

Pre-bid meeting was held in the office of Additional Director on 02/07/2015. Meeting was attended by representatives of the various companies, members of technical committee of radiology department and other officials. After detailed discussion with the various companies, following modifications to the tender specifications are recommended by the technical committee:

Mobile X-ray machine (Digital Radiography)

- 1) First line under the heading detector may be read as **“Flat panel detector ONE in number”**.
- 2) Paragraph under the heading Additional work station may be read as:

Additional Work station: “One additional work station for reporting, filming and archiving the X rays is to be supplied having 21” or more Monitor (2MP or more Medical grade), 4GB or better RAM, 1 TB Hard Disc and CD and DVD writer. Standard image processing like cropping, rotate, zooming, panning, windowing etc should be possible on the work station. Necessary furniture like executive chairs(4), tables(2) etc are to be supplied by the company” to make units functional.

- 3) Paragraph under the heading Dry chemistry laser imager may be read as:

Dry Chemistry Laser Imager: One Dry Chemistry, Multiport, multiple format (14”x17”, 11”x14” and 8” x 10”) camera with resolution of 500 DPI or more, DICOM ready and online. All the three trays should be active for different film sizes. The vendor should connect this camera with existing DR, CT and MRI systems in Radiodiagnosis department .

(Please quote the price of imager separately, as only one imager may be required for multiple mobile X ray units.)

- 4) Paragraph under the heading certification may be read as:
“Certification: System should have valid AERB and US FDA or European CE approved certificate of the quoted model. The bidder to provide any other certificate required for importing the equipment in case of imported models”.

Digital Flat Panel Fluoroscopy cum Radiography System

- 1) **Under Heading Table**

minimum table height should be read as “ 65 cm or less ”

- 2) First line under the heading Detector system may be read as:
“Single Digital flat panel detector, using selenium / silicon detector with TFT convertor”
- 3) First paragraph under the heading work station may be read as:
“One work station for reporting, filming and archiving the x rays is to be supplied having 21” or more Monitor (2MP or more Medical grade, 4GB or better RAM, 1 TB Hard Disc and DVD writer. Standard image processing like cropping, rotate, stitching, zooming, panning, windowing etc should be possible on the work station. Necessary furniture like executive chairs (5 in no), tables (5 in no) etc are to be supplied by the company”
- 4) First paragraph under the heading work station may be read as:
“One Dry Chemistry, Multiport, multiple films (14”x17”, 11”x14” and 8” x 10”) camera with resolution of 500 DPI or more, DICOM ready and online. All the three trays should

be active for different film sizes. The vendor should connect this camera with other existing DR, CT and MRI systems in department of Radiodiagnosis”

- 5) Under heading Essential Certificate for line quality certificate should be read as **“system should be AERB and CE (Europe) or US FDA approved.**

BIPLANE D.S.A WITH ACCESSORIES:

- 1) Under the heading A Gantry point 1, following line may be added:
“The system should have full body coverage without patient re-positioning”.
- 2) Under the heading D point 1 (i) , the line may be read as:
“1.0 mm or less with load 65KW or more”
- 3) Under the heading E Collimator point 2, following line may be added:
“The collimator should have facility for automatic copper pre-filtration for reducing the X-ray dose in flouro and cine mode.”
- 4) Under the heading F point 5, the line may be read as:
“Spatial resolution should be at least 3.0 LP/mm in frontal plane and 3.0LP/mm in the lateral plane”.
- 5) Under the heading F point 6, the line may be read as:
“ The display system in both control room and examination room should be of latest technology for display of live, reference, subtracted, 3D, cross-sectional images and hemodynamic display in each plane. **Please quote the price of single 56 inch 8MP monitor and multiple 18 inch or more monitors separately.**”
- 6) Under the heading G point 11, the line may be read as:
“ Archiving on a CD and DVD recorder should be provided. PACS storage with 20Terra Byte or more capacity on RAD server should be supplied with the unit for storage, archiving of images for future viewing. These hard discs should be connected to the work stations”
- 7) Following lines may be added under the heading G Digital Imaging System and essential softwares:
 - 1) Cardiac acquisition up to 30 frames per sec with stent enhancement facility should be available.
 - 2) System should have facility to analyse and assess lesion in ischemic stroke patient with arterial and intra-venous injection for better patient care.
 - 3) It should be possible to transfer the images to PACS in background mode.
 - 4) It should be possible to measure distance and angle.
- 8) Under the heading H point 3, the line may be read as
“Dry Chemistry Laser Imager, two in number, with resolution of **500 DPI or more.** DICOM ready and online for film size of 14” x17”. All the three trays with different film sizes should be active. Imager must be compatible with existing MRI, CT and DR systems already installed in the department”
- 9) Following line may be omitted under the heading G point 12:
“These workstations should have the facility to reconstruct the long leg view for peripheral images”

