient Compartment**

1. The compartment should be rust proof
2. The compartment insulated against heat loss. The insulation concealed within the panels
3. The interior lining of the compartment should be neat, smooth and easy to clean.
4. The interior of the compartment should be sealed to prevent dust, water penetration and Antistatic. Section
5. Patient compartment should be separate from driver compartment and interior for communication between the driver's cab and the patient compartment provided.
6. The communication provided should be adequate even when the vehicle is travelling at high speed.
7. Patient compartment should be fitted with a separate air conditioner unit

### **Patient Compartment Floor**

1. The compartment floor should be rubber type finish (rubberizing Ant slip) finished in grey to up 10cm height.
2. The floor should not absorb or be stained with body fluids.
3. The floor should be easy to clean.
4. Corners where panels and floor meet should be sealed adequately to ensure no fluid leakage under the floor.
5. Floor ending at doorways should be finished off with aluminium angle strips.

### **Interior Patient Compartment Fittings**

1. The patient compartment should be provided with storing consoles.
2. All the internal storage consoles/compartments, surfaces and space provisions should be made to accommodate / fix the various life saving medical devices, trauma equipment for transportation and immobilization, medical glassware, medical disposables and consumables, fresh and dirty linens, infusion bottles, drugs, accessories, wastes, documents, records, files etc. as per requirement in the ambulances.
3. All storage compartments should be aesthetically and ergonomically well designed. To preclude injury in the event of an accident and all cabinet should be firmly anchored / fixed to the base structure of the ambulance.
4. Storage cabinets, drawers and kits should be easily open-able but should never ever open during transit on account of the vehicle movement.
5. All the internal furniture should be produced with double side laminated plywood in 19mm. thickness.
6. Storage compartments should be divided into various sections according to the different varieties of the medical items to be stored in it. All the sliding as well as openable doors should be provided with self-locking locks.

7. The locks should have integrated flushed handles for firm grip to open the sliders and the doors as the case may be. All the drawers should be keyless type self locking drawers.
8. All the vertical flap doors with opening towards the topside should be latched using adequate capacity pneumatic lifters of appropriate capacity. The pneumatic lifters should have integrated friction mechanism to keep the lid / door at the point of opening and not to push it to the highest position once left.

### **Brackets, Rails and Pouches**

1. A bracket to hold two intravenous fluids bags /bottles provided and fitted at ceiling height at the head of the stretcher on both sides of the compartment.
2. A durable pouch of +- 300mm x 300mm fitted to both rear internal side panels to accommodate oxygen mask and tubing
3. Non slip hand grips provided at doorways to assist entrance and exit of compartment.

### **Patient Compartment Seating**

The patient compartment seating should accommodate:

1. Doctor/ Paramedic Seat at the head of the patient
2. Other Crew/ Attendant seats
  - a. Bench seat: top opening with storage space; seat belts; upholstered mattress & padded back rest.
  - b. All edges should be rounded and /or padded to avoid injury.

### **Medical Equipment**

1. One self-loader stretcher Fitted.
2. The stretcher should be fitted with the head section facing to the front of the compartment.
3. Stretcher fitted should be done by means of floor solidly mounted cot fasteners. Brackets and springs utilized.
4. The stretcher position should allow for adequate space for crew member at head of stretcher and at the rear.
5. Advance life support Bag
6. Adult Bag Valve Mask Resuscitator (Ambu bag adult)
7. Child Bag Valve Mask Resuscitator (Ambu bag Child)
8. Neonate Bag Valve Mask Resuscitator (Ambu bag Neonatal)
9. Laryngoscope set
10. Electrical portable Suction Unit (Power rating should be 12 VDC)
11. Fixed suction machine, two bottle, with regulator, tubing to provide wall mounted suction ports on both sides of the vehicle.
12. Handheld suction unit (This should be hand operated (manual) suction machine)
13. Nebulizer, diaphragm type, with adult and child masks
14. 10 L Oxygen Cylinders (Fixed), bull nose type regulator
15. Portable oxygen concentrator, battery operated, 12 VDC, in a carry bag.
16. Portable Oxygen Cylinders, bull nose type regulator
17. Portable pin index regulator (This should be bull nose because it is commonly used in Malawi)
18. Head block universal Immobilization system
19. Spider harness

