



WEST BENGAL MEDICAL SERVICES CORPORATION LTD.
(Wholly owned by the Government of West Bengal)
Swasthya Sathi, GN-29, Sector-V, Salt Lake, Kolkata - 700 091.

BIDDING DOCUMENTS

FOR

***Design, Supply, Installation, Commissioning, Operation &
Maintenance of Medical Gas Pipeline System (MGPS)
For the Trauma Care Facilities at Singur Rural Hospital***

Bid Reference No.: WBMSCL/NIT-101/2018

Dated - 12.06.2018

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SECTION - I

NOTICE INVITING e-TENDER

*from eligible bidders for Design, Supply, Installation, Commissioning,
Operation & Maintenance of Medical Gas Pipeline System (MGPS)
For the Trauma Care Facilities at Singur Rural Hospital*

Issued by:
West Bengal Medical Services Corporation Ltd.,
(Wholly owned by the Government of West Bengal)
CIN: U85110WB2008SGC126373

Regd. Off.: Swasthya Sathi, GN-29, Sector-V, Salt Lake, Kolkata-700 091



033-40340428,



033-40340408

Email ID procurement@wbmsc.gov.in,
cme@wbmsc.gov.in

Bid Reference No.: WBMSCL/NIT-101/2018

Dated - 12.06.2018

Introduction: -

1. The Health & Family Welfare Department (H&FWD), Government of West Bengal, has taken an initiative to make positive change in the health sector in West Bengal. Towards this goal, the Department intends to commission, operate and maintain Medical Gas Pipeline System (MGPS) in various Trauma Care Facilities across the State of West Bengal. West Bengal Medical Services Corporation Ltd. (for short "WBMSCL" or the "Corporation"), having its office at Swasthya Sathi, GN - 29, Sector - V, Salt Lake, Kolkata- 700 091, (for short "the Swasthya Sathi Building") has been entrusted to select agency to design, supply, install, commission, operate and maintain the MGPS and it has been decided to invite bids from eligible and qualified bidders to be selected through a transparent and competitive bidding process.
2. The present tender is being issued for the Trauma Care Facilities at Singur Rural Hospital and the Corporation hereby invites bids from eligible and qualified Indian bidders through 'e-tendering' for designing, supplying, installing, commissioning, operating and maintaining the MGPS for the Trauma Care Facilities at Singur Rural Hospital in 2-BID SYSTEM and as described in detail in the Scope of Services in the Schedule of Requirements. The Selected Bidder has to ensure that all the statutory requirements applicable for design, supply, installation and commissioning of gas pipeline and manifold system as prescribed by Government of India and the guidelines of

international standards as mentioned in this tender document are adhered to at the time of execution as well as during operation and comprehensive maintenance during the 1st year, followed by satisfactory performance, comprehensive operation and maintenance for the 2nd to 5th year, from the date of successful installation and commissioning of the MGPS.

3. Intending bidders may download the Bidding Documents from the websites www.wbmisc.gov.in and [https://wbtenders.gov.in](http://wbtenders.gov.in).
4. Earnest Money Deposit (EMD)/ Bid Security of Rs. 2,50,000/- (Rupees Two Lakhs and Fifty Thousand only) for the tender, is to be paid by intending bidders by way of Bank Guarantee, having a validity period of 180 days from the last date of submission of bid, issued by any scheduled bank in favour of "West Bengal Medical Services Corporation Limited" payable online. The Bid Security is to be submitted online. The Bid Security of the Selected Bidder will be returned duly discharged to the Selected Bidder on execution of the Agreement and on receipt of Performance Security as per terms of this e-NIT.
5. Technical Bid and Financial Bid must be submitted concurrently within the date and time stated in Sl. No. 12 of the e-NIT. All documents submitted by bidders should be properly indexed and digitally signed. Both Technical Bid and Financial Bid, duly digitally signed are to be uploaded in their respective folders viz., technical (statutory & non-statutory) folder and financial folder simultaneously in the website [https://wbtenders.gov.in](http://wbtenders.gov.in).
6. Financial Bids will be considered only if the Technical Bid (both statutory and non-statutory) of a bidder is found qualified by the Tender Evaluation Committee of the Corporation. The decision of the Tender Evaluation Committee will be final and binding in this respect. The list of responsive / technically qualified and non-responsive bidders will be uploaded in the websites [https://wbtenders.gov.in](http://wbtenders.gov.in) and www.wbmisc.gov.in.
7. Eligibility criteria for participation
 - (i) All bidders shall have to meet the minimum eligibility criteria in respect of both of the following:
 - (a) Financial Capacity;
 - (b) Technical Capability including Experience/Credentials.

- (ii) The eligibility of a bidder will be ascertained on the basis of the digitally signed documents submitted in support of the eligibility criteria as mentioned in (a) and (b) above. If any document submitted by a bidder is found at any stage to be manufactured, false or untrue in any material respect, the bid of such bidder will be rejected outright without any prejudice to any right of WBMSCL, including to forfeit the EMD/ Bid Security or invoke the Performance Security.
- (iii) Financial capacity requirement is as follows: -
 - (a) A bidder shall have a minimum average annual turnover of Rs. 2(two) Crores, in the last 3 (three) financial years, viz. 2014-2015, 2015-2016 and 2016-2017;
 - (b) A bidder shall demonstrate his/ her/its solvency by way of Solvency Certificates, showing a solvency of Rs. 25 Lakhs.
- (iv) Technical capacity requirements are as follows: -
 - (a) A bidder shall be an individual or a registered partnership firm (including limited liability partnership) or a company limited by shares (private or public) incorporated under the appropriate laws of India;
 - (b) A bidder shall produce records satisfactorily evidencing completion of at least 1 (one) similar MGPS project in public or private health care facilities in India having a minimum value of Rs. 50 Lakhs during the last 5 financial years (i.e. 2012-2013, 2013-2014, 2014-2015, 2015-2016 and 2016-2017) and at least 1 (one) similar MGPS project in a Government/Private run hospital in India, where necessary operation and comprehensive maintenance support in such life saving system have been provided by the bidder, at least for a continuous period of 12 months during the last 5(five) financial years.
 Note: Supporting documents like copies of the work orders/ certificates from the competent authority, confirming the value of the project(s) and satisfactory completion should be submitted along with the bid. Own works /certification of agencies shall not be considered for prequalification.
 - (c) A bidder shall furnish an undertaking that the bidder has not been barred/ blacklisted by the Government of India or any State Government or any of its Departments, authorities or bodies corporate under the Government of India or any State Government, from participating in any project, which continues as on the date of bid submission.
 - (d) A bidder shall have a valid PAN.

- (e) A bidder shall have valid GST certificate/ letter recording GST identification number.
 - (f) The prospective bidder should have already established office in West Bengal for which necessary address & contact details are to be submitted, failing which it's bid will be rejected.
8. Bidders shall have to quote rates for each and every item of work for the hospital as per the tender BOQ, failing which its bid shall be liable to be summarily rejected. The tender inviting and accepting authority will determine the eligibility of each bidder on the basis of the Technical Bid submitted by the bidder.
9. Bids are to remain valid for a period not less than 180 days after the last date for bid submission as specified in Sl. No. 12 of this e-NIT. Bids valid for a shorter period shall be rejected as non-responsive.
10. The Financial Bid is to be provided in the Bill of Quantities (BoQ), which shall be the sum total of the following:
- (a) Contract Price for design, supply of equipment, installation, commissioning of MGPS
 - (b) Comprehensive operation and maintenance charges for the 1st year
 - (c) Comprehensive operation and maintenance charges for the 2nd year
 - (d) Comprehensive operation and maintenance charges for the 3rd year
 - (e) Comprehensive operation and maintenance charges for the 4th year
 - (f) Comprehensive operation and maintenance charges for the 5th year.
11. Payment shall be made to the Selected Bidder by the Corporation, after making appropriate deductions on account of TDS and other statutory deductions.
12. Important Information/ Date & Time Schedule:

Sl. No.	Particulars	Date & Time
1.	Publication of Bidding Documents	12/06/2018
2.	Pre-bid meeting	20/06/2018 at 12:00 hrs.
3.	Last date and time for seeking feedback & suggestions through e.mail	22/06/2018 upto 17:00 hrs.
4.	Bid submission start date (online)	09/07/2018 at 11:00 hrs.

5.	Bid submission closing (online)	23/07/2018 upto 14:00 hrs.
6.	Last date and time of submission of physical copy of the uploaded Technical Bid (offline)	25/07/2018 upto 15:00 hrs.
7.	Date and time of opening of Technical Bids	25/07/2018 after 15:00 hrs.
8.	Technical Bid evaluation (start date)	After opening of Technical Bids on 25/07/2018
9.	Uploading list of responsive/ non-responsive bidders	To be notified later
10.	Financial Bid opening	To be notified later
11.	Issue of Notification of Award	To be notified later

13. In the event, any of the specified dates as above being declared a holiday or if the office of the Corporation being closed on such date, the event of the specified date will be taken up on the next working day at the same time.
14. The Corporation reserves the right to reject any or all bids and to accept or reject any or all offers without assigning any reason whatsoever and would not be liable for any cost that might have incurred by any bidder for bidding.
15. In addition to the above, bidders are advised to note carefully the instructions contained in the 'Instructions to Bidders' (ITB) and conditions in the General Conditions of Contract (GCC) and other documents as per ITB 6.1 before bidding.
16. Conditional/incomplete bids will not be accepted under any circumstances.
17. The bidders shall in addition have to comply with all extant laws, regulations, practices and procedures of the Government of West Bengal in connection with public tenders or the proposed works.
18. During tender evaluation or even during performance of the contract, if any record submitted by any bidder is found to be incorrect, manufactured or fabricated, the bid of such bidder will be rejected and if the contract has already been awarded, the Agreement will be cancelled (after giving an opportunity of hearing to the Selected Bidder), without any prejudice to any rights of the Corporation. In addition,

any such incorrect, manufactured or fabricated information provided by the bidder, may lead to its blacklisting, for a maximum period of 5 years, after following due process.

19. The Corporation reserves the right to cancel the tender process at any time without assigning any reason whatsoever, and without entertaining any claim in this respect. At any time prior to the deadline for submission of bids, as may be extended, the Corporation may amend the Bidding Documents by issuing addenda/ corrigenda. In order to give prospective bidders reasonable time in which to take an addendum/ corrigendum into account in preparing their bids or for other causes and considerations, the Corporation may in its discretion, extend the time for the submission of bids.
20. The EMD/ Bid Security will be forfeited/ invoked in the following events: -
 - (a) If a bidder withdraws its bid during the period of bid validity, except as provided in ITB 16.2;
 - (b) If a bidder engages in a corrupt, fraudulent, coercive, collusive or restrictive practice as specified in ITB 3.1;
 - (c) If the bidder is declared disqualified in terms of ITB 4.3;
 - (d) If the Selected Bidder fails to:
 - i) sign the Agreement in accordance with ITB 36.1;
 - ii) furnish a Performance Security in accordance with ITB 37.1; or
 - (e) If a bidder is otherwise in breach of the terms of the Bidding Documents.
21. Where an individual holds a Digital Signature Certificate in his own name duly issued to him in respect of a bidder of which he is a director/ principal officer, such person shall, while uploading any bid for and on behalf of the bidder, upload a copy of the Power of Attorney/ Board Resolution authorizing him to act on behalf of the bidder.
22. All bidders must upload all records, data and documents on which they wish to rely in support of their Technical Bid. Each scanned document should have an index page indicating the name of the documents enclosed with page number. Unless for reasons to the satisfaction of the Corporation, bidders will not be allowed to supplement data and documents submitted online, with additional data and documents, during tender evaluation.

SECTION - II

INSTRUCTIONS TO BIDDERS (ITB)

A. General

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|----|----------------------------------|-----|---|
| 1. | Scope of Bid | 1.1 | <p>In connection with the Notice Inviting e-Tender from eligible bidders for designing, supplying, installing, commissioning, operating and maintaining MGPS for the Trauma Care Facilities at Singur Rural Hospital, the Corporation having its office at Swasthya Sathi, GN - 29, Sector-V, Bidhan Nagar, Kolkata - 700 064, issues the Bidding Documents for selection of Contractor for undertaking the Works as detailed in Section - III of the Bidding Documents.</p> <p>The tender is invited online and submission of bids will also be online as detailed in the e-NIT.</p> |
| | | 1.2 | <p>Throughout the Bidding Documents:</p> <p>(a) the term "in writing" means communicated in written form and delivered against receipt;</p> <p>(b) the terms 'bid' and 'tender' and their derivatives (bidder/tender, bid/tender, bidding/tendering, etc.) are synonymous.</p> <p>(c) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and</p> <p>(d) "day" means calendar day.</p> |
| 2. | General guidance for e-tendering | 2.1 | <p><u>Registration of bidder</u></p> <p>Any bidder willing to take part in the process of e-tendering will have to be enrolled and registered with the State Government e-procurement system at https://wbtenders.gov.in. The bidder is to click on the link for e-tendering as given on the web portal and if required, may contact e-procurement Help Desk at Jalasampad Bhavan, 7th Floor, DVC Cell, Salt Lake, Kolkata, Phone: (033)2334-6098.</p> |

Digital Signature Certificate (DSC)

- 2.2 Each bidder is required to obtain a Class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the approved service provider of the National Informatics Centre (NIC). Details are available on the website <https://wbtennders.gov.in>. The DSC is given as a USB e-token. Bidders can search and download the e-NIT and Bidding Documents electronically once it logs on to the website mentioned in Sl. No. 4 of the e-NIT. This is the only mode of collection of Bidding Documents.
- Bidders are also advised to upload relevant documents well in advance under the "My Documents" Tab at <https://wbtennders.gov.in> so that those can later be selected and attached during bid submission. This is likely to ensure hassle free upload of bid documents.
- The speed of upload is dependent on the memory available in the system as well as the network bandwidth used. In case there are space constraints, bidders are advised to scan the documents in 75-100 DPI so that optimal clarity is maintained.
- The Corporation will not be responsible for any delay or difficulties faced during the submission of bids online by the bidders due to connectivity or other issues.

3. Corrupt Practices
- 3.1 The Corporation requires that bidders observe the highest standard of ethics during the bidding process and during execution of such contract. In pursuance of this policy, the Corporation:
- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice"/"bribery" means the offering, giving receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party or influencing the process procuring goods or services or executing contracts;

- (ii) "fraudulent practice"/"fraud" means any act or omission, including a misrepresentation of information or facts, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation or to influence the process procuring goods or services or executing contracts, to the detriment of the Corporation or other participants;
 - (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party or designed to result in bids at artificial prices that are not competitive;
 - (v) "restrictive practice" means forming a cartel or arriving at any understanding or arrangement among bidders with the objective of restricting or manipulating a full and fair competition in the bidding process.
- (b) will reject a proposal to award a contract if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or restrictive practices in competing for the contract in question; and
 - (c) will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in any tender/bidding process of the Corporation if it at any time determines that the party has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or restrictive practices in competing for, or in executing, a contract of the Corporation.

- (d) will cancel or terminate a contract if it determines that a bidder /party has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive or restrictive practices in competing for, or in executing, a contract with the Corporation.
- (e) will normally require an agent of the Corporation to allow the Corporation or any person that the Corporation may designate, to inspect or carry out audit of the bidder's accounting records and financial statements in connection with the contract.

4. Eligible Bidders 4.1 The bidders shall have to meet the following eligibility criteria :
- (a) shall be a an individual or a registered partnership firm (including limited liability partnership) or a company limited by shares (private or public) incorporated under the appropriate laws of India.
 - (b) shall produce records satisfactorily evidencing completion of at least 1 (one) similar MGPS project in public or private health care facilities in India having a minimum value of Rs.50 Lakhs during the last 5 financial years (i.e. 2012-2013, 2013-2014, 2014-2015, 2015-2016 and 2016-2017) and at least 1 (one) similar MGPS project in a Government/Private run hospital in India, where necessary operation and comprehensive maintenance support in such life saving system have been provided by the bidder, at least for a continuous period of 12 months during the last 5 financial years.

Note: Supporting documents like copies of the work orders and completion certificates from the competent authority, confirming the value of the project(s) and satisfactory completion should be submitted along with the bid. Own works /certification of agencies shall not be considered for prequalification.

- (c) Minimum average annual turnover during the last 3 (three) financial years (i.e. 2014-2015, 2015-2016 and 2016-2017), as certified by a Chartered Accountant, of Rs. 2 Crores.
- (d) shall demonstrate his/ her/ its solvency by way of Solvency Certificates, of Rs. 25 Lakhs.
- (e) Participation in the form of Joint Venture/ Consortium / Special Purpose Vehicle will not be allowed to participate in the above e-NIT.
- (f) The bidder is presently not barred/ blacklisted by any Department, authority or body corporate under the Government of India or any State Government.

4.2 A bidder shall have to furnish the following documents:

- (a) Copy of PAN Card;
- (b) Copy of GST Certificate/ letter recording GST identification number;
- (c) Copy of Income Tax Returns for the financial years 2013-2014, 2014-2015 and 2015-2016 (assessment years 2014-2015, 2015-2016 and 2016-2017);
- (d) Copy of documents of incorporation, i.e. Certificate of Incorporation and Memorandum and Articles of Association, if the bidder is a company and Deed of Partnership, if the bidder is a partnership firm (not required to be submitted if the bidder is an individual);
- (e) Audited Annual Accounts for the financial years 2014-2015, 2015-2016 and 2016-2017;
- (f) Notarised Power of Attorney/ Board Resolution in favour of signatory of bid and accompanying documents (if the bidder is an individual, all documents are to be signed by the individual and such bidder shall not be permitted to engage an attorney on his or her behalf);
- (g) Bank Solvency Certificate;

- (h) Statement of Annual Turnover during the financial years 2014-2015, 2015-2016 and 2016-2017 certified by a Chartered Accountant (CA), which shall also mention that the bidder has a positive net worth as on the day of submission of bid;
- (i) Declaration by way of affidavit duly notarized that the bidder has not been barred by the Government of India (GoI) or any State Government or any authority or body corporate under GoI or any State Government for participation in any project which bar subsists on the day of submission of the bid;
- (j) Copy of Work Order and Completion Certificate from the service recipients stating that the works undertaken by the bidder has been satisfactory and no adverse report was obtained.