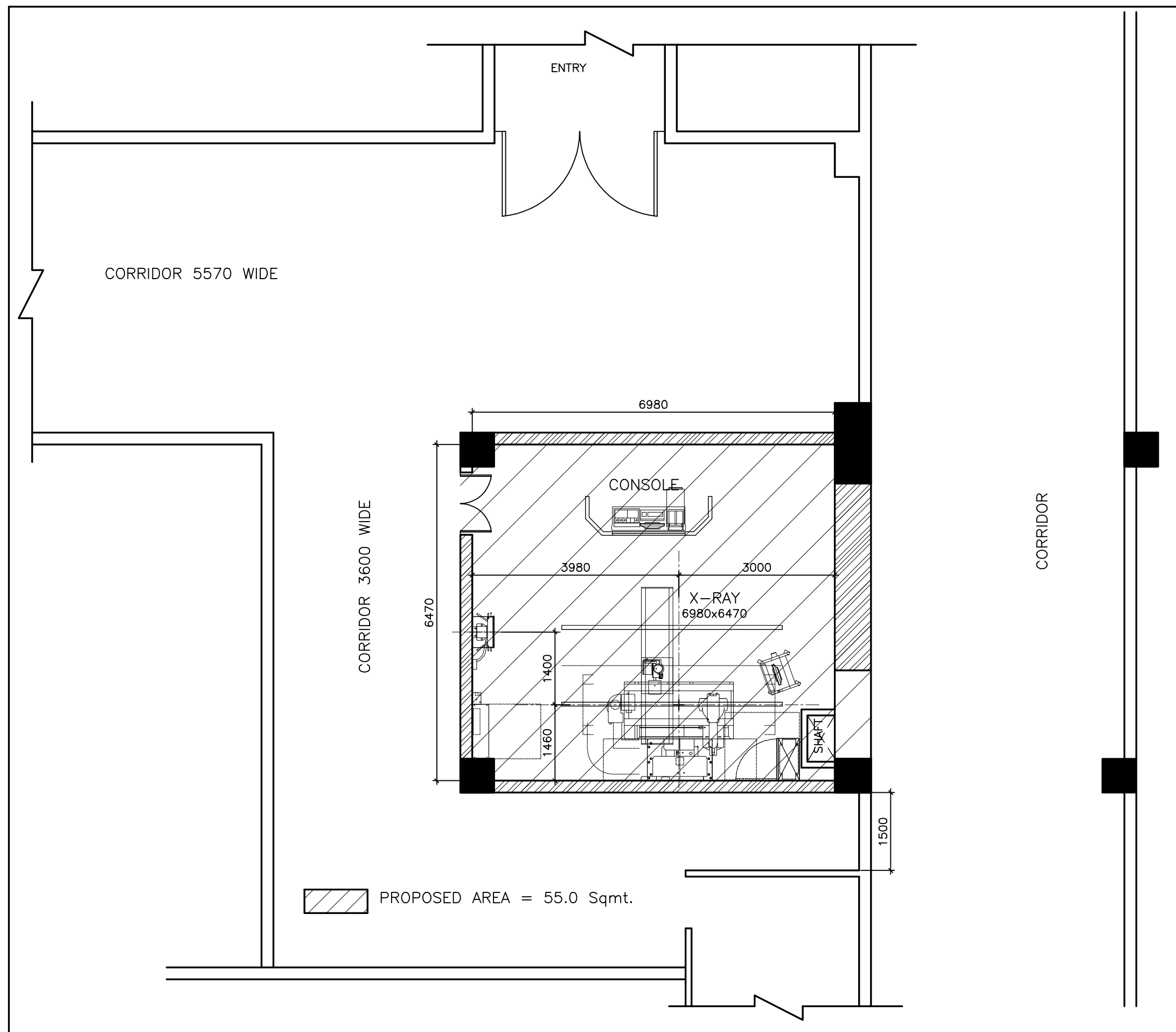
- 10) Under the heading H point 2, line may be read as:
“**Pressure injector** of reputed make along with 200 disposable syringes sets including PMO line”
- 11) Under the heading H point 15, line may be read as:
“The company has to supply necessary furniture including executive chairs (20 in no), tables (10 in no) , cupboards (5 in no), multi-channel viewing boxes with adjustable illumination (10 in no) etc for proper working and reporting in all work stations, control room and examination room. All the furniture should be manufactured by reputed company like Godrej”
- 12) Under the heading K, line may be read as:
“After sales service centre should be available at place nearest to the institution on 24(hrs) x7(days) x365(days) basis. Complaints should be attended properly preferably within 12 hours. The service should be provided directly by Tender /Indian Agent”
- 13) Under the heading L Training, line may be read as:
“ Five consultants and three radiographers of the department should be imparted at least 4 weeks hands on training, at the company’s expenses, in a reputed institution where similar machine is installed, preferably in India”
- 14) Under the heading M, Annual Comprehensive Maintenance Contract (CMC) of the equipment, line may be read as:
“The cost of comprehensive Maintenance Contract (CMC) which includes preventive maintenance including testing & calibration, labour and spares, after satisfactory completion of Warranty period may be quoted for next 5 yearly basis for complete equipment (including Batteries for UPS .other vacuumatic parts and accessories) and Air-Conditioning”

