

Amendment No. 3

Date: 18/02/2016

Sub: Amendment to the Tender Enquiry Document

Ref: NIT No.: HLL/PCD/PMSSY-II/NAGPUR/15/15-16 dated 29.01.2016 for Digital X-Ray Machine

Section – VII Technical Specifications

Schedule No. 1

SPECIFICATION FOR X-RAY UNIT WITH DIGITAL FLAT PANEL DETECTOR

- 1. Existing Para 2.I:** Flat Panel Detector size of at least 35x40 cm or more

Read As: Flat Panel Detector size of at least **35x43cm or more**

- 2. Existing Para 2.II:** Detector Panel should be made of amorphous Silicon with CsI or Gadox

Read As: Detector Panel should be made of amorphous Silicon with CsI

- 3. Existing Para 6.II:** Anti collision control system

Read As: Deleted

- 4. Existing Para 15:** List of installation: The bidder should have installed the same model in India. The bidder to provide the satisfactory installation of the same model in India.

Read As: Deleted

- 5. Turnkey:**

The Turnkey Scope of Work

1. The equipment is to be installed at Trauma Centre, GMC, Nagpur. The total area for turnkey is to be considered as 1300 Sq.ft. with 11 TR AC Moreover Bidders will have to quote the Unit Rates of the following components of turnkey work. a) Civil works b) Electrical work c) Public health (plumbing and sanitary fittings). d) Air Conditioning (HVAC) e) Interior Furnishing & Furniture f) Miscellaneous. The payment shall be at actual.

The Supplier should inspect the proposed site offered by the Consignee Institute in which the DR system has to be installed and they are required to submit the plan for the complete DR Centre on a turnkey basis. The scope of work includes complete Civil work, Electrical, Plumbing, Furnishing, Air-conditioning and Fire fighting for the construction of DR Centre.

- 2 While preparing the plan, the following aspects have to be addressed.
- i Care should be taken to provide easy negotiation of the patient stretchers/ trolleys through corridors and doors.
 - ii Radiation shielding for doors, walls, windows etc.

- iii Furniture like desk, chairs, shelves etc.
 - iv Patient stretcher and other furniture/ accessory to make the DR centre functional.
- 3 Moreover Bidders will have to quote the Unit Rates of the following components of turnkey work.
- a) Civil works
 - b) Electrical work
 - c) Public health (plumbing and sanitary fittings).
 - d) Air Conditioning (HVAC)
 - e) Interior Furnishing & Furniture
 - f) Miscellaneous

Scope of work for turnkey DR system:

The supplier should inspect the proposed site and submit all the detailed structural and architectural drawings and BOQ for the proposed DR Centres along with technical bid of the tender.

The DR CENTRE shall consist of the following rooms:

- a) DR Room
- b) Console room
- c) Equipment room
- d) Patient preparation room
- e) Reporting room
- f) Patient waiting area
- g) Radiologist room

The actual area of turnkey works done will be considered for payment, based on the site measurements.

Civil work

- a) Civil construction work including construction of brick wall if any, plastering, flooring as per the approved plan and equipment layout plan.
 - b) Concrete bed at DR equipment area.
 - c) Platform for unloading and shifting the DR should be provided if necessary.
 - d) Cable tray, trench & channel – necessary trenches, cable tray and channels at required location would be provided.
 - e) All the construction work to be done as per the final plan approved by the Consignee.
- Flooring
- 1 600 x 600 mm vitrified tiles with 100mm tile skirting to match in console room, lobby and patient preparation areas, Radiologist room etc.
 - 2 50 mm thick cement concrete flooring with Vinyl flooring in DR equipment / UPS room.
- Painting
- 1 Two coats Plastic Emulsion Paint over 2 coats of wall putty including primer in patient preparation area, Lobby area, console room, DR room & Equipment room etc.
- False Ceiling
- 1 Acoustical tile for ceiling with light weight insulating material of high quality supported on grid or finished seamless with support above ceiling. Finished with white paint or powder coated with white paint, if metallic. Ceiling height to suit the equipment mount and clearances.