- 4.3 The Corporation considers a conflict of interest to be a situation in which a party has an interest that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest may contribute to or constitutes a prohibited practice by the Corporation which requires that bidders, suppliers, and contractors under contracts with the Corporation, observe the highest standard of ethics and will take appropriate actions if it determines that a conflict of interest has flawed the integrity of any procurement process. Consequently all bidders found to have a conflict of interest shall be disqualified. A bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to:
- (a) they have controlling shareholders in common;
 - (b) they receive or have received any direct or indirect subsidy from any of them;
 - (c) they have the same legal representative for purposes of

this bid; or

- (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another bidder, or influence the decisions of the Corporation regarding this bidding process.

4.4 Joint bids or consortium bids will not be entertained.

4.5 A bidder who is under a declaration of ineligibility by the Corporation in accordance with ITB 3 or by any Department of Government of India or Government of West Bengal, at the last date for bid submission or thereafter during process of evaluation, shall be disqualified.

4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Corporation, as the Corporation shall reasonably request.

5. Technical Specifications

5.1 The bidders are cautioned to read the specifications carefully, as there may be special requirements. The specifications are the minimum requirements for the products and/ or services. The products and/ or services offered must meet or exceed requirements mentioned in the Technical Specifications. The products and/ or services shall conform to strength, quality and workmanship to the accepted standards of the relevant industry. Modifications of or additions to basic standard products of less size or capability to meet these requirements will not be acceptable.

B. Contents of Bidding Documents

6. Sections of Bidding Documents

6.1 The Bidding Documents consists of Parts I, II, and III, which include all the Sections indicated below, and should be read in conjunction with any addenda / corrigenda issued in accordance with ITB 8.

PART I Bidding Procedures

Section I – Notice Inviting e-Tender (e-NIT)

Section II – Instructions to Bidders (ITB)

PART II Requirements

Section III – Schedule of Requirements (SoR)

Section IV – Bidding Forms (BDF)

Section VII - Drawings

PART III Contract

Section V – General Conditions of Contract (GCC)

Section VI – Contract Forms (COF)

6.2 The Corporation is not responsible for the completeness of the Bidding Documents and their addenda/ corrigenda, if they were not obtained directly from the source stated by the Corporation in the e-NIT.

6.3 The bidder is expected to examine all instructions, forms, terms, and requirements in the Bidding Documents. Failure to furnish all information or documentation required by the Bidding Documents may result in the rejection of the bid.

6.4 All the Sections forming part of the Bidding Documents are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the General Conditions of Contract and the Agreement,
- (b) the Schedule of Requirements and the Drawings,
- (c) the Notice Inviting e-Tender and the Instructions to Bidders,
- (d) the Bidding Forms.

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|----|---|-----|---|
| 7. | Clarification of Bidding Documents, Pre-Bid Meeting | 7.1 | A prospective bidder requiring any clarification of the Bidding Documents shall contact the Corporation in writing by sending an e.mail to the Corporation's e.mail address at procurement@wbmsc.gov.in and cme@wbmsc.gov.in or raise its queries during the pre-bid meeting in accordance with ITB |
|----|---|-----|---|

7.4 and ITB 7.5. Should the Corporation deem it necessary to amend the Bidding Documents as a result of a request for clarification, it shall do so following the procedure under ITB 8.

- 7.2 The bidder's designated representative is invited to attend a pre-bid meeting at the office of the Corporation at Swasthya Sathi, GN-29, Sector - V, Bidhan Nagar, Kolkata - 700 091 on 20th June, 2018 at 12:00 hrs. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.3 The bidder is requested, as far as possible, to submit any questions in writing, to reach the Corporation not later than the time and date mentioned in the e-NIT (Sl. 12).
- 7.4 Responses to the queries raised by the bidder in the pre-bid meeting, will be uploaded in the e-tender portal i.e. <https://wbtenders.gov.in> within 7 (seven) days from the date of pre-bid meeting. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Corporation exclusively through the issue of an addendum/ corrigendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
- 7.5 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

8. Amendment of Bidding Documents/
Extension of deadlines

- 8.1 Any addendum/ corrigendum issued shall be part of the Bidding Documents and shall be uploaded in the e-tender portal i.e. <https://wbtenders.gov.in> and also at www.wbmsc.gov.in.
- 8.2 To give prospective bidders reasonable time in which to take an addendum/ corrigendum into account in preparing their bids or for other causes and consideration, the Corporation may, at its discretion, extend the deadline for the submission of bids.

C. Preparation of Bids

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|-----|------------------------------|------|--|
| 9. | Costs of Bidding | 9.1 | The bidder shall bear all costs associated with the preparation and submission of its bid, and the Corporation shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. |
| 10. | Language of Bid | 10.1 | The bid, as well as all correspondence and documents relating to the bid exchanged by the bidder and the Corporation, shall be written in English only. Supporting documents and printed literature that are part of the bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the bid, such translation shall be relied on. |
| 11. | Documents comprising the Bid | 11.1 | Tenders are to be submitted online following the process mentioned in Sl. Nos. 7 of the e-NIT in two folders, one being the Technical Bid and the other being the Financial Bid before the prescribed date and time. The documents are to be uploaded scanned for viruses and duly digitally signed so that the documents will get encrypted (transformed into non readable formats). |
| | | 11.2 | The Technical Bid shall comprise of the scanned copies of the following documents in one folder : |

Statutory cover of Technical Bid containing:

To be filled in FORM folder:

- (i) Covering Letter (duly filled in) as per format given in Form-1 of Section – IV (Bidding Forms)
- (ii) Qualification Information (duly filled in by the bidder), as per format given in Form – 2 of Section - IV (Bidding Forms)
- (iii) e-NIT Acceptance Form, as per format given in Form – 3 of Section - IV (Bidding Forms)
- (iv) Power of Attorney in favour of signatory of the bid, as per

format given in Form - 5 of Section - IV (Bidding Forms)/ Board Resolution in favour of signatory of the bid, as per format given in Form - 6 of Section - IV (Bidding Forms) (not required to be submitted if the bidder is an individual)

(v) Letter of Financial Bid, as per format given in Form - 7 of Section - IV (Bidding Forms)

To be filled in DRAFT folder:

(i) Scanned copy of the receipt of online Earnest Money Deposit (EMD)/ Bid Security

To be filled in NIT folder:

(i) e-NIT (Section - I) and Instructions to Bidders (Section - II) (duly signed in all pages)

(ii) General Conditions of Contract (Section - V) (duly signed in all pages)

(iii) Schedule of Requirements (Section - III) (duly signed in all pages)

Non-statutory (My Documents) Cover containing

To be filled in CERTIFICATES folder:

- (a) Copy of PAN Card
- (b) Copy of Income Tax Returns for the financial years 2013-2014, 2014-2015 and 2015-2016 (assessment years 2014-2015, 2015-2016 and 2016-2017).
- (c) Copy of GST Certificate/ letter recording GST Identification Number

To be filled in COMPANY DETAILS folder:

Copy of documents of incorporation (i.e. Memorandum and Articles of Association and Certificate of Incorporation), if the bidder is a company and Deed of Partnership, if the bidder is a partnership firm (not required to be submitted if the bidder is

an individual)

To be filled in FINANCIAL INFO folder:

- (a) Form – 8 (Certificate of Financial Capacity duly certified by Chartered Accountant)
- (b) Form - 9 with Audited Balance Sheet for financial years 2014-2015, 2015-2016 and 2016-2017;

To be filled in DECLARATION folder:

Declaration by the bidder, as per format given in Form – 4 of Section - IV (Bidding Forms)

To be filled in CREDENTIAL 1 folder:

- (a) Solvency Certificate(s) issued by banks;
- (b) Work Order and Completion Certificates from the service recipients stating that the service has been satisfactory and no adverse report was obtained

In case of failure to submit any of the above mentioned documents (for both statutory and non statutory cover) in respective folders, the Corporation may summarily reject the bid.

11.3 The Financial Bid is to be provided in the Bill of Quantities (BoQ), which shall be the sum total of the following:

- (a) Contract Price for design, supply of equipment, installation, and commissioning charges from the date of commissioning and handover of MGPS
- (b) Comprehensive operation and maintenance charges for the 1st year
- (c) Comprehensive operation and maintenance charges for the 2nd year
- (d) Comprehensive operation and maintenance charges for the 3rd year
- (e) Comprehensive operation and maintenance charges for the 4th year

- (f) Comprehensive operation and maintenance charges for the 5th year.

The rates quoted by the bidder shall be exclusive of applicable GST. In addition, the bidder will be required to submit the following documents:

- (i) Price Schedule in portable document file (PDF) format containing the breakup of Contract Price for design, supply of equipment, installation, commissioning and comprehensive operation and maintenance charges for each of the 5 years (excluding GST) as per Form - 14 of the Bidding Forms.
- (ii) Statement of Breakup of Duties and Taxes in portable document file (PDF) format containing the breakup of Contract Price for design, supply of equipment, installation, commissioning and operation and comprehensive operation and maintenance charges for each of the 5 years including the percentage of GST and the amount of GST payable by the bidder for the works comprising design, supply of equipment, installation, and commissioning charges and comprehensive operation and maintenance charges for 1 (one) year from the date of commissioning and handover of MGPS as per Form - 15 of the Bidding Forms.

N.B. - (1) The bidder is to quote the rate online in the space marked for quoting rate in the BOQ. Only BOQ rate and not the GST amount will be considered for evaluation of Financial Bid.

(2) The bidders shall have to quote their rates for each and every category of Works of the facilities in the Price Schedule, failing which its bid will be summarily rejected.

(3) Only downloaded copies of the above documents are to be uploaded, virus scanned and digitally signed by the bidder.

(4) The sum of the rates quoted in the Price Schedule shall match with the total price quoted in the BOQ. If there is any

discrepancy between the total of the rates quoted in the Price Schedule and the BOQ, the Price Schedule shall prevail over the BOQ.

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| 12. | Letters of Technical Bid and Schedules | 12.1 | The Letters of Technical Bid shall be prepared using the relevant forms furnished in Section - IV (Bidding Forms). The forms must be completed without any alterations to the text and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. |
| 13. | Bid Prices | 13.1 | The prices quoted by the bidder in the Financial Bid shall conform to the requirements specified below. |
| | | 13.2 | The price to be quoted in the Financial Bid, in accordance with the BOQ, shall be the rate (in INR) for the sum total of all the categories of Works to be charged by the bidder for the hospital, which shall be exclusive of GST. Only a fixed rate in INR (up to two decimal places) can be quoted by the bidder. |
| | | 13.3 | The rate quoted by the bidder is not subject to any discount or adjustment. |
| 14. | Currencies of Bid and Payment | 14.1 | The rate shall be quoted by the bidder entirely in Indian National Rupees (INR) only. The Corporation shall be entitled to reject any bid, if the same has been submitted in any other currency. |
| 15. | Documents Establishing the Qualifications of the Bidder | 15.1 | To establish its qualifications to perform the obligations under the contract, the bidder shall provide the information requested in the corresponding information sheets included in Section - IV (Bidding Forms). |
| 16. | Period of Validity of Bids | 16.1 | Bids shall remain valid for a period of 180 days after the bid submission deadline date prescribed by the Corporation. A bid valid for a shorter period shall be rejected by the Corporation |

as non-responsive.

- 16.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Corporation may request bidders to extend the period of validity of their bids. The request and the response shall be in writing. A bidder may refuse the request without forfeiting its Bid Security. A bidder accepting the request shall not be required or permitted to modify its bid.

17. Bid Security

- 17.1 The bidder should deposit bid security money through online mode only
- 17.2 DELETED
- 17.3 Any bid not accompanied by Bid Security as required in accordance with ITB 17.1, shall be rejected by the Corporation as non responsive.
- 17.4 The Bid Security of the unsuccessful bidders shall be returned to the Selected Bidder on execution of the Agreement and on receipt of Performance Security as per terms of this e-NIT.
- 17.5 The Bid Security may be forfeited:
- (a) If a bidder withdraws its bid during the period of bid validity specified by the bidder, except as provided in ITB 16.2;
 - (b) If a bidder engages in a corrupt, fraudulent, coercive, collusive or restrictive practice as specified in ITB 3.1;
 - (c) If the bidder is declared disqualified in terms of ITB 4.3;
 - (d) If the Selected Bidder fails to:
 - i) sign the Agreement in accordance with ITB 36.1;
 - ii) furnish a Performance Security in accordance with ITB 37.1;
 - (e) If the bidder is otherwise in breach of the terms of the Bidding Documents.

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| 18. | Format and Signing of Bid | 18.1 | The bid shall be digitally signed by a person or persons duly authorized to sign on behalf of the bidder as stated in Sl. No. 21 of the e-NIT. |
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D. Submission and Opening of Bids

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| 19. | Submission of Tenders | 19.1 | <p>Tenders are to be submitted online as stated in Sl. Nos. 5 and 6 of the e-NIT in two folders at a time, one being Technical Bid and the other being Financial Bid within the prescribed date and time. The documents are to be uploaded after being scanned for viruses and duly digitally signed, so that the documents will get encrypted (transformed into non readable formats).</p> <p>In addition, the bidders shall submit a physical copy of all the Technical Bid documents so uploaded, duly indexed and paginated, at the office of the Corporation not later than the date and time mentioned in the e-NIT in Sl. 12, to facilitate evaluation of bids. The physical copies of the Technical Bid documents should be submitted in one envelope and the copy of the receipt of online Bid Security submission shall be submitted in another envelope. Bidders as part of the physical copy of their Technical Bids shall also submit a Checklist of documents as per Form - 12 in Section - IV (Bidding Forms). The bidder shall tick mark the column titled “Checked by bidder” to indicate that the respective document is being submitted as part of the Technical Bids. The columns titled “Checked by Corporation” and “Remarks” shall be left blank by the bidder.</p> |
| 20. | Deadline for Submission of Bids | 20.1 | <p>Complete bids (including Technical and Financial) must be uploaded in the e-tender website i.e. https://wbtenders.gov.in not later than the date and time as mentioned in the e-NIT in Sl. 12.</p> |

20.2 The Corporation may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Documents in accordance with ITB 8, in which case all rights and obligations of the Corporation and bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

21. Bid Opening

21.1 The Technical Bid will be opened online by the authority receiving tenders or by its authorized representative at time, date and the place specified in the e-NIT in Sl. 12 in the manner specified in the e-NIT. The authority receiving tenders or its authorized representative shall decrypt all Technical Bids submitted by the bidders and copy its contents any storage device such as a compact disc, pen drive or hard drive. The authority receiving tenders or its authorized representative may take print outs of all Technical Bids. The date and time for online opening of Financial Bid will be as per Sl. 12 of the e-NIT. The manner of online opening of Financial Bid will be same as Technical Bid opening.

21.2 All folders containing the Technical Bids shall be opened one at a time, and the following recorded:

- (a) the name of the bidder;
- (b) the presence of a Bid Security,
- (c) the presence of e-NIT Acceptance Form as per Form - 3 and Declaration by way of Affidavit as per Form - 4 in Section - IV (Bidding Forms) and
- (d) any other details as the Corporation may consider appropriate.

Only those documents forming part of Technical Bids recorded at bid opening shall be considered for evaluation, subject to what is contained in Sl. 6 of the e-NIT.

21.3 If the copy of receipt of online Bid Security or the e-NIT Acceptance Form or the Declaration by way of Affidavit is not

present as part of the Technical Bid of any bidder, the Corporation will not go into detailed evaluation of the Technical Bid of such bidder and will summarily reject such Technical Bid.

21.4 The Corporation shall prepare a record of the opening of Technical Bids. A copy of the record may be uploaded on the website <https://wbtenders.gov.in> and also at www.wbmsc.gov.in.

21.5 At the end of the evaluation of the Technical Bids, the Corporation will upload on <https://wbtenders.gov.in> and also at www.wbmsc.gov.in, names of the bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for opening of Financial Bids.

21.6 The Corporation shall conduct the opening of the Financial Bid of all bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified in terms of ITB 26. All folders containing Financial Bids shall be opened one at a time and the following recorded:

- (a) the name of the bidder;
- (b) the Financial Bid; and
- (c) any other details as the Corporation may consider appropriate.

Only the BoQ shall be considered for evaluation of the Financial Bid, subject to what is contained in Sl. 7 of the e-NIT. No bid shall be rejected at the time of opening of Financial Bids except when the Financial Bid is not in accordance with the Bidding Documents.

E. Evaluation and Comparison of Bids

22. Confidentiality
- 22.1 Information relating to the examination, evaluation, comparison, and post qualification of bids and recommendation of Award, shall not be disclosed to bidders or any other persons not officially concerned with such process until information on Award of contract is communicated to all bidders.
- 22.2 Any attempt by a bidder to influence the Corporation in the evaluation of the bids or contract award decisions may result in the rejection of its bid.
23. Clarification of Bids
- 23.1 To assist in the examination, evaluation and comparison of the Technical and Financial Bids, the Corporation may, at its discretion, ask any bidder for a clarification of its bid. Any clarification submitted by a bidder that is not in response to a request by the Corporation shall not be considered. The Corporation's request for clarification and the response shall be in writing. No change in the substance of the Technical Bid, or, prices in the Financial Bid shall be sought, offered, or permitted.
- 23.2 If a bidder does not provide clarifications of its bid by the date and time set in the Corporation's request for clarification, its bid may be rejected.
24. Deviations, Reservations, and Omissions
- 24.1 During the evaluation of bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements specified in the Bidding Documents;
 - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and
 - (c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.