Companies may be asked to submit the cost turn-key as per attached site plan / layout plan. One bathroom is also to constructed in the DR Fluoroscopy system in addition to main room and console room.

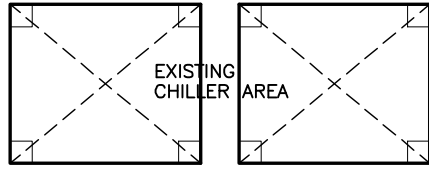
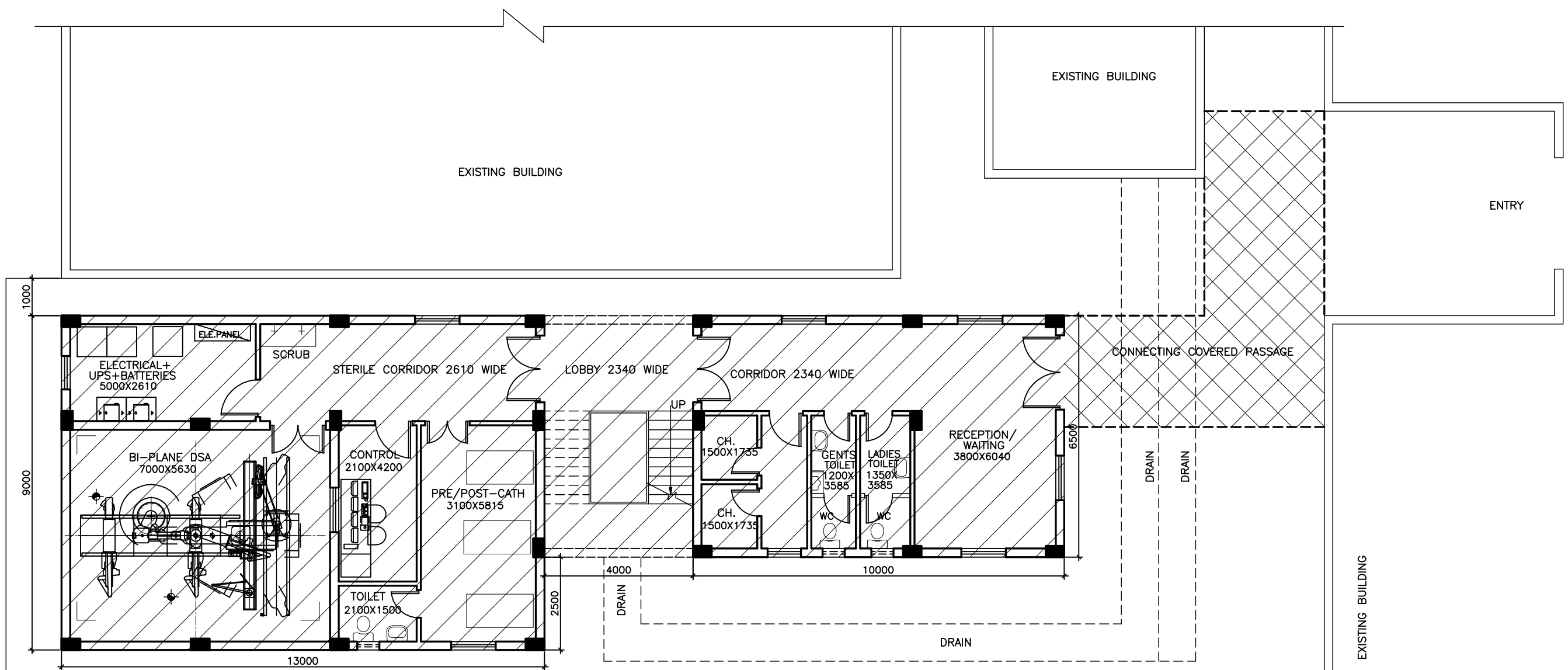
Note:- The Letter of credit will be opened with the final approval of the H.P Govt. wherein 70% payable against dispatch documents and 30% will be paid after the installation of the equipment.