20. Scoop stretcher
21. Long spine board
22. 2 sets of cervical collars
23. 5 Parameter vital signs monitor
24. Automatic External Defibrillator, The AED should have pediatric capabilities, including child sized pads and cables OR dose attenuator with adult pads
25. Wall mounted Sphygmomanometer set including 5 cuffs (adult, child per set), digital
26. Portable drug box, lockable
27. A 2.5 Kg DCP fire extinguishers fitted in the patient to step into the vehicle

### **Oxygen System**

1. Provisioning made to secure one large oxygen cylinders. Within easy reach from outside the vehicle. Brackets mounted to hold the cylinders in place.
2. Provisioning made to secure one small oxygen cylinder. Within easy reach from outside the vehicle. Brackets mounted to hold the cylinders in place.
3. Bull nose) type oxygen regulators should be provided and connected to the 10 L oxygen cylinders
4. The wall should be mounted with flow meters complete with oxygen ports and oxygen flow metres with flow rate parameters ranging from 1 to 10 litres with surface mounted tubing.
5. Oxygen should be supplied at both sides of the vehicle
6. Disposable humidifiers provided with flowmeter and face masks (Child and adult)
7. Equipped with portable fire extinguisher
8. All instruments, gauges and switches clearly marked as to their use.
9. A water tank is fitted with a basin along the front bulkhead with a pump fitted to circulate the water.

### **Electrical System**

1. An auxiliary battery should be fitted to service the additional electrical equipment and lighting
2. The battery charged via electrical management system and separate from the main vehicle battery.
3. The battery should be fitted in the engine compartment.
4. The battery may have the possible alternatives for placement of this battery in a battery box on a pull out tray fitted to the driver compartment section.
5. The battery should be fitted suitable to manage all addition electrical requirements.
6. The alternator should be fitted to the vehicle upgraded to a minimum of 100 amp hours to manage the additional electrical requirement
7. If the original alternator should be fitted.
8. A distribution board should be provided and fitted in a suitable place within the patient compartment
9. A distribution board should have a circuit breaker and the necessary on/off switches per electrical component
10. All electrical wiring should have a minimum of 2.5 mm diameter.
11. All wiring should be covered with acceptable PVC/plastic covering
12. All electrical circuits for accessories should be routed through suitable fuses.

13. Power supply for two –way radio should be provided.
14. 2 x 12 volts outlet sockets inside patient compartment and an additional 2 x circuit breakers.
15. Provision of surge arrester

### **Lighting**

1. Three alternate LED strip lights fitted to the interior of the patient compartment.
2. The lights fitted should be in such a manner as to provide the most effective lighting within the compartment.
3. These lights should have separate on/off switches to enable individual usage
4. A main light switch should be provided at the rear internal compartment section.
5. The light switches provided should have a high quality and sufficient current rating.
6. A 130-Watt magnetic base spotlight should be mounted in the kerb side corner of the compartment. This light should not be removable.
7. The spotlight fitted should be in such manner as to enable lighting at the rear or sides of the vehicle. (With extended cable)
8. A stalk type map light fitted in the drivers cab or a LED strip on the visor in the passenger side.
9. Additional indicator lights fitted to the side and rear panels at an effective height to ensure clear visibility of indicator lights when tail units are not visible.
10. LEAD flashing light clusters fitted on either sides of the vehicle. (Eight in total)
11. 2 LED flashing light clusters fitted on the rear.
12. 4 LED flashing light clusters fitted on bonnet.
13. A red light bar 1.2m fitted on the front roof of the vehicle.
14. Light bar to have minimum of 4 LED clusters.
15. A 100 watt siren unit fitted.
16. The siren and emergency light work via an integrated unit that also has a Public Address system.
17. Two high quality 100 watt spot lights fitted to the front of the vehicle between the vehicle head lights with protective covering.
18. The spot lights should be connected to the vehicle interior light control system and are activated on high beam, with a facility to disable this function.