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| 25. | Preliminary Examination of Technical Bids | 25.1 | The Corporation shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.2 have been provided, and to determine the completeness of each document submitted. If any of these documents or information is missing, the bid may be rejected. |
| 26. | Responsiveness of Technical Bid | 26.1 | The Corporation's determination of a bid's responsiveness is to be based on the contents of the bid itself, as defined in ITB 11. |
| | | 26.2 | <p>A substantially responsive Technical Bid is one that meets the requirements of the Bidding Documents without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,</p> <p>(a) if accepted, would:</p> <p style="padding-left: 40px;">(i) affect in any substantial way the scope, quality, or performance of the contract; or</p> <p style="padding-left: 40px;">(ii) limit in any substantial way, inconsistent with the Bidding Documents, the rights of the Corporation or the Department of Health & Family Welfare, Government of West Bengal, or the bidder's obligations under the proposed contract; or</p> <p>(b) if rectified, would unfairly affect the competitive position of other bidders presenting substantially responsive bids.</p> |
| | | 26.3 | The Corporation shall examine the technical aspects of the bid submitted to confirm that all requirements have been met without any material deviation or reservation. |
| | | 26.4 | If a bid is not substantially responsive to the requirements of the Bidding Documents and is rejected by the Corporation, it may not subsequently be made responsive by correction of the material deviation, reservation, or omission. |

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| 27. Nonconformities, Errors, and Omissions | <p>27.1 The Corporation may waive any nonconformity in the bid that does not constitute a material deviation, reservation or omission.</p> <p>27.2 The Corporation may request that the bidder submit information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Financial Bid. Failure of the bidder to comply with the request of the tendering authority may result in the rejection of its bid.</p> |
| 28. Qualification of the Bidder | <p>28.1 The Corporation shall determine to its satisfaction during the evaluation of Technical Bids whether bidders meet the qualifying criteria as specified in the Bidding Documents.</p> <p>28.2 The determination shall be based upon an examination of the documentary evidence of the bidder's qualifications submitted by the bidder, pursuant to ITB 11.2.</p> |
| 29. Evaluation Criteria | <p>29.1 The bidders who meet the qualifying criteria shall be treated equally and all the technically qualified bidders shall be at par while considering their Financial Bid.</p> <p>The Financial Bid of bidders, who do not meet the qualifying criteria prescribed in ITB 4.1 will not be opened.</p> |
| 30. Preliminary Examination of Financial Bids | <p>30.1 The Corporation shall examine the Financial Bids to confirm that all documents and schedules requested in ITB 11.3 have been provided, and to determine the completeness of each document submitted. If any of these documents or information is missing, the bid may be rejected.</p> |
| 31. Evaluation of | <p>31.1 The Corporation shall only consider the amount quoted in the</p> |

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| Financial Bids | BoQ, for evaluation of the Financial Bid of the technically qualified bidder. No other evaluation criteria or methodology shall be permitted. |
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| 32. Comparison of Bids | <p>32.1 All technically qualified bidders shall be at par.</p> <p>32.2 The Corporation shall make a table of all the Financial Bids of technically qualified bidders and the lowest bidder, shall be declared the Selected Bidder.</p> |
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| 33. Corporation's right to accept any bid, and to reject any or all bids | <p>33.1 The Corporation reserves the right to accept or reject any bid and to annul the bidding process and reject all bids at any time prior to Award, without thereby incurring any liability to bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the bidders.</p> |
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F. Award of Contract

34. Award Criteria
- 34.1 Subject to the provisions of ITB 34.2, the lowest bidder shall be declared the Selected Bidder.
- 34.2 In the event the Financial Bids of 2 (two) or more bidders, who are qualified and whose Technical Bids are at par, are the same (the “**tie bidders**”), the Corporation shall at its discretion:
- (a) Either hold an *inter se* auction amongst such tie bidders to quote further lower bids and shall declare such of them who has offered the lowest bid in such auction to be the Selected Bidder. Bidders’ representatives who choose to attend the Financial Bid opening should therefore be duly authorized to participate in such auction. In the event a tie bidder is not represented on the Financial Bid opening date or the authorized representative of such bidder does not or is unwilling to participate in such auction, the auction would be held amongst the remaining tie bidders and if there be only one remaining tie bidder, the latter will be declared as the Selected Bidder provided that such remaining tie bidder offers a lower bid than that is already offered in its Financial Bid. In the event, the lowest bidder withdraws or is not declared as the Selected Bidder, the Corporation may invite fresh bids; or
 - (b) Invite fresh bids, without holding any *inter se* auction amongst such tie bidders.

35. Notification of Award
- 35.1 The bidder whose bid has been accepted will be notified of the award by the Corporation prior to expiration of the bid validity period by uploading in the e-tender portal and www.wbmisc.gov.in, by e-mail or facsimile, confirmed by registered letter. This letter (hereinafter and in the General Conditions of Contract called the “Letter of Acceptance/Notification of Award/ Award of Contract/ Work Order”) will state the sum that the Corporation will pay the Contractor in consideration of the execution, completion and operation and maintenance of the Works for 1 year from the date of commissioning and handing over of MGPS in respect of the hospital by the Contractor as prescribed by the Agreement (hereinafter and in the Agreement called the “Contract Price”). The Award of Contract shall not be made for the operation and maintenance of the Works for the 1st year to the 5th year from the date of commissioning and handing over of MGPS in respect of each site and Award of Contract for the Works will only be made upon the completion of 11 months from the date of commissioning and handing over of MGPS and subject to the Corporation being satisfied, with the performance of the Works till then.
- Until a formal contract is prepared and executed, the Notification of Award shall constitute a notification of commencement of Works, subject only to the furnishing of a Performance Security in accordance with the provisions of ITB 37.1, whereupon the Contract shall come into force.
- The Corporation shall hand over the hospital to the Selected
- 35.2 Bidder, within 7 days from the Notification of Award.

36. Signing of Agreement
- 36.1 Promptly after notification, the Corporation shall send the Selected Bidder, the Agreement to be executed. Each page of the Agreement shall be signed by the Managing Director of the Corporation and the Selected Bidder's authorized signatory. If there are any corrections, cuttings, omissions, over writings, insertions, etc. (after issue of Agreement) their number should be clearly mentioned on each page of the Agreement before signing.
- 36.2 Within 14 days of receipt of the Agreement, the Selected Bidder shall sign and date the Agreement and return it to the Corporation. The Agreement shall only come into existence, when the Performance Security is furnished in terms of ITB 37. No payment for the Works done will be made to the Selected Bidder till the Agreement is signed by the Selected Bidder
- 36.3 and Performance Security along with the Manufacturer's Authorization Forms, duly filled in and signed have been submitted by the Selected Bidder.
37. Performance Security
- 37.1 Within 14 days of the receipt of Notification of Award from the Corporation, the Selected Bidder shall furnish the Performance Security in accordance with the General Conditions of Contract, using for that purpose the Performance Security Form included in Section - VI (Contract Forms), or another form acceptable to the Corporation.
- 37.2 Failure of the Selected Bidder to submit the above mentioned Performance Security or to sign the Agreements shall constitute sufficient grounds for the annulment of the Award and forfeiture of the Bid Security. In that event, the Corporation may award the contract to the next lowest evaluated bidder, whose offer is substantially responsive, who is otherwise eligible to be awarded the contract in terms of the Bidding Documents and is determined by the Corporation to be qualified to perform the Agreement satisfactorily at the

price at which the Selected Bidder was awarded the contract or the Corporation, may, at its discretion invite fresh bids.

SECTION - III

SCHEDULE OF REQUIREMENTS (SoR)

Scope of Works, Standards, Safety, System, Installation, Operation and Maintenance

Survey, Inspection of the site, Plan, Design, Supply, Installation, Testing and Commissioning, Operation & Maintenance of Medical Gases Manifold and Pipeline Distribution System as a turnkey work and providing of free spare parts, consumables and service during 1 year operation and comprehensive maintenance and, on satisfactory performance of one year from the date of commissioning and handing over, followed by 4 years (i.e. from 2nd year to 5th year from the date of commissioning and handing over) operation and comprehensive maintenance.

1. The system should comprise of

1.1 Source Equipments:

- a. Semi-Automatic Oxygen Control panel, Oxygen Manifold and Emergency Manifold
- b. Semi-Automatic Nitrous oxide Control Panel, Nitrous Oxide Manifold and Emergency manifold.
- c. Vacuum (suction) supply system complete with Filters and Silencers.
- d. Medical air system with air Filtration system.
- e. Combined Electrical Control Panel for Air Compressors & Vacuum Pumps.

1.2 Distribution piping complete with accessories

1.3 Outlets

1.4 Alarm Systems

1.5 Area Valve Service System

1.6 Ceiling Pendants for Operation Theatres (OT)

1.7 High pressure tube for O₂, N₂O, Compressed Air & Vacuum

1.8 Oxygen flow meter with humidifier complete with accessories

1.9 Ward vacuum units complete with accessories

1.10 Theatre Suction units complete with accessories

2. Standards:

The Contractor should execute the installation work complying with the standards like HTM02-01/ NFPA99C; unless specified otherwise in the specifications of the equipments and copper pipes should have third party inspection certification by Lloyds'.

3. Scope of work:

- 3.1 The Contractor will be responsible for inspection of the sites, design, supply, installation, testing and commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) in the Hospitals of Govt. of West Bengal in coordination with the Authorities and providing of free spare parts and service considering 1 (one) year operation & comprehensive maintenance from the date of commissioning alongwith arrangement of emergency electrical power supply through a 30 KVA DG set for MGPS of the hospital, and on satisfactory performance, followed by 4 years operation and comprehensive maintenance.
- 3.2 The bidders are required to survey the site before submitting the quotes. Drawing of pipe routing should be submitted for approval of the Corporation before starting of execution work.
- 3.3 Electrical Control Panel for Vacuum and Air plant system to be supplied by the Contractor. All required electrical connection for installation of entire system including alarm panel/ pendant/ control panel should be tapped from the nearest available points and remains in the Scope of Work of the Contractor. Hospital will provide power at one point inside each of the manifold room and plant room only. Further distribution and wiring is to be carried out by the Contractor to make the system functional. Technical Specifications will be as per the bidding documents. Prior approval of electrical panel drawings shall be taken from the Corporation before manufacture. Supply of 3-phase power upto the plant room shall be in the scope of hospital authority and/ or the Corporation.
- 3.4 All the required consumables, gases, cylinders etc. for installation, testing, calibration, quality control tests, commissioning etc. remains in the Scope of Work of the Contractor.
- 3.5 The Contractor shall be responsible for the complete works including the submission of working drawings, detailed work schedule and materials. The Contractor will have to take prior approval from the Corporation for the materials to be delivered at the site for taking up the installation work of MGPS.
- 3.6 The Contractor shall be responsible for operation and comprehensive maintenance of Entire Medical Gas pipeline system including supply of emergency electrical power for the installed MGPS by Diesel Generator set.
- 3.7 The Contractor should arrange for all statutory approvals, if any required for satisfactory commissioning of the system. Required documentation will be provided by the Corporation and/ or the hospital.
- 3.8 The Contractor shall be responsible for day to day operation and maintenance and reporting to Hospital authorities.
- 3.9 The hospital authority / Corporation will arrange for D type Oxygen/ Nitrous cylinders for the Manifold Room for the regular supply of Gases for the patient use at a later stage. Bidders need not have to consider prices of D type Cylinder in their Bid for operation of the

installed system. However cylinders required for installation, testing and commissioning of the pipeline system will have to be arranged by the Contractor.

- 3.10 Electricity required for commissioning the system will be provided by the hospital free of Cost, if available. Otherwise, commissioning of the installed MGPS followed by operation of the system should be carried out by the emergency DG set to be installed at the hospital by the Contractor.
- 3.11 Hospital will provide facility for storage space for the materials, tools etc. but watch and ward of the material will be the responsibility of the selected bidder. Hospital takes no responsibility for the loss /theft of the materials before commissioning and handover of the complete system.
- 3.12 The Contractor should submit technical data sheets, Product catalogs, Drawings, samples etc for approval. The Corporation or its appointed consultant will provide approval as per the specification in the Bidding Documents.
- 3.13 The Contractor should supply complete set of part manuals, service manuals and user manuals for all the systems and subsystems to be supplied.
- 3.14 The Contractor should demonstrate pressure and flow rate at each outlet point at the time of commissioning. The Contractor is required to demonstrate and Document all safety features incorporated in the system as per HTM02-01 / NFPA 99C Standards.
- 3.15 All material used for Installation, Testing and Commissioning the system should have required quality certification.
- 3.16 All supporting material like saddles, cable trays, channels, joints/ connectors, necessary civil works including foundation & modification of manifold/plant room as required, trenches/bridges for pipe laying, making holes in the wall & repairing after installation of copper piping, electrical works, etc. are a part of MGPS work. If Bidder feels any items other than those listed in BOQ is required for the commissioning of the complete Medical Gas Pipeline System, the cost of such items may be included in his bid. No further payment will be made other than the rates & items in BOQ.
- 3.17 The Contractor should display maintenance log, normal values etc in the manifold room as prescribed by Corporation or its consultant. Daily/Periodical maintenance chart/log should be maintained. This maintenance chart will be provided by the Corporation.
- 3.18 Final electrical safety test, system test and calibration should be done by the bidder by authorized persons using calibrated test equipment as per standards. For operation and maintenance of the installed system, the Contractor should post necessary trained experienced technicians / helpers in shifts (total 4 heads for each hospital) who should be available at site 24hrs. X 365 days.

3.19 Earthing arrangements for all the equipment shall be completed by the bidder as per standard practice.

3.20 The Contractor is required to put up signages, as are applicable inside and outside of the manifold/ plant room and at the places specified by the Corporation, in the manner as given hereinbelow:

List of signage along with technical specifications :

A. List of signage :

1. To be installed in wards and corridors:



2. To be installed inside plant and manifold room :



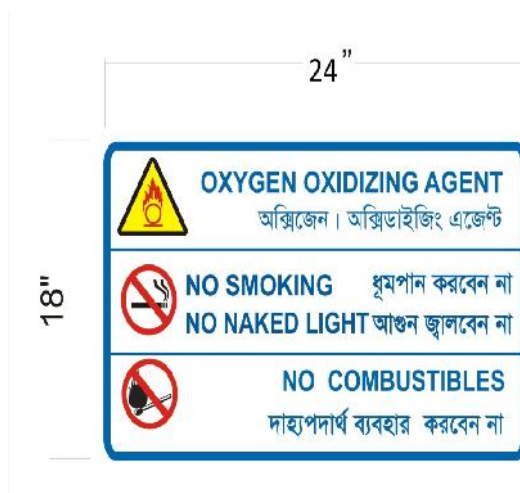
3. To be installed inside plant room and manifold room :



4. To be installed outside plant and manifold room :



5. To be installed inside manifold room :



6. To be installed inside manifold room :

30"

GUIDELINES OF MEDICAL GAS CYLINDERS HANDLING AND STORAGE

মেডিক্যাল গ্যাস সিলিডার ব্যবহার এবং মজুত করার নির্দেশিকা

DO

- ✓ Read the label to see what gas you are dealing with and double check the cylinder/gas is right for the intended use.
- ✓ No compressed gas cylinder should be accepted for use that does not legibly identify its contents by name.
- ✓ If the labeling on a cylinder becomes unclear or an attached tag is defaced to the point the contents cannot be identified, the cylinder should be marked "contents unknown" and returned directly to the manufacturer/supplier.
- ✓ Never rely on the color of the cylinder for identification. Color coding is not reliable because cylinder colors may vary with the supplier. Additionally, labels on caps have little value because caps are interchangeable.
- ✓ The cylinder's contents should be identified at all times as well as the cylinder Status (full, empty or in service).
- ✓ Maintenance of cylinders and their valves or relief devices shall be performed only by trained personnel.
- ✓ An emergency response plan shall be developed and implemented wherever compressed gas cylinders are used, handled or stored.
- ✓ Valve protection caps must remain in place at all times except when cylinders are secured and connected to dispensing equipment. Only wrenches or tools provided by the cylinder supplier should be used to open or close a valve. At no time should pliers be used to open a cylinder valve.
- ✓ Securely restrain cylinders with chains connected to a wall bracket to prevent them falling over.
- ✓ Close the cylinder valve when cylinder not in use.
- ✓ Before connecting a gas cylinder to equipment or pipe work make sure regulator and pipe work are suitable for the gas, chemical properties & pressure being used.
- ✓ Store gas cylinders in the open/well ventilated area and on concrete in a fenced compound with some weather protection.
- ✓ Maintain in storage area, oxygen cylinders must be store at least 3 metres away/separated by a fire wall from fuel gases such as acetylene, propane, methane etc.
- ✓ Store full cylinders separately from empty cylinders and should be secured with straps or chains connected to a wall bracket or other fixed surface, or by use of a cylinder stand.
- ✓ Maintain good housekeeping and adequate warning signs with fire fighting equipment as necessary.