The sealed tender documents as per terms and conditions of the tender should reach the Principal office Kangra at Tanda on or before 31/07/2015 upto 1 PM thereafter no tender will be entertained and the same will be opened on the same day at 2.30 PM in the presence of tenderers or their representatives. If that day happens to be holiday the tenders will be opened on next working day.

-/sd
**Additional Director (Admn.)
Dr.RPGMC, Tanda**



PROPOSED X-RAY INSTALLATION AT DR. RPGMC, HOSPITAL, KANGRA AT TANDA.

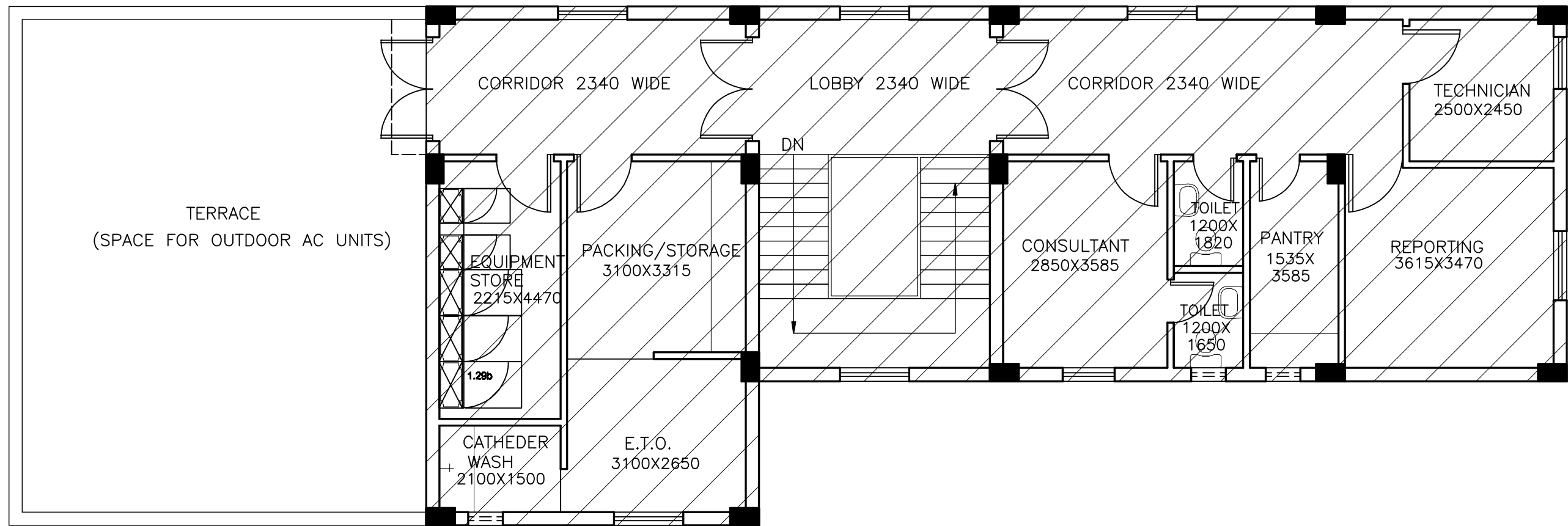


AREA DETAILS—

AREA OF GROUND FLOOR	= 208.0 Sqmt.
AREA OF FIRST FLOOR	= 143.0 Sqmt.
AREA OF CONNECTING PASSAGE	= 40.0 Sqmt.
TOTAL COVD. AREA	= 391.0 Sqmt.
	OR = 4200.0 Sqft.