Plumbing work

- 1 All water pipes and fittings shall be of high density polythene of approved and standard make. The gratings shall be brass chrome plated. All plumbing accessories should be of standard make.

Electrical work

- 1 The supplier shall be required to specify the total load requirements for the DR centre including the load of air conditioning , room lighting and for the accessories if any. The supply line will be provided by the Institute up to one point within the DR centre . The distribution panel shall be provided by the vendor. Few lights in each room shall be connected to the UPS to provide emergency lighting.
- 2 The electrical work shall include the following:
 - a) Wiring – All interior electrical wiring- with main distribution panel board, necessary MCBs, DB, joint box, switch box etc. the wires shall be of copper of different capacity as per the load and should be renowned make as listed below.
 - b) Switches light and power points should be of modular type and of standard make as listed below.
 - c) General lights – Mirror optical type 1X28 W or 2X28 W/CFL fittings 2X36, 3X36 W with electronic ballasts

AIR CONDITIONING:

Ductable package air conditioners and split AC units may be used according to room requirement and suitability. Humidity control should be effective to eliminate moisture condensation on equipment surface. . The Air conditioning should be designed with standby provision to function 24 hours a day.

The outdoor units of AC should have grill coverings to prevent theft and damage.

Ventilation is required in toilet.

Environment specifications:

- d) Humidity range: Relative humidity 60% and 80% in all areas except equipment room which shall be as per requirement of the equipment.
- e) Temperature ranges: $22 \pm 2^\circ$ C in all areas except equipment room which shall be as per requirement of the equipment.
- f) Air conditioning load: The heat load calculations and maintaining the desired temperature and humidity shall be the responsibility of the bidder.

Furniture:

- A) Revolving chairs height adjustable, medium-back with hand-rest in the Console room 2 Nos. (Radiologist room and viewing area. – 2 Nos)
 - a) Chairs for patient waiting area – Three seater (chrome plated). - 10 NO.S
 - b) Cupboard with laminate door shutters for storage of spare parts and accessories and records as per requirement. – 3 NO.S
 - c) Drug trolleys 1 numbers for patient preparation area.
 - e) Patient trolley with rubber foam mattress to be kept in the patient preparation room.
 - f) Name boards for all rooms
 - g) Tables for Workstation and Radiologist in reporting room.- 2 NO.S
 - h) Changing rooms should have change lockers and dressing table.
 - i) Dustbins (plastic with lid) to be provided as required.
 - j) Any other furniture item as per requirement.

All furniture items should be of standard make as mentioned in the table below.

Miscellaneous:

- 1 Reporting room should have LED X-ray Film viewer with adjustable brightness; capable of holding 3 films of 14"x17" size. – 2 no.s
- 2 Cabling of Network (LAN) connectivity for camera system, console system, workstation and computers etc
- 3 Broadband connection: for REMOTE SERVICE of DR system.
- 4 Fire extinguisher Dry CO2 type as required for the building safety.

LIST OF ITEMS AND SUGGESTED MANUFACTURERS.

SL NO	ITEMS	PREFERRED MAKES
A	FLOORING VITRIFIED TILES	-Somany, Kajaria , H&R Johnson, RAK india
B	PAINT	- Dulux, Asian Paints , Nerolac
C	PLUMBING	- Kohler, Jaguar , Grohe , Roca
D	SANITARY ITEMS	- CERA, Hindware, Parryware
E	ELECTRICAL	
1	CABLES	- Finolex, Havells ,V-Guard
2	SWITCHES	- Legrand, L&T, Crabtree , Roma
3	DISTRIBUTION BOX , MCB	- Legrand, L&T, Siemens, Havels
4	LIGHT FITTINGS	- Philips / Crompton / Kesselec-Schreder / Wipro.
F	AIR CONDINTIONING	- Daikin, Hitachi, Blue Star, Voltas,
G	FURNITURE	- Hermen Miller , Godrej , Featherlite