কি করবেন।

- ✓ আপনি কোন গ্যাস নিয়ে কাজ করছেন তা লেবেলে দেখে নিন। ব্যবহার করার আগে আরও একবার পরীক্ষা করে নিন।
- ✓ যে কমপ্রেসড গ্যাসের সিলিডারে নিয়মমাফিক গ্যাসের নাম লেখা নেই তা ব্যবহার করা উচিত নয়।
- ✓ যদি সিলিডারের লেবেল অস্পষ্ট হয় অথবা সংযুক্ত ট্যাগ এমনভাবে নষ্ট হয় যে ভিতরে কী গ্যাস আছে বোঝা যায় না, তাহলে "কনটেন্টস আননোন" লিখে প্রস্তুতকারী/সরবরাহকারীর কাছে ফেরত পাঠাতে হবে।
- ✓ শনাক্তকরণের জন্য কখনও সিলিডারের রঙের ওপর নির্ভর করবেন না। বিভিন্ন সরবরাহকারীর ক্ষেত্রে সিলিডারের রঙ আলাদা আলাদা হয়। তাই কালার কোডের ওপর নির্ভর করবেন না। ক্যাপের লেবেলের উপরেও নির্ভর করা উচিত নয়। কারণ ক্যাপ পরিবর্তন করা যায়।
- ✓ সিলিডারের ভিতরে কী আছে তা সবসময় শনাক্ত করা উচিত। সিলিডার কি অবস্থায় আছে (ভর্তি, খালি অথবা ব্যবহার করা হচ্ছে) তাও দেখে নেওয়া উচিত।
- ✓ সিলিডার এবং তার ভালভ অথবা রিলিফ ডিভাইসের মেরামতি কেবলমাত্র প্রশিক্ষিত ব্যক্তিরই করা উচিত।
- ✓ যে জায়গায় কমপ্রেসড গ্যাস সিলিডার ব্যবহার করা হবে বা মজুত করা হবে, সেখানে আপদকালীন পরিস্থিতি মোকাবিলায় উপযুক্ত ব্যবস্থা রাখতে হবে।
- ✓ সিলিডার সুরক্ষিত এবং ডিসপেনসিং ইকুইপমেন্টের সঙ্গে যুক্ত না থাকলে ভালভ প্রোটেকশন ক্যাপ যথাস্থানে রাখা উচিত।
- ✓ ভালভ খোলা বা বন্ধ করার জন্য কেবলমাত্র সিলিডার সরবরাহকারীর দেওয়া রেঞ্জ বা টুল ব্যবহার করবেন। কখনও প্রায়ার দিয়ে সিলিডারের ভালভ খুলবেন না।
- ✓ সিলিডারকে চেনের সাহায্যে দেওয়ালের ব্র্যাকেটের সঙ্গে আটকে রাখুন, যাতে পড়ে না যায়।
- ✓ যখন ব্যবহার হবে না তখন সিলিডারের ভালভ বন্ধ রাখুন।
- ✓ যন্ত্র বা পাইপে গ্যাস সিলিডার লাগানোর আগে নিশ্চিত হোন যে রেগুলেটর এবং পাইপ ফিটিংস্ গ্যাস, রাসায়নিক পদার্থ এবং চাপ সহ্য করার উপযুক্ত।
- ✓ গ্যাস সিলিডার এমন জায়গায় মজুত করুন যেখানে খোলা/বায়ু চলাচল করে। জায়গাটি যেন বেড়া দেওয়া এবং কব্জিত করা হয় এবং আবহাওয়া থেকে সুরক্ষিত থাকে।
- ✓ মজুত করার জায়গায় অক্সিজেন সিলিডারগুলিকে যেন একটি অগ্নি প্রতিরোধক পাঁচিলের দ্বারা অ্যাসিটিলিন, প্রোপেন, মিথেনের মতো জ্বালানি গ্যাসের থেকে অন্তত ৩মিটার দূরে রাখা হয়।
- ✓ ভর্তি সিলিডারগুলিকে খালি সিলিডারের থেকে আলাদা রাখুন। স্ট্রাপ বা চেনের সাহায্যে দেওয়াল প্রভৃতির সঙ্গে অথবা সিলিডার স্ট্যান্ডের সাহায্যে সুরক্ষিত রাখুন।
- ✓ ভালোভাবে দেখভাল করুন এবং নিরাপত্তার চিহ্ন সহ আশুন নোটারের যন্ত্র রাখুন।

7. To be installed inside manifold room:

(Dimension as same as Sl. no.6)

GUIDELINES OF MEDICAL GAS CYLINDERS HANDLING AND STORAGE
মেডিক্যাল গ্যাস সিলিন্ডার ব্যবহার এবং মজুত করার নির্দেশিকা

DON'T

❌ Never drop a gas cylinder

❌ Never tamper with cylinders or subject them to abnormal mechanical shocks which could damage the valve or safety device

❌ Never re-paint, change markings or identification or interfere with threads

❌ Never attempt to repair a cylinder

❌ Never subject cylinders to abnormally high or low temperatures

❌ Never try to refill a cylinder through any unauthorized agency

❌ Never transport cylinders by rolling on the ground or use them as rollers or supports

❌ Never subject to abnormal mechanical shocks which could damage the valve or safety device of cylinder

❌ Never apply PTFE tape, jointing compounds or any other sealing material to the cylinder valve in an attempt to achieve a tight seal, if a gas tight seal cannot be achieved metal to metal, replace the regulator or change the cylinder

❌ Never smoke around compressed gas cylinders.

❌ Never use oil or grease on the regulator of a cylinder valve.

❌ Don't keep cylinders in horizontal position/on the ground

❌ Don't keep cylinders in contact with electrical cords

❌ Don't keep cylinders unprotected from falling

❌ Don't store cylinders in an area where could be subject to impact such as near operating fork lift

❌ Don't store cylinders near combustibles

❌ Don't store Oxygen and acetylene cylinders stored together

❌ Don't keep cylinders without valve caps

❌ Don't store other products along with gas cylinders, especially not oil or corrosive liquids, sources of ignition or flammable materials

NEVER LET OIL OR TOUCH YOUR CYLINDER FITTINGS

❌ কখনও গ্যাস সিলিন্ডার ফেলে দেবেন না।

❌ সিলিন্ডারের ক্ষতি করবেন না বা এমন কিছু করবেন না যাতে ভালভ বা সেফটি ডিভাইসের ক্ষতি হতে পারে। সিলিন্ডার রং করবেন না, মার্কিং বা শনাক্তকরণ চিহ্ন পরিবর্তন করবেন না, সিলিন্ডার থ্রেড নষ্ট করবেন না, সিলিন্ডার মেরামতির চেষ্টা করবেন না।

❌ সিলিন্ডারকে অস্বাভাবিক বেশি বা কম তাপমাত্রায় রাখবেন না।

❌ অনুমোদনহীন সংস্থাকে দিয়ে সিলিন্ডার পুনরায় ভর্তি করবেন না।

❌ সিলিন্ডার মাটিতে গড়িয়ে নিয়ে যাবেন না। তাদের রোলার বা ঠেকনা হিসাবে ব্যবহার করবেন না।

❌ সিলিন্ডারের ভালভ বা সেফটি ডিভাইসের ক্ষতি হতে পারে এমন কোন অস্বাভাবিক কাজ করবেন না।

❌ সিল টাইট করার জন্য সিলিন্ডারের ভালভে কখনও পি টি এফ ই টেপ, জয়েন্টিং কমপাউন্ড অথবা অন্য কোনও সিলিং মোটরিয়াল লাগাবেন না। যদি গ্যাস টাইট সিল ঠিকভাবে না আটকায় রেগুলেটর বদলান বা সিলিন্ডার পাল্টান।

❌ কমপ্রেসড গ্যাস সিলিন্ডারের আশেপাশে ধূমপান করবেন না।

❌ রেগুলেটর বা সিলিন্ডার ভালভে কখনও তেল বা গ্রিজ দেবেন না।

❌ সিলিন্ডারকে কখনও মাটিতে ভইয়ে রাখবেন না।

❌ বৈদ্যুতিক তারের সঙ্গে সিলিন্ডার লাগিয়ে রাখবেন না।

❌ সিলিন্ডার পড়ে যেতে পারে এমনভাবে রাখবেন না।

❌ এমন কোনও জায়গায় সিলিন্ডার মজুত করবেন না যেখানে আঘাত লাগতে পারে, যেমন চলমান ফর্ক লিফ্টের কাছে।

❌ দাহ্য পদার্থের কাছে সিলিন্ডার রাখবেন না।

❌ অক্সিজেন এবং অ্যাসিটিলিন সিলিন্ডার এক সঙ্গে মজুত করবেন না।

❌ সিলিন্ডারের ভালভ ক্যাপ খুলে রাখবেন না।

❌ গ্যাস সিলিন্ডারের সঙ্গে অন্য পদার্থ যেমন তেল বা ক্ষয়কার তরল, আগুন সৃষ্টি করতে পারে বা দাহ্য পদার্থ মজুত করবেন না।

❌ সিলিন্ডার ফিটিংয়ে কখনো যেন তেল বা গ্যাস স্পর্শ না করে।

❌ সিলিন্ডার ম্যানিফোল্ড ও প্রাক্ট রনমে ধূমপান করবেন না।

NO SMOKING

B. Technical Specifications :

Sl.no.	Description of work	Unit
1	Caution Signage-1 (18" X 12")	Each
	i) CNC cut ACP- 3mm indoor quality	
	ii) Electro Cut Vinyl	
	iii) VHP Tape/Stud	
2	Caution Signage-2 (24" X 18")	Each
	i) CNC cut ACP- 3mm indoor quality	
	ii) Electro Cut Vinyl	
	iii) VHP Tape/Stud	
3	Do/Don't's Signage (30" x47")	Each
	i) CNC cut ACP- 3mm indoor quality	
	ii) Digital Print on self adhesive vinyl with matt lamination	
	iii) VHP Tape/Stud	

Note :

The signage quantity will depend on actual site conditions.

- 3.21 In case any inspected or tested equipment fail to conform to the specifications, the Corporation may reject them and the Contractor shall either replace the rejected equipment or make all alterations necessary to meet specification requirements free of cost to the Corporation.
- 3.22 Leaflets, as-built drawings, equipment operating and maintenance manuals (hard copy, Compact Disk, DVD etc.) and literature should be attached for ready references along with complete documentation of all the measurements conducted during installation period which shall be submitted by the Contractor for future reference.

- 3.23 Acceptance Test at site shall be conducted of individual equipment and complete system to ensure that individual equipment and complete system meets the technical specifications and other operational and technical requirements as contained in the Bidding Documents.
- 3.24 The Corporation shall have the right to reject any individual equipment or complete system, if in its opinion the same does not meet technical specifications, operational or technical requirements. The decision of the Corporation in this regard shall be final.
- 3.25 The delivery, installation or commissioning shall not be deemed to have been completed unless all the equipment and systems are accepted by the Corporation.
- 3.26 If it is found that to meet the performance criteria, any extra equipment as have been specified in the Price Schedule is required, the same will be provided free of cost by the Contractor.
- 3.27 Wherever existing room(s) of the hospital earmarked for manifold and plant room needs necessary modifications with civil work alongwith electrical cabling with connections, wiring, peripheral lighting, exhaust fans etc. as required for manifold and plant room, will be under the scope of supply of the Contractor. Physical inspection may be carried out by the bidder for the purpose of preliminary survey of the designated rooms.
- 3.28 Accessories from gas/vacuum outlets to patients including high pressure and low pressure tubing with connectors, face mask/canula, catheter, etc. will be under the scope of supply of the Contractor. However, the Contractor shall be required to make one time supply of consumables like face mask/ canula, catheter, connector and low pressure tubing, for all oxygen flow meters, ward vacuum units and theatre vacuum units.
- 3.29 Drawings given in Section – VII of the Bidding Documents are to provide preliminary information only. Before submission of the offer, the bidder should visit the sites to assess the actual quantum of work.
- 3.30 Before the starting of installation work, pipe routing drawing should be prepared and submitted by the Contractor to the Corporation for approval.
- 3.31 Exposed riser pipelines, if any, should be installed vertically upward along the wall, for which protective ACP cover over MS angle frame should be provided by the Contractor to safeguard the pipelines from any damage/ theft.

3.32 MEDICAL GAS / VACUUM OUTLET DISPOSITIONS

DISTRIBUTION MATRIX OF OUTLETS: TRAUMA CARE UNIT - SINGUR RH							
FLOOR		NO. OF BED	NO. OF OUTLETS				REMARKS
	SUB DEPARTMENT		OXYGEN	N2O	M. AIR 4 Bar	VACUUM	
GROUND FLOOR	MAJOR OT	1	2	1	1	2	ON PENDANT
			2	1	1	2	ON PENDANT
	ORTHO OT	1	2	1	1	2	ON PENDANT
			2	1	1	2	ON PENDANT
	RECOVERY	3	6	0	3	3	ON WALL
	OBSERVATION 1	4	8	0	4	4	ON WALL
	PRE-OP	1	1	0	1	1	ON WALL
	OBSERVATION 2	4	8	0	4	4	ON WALL
	PLASTER	1	1	0	1	1	ON WALL
	TRIAGE	15	30	0	15	15	ON WALL
	C T SCAN	1	1	0	1	1	ON WALL
	ULTRASONOGRAPHY	1	1	0	0	1	ON WALL
	X-Ray	1	1	0	0	1	ON WALL
	SUB TOTAL	33	65	4	33	39	
FIRST FLOOR	ICU	12	24		12	12	ON WALL
	HCU	9	18	0	9	9	ON WALL
	SUB TOTAL	21	42	0	21	21	
	TOTAL	54	107	4	54	60	

Part A

**TECHNICAL SPECIFICATIONS OF MGPS FOR TRAUMA CARE FACILITIES AT SINGUR
RURAL HOSPITAL, WEST BENGAL**

1.0 OXYGEN SYSTEM

- | | | |
|------------|--|-------------------|
| 1.1 | Oxygen Manifold: Main with Middle Frames | Indigenous |
| | Oxygen Manifold: Emergency with Middle Frames | Indigenous |

The Oxygen Manifold will be configured as 2 x 8 Cylinder Manifold is suitable to withstand a pressure of 145 Kg/cm², along with high-pressure copper annealed tail pipes with end Brass adapter suitable for Oxygen Cylinders and manifold.

Top frame comprising of high pressure copper pipes of size 1/2" NB x 15swg with high pressure brass fittings made of high tensile brass and connections through non- return valves; high pressure copper tail pipes, made of high pressure copper pipe of size 1/4" NB x 15 swg. The design of middle and bottom frames should be provided to fit both round and flat bottom cylinders safely. The manifold should be tested (hydraulically) at 3500 psig and necessary test certificates should be submitted along with the supply.

A High Pressure Regulator to be mounted on the Emergency 4-Cylinder Manifold System for reducing the cylinder pressure suitable to the line pressure.

To reduce the risk of medical oxygen system from contamination due to ignition of fluorinated polymer materials, only Non Halogenated Polymer materials should be used in the Non Return Valves and high pressure side of the Pressure Regulators of the manifold system.

Main manifold and emergency manifold will work independently with isolation valves.

1.2	Semi-Automatic Oxygen Control Panel with Alarm	Indigenous
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- Control panel should have two first stage regulators each capable of delivering 100 - 200 psig outlet pressure.
- The first stage regulators are connected to a common second stage regulator which delivers an outlet pressure of 60 psig.
- To reduce the risk of medical oxygen system from contamination due to ignition of fluorinated polymer materials, only Non Halogenated Polymer materials should be used in the high pressure side of the first stage pressure regulators of the manifold control panel.

- The first two regulators meant for first stage, each having 40 micron inlet filters and with switchover system incorporated from “RUNNING” to “RESERVE” bank due to differential pressure.
- The control panel should provide two individual content contact pressure gauges to indicate the cylinder pressure in the two wings of the manifold and common pressure gauge to indicate the delivery / line pressure.
- The control panel should have built in audio-visual signal alarm indications for automatic bank changeover.
- The control panel should be covered with aesthetically suitable cover for safe operation indicating the respective services.
- Control panel should have built in transformer to ensure safe operation by low voltage.

2.0 NITROUS OXIDE SYSTEM

2.1 Nitrous Oxide Manifold: Main with Middle Frames	Indigenous
Nitrous Manifold: Emergency with Middle Frames	Indigenous

The Nitrous Oxide Manifold will be configured as 2 x 2 Cylinder Manifold is suitable to withstand a pressure of 145 Kg/cm², along with high-pressure copper annealed tail pipes with end Brass adapter suitable for Nitrous Oxide Cylinders and manifold.

Top frame comprising of high pressure copper pipes of size 1/2" NB x 15swg with high pressure brass fittings made of high tensile brass and connections through non- return valves; high pressure copper tail pipes, made of high pressure copper pipe of size 1/4" NB x 15 swg. The design of middle frames should be provided to fit both round and flat bottom cylinders safely. The manifold should be tested (hydraulically) at 3500 psig and necessary test certificates is accompany along with the supply.

A High Pressure Double Stage Regulator should be mounted on the Emergency Manifold System for reducing the cylinder pressure suitable to the line pressure.

2.2 Semi-Automatic Nitrous Oxide Control Panel with Alarm	Indigenous
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- Control panel should have two first stage regulators each capable of delivering 100 - 200 psig outlet pressure.

- The first stage regulators are connected to a common second stage regulator which deliver an outlet pressure of 60 psig.
- The first two regulators meant for first stage, having 40 micron inlet filters and with switchover system incorporated from "RUNNING" to "RESERVE" bank due to differential pressure.
- The control panel provide for two individual contact pressure gauges to indicate the cylinder pressure in the two wings of the manifold and common pressure gauge to indicate the delivery / line pressure.
- The control panel will have built in audio-visual signal lamp indications for bank changeover.
- The control panel should be covered with aesthetically suitable cover for safe operation indicating the respective services.
- Control panel will have built in transformer to ensure safe operation by low voltage.
- N₂O Control Panel will have in-built heating arrangement to ensure that there are no freezing in the delivery line during high flow requirement.

3.0 COMPRESSED AIR SYSTEM

3.1 Compressed Air System

Indigenous

Medical compressed air system comprising of **Duplex** System Air Compressors each having required capacity with suitable Motor mounted with Receiver Tank and Filter, Non-Return Valve, Isolation Valves, Air Dryer and Pressure Reducing Station along with interconnecting piping to take care of the requirement of desired no. of air outlets.

Type of Compressor :

Air Cooled, totally Oil Free Reciprocating Compressors along with TEFC squirrel cage induction motors (V-belt driven). The Compressed Air System will have **2 nos. of identical Air Compressors** (while one compressor will run, the other one remains as standby).

Specifications of each Air Compressor:

Make : Anest Iwata Motherson India Ltd /Equivalent with
absolutely no oil requirement (subject to approval)

Type of Compressor : Tank (280 Litres) mounted **Air Cooled** Oil Free Reciprocating Compressor

Type of Motor	: 10 HP, 3-phase, T.E.F.C, foot mounted
Piston Displacement	: 36.66 CFM at 8.5 Kg/Cm ²
Pressure Switch Cut in Pressure:	6.5 KG /CM ²
Pressure Switch Cut out Pressure:	8.5 KG /CM ²
Type of Starter	: Star Delta
Type of Suction Filter	: Dry Type Filter (Polyester)
Type of drive	: V-belt

Air Dryer Type:

Heatless Desiccant Type – 1 no. suitable for above compressor system.

Pressure Reducing System:

The System will have **2 sets** of Pressure Regulators with isolation valves (one in working & one stand-by) to reduce air pressure to required 4.2 Kg./ cm² for Medical Air pipeline.

Automatic drainage traps:

Electrically operated automatic drainage traps should be provided at the bottom of the receivers along with manual isolation valves. The discharge from these drainage traps should be piped outside the room.

3-Stage Breathing Air Filters:

The breathing air filters should have maximum contaminant removal efficiency with minimum pressure drop. The filtration system should conform to breathing air filtration as per ISO 8573, Ch – I Standard.

4.0 VACUUM SYSTEM

4.1 Vacuum System

Indigenous

To design, fabricate, test & install medical vacuum system comprising of **Duplex** System of Lubricated, Air-cooled, Reciprocating Vacuum Pumps each having desired capacity with suitable Motor, common Receiver Tank, Filter, Non-Return Valve, Isolation Valves, Auto Switch Gear to set minimum & maximum operating vacuum and interconnecting piping to take care of the requirements of desired no. of vacuum outlets.