GROUND FLOOR PLAN

PROPOSED BI-PLANE INSTALLATION AT DEPTT OF RADIOLOGY DR. RPGMC, HOSPITAL, KANGRA AT TANDA.



FIRST FLOOR PLAN

PROPOSED BI-PLANE INSTALLATION AT DEPTT OF RADIOLOGY DR. RPGMC, HOSPITAL, KANGRA AT TANDA.

**SITE PREPARATION FOR INSTALLATION OF BI-PLANE DIGITAL SUBTRACTION
ANGIOGRAPHY EQUIPMENT
FOR DEPARTMENT OF RADIOLOGY AT Dr. RPGMC HOSPITAL
KANGRA-TANDA**

1.0 INTRODUCTION

This offer is for turn-key site preparation for installation of Biplane DSA unit and ancillary accommodation including architectural planning, interior decoration, facility planning and construction of a new RCC framed building complete with supply, installation and commissioning of support services.

The scope of work shall include designing, construction of a new building and commissioning of building and ancillary services. The site earmarked for the purpose by the Hospital Authorities is an open plot of land in the complex.

The layout plan enclosed with the tender provides for an area of approx. 4200sq. ft. with positioning and the inter-relationship of the spaces. The layout plan enclosed with this offer describes the functional requirements, area assignment and flow of work within the Biplane Centre.

2.0 PLANNING CONCEPT

The layout has been suitably designed for equipment safety, operational efficiency and optimum patient comfort including protection from radiations. The interior of the building is esthetically planned with appropriate lighting, functional furniture and safety devices against fire.

3.0 BI-PLANE DSA CENTRE

3.1 CONSTRUCTION

Construction of an RCC framed structure as per enclosed layout would be constructed and in fill brick masonry walls of 230 mm. or 115mm. th., depending upon the requirements will be constructed. The exterior of the building will be in harmony with the existing finishes in the surrounding hospital buildings.

Since the roof of the complex is exposed to Sun, the thermal insulation under the roof will be provided.

Connecting corridor with fibre sheet covering shall be provided to connect the new Bi-Plane centre with the existing hospital building.

3.2 INTERNAL FINISHES

Following schedule of finishes are proposed:-

SCHEDULE OF FINISHES

S.no	AREA	FLOORING	SKIRTING/DADO	WALLS	CEILING
1	BI-PLANE ROOM	600X600mm POLISHED VITRIFIED TILES FLOORING	600X600mm th. VITRIFIED TILES DADO UPTO FLASE CEILING		GYP BOARD FLASE CEILING WITH OBD
2	CONTROL PRE/POST CATH STERILE CORRIDOR	SAME AS ABOVE	SAME AS ABOVE		MINERAL FIBRE PANEL FALSE CEILING
3	RECEPTION WAITING CORRIDORS TECHNICIAN REPORTING CHANGE ROOMS	600X600mm POLISHED VITRIFIED TILES FLOORING	600X600mm th. VITRIFIED TILES DADO UPTO 1500mm FROM F.F.L.	CEMENT PLASTER,POP AND PLASTIC EMULSION PAINT ON WALLS ABOVE DADO	SAME AS ABOVE
4	UPS + BATTERIES ELECTRICAL EQUIPMENT STORE CHANGE ROOMS	300X300mm CERAMIC TILE FLOORING	100mm HIGH SKIRTING TO MATCH FLOOR	CEMENT PLASTER,POP AND PLASTIC EMULSION PAINT	SAME AS ABOVE
5	TOILETS PANTRY	300X300mm CERAMIC TILE FLOORING	300X450mm GLAZED TILES DADO UPTO FLASE CEILING		SAME AS ABOVE
6	STAIRCASE	GRANITE TREAD & RISER	.		CEMENT PLASTER,POP PLASTIC EMULSION PAINT
7	CONNECTING CORRIDOR	300X300mm CHEQUERED TILES			FIBRE SHEET ROOFING

3.3 DOORS & WINDOWS :-

All external windows of the block will be natural anodized aluminum windows and would be provided with security grills.

All doors except those leading to the Bi Plane room will be natural anodized aluminum partly glazed doors. The toilet and change room doors will be aluminum doors with pre-laminated boards in the top and bottom portion of the door.