Type of Vacuum Pumps:

Lubricated, Air-cooled, Reciprocating Vacuum Pumps along with TEFC squirrel cage induction motors (V-belt driven). The Vacuum System should have **2 nos. of identical Vacuum Pumps** (while one vacuum pump runs the other one remains as stand by).

Each Vacuum Pump will be complete with Base Plate, Belt Guard, V-Belts, Motor and Starter. The system will be of Automatic Start and Stop Type. The Pumps will be connected to a common vertical receiver of suitable capacity. The receiver has a drain valve at the bottom.

Specifications of each Vacuum Pump:

Vacuum pump	: 2 nos. - one as standby
Make	: Ingersoll Rand India
Model	: V255
Piston displacement	: 1699 LPM (60 CFM at 29")
Cooling	: Air cooled
Starting	: Unloaded

Drive Data:	: 2 nos. - one as standby
Motor	: 5 H.P.
Type	: TEFC
Drive	: Belt drive
Electric supply	: 440 V, 50 Hz, 3Ph.
Vacuum Reservoir	: One No.
Capacity	: 1000 Ltrs.
Design Pressure	: 7 Kg/cm ² (+ve) Pressure
Type	: Vertical type and construction as per IS 2825 and material as per IS 2062.

Vacuum plant exhaust

The position of the termination point should be carefully chosen outside the plant room to be clear of roads, windows, ventilation intakes and the intake of air compressors and other equipment.

To reduce noise from the exhaust, a silencer should be fitted in the exhaust pipe of each pump.

The termination point should be turned down and provided with wire mesh protection to reduce the effect of wind pressure and prevent the ingress of rain, snow, insects or animals.

5.0 COPPER PIPE

Indigenous

Solid drawn, seamless, de-oxidized, non-arsenical, half-hard, tempered and de-greased copper **pipe** conforming to BS EN 13348: 2008. All copper pipes should be de-greased & to be delivered capped at both ends. The pipes should be accompanied with manufacturers test certificate for the physical properties & chemical composition. Copper pipes should have reputed third party inspection certificate from **Lloyds' Register of Services**.

The Pipe Sizes to be used as mentioned below:

Pipe OD (in mm)	Thickness (in mm)	Maximum interval between supports (Horizontal and Vertical) (in Meters)
12	0.7	1.5
15	0.9	1.5
22	0.9	2
28	0.9	2
42	1.2	2.5
54	1.2	2.5

Copper fittings has been made of copper and suitable for a steam working Pressure of 17 bars and especially made for brazed socket type connections. All copper fittings should comply with EN 1254-1:1998 and factory degreased. Each size of fittings should be individually packed for medical use.

Pipe preparation

Pipe ends should be cut with the pipe axis, using sharp wheel cutters whenever possible, and be cleaned to get rid of any cuttings or burrs.

When brazing copper-to-copper joints:

- the brazed joints should be made using a silver copper- phosphorus brazing alloy and no flux should be used;
- brazing should be carried out using oxygen-free dry nitrogen as an internal inert gas shield to prevent the formation of oxides inside the surface of the pipes and fittings.
- ensure adequate protection of adjacent pipe runs and other services.

Capping

Sections of pipeline should be capped as soon as they are completed so as to prevent the ingress of debris.

Pipe supports

The pipeline should be adequately supported at sufficient intervals to prevent sagging or distortion. Supports for surface mounted pipe work should provide clearance to permit painting of the surface. Where it is essential for pipes to cross electric cables or conduit, they should be supported at intervals on either side of the crossing to prevent them from touching the cables or conduit. Supports should be of suitable material or suitably treated to minimise corrosion.

The spacing of supports shall be as per the latest HTM standard. Suitable sleeves shall be provided wherever pipes cross through walls / slabs. All pipe clamps shall be non-reactive to copper. Metallic pipe clamps must be separated from copper pipes by insulating materials.

INSTALLATION & TESTING

Installation of piping is carried out with utmost cleanliness. Only pipes, fittings and valves which has been degreased and brought in polythene sealed bags should be used at site. Pipe fixing clamps of non ferrous or non-deteriorating plastic suitable for the lower diameter of the pipe (max. upto 42mm OD). For pipe size of over 42mm, metallic clamps may be used by separating the copper pipe by insulating materials.

All pipe joints should be made using fluxless brazing method. All joints of copper to copper should be brazed by silver brazing filler material without flux.

After erection, the pipes should be flushed with dry nitrogen gas and then pressure tested with dry nitrogen / Medical Air at a pressure equal to twice the working pressure (or 10.5 kg/cm² whichever is higher) for a period of not less than 24 hours. All leaks and joints revealed during testing should be rectified and re-tested till the pressure in pipes stands for at least 24 hours.

Finally, before use of the system, each pipeline should be flushed with working gas.

All the piping system shall be finally tested in the presence of the authorized representative of WBMSCL for final approval and certification.

PAINTING

All exposed pipes should be painted with two coats of synthetic enamel paint and colour codification should be as per IS : 2379 of 1990.

Besides pipelines, colour band identification should be applied near to valves, junctions, walls etc. A label applied every 3m and bearing 6mm size letters should identify each gas. Self-adhesive plastic labels with direction of flow should be used for this purpose. A band 150 mm wide is usually adequate.

6.0 ISOLATION VALVES

The **isolation valves** are Non Lubricated Ball type, **suitable for oxygen service**. All valves should be pneumatically tested for twice the working pressure and **factory de-greased** for medical gas service before supply. Documents should be submitted directly from the manufacturer confirming that the isolation valves are factory degreased and suitable for oxygen service.

7.0 AREA VALVE SERVICE UNIT

7.1 Valve Box Assembly: Indigenous

Valve Box body is made of Aluminium Material.

Valve Box Assembly consists of the following:

- Lever operated quarter turn valve (i.e. 90 degree shut off ball valve, factory degreased and suitable for oxygen service) with brass body and chrome plated brass ball.
- Brass fittings (Nut, Nipples and extruded brass Adapter) KE Type Seat Brass Block for pressure gauge
- 2" Dial gauges (0 - 10 kg/cm², 0 - 760mm Hg)
- Nylon Bush for copper pipes holding with the valve box
- Beading for box lead
- Lockable cover with breakable glass so that during normal operation access has been by key. But during emergency operation, access by breaking the glass panel.

8.0 AREA ALARM SYSTEM

8.1 Line Pressure Alarm (DIGITAL)

Indigenous

The area line pressure alarm is micro-processor based which monitor the pressures of medical gases like oxygen, nitrous oxide, compressed air and vacuum levels at a specific area of piped gas system in any hospital. The electronic circuitry has been such that if the pressure / vacuum in the gas pipeline drops below the present limit, the equipment is give an audio-visual alarm. Visual alarm remains active even after pressing of "Mute" button. But it comes to normal condition when gas pressure / vacuum return to normal level.

The equipment should have following features:

- Digital Display of Line Pressure for all the services (both for Pneumatic & Vacuum Services) with factory calibrated pressure sensors.
- Color coded LED Display of Line pressure status (High – Caution – Normal – Caution– Low)
- Audible Alarm for High & Low pressure condition.
- Test and Alarm Acknowledge (Mute) facility.
- Programming facility of alarm limits from front panel (Password protected, to be done through Contractor's engineer/ authorized person of the hospital).
- Should be of light weight and with small and compact design.
- Highly sensitive gas pressure sensors of reputed make should be used.
- Mounted on a powder coated MS box.
- Nut & Nipples to be provided for connection with Pneumatic supply line.
- Low voltage internal operation with input power supply of 220V AC.
- Wall mounting facility.
- **Gas/vacuum inlet of alarm should be equipped with isolation valves considering ease of maintenance.**

9.0 Electrical Control Panel for Compressor & Vacuum System

The panel shall be provided with amp meter, power control for DOL Starter, Indication Lamp indicating all three phases, indication lamp indicating compressor 1 on, compressor 1 off, Compressor 2 on, compressor 2 off, Vacuum Pump 1 on, vacuum pump 1off, vacuum pump 2 on, vacuum pump 2 off.

The panel shall also be provided with Hour meter, stop, start and test, switch for control supply on and off, duty selecting switch (auto / manual), indicators for overload.

The panel is designed to trip off the system in case of overload by giving an audio and visual alarm. If the first compressor/vacuum pump fails due to any fault, the second compressor/vacuum pump will automatically start without giving any drop in pressure at the outlet point.

Duty selector switch can be used in auto or manual.

Electrical Control Panel will have following features:

- Incoming - MCCB with aluminum Bus Bar and complete metering (i.e. Ammeter & Volt meter) with R-Y-B selector switches
- R-Y-B phase indicating lamps (LED type).
- Individual MCCB and Ammeter for Air compressors with Connector & Over Load having Single Phase Preventer.
- Individual MCB for vacuum pumps with Connector & Over Load having Single Phase Preventer.
- Individual start & stop push buttons with ON/OFF indicating lamps.
- Timer switch - for changing Air compressors & Vacuum pumps from one to other in every 6 hours, thereby allowing each equipment rest for 6 hrs.
- In case of electrical power failure, both compressor and vacuum system should be re-started automatically with restoration of power.
- Individual Auto-Manual switches for Vacuum Pumps & Compressors.
- Tripping for abnormal operating conditions like earth fault, over current etc.

Special feature- If running compressor trips by any cause of trips mentioned, the other compressor should start immediately, by-passing timer switch.

NOTE : Prior approval of electrical panel drawings must be taken from the Corporation before manufacture.

10.0 Double Lock Gas / Vacuum Outlet Points with Adapter

Indigenous

Outlets should be manufactured with a 165 mm long Copper inlet pipe stub which is silver brazed to the outlet body. Body should be of one piece brass construction. For positive pressure gas services, the outlet should be equipped with a primary and secondary check valve and the secondary check valve should be rated at minimum 200 psi in the event the primary check valve is removed for maintenance.

The outlet assembly must have separate colour coding for each services and should accept only corresponding gas specific adapters.

All outlets must be cleaned and de-greased for medical gas service, factory assembled and tested.

The medical gas outlets should be of quick connecting and wall mounted modular type.

11.0 Ceiling Pendants

Indigenous

The rigid pendants are mounted on ceiling and the column length to be fabricated for the specified ceiling height. There should not be any sharp corners or gap in the joints of the pendant-box. The column of the pendant and mounting brackets should be fixed rigidly with the ceiling so that there will not be any twisting or tilting movement of the pendant-box.

Each Pendant Head should accommodate the required nos. of gas outlets and electrical sockets with complete separation between gas outlets and electrical sockets.

The pendant head should have following features:

- Made of aluminum casting with poly urethane coated finish
- 4 sets of 230 V, 6/16 Amp electrical sockets with individual On / Off switches
- Gas / Vacuum outlets as follows :
 - 2 nos. of Oxygen Outlets
 - 1 no. of Nitrous Oxide Outlet
 - 1 no. of Compressed air Outlet (4 bar)
 - 2 nos. of Vacuum Outlets
 - 2 nos. of IV Hooks

12.0 ACCESSORIES FOR PIPELINE SYSTEM

Indigenous

12.1 BPC Flow meter with Humidifier (including accessories from outlet to patient):

Back Pressure Compensated flow meter is of accurate gas flow measurement with following features:

- Control within a range of 0 – 15 lpm.

- It meets strict precision and durability standard.
- The flow meter body is made of brass chrome plated materials.
- The flow tube and shroud components are made of clear, impact resistant polycarbonate.
- Flow Tube should have large and expanded scale for 0 – 5 LPM range for improved readability at low flows.
- Inlet filter of stainless steel wire mesh to prevent entry of foreign particles.
- The humidifier bottle is made of unbreakable polycarbonate material and autoclavable at 121°C temperature.

12.2 Ward Vacuum Unit (including accessories from outlet to patient):

Ward Vacuum Unit will be light weight and compact.

The unit will consist of-

- A regulator,
- A 600 ml. reusable collection jar, made of unbreakable poly carbonate material and fully autoclavable at 121°C temperature.
- A wall bracket for mounting the jar assembly on the wall.

The vacuum regulator with instant ON / OFF switch should be infinitely adjustable and the vacuum gauge will indicate suction supplied by the regulator. Safety trap should be provided inside the jar to safeguard the regulator from overflowing.

12.3 Theater Vacuum Units (including accessories from outlet to patient):

The unit will be consisting of two reusable 2000 ml shatter resistant bottle, each made up of poly carbonate material and fully autoclavable at 121°C temperature.

The vacuum regulator with instant ON / OFF switch will be infinitely adjustable and the vacuum gauge (of 2.5 inches dia. dial) will indicate suction supplied by the regulator. Safety trap should be provided inside the jar to safeguard the regulator from overflowing.

There should be a three way selector switch with an option to operate either - Left, Right or Both.

All the above items should be mounted on a Aluminium Trolley having free moving castor wheels.

12.4 High pressure tube for O₂, N₂O, Compressed Air & Vacuum

It should be color coded for individual services i.e. white for Oxygen, Blue for N₂O, Black for Air and Yellow for Vacuum. Antistatic rubber tube should be as per ISO standards.

13.0 Diesel Generator Set for Emergency Power Supply

This specification covers design, manufacture, assembly factory test, supply, delivery of diesel generator sets, complete in all respects with all equipment fitting and accessories for efficient and trouble free operation as specified hereunder. Diesel Engine 4 stroke water cooled, electric start, of suitable BHP at 1500 RPM suitable for above output of alternator at site condition and conforming to BS 5514, BS 649, IS 10000, capable of taking 10% over loading for one hour in any 12 hours duration. The engine will be fitted complete with all the following accessories:

1. Flywheel to suit flexible coupling
2. Flexible coupling
3. Exhaust gas turbo charger
4. Automatic safety control in case of high water temperature
5. Automatic safety control in case of low lubrication oil pressure
6. Automatic over speed trip protection
7. Lubrication oil pump
8. Lubrication oil filter
9. Lubrication oil pan
10. Lube oil By-Pass filter
11. Fuel pump
12. Fuel filter
13. Hoses for fuel tank
14. Air intake manifold
15. Air cleaner dry type
6. Mechanical Governor
17. Self Starter
8. Alternator for battery charging
19. Flexible pipe for silencer
20. Engine mounted Instrument Panel fitted with and having digital display for following:
 - (a) Start-stop switch with key

- (b) Water temperature indication
- (c) Lubrication oil pressure indication
- (d) Lubrication oil temperature indication
- (e) Battery charging indication
- (f) RPM indication & Hour Counter
- (g) Over speed indication
- (h) Low lub. Oil trip indication
- (i) Engine Hours indication

Alternator:

Synchronous alternator rated at 30 KVA, 415 volts at 1500 RPM, 3 phase 50 Hz, AC supply with 0.8 lagging power factor at site condition. The alternator shall be having SPDP enclosure, brushless, continuous duty, self- excited and self-regulated through AVR conforming to IS: 4722 / BS 2613 suitable for tropical conditions and with class-H insulation.IP-23 degree of protection.

Voltage Regulation

Base Frame & Foundation:

Common iron channel fabricated base frame containing the engine and alternator mounted through AVM pads.

Fuel Tank:

Inbuilt fuel tank suitable for 8 hours continuous operation at full load. Fuel consumption at 75% rated load with radiator of fan fabricated out of 3mm thick MS sheet complete with all standard accessories.

Starting System:

12V DC starting system comprising of starter motors: voltage regulator and arrangement for initial excitation. Complete with suitable nos. of batteries.

Battery:

12 V; 45 Ampere Hour Acoustic and weather proof enclosure with arrangement for fresh air intake for cooling of the engine & alternator, extraction, discharging hot air in to the atmosphere as per specifications.

Automatic Mains Failure Panel:

Microprocessor based controller & suitable for controlling 30 KVA silent D.G set capable of switching within 12 seconds & comprising of 4 pole mains contractor, change over switch, automatic battery charger, electronic overload relay, fuse switches

& following features:

1. 63A, 35 KA, 4 Pole, Microprocessor based MCCB with O/C, S/C , Earth fault Protection - 2 nos.
2. 63A AC1 4 Pole Duty power contractor, coil 230V AC
3. 63A on load change over switch for Manual Charge Over failure of Auto System – 2nos.
4. Auxiliary Contractor, coil - 24 V DC, Auxiliary - 2 NO+ 2NC- 4 nos.
5. CT, 63/5A, 15 VA, Class - 1.0 Tape wound - 6 nos.
6. Auxiliary Contractor Coil Voltage.230 V AC, Auxiliary - 2NO+ 2NC
7. Digital Multifunction Meter - 2 nos.
8. Control fuse with base.
9. DC voltmeter
10. DC Ammeter
11. Microprocessor based AMF cum Engine controller with integral annunciation & Text display - 1 no.
12. Selector Switch for Auto/Manual operation - 1 no.
13. Fully Automatic Battery charger with auto floats & Bust system- 1 no.
14. Interposing Relay - 1 no.
15. Reverse Power Relay – 1no.
16. Buzzer/Hooter - 1 no.
17. Indicating Lamp, 24V DC ON - 1 no.
18. Indicating Lamp for mains ON, DG ON, DG load ON, DG trip Lamp Voltage 230V AC - 5 nos.

Emergency stop push button:

Trickle/Boost charge selector switch. Auto/Manual selector switch, Automatic Battery charger, Microprocessor based AMF relay separate by pass arrangement, Indicating lamps and other standard.

Tests and Test Reports

Type tests, acceptance tests and routine tests for D.G. sets equipment shall be carried out as

per relevant standards.

The certified copies of the test certificates/reports of the above mentioned tests shall be submitted to the purchaser before dispatch of equipment. The Bidder shall submit with his proposal, copies of available type test certificates of the equipment offered.

Control panel shall be subjected to the following tests:

- a. High voltage test (2000 volts for 1 minute)
- b. Megger test

Drawings and Data

As part of the proposal, the Bidder shall furnish relevant technical/descriptive literature of the D.G. set.

The Bidder shall also furnish complete filled in Data Sheet.

Control panel general arrangement drawing showing dimensioned views, cable entry location and mounting details.

Schematic wiring diagram of the control panel.