Door leading to the Bi plane room will be laminated lead lined wooden door and The frames will be hard wood painted with synthetic enamel paint.

3.4 PLUMBING WORKS

All waste pipes and accessories shall be of cast iron of ISI mark and the connection to existing manholes in the complex in near vicinity shall be done. All water pipes and fittings shall be of galvanized iron. Grating shall be brass chrome plated. Drainage lines will be chemical resistant.

The fittings shall be white approved makes (Hindustan, Nyser or equivalent). Fixtures like bib cocks and mixers shall be of brass chromium plated. Geysers of 15 litres capacity shall be installed in the Pantry , Catheder wash and scrub for running hot water. RO plant in the pantry will be provided for drinking water.

The S.S Scrub will be with be provided.

3.5 ELECTRICAL WORKS

Electrical power inlet cable with a switch and 2 Nos. independent earthings will be provided by us from the sub-station tapping off point to the AMF panel and further to the electrical panel of the Bi plane centre located in the Electrical room. Total load of the complex including the equipment load and the Air-conditioning electrical load is 200 Kva.

LT distribution with LT panel providing balanced distribution is proposed through adequate sized cables and HR FRLS PVC insulated copper wires in PVC concealed conduits. Switch gear shall be Siemens / L&T / English Electric. Dedicated earthing for the equipment will be carried out with copper plate earthing. Separate Light and power distribution through adequate safety measures using MCBs / MCCBs will be carried out. The central UPS will provide power to the main equipment along with selected lights, fire alarm, EPABX system and the view boxes.

All general lighting in the block is with fluorescent lights (Philips, Crompton or equivalent) with diffusers with individual controls for every area. Switches shall

be Anchor Roma make.. The surrounding areas of the centre will be illuminated with security lights provided on the building.

Free electricity and water will be provided by the Hospital authorities for construction purposes at site.

3.6 AIR CONDITIONING

The whole of the Biplane Complex except toilets and pantry will be air conditioned. (Equipment zone at 22 ± 2 degrees and general zone at 26 ± 2 degrees). Total load including the equipment heat load has been calculated as 25.6TR. It is proposed to provide total 30.0 TR of air-conditioning in suitable configuration by using micro-processor controlled air cooled package / ductable split units and the outdoor condenser units kept outside or on the roof of the proposed building. A/c units will be high quality branded like Voltas, Bluestar, carrier, Hitachi or equivalent makes. Ducting layouts will be provided to the consignees.

Additionally split unit air-conditioners will be provided in the Bi plane room (2x2.0TR), control room (1x1.5TR) ,Equipment Store (1x2.0TR) and Consultant room - both (1x1.5TR) as backup units.

Air flow adjustments in different rooms if required can be done through dampers, which will be provided in all supply grills and diffusers.

3.7 FIRE DETECTION & FIGHTING SYSTEM

Complete fire detection system will be provided in the complex with smoke and heat detectors fixed on the ceiling and control panel near the entrance.

8 Nos. Non water based fire extinguishers conforming to ISI/BIS mark will be installed in different rooms to combat any accidental fire.

3.8 COMMUNICATION

An EPABX of 12 outgoing lines system will be provided between various room of the complex. An external telephone connection may be connected by the Hospital authorities and the running cost of the same will be born by the Hospital Authorities. LAN network points will be provided as per equipment requirements.

A single channel music system with PA system with speakers will be installed in the area with controls at Console room.

3.9 GAS PIPING

Piped medical grade gas and vacuum supply to the Bi plane room will be provided and connected to the nearest Hospital gas piping outlet.

4.0 FURNITURE

Following furniture is being offered for proper functioning of the Bi plane Centre :

AREA	DESCRIPTION	QTY.
Reception	: Reception desk in block board construction with granite top	1 No.
	: Low height storage unit for registers	1 No.
	: Reception chair with castors	1 No.
General Waiting	: Perforated Steel chairs on common steel stand in group of 3	5 Nos.
	: Corner Table	2 Nos.
Change Room	: Dressing Table with storage	2 Nos.
	: Distortion free wall mirror	2 Nos.
	: Cushioned PVC chair	2 Nos.
	: Shoe rack	1 No.
Pre/Post Cath	: Patient Bed with mattress	3 Nos.
	: Bed side Trolley	3 Nos.
Control Room	: Low backed swinging chairs on castors with armrests	2 Nos.
Bi Plane DSA	: Catheder storage cupboard (3000x600x2100mm)	1 No.
	: Drug Trolley	1 No.
Technician	: Workstation 2500x600x750mm	1 No.
	: Computer chair	2 Nos.
	: Steel storage cupboard	1 No.
Reporting Room	: Workstation 3600x600x750mm	1 No.
	: Computer chair	3 Nos.
	: Steel storage cupboard	1 No.
Consultant Room	: Office table 1650x750 with return	1No.
	: Executive chair	1 No.
	: Visitor's Chairs	2 Nos.

Packing/Storage : Wall mounted storage cabinet
(3300x400x600mm) 1 No.

4.0 TERMS AND CONDITIONS FOR SITE PREPARATION TURN-KEY

4.1 SCOPE

The scope of work shall be confined to this offer.

If during course of execution of the above works any additions and/or alterations are required to be carried out at the instant of the Hospital Authorities, such additions/alterations shall be executed at mutually agreed Terms & Conditions. In such events the completion period shall also be suitably modified.

If during course of executing of the above works any underground pipes or any other kind of services are encountered, the same would be removed by the Hospital Authorities.

4.2 COMMENCEMENT OF WORK

The work at site shall commence with the fulfillment of the following by the Hospital Authorities :

- Placement of firm order,
- Payment of Advance,
- Approval of preliminary design,
- Approval / sanction / permission from local authorities / regulating bodies, if required, (to be arranged by the Hospital Authorities)
- Handing over of the site free from all encumbrances,
- Permission to commence work, whichever of the above is later.
- For Arrangement of adequate water and electrical supply at site company should apply and get sanction from concerned government departments after paying necessary fees etc.
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4.3 COMPLETION PERIOD

Completion period required for planning, designing and required modifications shall be nine months.

4.4 PAYMENT TERMS

- 75% of the total contract value to be paid to us as interest free advance within 2 weeks from the date of the award of the contract.
- 20% of the total contract value to be paid to us within two weeks of completion of works relating to site preparation.
- Balance 5% within two weeks after commissioning of the equipment at site.

4.5 FORCE MAJEURE

If, at any time during the continuance of the work, the performance in whole or in part by either party of any obligation under this contract, shall be prevented or delayed by reasons of any war, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions, riots, epidemics, quarantine restrictions or other acts of God, and lockouts then, provided notice of the happening of any such eventuality is given by either party to the other within reasonable time from the date of occurrence thereof, neither party shall, by reasons eventually be entitled to terminate this contract nor shall either party have any claim for damages and liabilities against the other in respect of such non performance or delay in performance, and construction work under this contract shall be resumed as soon as practicable after such eventuality has come to an end or ceased to exist. Any damages caused to the construction work on account of the above mentioned eventualities shall be to the Employer's account.

4.6 TAXES / LEVIES / DUTIES

The quoted prices appearing in the price bid are inclusive of Taxes, levies and duties in force as on date of the offer. Any new levies or any statutory variations in the tax structure including but not limited to Excise, Sales Tax, Octroi etc., would be charged extra by us as per actuals.

4.7 DEFECTS LIABILITY

The works to be executed by us shall be guaranteed for a period of five years from the date of completion against any defective material / workmanship. Any defects observed during the Defects liability period and attributed to defective material / workmanship shall be repaired / rectified by us free of charge.

Any damage to the building, plant and machinery falling within the scope of work, damaged due to misuse / mishandling / faulty operation or natural calamity of any kind, such as but not limited to earthquakes, hurricanes, floods, cyclones, fires, riots, lightning etc. shall be excluded from the preview of our guarantee obligations. Defects liability will also not be applicable to items subject to normal wear and tear, like painting and polishing etc.

4.8 ARBITRATION

In case any dispute or difference shall arise between the two parties touching or concerning this contract or the construction, meaning operation of effect as to the duties, rights or the liabilities of the parties, the same shall be referred to the arbitration of a single arbitrator in case the parties can agree upon one, otherwise to two arbitrators, one to be appointed by each party and an umpire to be appointed by the two arbitrators before entering upon the reference and in either case in accordance with the subject to the provisions of the Indian Arbitration Act 1940 or any statutory modification thereof in force. The venue of arbitration shall be New Delhi and all references shall be subject to jurisdiction of appropriate Civil Courts of Himachal Pradesh