Bill of material listing equipment designation, make, type, ratings etc. of the various equipment mounted on the control panel.

ACCOUSTIC ENCLOSURE

Construction Details

The Structure is fabricated using CRCA sheets of 14/16 SWG Thickness and steel members. The enclosure is fabricated on a MS Channel Frame work further strengthened by suitable cross members to make it robust and sturdy. Rock wool / Mineral wool of suitable thickness and density conforming to IS 8183 is used for acoustic insulation to reduce the sound level to 68 - 70 d b from the original sound level of 105 - 110 d b, when measured at 1mtr.distance from the D.G. Set. The acoustic enclosure consists of following:

a) Acoustic Insulation :

High density Fireproof Acoustic Enclosure Material i.e. resin bonded rock wool / fiber glass wool (75 - 100mm thick of 64Kg/m^3 density) conforming to IS:8183 is provided on all

doors and roof to absorb noise. The insulation material used is fire retardant. The insulation is covered with fiber glass cloth and is supported by perforated sheet. Sound attenuators / downstream silencers are provided at all openings for air inlet/outlet to facilitate free air flow but to absorb sound resulting in extremely low noise level. Detachable partitions are provided inside the enclosure to attain further noise attenuation of the engine.

b) Noise Suppressor:

A suitably designed absorption type Hospital noise suppressor is provided which minimise the exhaust noise of the engine.

c) Exhaust System:

The exhaust gas is taken out through a specially designed flexible pipe, which prevents any back pressure on the engine.

d) Thermal Insulation :

The exhaust system and noise suppressor is provided thermal insulation by using glass wool & covering it with Aluminum sheet. This prevents it from radiating excess heat on the engine, makes it safe for the operator and enhances aesthetics.

e) Surface Treatment :

The enclosure is surface treated and painted with high quality polyurethane epoxy paint with prior zinc oxide primer base, which makes it weather proof and suitable for outdoor application. The paint is highly resistant to acids, alkaline, salt sprays, halogens, solvents, lubricants etc and has very good dielectric properties and is resistant to abrasion and cracking.

f) Air Circulation & Ventilation System:

A suitable forced air circulation and ventilation system is designed to maintain safe operating temperatures inside the enclosure. Requisite air circulation for engine aspiration combustion and cooling is provided by means of Exhaust fans or tube axial fan driven by a 3 phase squirrel cage induction motor according to need of engine.

g) Vibration Isolation:

The engine and alternator is mounted on Anti-Vibration Mounting pads to eliminate engine vibration.

h) Hardware:

Inlet and Outlet for cable, draining of lube oil and diesel etc. are provided. The doors are sketed with high quality EPDN gaskets to avoid leakage of sound. All doors are lockable.

i) Testing/ R&D:

The Gen set shall be thoroughly tested on load before it is dispatched from factory. The test certificate shall be submitted to the owner at the time of delivery of the equipments .

j) Earthing & Cabling :

The scope includes supply, installation testing & commissioning of Both power cable & control cable including termination & finishing from Distribution panel to AMF panel & AMF panel to DG.

The selected bidder should have to supply, installation testing & commissioning of earthing arrangement, fitting fixture and other accessories as would be necessary for Complete installation of D.G set.

14. Document Submission:

1. 2 sets of Drawings for approval from WBMSCL before laying of pipelines.
2. Inspection certificate of copper pipes by Lloyd's.
3. CE/ ISO/ BIS certificates for relevant product as in technical specifications.
4. 2 sets of Operation and Service manuals for all equipments.
5. Site test reports-
 - Leakage test
 - Cross connection / Anti-confusion test
 - Test of Source Equipments, Outlets, AVSU & Alarm
6. As-built drawings (5 sets along with soft copy)

15. Warranty and CMC

The Contractor is to assure uninterrupted operation and maintenance service for 1 (one) year from the date of commissioning and handing over of the complete pipeline system.

Complete system should have comprehensive onsite warranty (including labour & spares) for 1 (one) year commencing from the date of issue of installation & commissioning certificate by

the hospital/WBMSCL. Post commissioning performance of operation and maintenance service for 1 (one) year, further operation and annual comprehensive maintenance contract (CMC) for next 4 years (i.e. 2nd to 5th year from the date of commissioning and handing over) to cover complete MGPS installation including main equipment, minor civil construction including all piping and accessories supplied with the unit should be quoted separately for additional four years with year wise break up as indicated in the BoQ.

- If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the Contractor, free of cost.
- If it is found that to meet the performance criteria of MGPS, any extra equipment is required the same will be provided free of cost by the Contractor.
- All faults appearing and their rectification shall be periodically advised to the hospital, the period being not more than a month.
- No conditional warranty and CMC will be acceptable.
 - a. Warranty as well as CMC will be inclusive of all accessories and consumables for the total turnkey MGPS work and it will also cover the following wherever applicable:-
 - Any kind of motor.
 - Oil for the vacuum pumps
 - Molecular sieves for the air dryers
 - Filter cartridges
 - Plastic and Glass Parts against any manufacturing defects.
 - All kind of sensors, electrical/electronic parts
 - All kind of coils, probes and transducers.
 - b. Replacement and repair will be undertaken for the defective equipments by the Contractor. Proper marking has to be made for all spares for identification like printing of installation and repair dates.

16. Upon receipt of such notice, the Contractor shall, within 8 hours on a 24(hrs) × 365 (days) basis respond to take action to repair or replace the defective equipments or parts thereof, free of cost, at the ultimate destination. The Contractor shall take over the replaced parts / equipments after providing their replacements and no claim, whatsoever shall lie on the Corporation for such replaced parts/equipments thereafter. The penalty clause for non-rectification will be applicable as per the GCC.

17. In the event of any rectification of a defect or replacement of any defective equipments during the warranty period, the warranty for the rectified/replaced equipments shall be extended till the completion of the original warranty period of the main equipment.

If the Contractor, having been notified, fails to respond to take action to repair or replace the defect(s) within 8 hours on a 24(hrs) × 365 (days) basis, the Corporation may proceed to take such remedial action(s) as deemed fit by the Corporation, at the risk and expense of the Contractor and without prejudice to other contractual rights and remedies, which the Corporation may have against the Contractor.

During Warranty & CMC, the supplier of Compressor, Air Dryer, Vacuum Pump and Manifold Control Panel is required to visit at consignee's site at least once in 6 months or earlier as required, commencing from the date of the installation for preventive maintenance of the equipments.

Part B

APPROVED MAKES OR EQUIVALENT COMPONENTS OF EQUIPMENTS

Equipment description	Approved makes
Copper pipes	Mnufacturer of Lloyds' Certified Medical Grade Copper Pipes as per Tender specifications
Copper Fittings / Joints	IBP Connex/Mex flow Mehta Tubes or equivalent as per Tender specifications
Manifold with Tail pipes & NRVs	Linde/Prax Air/ Activ /MR Engineering/MPS/PES/MDD or equivalent
Automatic Oxygen / Nitrous Control panel	Linde/Prax Air/ Activ /MR Engineering/MPS/PES/MDD or equivalent
Emergency Oxygen Regulator	ESAB Make IOX-14 Regulator
Vacuum Pumps	Ingersoll Rand India or equivalent better product
Air Compressors	Anest Iwata/ FS Curtis or equivalent better product
Breathing Air Filter	Dominick Hunter (Perker) /Trident, Summit or equivalent
Isolation Valve	RB5940/RB6674/Audco (Medical Grade) or equivalent as per Tender specifications
Flow meter	Linde/Praxair/Aneer Engineers/Activ/MR Engineering/ MPS/ PES/MDD/BS Medical/ SS Enterprise or equivalent

Ward Vacuum Unit	Linde/ Praxair/ Aneer Engineers/ Activ / MR Engineering/ BS Medical/ PES/MPS/MDD/ SS Enterprise or equivalent
Theatre Vacuum Unit	Linde/ Praxair/Aneer Engineers/Activ /MR Engineering/ BS Medical/ PES/MPS/MDD/IPS or equivalent
Alarm Panels	Linde/ Praxair/Activ /MR Engineering /MPS/MDD/PES or equivalent
Gas Outlets	Linde/ Praxair/ Activ /MPS/MDD/PES or equivalent
* Combined Electrical Panel	Smith/ Jog Electric or equivalent
Air Drier	Trident, Summit or equivalent
Air Receiver Tank	UD Marketing / Hydro Pneumatic/ Premier or Equivalent

“Equivalent make”, if any, should conform to tender specifications and may only be used subject to prior approval from the Corporation.

*** Prior approval of electrical panel drawings must be taken from the Corporation before manufacture.**

Selected Bidder will have to arrange for demonstration of the components at WBMSCL office, if felt necessary, for approval. Wherever necessary the approved make should have CE / ISO / BIS Certification.

Part C

OPERATION AND COMPREHENSIVE MAINTENANCE OF MEDICAL GAS SYSTEM

Scope of Work

The primary objective of the bidder is to ensure safe and reliable MGPS and their efficient operation and use as per **HTM - 2022/NFPA 99 C standards**. The Contractor will be responsible for operational management and comprehensive maintenance (i.e. manpower + spares) of

- Medical Oxygen System - Manifold and Control panels
- Nitrous Oxide System - Manifold and Control Panel
- Medical Air System - Compressor systems, Control panel, Dryers, Reservoir, Filters etc.

- Medical Vacuum System - Vacuum pumps, Control panel, Reservoir, Filters etc.
- Copper pipelines
- Area Valve Service Units
- Isolation Valves
- Area Alarm panels and Master/ Main alarm panel
- Gas Outlets with Adapters and Accessories beyond outlets
- Ceiling Pendants

Staff responsible for plant operation should be aware of the activities necessary to ensure the continued safe operation of the system and what action should be taken in an emergency. The authorized person (MGPS) in particular should take a lead in explaining to users the function of the system and will have to be adequately trained and informed about the system. The Contractor will be responsible for safe cylinder handling including loading, unloading and storage. Any work involving alterations, extensions or maintenance work on the system should be subject to the permit-to-work procedure as per HTM standards.

Operation of Medical Gas

The Contractor should provide skilled manpower to operate the plant throughout 24 hrs x 365 days in a year.

The Contractor, during operation should ensure a trouble free supply at the outlets at the required pressure and flow. It shall monitor the consumption of O₂ & N₂O on hourly basis and submit a consolidated report weekly. Timely intimation of gas cylinders refill due date, and other service maintenance has to be done by the Contractor. The Contractor shall place indent upon the hospital authority for supply of cylinders. Hospital authority will be responsible to take back the empty cylinders and supply the filled cylinders. It shall be the duty of the Contractor to assist in the loading and/ or unloading of empty/ filled cylinders to and from the trucks.

The Contractor, while undertaking operation, shall be fully aware of the safety regulations applicable for Medical Gas System. It is the mandatory responsibility of the Contractor to conduct training sessions of adequate level to the workforce to keep them fit for handling the plants and associated systems. All tests to be conducted by authorized persons, competent persons, quality controller etc

have to be arranged by the contractor additionally as required. The Contractor may refer to relevant part of HTM for details like responsibilities.

Operational Policy

Refer Section: 5, HTM - 2022 Part B (Operational Management)

Routine Activity

1) Manifold (Oxygen and Nitrous Oxide)

- Inspection of working and reserved cylinder pressure
- Checking for leakage
- Checking inlet and outlet pressure
- Checking the change over
- Loading the cylinder as required
- Replacement of defective parts
- Notifying breakdown logging details

2) Compressed Air

- Checking the operation of compressors (sound, vibration, etc.)
- Checking change over
- Checking delivery pressure
- Checking the dryer and change over
- Checking the receiver
- Checking the filter
- Functioning of auto drain of receiver

3) Medical Vacuum system

- Checking vacuum pump operation
- Checking delivery vacuum level
- Checking vacuum controls in receiver
- Checking change over
- Checking for drop in vacuum level

Part D**DELIVERY SCHEDULE**

Timeline for completion from the date of issuance of Notification of Award/ Award of Contract subject to readiness of site including provision of necessary electric power at site	90 days
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Part E**DETAILS OF TRAUMA CARE FACILITIES OF SINGUR RURAL HOSPITAL**

Sl. No.	District	Facility	Department	Hospital's Address	Contact details
1	Hooghly	Singur Rural Hospital	Trauma Care	Singur, District-Hooghly, Pin - 712409 Singur, Hooghly	Dr. Rajat Pal, BMOH - 8945864188

SECTION - IV

BIDDING FORMS (BDF)

FORM - 1

COVERING LETTER

(On the letter head of the bidder)

Managing Director,
West Bengal Medical Services Corporation Ltd.,
Swasthya Sathi,
GN 29, Bidhannagar, Sector -V,
Kolkata-700 091.

Sir,

Sub: Bid in response to your e-NIT bearing Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018 for Design, Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) for Trauma Care Facilities at Singur Rural Hospital of West Bengal

With reference to your e-NIT bearing Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018 for selection of Service Provider for the abovementioned purpose, I/ we hereby submit our Technical Bid and Financial Bid online for your consideration.

I/ We hereby confirm that I/ we have gone through and accept all the terms and conditions of the Bidding Documents and e-NIT Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018 for Design, Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) for Trauma Care Facilities at Singur Rural Hospital of West Bengal.

I/ We have given Performance Security of Rs. Rs. ____/- (Rupees ____ Lakhs only) in terms of the Bidding Documents.

I/ We hereby give undertaking to make available to you any additional information it may find necessary to supplement or authenticate the proposal.

I/ We have studied all the Bidding Documents carefully and agree that I/ we have made our own assessments in submitting bid and have not relied solely

on the information provided in the Bidding Documents for submission of our bid.

I/ We shall have no claim arising out of the Bidding Documents or information provided to us by the Corporation or in respect of any matter arising out of or relating to the bidding process including the award of the contract and agree to keep this bid valid for 180 (one hundred and eighty) days from the closing date of submission of the bids.

Yours faithfully,
For [Name of bidder]

Place:	[Signature] [Name of authorized signatory]
Date:	[Designation] [Affix rubber stamp of bidder]

FORM - 2**QUALIFICATION INFORMATION**

(On the letterhead of the bidder)

1.
 - a) Name:
 - b) Address of the corporate headquarters/ principal place of business:
 - c) Date of incorporation and / or commencement of business:

2. Brief description including details of its main lines of business:
(Information and activities in brief of the bidder in not more than 1 page of A-4 size is required to be submitted which may be annexed to this Form)

3. Details of individual(s) who will serve as the point of contact/ communication for the bidder:
 - (a) Name:
 - (b) Designation:
 - (c) Address:
 - (d) Telephone Number:
 - (e) E.mail address:
 - (f) Fax Number:

4. Particulars of the authorised signatory of the bidder: *(Not to be filled if the bidder is an individual)*
 - (a) Name:
 - (b) Designation:
 - (c) Address:
 - (d) Telephone Number:
 - (e) E-mail address:
 - (f) Fax Number:

5. Number of years of experience of the bidder in the respective field of operation (as on date of submission of the bid):
6. Bank Account details of the bidder (Name of the Bank, Branch and address, Type of Accounts, IFSC Code):
7. Staffing Plan and monitoring mechanism at all levels planned for this scheme for which the bidder is submitting the bid:

I/ We do confirm that all information furnished in the bid is true to the best of our knowledge.

For (name of bidder)

Date:

[Signature]
[Name of authorized signatory]

Place:

[Designation]
[Affix rubber stamp of bidder]

FORM – 3**e-NIT ACCEPTANCE FORM**

(To be affirmed on stamp paper of appropriate value before Notary/ Magistrate)

AFFIDAVIT

This is to certify that I/ we, M/s. _____, in submission of this bid confirm that all the terms and conditions of the Bidding Documents (WBMSCL/ NIT-____/2018 dated _____.2018) and all its Sections, viz. the e-NIT, the ITB, the Schedule of Requirements, the Bidding Forms, the General Conditions of Contract, the Contract Forms, the Drawings and all Addenda, Corrigenda and clarifications issued to the Bidding Documents are read and accepted without any modification or conditions.

For [Name of bidder]

Place:

[Name of authorized signatory]

[Designation]

[Affix rubber stamp of bidder]

[Date]

[Note: Technical evaluation of the bid will only be taken up after scrutiny of Form – 3 duly notarized]

FORM -4**DECLARATION BY WAY OF AFFIDAVIT***(To be affirmed on stamp paper of appropriate value before Notary/ Magistrate)***AFFIDAVIT**

This is to certify that I/ we, M/s. _____, in submission of this bid confirm that:-

- a) I/ We possess the necessary technical and financial resources and competence required by the Bidding Documents issued by the Corporation;
- b) I/ We am/ are not insolvent, in receivership, bankrupt or being wound up, nor have my/ our affairs administered by a court or a judicial officer, nor have my/ our business activities been suspended nor are they subject of legal proceedings;
- c) I/ We have not been disqualified pursuant to any debarment or blacklisting proceedings to enter into any tender by the Government of India or any State Government or any of the Departments, authorities or body corporate under Government of India or any State Government from participating in any project which continues as on the date of bid submission;
- d) I/ We do not have a conflict of interest as specified in the Bidding Documents, which materially affects fair competition.

For [Name of bidder]

Place:

[Signature]
[Name of authorized signatory]

[Designation]
[Affix rubber stamp of bidder]
[Date]

[Note: Technical evaluation of the bid will only be taken up after scrutiny of Form – 4 duly notarised]

FORM - 5**POWER OF ATTORNEY IN FAVOUR OF SIGNATORY OF THE BIDDER**

(To be executed on non-judicial stamp paper of appropriate value)

KNOW ALL MEN BY THESE PRESENTS THAT I/ WE,[insert the name of the bidder], a company within the meaning of the Companies Act, 2013/ a registered partnership firm within the meaning of Partnership Act, 1932/ a limited liability partnership within the meaning of Limited Liability Partnership Act, 2008/ an individual carrying on business under the name and style of M/s (hereinafter referred to as the bidder) acting through[insert name of the person giving the Power of Attorney].....presently holding the position of (insert designation of the person giving the Power of Attorney) having been authorized by the Board of Directors inter alia, to execute contracts in the name of and for and on behalf of the bidder (*modify as applicable*) do hereby constitute, appoint and authorize (insert name, designation and residential address of the person to whom the Power of Attorney is being given)..... as my/ our true and lawful attorney to do in our name and on our behalf all such acts, deeds, things necessary and incidental for submission of our bid in respect of Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018 of the West Bengal Medical Services Corporation Limited (hereinafter "the Corporation"). I/ We hereby further authorize the above attorney for signing and submission of the bid and all other documents, information related to the bid including undertakings, letters, certificates, declarations, clarifications, acceptances, guarantees, any amendments to the bid and such documents related to the bid, and providing responses and representing us in all the matters before the Corporation in connection with the bid for the said tender till the completion of the bidding process. I/ We accordingly hereby nominate, constitute and appoint above named person, as the lawful attorney to do all or any of the acts specifically mentioned immediately herein above.

I/We do hereby agree and undertake to ratify and confirm whatever either of the said Attorney shall lawfully do or cause to be done under and by virtue of this Power of Attorney and the acts of the attorney to all intents and purposes are done as if the same had been done on behalf of me/ us if these presents had not been made.

IN WITNESS WHEREOF I/WE, _____, THE ABOVE NAMED
 PRINCIPAL HAVE EXECUTED THIS POWER OF ATTORNEY ON THIS _____ DAY OF
 _____, 20**.

For [Name of bidder]

Place:

[Signature]
 [Name of authorized signatory]

[Designation]
 [Affix rubber stamp of bidder]
 [Date]

Witnesses:

- 1.
- 2.

[Notarised]

Accepted

(Signature)

(Name, Title and Address of the Attorney)

FORM – 6**BOARD RESOLUTION IN FAVOUR OF SIGNATORY OF THE BIDDER**

The Board, after discussion, at the duly convened meeting on (insert date), with the consent of all the Directors present and in compliance of the provisions of the Companies Act, 2013, passed the following Resolution:

RESOLVED THAT Mr./Ms....., be and is hereby authorized to do on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for “Design, Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) for “Trauma Care Facilities at Singur Rural Hospital” issued by West Bengal Medical Services Corporation Limited (hereinafter “the Corporation”), including signing and submission of all documents and providing information / responses to the Corporation, representing us in all matters before the Corporation, and generally dealing with the Corporation in all matters in connection with our bid for the said Services.

Certified true copy

(Signature, Name and stamp of Company Secretary)

Notes:

- 1) *This certified true copy should be submitted on the letterhead of the bidder, signed by the Company Secretary.*
- 2) *The contents of the format may be suitably re-worded indicating the identity of the entity passing the resolution.*

FORM - 7**LETTER OF FINANCIAL BID***{On the letterhead of the bidder}*

Date:

Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018

Managing Director,
 West Bengal Medical Services Corporation Ltd.,
 Swasthya Sathi,
 GN 29, Bidhannagar, Sector -V,
 Kolkata-700 091.

Sir,

Subject: Bid in response to your e-NIT bearing Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018 for Design, Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) for Trauma Care Facilities at Singur Rural Hospital

I/ We, the undersigned, declare that:

- a) I/ We have examined and have no reservations to the Bidding Documents, including addenda issued in accordance with Instruction to Bidders (ITB) 8.
- b) I/ We offer to provide the services in accordance to the Schedule of Requirements as provided in the Bidding Documents.
- c) Apart from the contract price (upon deduction of taxes, as may be applicable) as per the Bidding Documents and reimbursement of GST paid at actuals, nothing extra or additional, on any head or account will be paid by you to me/ us.
- d) I/ We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until the formal Agreement is prepared and executed.
- e) I/ We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- f) If my/ our bid is accepted, we commit to obtain a Performance Security in accordance with the Bidding Documents.

Yours faithfully,

[Signature]
 [Name of authorized signatory]
 [Designation]
 [Affix rubber stamp of bidder]
 [Date]

FORM - 8**FINANCIAL CAPACITY OF BIDDER***(On the letterhead of a Chartered Accountant)*

Dated: [●]

Certificate of Financial Capacity

I/ We certify that M/s _____, which is a company within the meaning of the Companies Act, 2013/ a registered partnership firm within the meaning of Partnership Act, 1932/ a limited liability partnership within the meaning of Limited Liability Partnership Act, 2008/ an individual carrying on business under the name and style of M/s, as per its audited books of accounts, has the following turnover in the last three financial years:

Financial Year	Turn Over
2016-2017	
2015-2016	
2014-2015	

I/ We further certify that the said turnover have been calculated in accordance to the formula specified in the Bidding Documents.

I/ We further certify that the bidder has a positive net worth, as on the date of submission of the bid, as per the formula provided in the Bidding Documents.

Name of Chartered Accountant:

Seal of Chartered Accountant:

[Signature]
[Name of Chartered Accountant]
{Registration No.]

FORM - 9**FINANCIAL SITUATION**

Each bidder must fill in this form

		Financial Data		
		Year 1 (2016-2017)	Year 2 (2015-2016)	Year 3 (2014-2015)
		Information from Balance Sheet		
1.	Total Assets			
2.	Total Liabilities (secured loans, unsecured loans and current liabilities)			
3.	Misc. expenditure to the extent not written off			
4.	Net worth (1-2 – 3)			
A.	Investments¹			
B.	Current Assets			
i.	Inventories			
ii.	Sundry debtors			
iii.	Cash & Bank and other current assets ²			
iv.	Loans & Advances ³			
	Total Current Assets			
C.	Current liabilities and provisions			
i.	Current liabilities and provisions			
ii.	Provisions			
iii.	Unsecured loans ⁴			
	Total Current liabilities and			

	provisions			
		Information from Income Statement		
	Total Revenue			
	Profit before taxes			
	Profits after taxes			
1.		Investments shall include only those investments which are unencumbered as certified by the Statutory Auditor.		
2.		Cash & Bank and other current assets will not include margin money deposit, earnest money deposit, retention money, money lying in any escrow account, unbilled revenue.		
3.		Loans and advances shall not include tax deducted at source and advance tax, deposits lying with statutory authorities or deposits lying under any judicial order.		
4.		Amounts repayable within one year shall be included.		
		Attached are copies of financial statements (balance sheets including all related notes and income statements) for the financial years as indicated above, complying with the following conditions.		
		All such documents reflect the financial situation of the bidder		
i)		Historical statements must be audited by a certified accountant		
ii)		Historical statements must be complete, including all notes to the Financial Statements.		
iii)		Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).		

FORM - 10**FORM OF NOTIFICATION OF AWARD***(On the letter head of the Managing Director of the Corporation)*

No. : _____ /

Dated :

Name & Address of the Selected Bidder

Dear Sirs,

Sub: Bid Reference No. WBMSCL/ NIT-___/2018 dated __.__.2018

Ref: Your tender dated _____ and letter dated _____

This is to notify you that your bid under reference has been accepted by us for a contract price of Rs. _____ (Rupees _____ only) for Design, Supply, Installation, Commissioning and Operation & Maintenance of Medical Gas Pipeline System (MGPS) for Trauma Care Facilities at Singur Rural Hospital.

Pursuant to Clause 37.1 of the Instructions to Bidders, you are required to furnish Performance Security for an amount of Rs. _____/- (Rupees _____ only), within 14 days of receipt of this Notification of Award.

You are requested to contact Mr. Amit Kishore Sarkar, Consultant Mechanical Engineer to sign and date the Agreement and return the same to the undersigned. It may be noted that no payment shall be made for any equipment supplied or services rendered by you till the Agreement is executed and till such time the Performance Security has been submitted by you.

This Notification of Award is being sent to you in duplicate and you are requested to return without delay one copy of the letter duly signed and stamped, in token of your acknowledgement.

Kindly note that this Notification of Award shall constitute a binding contract between us pending execution of formal Agreement.

Your letter referred to above shall form part of the Agreement.

Yours faithfully,

We confirm

For West Bengal Medical Services Corporation Ltd.

For [name of Selected Bidder]

[Managing Director]

[Signature]

[Name of authorized signatory]

[Designation]

[Affix rubber stamp of Selected Bidder]

[Date]

FORM - 11

DELETED.

FORM - 12**CHECK-LIST OF DOCUMENTS***[To be filled and included with the physical copy of the bid]*

Sl. No.	Document to be submitted	Checked by bidder	Checked by Corporation	Remarks
1.	Covering Letter (as per the format given in Form 1)			
2.	Qualification Information (as per format given in Form 2)			
3.	e-NIT Acceptance Form (as per format given in Form 3 hereof)			
4.	Declaration by way of Affidavit (as per format given in Form 4)			
5.	Power of Attorney in favour of signatory of the bidder (as per format given in Form 5) or Board Resolution in favour of signatory of the bidder (as per format given in Form 6) whichever is applicable			
6.	Letter of Financial Bid (as per format given in Form 7)			
7.	Financial Capacity of Bidder (as per format given in Form 8)			
8.	Financial Situation (as per format given in Form 9)			
9.	Bid Security (online)			
10.	Memorandum and Articles of Association/ Certificate of Incorporation, if the bidder is a company and Deed of Partnership, if the bidder is a partnership firm (not required to be submitted if the bidder is an individual)			
11.	PAN Card			
12.	Relevant pages of passbook/ Bank Statement showing Account No. and IFS Code			
13.	Letter recording GST identification number/ GST certificate			
14.	Audited Balance Sheets for the financial			

	years 2014-2015, 2015-2016 and 2016-2017			
16.	Income Tax Returns for the financial years 2013-2014, 2014-2015 and 2015-2016 (assessment years 2014-2015, 2015-2016 and 2016-2017)			
17.	Work Order and Completion Certificate showing experience in undertaking requisite number of MGPS projects			
18.	NIT, ITB, Schedule of Requirements and GCC duly signed and stamped			
19.	Already established office address and contact details in West Bengal			

FORM - 13**CONSIGNEE RECEIPT CERTIFICATE**

(To be given by Consignee's authorized representative)

The following equipment has/have been received in good condition:

Contract No. & date : _____

Contractor's Name : _____

Consignee's Name & Address with Telephone No. & Fax No. : _____

Name of the item supplied : _____

Quantity supplied : _____

Date of Receipt by the Consignee : _____

Name and designation of Authorized Representative of Consignee : _____

Signature of Authorized Representative of Consignee with date: _____

Seal of the Consignee : _____

FORM - 14**PRICE SCHEDULE**

Sl. No.	Description of Work	Unit	Quantity	Rate in INR	Amount in INR
			(A)	(B)	(C) = (A)x(B)
1	OXYGEN SYSTEM				
1.1	2 x 8 size manifold complete with middle frame with chain for individual cylinder along with Tail Pipe and Non Return Valve for every cylinder and Isolation Valve, Safety Valve, etc. as required for the complete manifold system	Set	1		
1.2	Semi-automatic control panel for Oxygen with automatic changeover facilities from running bank to reserve bank of cylinders and having non-halogenated polymer at the high pressure side of high flow Regulators	Set	1		
1.3	4 cylinder manifold (Emergency supply) complete with middle frame with chain for individual cylinder along with Non Return Valves and tail pipes for every cylinder and with high flow Regulator having non-halogenated polymer at the higher pressure side. In case of reduction of pressure of the main manifold, there should be automatic changeover from main manifold to emergency manifold with audio-visual alarm	Set	1		
1.4	Surface/panel/pendant mounted front loading double lock Oxygen outlets with matching Adapters	Nos	110		
1.5	H.P. tubing having anti static core white color 5mtrs with kit conversion for Oxygen	Set	4		
2	NITROUS OXIDE SYSTEM				
2.1	2 x 2 size manifold (Primary & Secondary supply) complete with middle frame with chain for individual cylinder along with Non Return Valves for every cylinder.	Set	1		
2.2	Semi-automatic control panel for Nitrous Oxide with automatic changeover facilities from running bank to reserve bank of cylinders	Set	1		
2.3	1 cylinder Emergency Nitrous oxide arrangement using a high flow double stage Regulator with gauges	Set	1		
2.4	Surface/panel/pendant mounted front loading double lock Nitrous Oxide outlets with matching Adapters	Nos	4		
2.5	H.P. tubing having antistatic core Blue color 5mtrs with Kit conversion for Nitrous Oxide as per ISO Standards	Set	4		
3	MEDICAL AIR SYSTEM				

Sl. No.	Description of Work	Unit	Quantity	Rate in INR	Amount in INR
			(A)	(B)	(C) = (A)x(B)
3.1	Compressed Air System Consisting of 2 nos of non-lubricated, Reciprocating, Tank Mounted Air Compressors (Anest Iwata make Model), each of 10 HP Motor with 37 cfm capacity at 8.5Kg/cm2 pressure with Isolation Valve for each compressor Air drier with by pass valve arrangement Duplex Pressure Reducing Unit for Air 4 bar valve arrangement Flexible High pressure SS Hose for each compressor NRV for each compressor Safety Valve in the Air Receiver Pressure Gauge with Valve Arrangement in the Air Receiver Valve - Upstream of Air Receiver Automatic Drain Arrangement for air receivers Air Compressor By pass line Pressure Gauge with Valve arrangement in Main line Isolation Valve in the main line	Set	1		
3.2	Supply, Installation, Testing and commissioning of 3-stage air filtration system (suitable for 10HP Compressor) as per ISO 8573.1 Class 1-2-1.	Set	1		
3.3	Surface/panel/pendant mounted front loading double lock Medical Air-4 bar Outlets with matching Adapters	Set	55		
3.4	HP colour coded black Tubing having anti static core as per ISO Standards	Mtr	20		
4	VACUUM SYSTEM				
4.1	Vacuum Central System: Supply, Installation, Testing and commissioning of Duplex vacuum pumps should be air cooled type, Reciprocating, 2 nos. of Ingersoll Rand make Model V255 x 5 HP Motor with 1 no. Receiver of 1000 litres capacity NRV for each Vacuum Pump Isolation Valve for each Vacuum Pump (42 mm) Valve - Upstream of Vacuum Receiver Vacuum Drain valve with flask arrangement Filters for each vacuum pump Silencer for each vacuum pump.	Set	1		
4.2	Surface/panel/pendant mounted front loading double lock Vacuum Outlets with matching Adapters	Nos	65		
4.3	High Pressure color coded yellow Tubing having anti static core as per ISO Standards	Mtr	20		
5	ELECTRICAL CONTROL PANEL FOR COMPRESSOR & VACUUM SYSTEM				

Sl. No.	Description of Work	Unit	Quantity	Rate in INR	Amount in INR
			(A)	(B)	(C) = (A)x(B)
5.1	Supply, Installation, Testing and commissioning of Combined Electrical Control Panel for Vacuum System (5HP each) & Compressed Air system (10HP each) with Duplex/Cascading / Sequencing facilities and complete with plant Room wiring .	Set	1		
6	PIPELINE DISTRIBUTION SYSTEM				
6.1	Supply, Installation, Testing and commissioning of copper piping with Lloyds' Certified Copper Pipes as per BS EN 13348 : 2008. Pipe sizes will be as follows:				
6.1.1	12 mm OD x 0.7 mm thick	Mtr	400		
6.1.2	15 mm OD x 0.9 mm thick	Mtr	1000		
6.1.3	22 mm OD x 0.9 mm thick	Mtr	650		
6.1.4	28 mm OD x 0.9 mm thick	Mtr	200		
6.1.5	42 mm OD x 1.2 mm thick	Mtr	220		
6.1.6	54 mm OD x 1.2 mm thick	Mtr	110		
6.2	Isolation Valve (factory-degreased) with brass adapters				
6.2.1	15mm	Set	2		
6.2.2	22mm	Set	2		
6.2.3	28mm	Set	3		
6.2.4	42mm	Set	3		
6.2.5	54mm	Set	1		
6.3	VALVE BOX with NIST connectors for oxygen with lockable arrangement and breakable glass cover.				
6.3.1	2 valve configuration with size 15 O ₂ , 22 VAC	Nos	Rate only		
6.3.2	3 valve configuration with size 15 O ₂ , 15 MA4, 22 VAC	Nos	7		
6.3.3	4 valve configuration with size 15 O ₂ , 15 N ₂ O, 15 MA4, 22 VAC	Nos	2		
6.4	ALARM SYSTEM : Providing and fixing digital alarm system for Medical gas system complete consisting of pressure sensors, panel and the control cabling, all wiring shall be within 1mm sq multi core data cable, PVC pipe for data cable. Panel shall be self contained low voltage (less than 24 V)				
6.4.1	2 service alarm configuration for O ₂ and VAC	Nos	Rate only		
6.4.2	3 service alarm configuration for O ₂ , MA4, VAC	Nos	7		
6.4.3	4 service alarm configuration for O ₂ , N ₂ O, MA4, VAC	Nos	2		
6.4.4	Supply, Installation, Testing and commissioning of Main alarm for Gas Manifold Room - four service configuration (Oxy, N ₂ O, MA4 & Vac)	Nos	1		
7	CEILING PENDANTS				

Sl. No.	Description of Work	Unit	Quantity	Rate in INR	Amount in INR
			(A)	(B)	(C) = (A)x(B)
7.1	Ceiling Pendants for OT : Supply, Installation, Testing and commissioning of Rigid Ceiling Pendant with 6 nos. of Gas & Vacuum Outlets (2-Oxygen, 1-N ₂ O, 1-Air & 2-Vac) and 4 sets of 6/16 Amp Electrical sockets with switches	Nos	4		
8	ACCESSORIES for Suction & Oxygen Therapy				
8.1	Oxygen Flowmeter & Humidifier Bottle : Back Pressure Compensated Flow meter within a range of 0-15 LPM where 0-5 LPM should be with expanded scale. Humidifier bottle should be made of unbreakable polycarbonate materials and autoclavable at 121 degree Centigrade (to be supplied alongwith required low pressure tubing and face mask)	Nos	55		
8.2	Ward vacuum Unit : It shall include vacuum regulator along with 0-760 mm of Hg vacuum gauge, 600 ml capacity reusable poly carbonate collection bottle with overflow safety trap and autoclavable at 121 degree Centigrade with plastic slide wall mounted type (to be supplied alongwith required low pressure tubing with catheter).	Nos	55		
8.3	Theatre Vacuum Unit : It shall be trolley mounted. The unit shall include one regulator along with 0-760 mm of Hg vacuum gauge mounted on the trolley stand, having two reusable collection bottles each of 2000 ml capacity and made of unbreakable polycarbonate materials, autoclavable at 121 degree Centigrade, having over flow safety trap, mounted on the base of trolley unit made of aluminium alongwith castor wheels and connected with regulator & low pressure tube inter-connections (to be supplied alongwith required low pressure tubing with catheter).	Nos	4		
9	Miscellaneous				
9.1	Supply, installation and operation of 30 KVA Silent Diesel Generator alongwith 3 phase AMF panel complete with necessary electrical cabling, exhaust piping etc.	Set	1		
9.2	Turnkey - for both Civil & Electrical work wherever necessary	Lot	1		
Total for Design, Supply, Installation and Commissioning of MGPS					
Operation & Comprehensive Maintenance charges for the 1st Year					
Operation & Comprehensive Maintenance charges for the 2nd Year					
Operation & Comprehensive Maintenance charges for the 3rd Year					
Operation & Comprehensive Maintenance charges for the 4th Year					
Operation & Comprehensive Maintenance charges for the 5th Year					

FORM - 15**STATEMENT OF BREAKUP OF DUTIES AND TAXES**

Sl. No.	Description of work	Percentage of Tax	Price (in INR)
1	Total for Design, Supply, Installation, Commissioning of MGPS for the Hospital (excluding GST)	—	
2	GST as applicable on Design, Supply, Installation, Commissioning of MGPS for the Hospital		
3	One Year Operation and Comprehensive Maintenance Charges from the date of commissioning (excluding GST)	—	
4	GST as applicable on One Year Operation and Comprehensive Maintenance Charges from the date of commissioning		
5	Comprehensive Operation & Maintenance Charges for the 2 nd Year (excluding GST)	—	
6	GST as applicable on Comprehensive Operation & Maintenance Charges for the 2 nd Year	GST at actuals	GST at actuals
7	Comprehensive Operation & Maintenance Charges for the 3 rd Year (excluding GST)	—	
8	GST as applicable on Comprehensive Operation & Maintenance Charges for the 3 rd Year	GST at actuals	GST at actuals
9	Comprehensive Operation & Maintenance Charges for the 4 th Year (excluding GST)	—	
10	GST as applicable on Comprehensive Operation & Maintenance Charges for the 4 th Year	GST at actuals	GST at actuals
11	Comprehensive Operation & Maintenance Charges for the 5 th Year (excluding GST)	—	
12	GST as applicable on Comprehensive Operation & Maintenance Charges for the 5 th Year	GST at actuals	GST at actuals

NOTES:

- a) HSN Number to be specified by the bidder at the time of quoting the GST applicable
- b) GST amount is to be specified in Rupees on the basis of the prevailing rate of GST at the time of submission of Financial Bid

SECTION - V

GENERAL CONDITIONS OF CONTRACT (GCC)

1. Definitions

In the Conditions of Contract (“these Conditions”), the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

- 1.1 **“Consignee”** shall refer to the Trauma Care Facilities of Singur Rural Hospital.
- 1.2 **“Contract”** means the Agreement, these Conditions, the Schedule of Requirements, the Drawings, the Notice inviting e-Tender and the Instructions to Bidders and the further documents (if any) which are listed in the Agreement.
- 1.3 **“Contractor”** shall refer to the Selected Bidder.
- 1.4 **“Contract Price”** shall unless indicated otherwise, refer to the total sum being paid by the Corporation to the Contractor in consideration of the execution, completion and operation and maintenance of the Works for 1 year from the date of commissioning and handing over of MGPS in respect of the hospital and includes adjustments (if any) in accordance with the contract.
- 1.5 **“Corporation”** means West Bengal Medical Services Corporation Limited.
- 1.6 **“INCOTERMS”** shall mean and refer to INCOTERMS 2010 as the same has been judicially interpreted in India.
- 1.7 **“Project/ Works”** shall unless otherwise indicated, mean the supply of equipment and rendering of services to be undertaken by the Selected Bidder/ Contractor in respect of

the hospital, including designing, supplying, installing, commissioning, operating and maintaining the MGPS in accordance to the Conditions of Contract.

2. Legal Status of the Parties

- 2.1 Nothing contained in or relating to the contract shall be construed as establishing or creating between the parties the relationship of employer and employee or of principal and agent. The officials, representatives, employees, or subcontractors of each of the parties shall not be considered in any respect as being the employees or agents of the other party and each party shall be solely responsible for all claims arising out of or relating to its engagement of such persons or entities.

3. Use of contract documents and information

- 3.1 The Contractor shall not, without the Corporation's prior written consent, disclose the contract or any provision thereof including any specification, drawing, sample or any information furnished by or on behalf of the Corporation in connection therewith, to any person other than the person(s) employed by the Contractor in the performance of the contract emanating from the Bidding Documents. Further, any such disclosure to any such employed person shall be made in confidence and only so far as necessary for the purposes of such performance for this contract.
- 3.2 Further, the Contractor shall not, without the Corporation's prior written consent, make use of any document or information mentioned in GCC sub-clause 3.1 above except for the sole purpose of performing this contract.
- 3.3 Except the Agreement issued to the Contractor, each and every other document mentioned in GCC sub-clause 3.1 above shall remain the property of the Corporation and, if advised by the Corporation, all copies of all such documents shall be returned to the Corporation on completion of the Corporation's performance and obligations under this contract.

4. Patent Rights

- 4.1 The Contractor shall, at all times, indemnify and keep indemnified the Corporation, free of cost, against all claims which may arise in respect of the works to be carried out by the Contractor under the contract for infringement of any intellectual property rights or any other right protected by patent, registration of designs or trademarks. In the event of any such claim in respect of alleged breach of patent, registered designs, trade marks etc. being made against the Corporation or the Department of Health & Family Welfare, as the case may be, the Corporation shall notify the Contractor of the same and the Contractor shall, at his own expenses take care of the same for settlement without any liability to the Corporation or the Department.

5. Performance Security

- 5.1 Within fourteen (14) days from date of the issue of Notification of Award/ Award of Contract by the Corporation, the Contractor, shall furnish Performance Security in the form of Bank Guarantee of an amount of 10% of the total contract value, as per the format provided in Section - VI (Contract Forms) of the Bidding Documents or in any other format, as acceptable to the Corporation.
- 5.2 The validity period of the Performance Security shall be 19 months.
- 5.3 The Corporation will release the Performance Security without any interest to the Contractor upon successful completion of all contractual obligations of the Corporation's obligations including the warranty obligations and upon receipt of the Second Performance Security, in the manner provided hereinbelow and within a period of 7 days after the receipt of the Performance Security.
- 5.4 The Contractor shall in a form similar to that of the Performance Security furnish a Second Performance Security, within a period of completion of 11 months from the date of satisfactory installation and commissioning and handing over of MGPS in the hospitals, of 10% of the total price quoted for comprehensive operation and maintenance from the 1st year to the 5th year from date of commissioning and handing over of MGPS, for the hospital, which shall be having a validity of 54 months.

- 5.5 The Corporation will release the Second Performance Security (ies) without any interest to the Contractor upon successful completion of the period of comprehensive operation and maintenance, which shall be 48 months.

6. Technical Specifications and Standards

- 6.1 The Equipment to be supplied and Services to be provided by the Contractor under this contract shall conform to the technical specifications and quality control parameters as detailed in Section – III of the Bidding Documents.

7. Packing and Marking

- 7.1 The packing for the equipment to be supplied by the Contractor should be strong and durable enough to withstand, without limitation, the entire journey during transit, rough handling, open storage etc. without any damage, deterioration etc. As and if necessary, the size, weights and volumes of the packing cases shall also take into consideration, the remoteness of the final destination of the equipment and availability or otherwise of transport and handling facilities at all points during transit up to final destination as per the contract.

- 7.2 The quality of packing, the manner of marking within and outside the packages and provision of accompanying documentation shall strictly comply with the requirements as provided in Technical Specifications under Section – III of the Bidding Documents. In case the packing requirements are amended due to issue of any amendment to the contract, the same shall also be taken care of by the Contractor accordingly.

- 7.3 Packing instructions

Unless otherwise mentioned in Section – III of the Bidding Documents, the Contractor shall make separate packages for each consignee (in case there is more than one consignee mentioned in the contract) and mark each package on three sides with the following with indelible paint of proper quality:

- a. contract number and date
- b. brief description of equipment including quantity
- c. packing list reference number

- d. Consignee's name and full address and
- e. Contractor's name and address

7.4 In case the equipment are high radiation material itself or any component of the same emits radiation, the same should be packaged to prevent or insulate such radiation so that no health hazard is caused to the user.

8. Inspection, Testing and Quality Control

8.1 The Corporation and/or its nominated representative(s) will, without any extra cost to the Corporation, inspect and/or test the ordered equipment and the related services to confirm their conformity to the contract specifications and other quality control details incorporated in the contract. The Corporation shall inform the Contractor in advance, in writing, the Corporation's programme for such inspection and, also the identity of the officials to be deputed for this purpose.

8.2 The Technical Specifications as provided in the Bidding Documents shall specify what inspections and tests are to be carried out and, also, where and how they are to be conducted. If such inspections and tests are conducted in the premises of the Corporation or its subcontractor(s), all reasonable facilities and assistance, including access to relevant drawings, design details and production data, shall be furnished by the Contractor to the Corporation's inspector at no extra cost to the Corporation.

8.3 If during such inspections and tests, the contracted equipment fail to conform to the required specifications and standards, the Corporation's inspector may reject them and the Contractor shall either replace the rejected equipment or make all alterations necessary to meet the specifications and standards, as required, free of cost to the Corporation and resubmit the same to the Corporation's inspector for conducting the inspections and tests again.

8.4 In case the contract stipulates pre-despatch inspection of the ordered equipment at the Contractor's premises, the Contractor shall put up the equipment for such inspection to the Corporation's inspector well ahead of the contractual delivery period, so that the Corporation's inspector is able to complete the inspection within the contractual delivery period.

- 8.5 If the Contractor tenders the equipment to the Corporation's inspector for inspection at the last moment without providing reasonable time to the inspector for completing the inspection within the contractual delivery period, the inspector may carry out the inspection and complete the formality beyond the contractual delivery period at the risk and expense of the Contractor. The fact that the equipment has been inspected after the contractual delivery period will not have the effect of keeping the contract alive and this will be without any prejudice to the legal rights and remedies available to the Corporation under the terms & conditions of the contract.
- 8.6 The Corporation's contractual right to inspect, test and, if necessary, reject the equipment after the arrival of the equipment at the final destination shall have no bearing of the fact that the equipment have previously been inspected and cleared by the Corporation's inspector during pre-despatch inspection mentioned above.
- 8.7 Equipment accepted by the Corporation and/or its inspector at initial inspection and in final inspection in terms of the contract shall in no way dilute Corporation's right to reject the same later, if found deficient in terms of the warranty clause of the contract.
- 8.8 For such equipment as may be specified by the Corporation from time to time, the Contractor has to obtain prior approval from the Corporation for selection of any particular make/brand or any particular category/sub-category of such make/brand. If any make/brand or any category/ sub-category thereof is not available in the market, the Corporation can add or substitute make/brand or any particular category/sub-category of such make/brand apart from that in the list at any stage during progress of Work but only upon due application in this respect from the end of Contractor corroborated by necessary documents. The decision in this regard taken by the Corporation will be final and binding.

9. Title of Equipment

- 9.1 Unless otherwise expressly provided in the contract, title including the incidentals of the title and any legal or inchoate right and interest which may accrue in the said equipment shall pass from the Contractor to the Corporation upon delivery of the equipment and the acceptance of the same by the Corporation in accordance with the requirements of the contract.

10. Transportation of Equipment

- 10.1 Unless otherwise specified in the contract (including any in INCOTERMS 2010), the Contractor shall be solely liable for making all transport arrangements and for payment of freight and insurance costs for the transportation and delivery of the equipment in accordance with the requirements of the contract. The Contractor shall hand over or make available the equipment, and the hospital authority, being the Consignee shall receive the equipment, at the place for the delivery of the equipment and within the time for delivery of the equipment specified in the contract. All manuals, instructions, displays and any other information relevant to the equipment shall be in the English language unless otherwise specified in the contract. Unless specifically stated in the contract, the entire risk of loss, theft, damage to, or destruction of the equipment shall be borne by the Contractor.
- 10.2 Road permits for transportation of equipment shall be provided by the Corporation, upon receipt of a written request from the Contractor, to provide such road permit.

11. Insurance

- 11.1 The Contractor shall make arrangements for insuring the equipment against loss or damage incidental to transportation, delivery and storage at the hospital till installation, commissioning and handing over of the equipment therein. The insurance cover shall be obtained by the Contractor in its own name and not in the name of the Corporation or its Consignee.

12. Spare Parts

- 12.1 If specified in the Schedule of Requirements and in the resultant contract, the Contractor shall supply/provide any or all of the following materials, information etc. pertaining to spare parts manufactured and/or supplied by the Contractor:
- a) The spare parts as selected by the Corporation to be purchased from the Contractor, subject to the condition that such purchase of the spare parts shall not relieve the Corporation of any contractual obligation including warranty obligations; and
 - b) In case the production of the spare parts is discontinued:
 - i) Sufficient advance notice to Corporation before such discontinuation to provide adequate time to the Corporation to purchase the required spare parts etc., and

- ii) Immediately following such discontinuation, providing the Corporation, free of cost, the designs, drawings, layouts and specifications of the spare parts, as and if requested by the Corporation.

12.2 The Contractor shall carry sufficient inventories to assure supply of consumable spares for the equipment so that the same are supplied to the Corporation promptly on receipt of order from the Corporation.

13. Incidental services

13.1 The Contractor shall be required to perform the following incidental services:

- i) Installation and commissioning, supervision and demonstration of the equipment.
- ii) Providing required jigs and tools for assembly, necessary civil works required for the completion of the installation.
- iii) Arranging fuel (diesel) for operation of 30 KVA silent Diesel Generator Set with 3 phase AMF panel for emergency power supply for the hospital, costs for which will be reimbursed upon submission of supporting documents duly approved by the Hospital authority, which shall be claimed in the bill for O&M charges to be raised in terms of the Conditions of Contract.
- iv) Training of Consignee's Doctors, staff, operators etc. for operating and maintaining the equipment.
- v) Supplying requisite number of operation and maintenance manual for the equipment.

14. Distribution of Dispatch Documents for Clearance/Receipt of Equipment

The details of shipping and/ or other documents, to be furnished by the Contractor are as follows:

I. For equipment supplied from abroad :

Upon shipment, within 24 hours, the Contractor shall notify the Corporation in writing the full details of the shipment including contract number, description of the equipment, quantity, date and port of shipment, mode of shipment, estimated dates of arrival at the port of entry and the place of destination. In the event, the equipment are sent by airfreight, the

Contractor shall notify the Corporation, a minimum of 48 hours ahead of dispatch, the name of the carrier, the flight number, the expected date and time of arrival, the Master Airway Bill and the House Airway Bill. The Contractor shall send via facsimile or electronic mail the above details to the Corporation and then send to the Corporation, via courier two sets of documents comprising the original and one copy of the following:

- (i) Commercial invoice, indicating that the Corporation is the Purchaser on behalf of the Department of Health & Family Welfare, Government of West Bengal, the contract number, equipment description, quantity, unit price and total amount. Invoices must be signed in original and stamped, or sealed with the manufacturer's stamp/ seal;
- (ii) Negotiable, clean, on-board through bill of lading marked "freight prepaid" and indicating that the Corporation is the Purchaser on behalf of the Department of Health & Family Welfare, Government of West Bengal and notify Consignee as stated in the contract, with delivery through to destination as per the contract and non-negotiable bill of lading, or railway consignment note, road consignment bill, truck or airway bill, or multimodal transport document, marked "freight prepaid" and showing delivery through to final destination as per the contract;
- (iii) Packing list identifying contents of each package;
- (iv) Manufacturer's Warranty Certificate covering all items supplied;
- (v) Manufacturer's Certificate of Origin covering all items supplied;
- (vi) Original certificate of weight issued by the port authority/ licensed authority and six copies of the same;
- (vii) Pre-shipment note submitted by the manufacturer to the Corporation and the Consignee at least 15 days prior to the scheduled delivery of the equipment at the hospital premises;
- (viii) Inspection Certificate, if any, and
- (ix) Insurance Certificate

II. For equipment within India :

Within 24 hours of dispatch of the equipment, the Contractor shall notify the Corporation, the Consignees and others concerned if mentioned in the contract, the complete details of despatch and also supply two sets of documents comprising the original and a copy of the following to them by registered post / speed post (or as instructed in the contract) :

- (i) Commercial invoice, indicating that the Corporation is the Purchaser on behalf of the Department of Health & Family Welfare, Government of West Bengal, the contract number,

equipment description, quantity, unit price and total amount. Invoices must be signed in original and stamped, or sealed with the manufacturer's stamp/ seal;

- (ii) Railway consignment note, road consignment note, truck or airway bill, or multimodal transportation document indicating that the Corporation is the Purchaser on behalf of the Department of Health & Family Welfare, Government of West Bengal and notify Consignee as stated in the contract, marked "freight prepaid" and showing delivery through to final destination as per the contract;
- (iii) Packing list identifying contents of each package;
- (iv) Manufacturer's Warranty Certificate covering all items supplied;
- (v) Pre-shipment note submitted by the manufacturer to the Corporation and the Consignee at least 15 days prior to the scheduled delivery of the equipment at the hospital premises;
- (vi) Inspection Certificate, if any, and
- (vii) Insurance Certificate

Consignee Receipt Certificate as per Form - 13 of the Bidding Forms in original issued by the authorized representative of the Consignee, shall be submitted by the Contractor to the Corporation immediately upon obtaining the same from the Consignee.

15. Comprehensive Warranty

- 15.1 The Contractor warrants comprehensively that the equipment supplied under the contract is new, unused and incorporate all recent improvements in design and materials unless prescribed otherwise by the Corporation in the contract. The Contractor further warrants that the equipment supplied under the contract shall have no defect arising from design, materials or workmanship or from any act or omission of the Contractor that may develop under normal use of the supplied equipment under the conditions prevailing in India.
- 15.2 This warranty shall remain valid for one (1) year after the equipment or any portion hereof as the case may be, upon being commissioned at the hospital site and accepted by the Corporation in terms of the contract.
- 15.3 In case of any claim arising out of this warranty, the Corporation/Consignee shall promptly notify the same in writing to the Contractor.

- 15.4 Upon receipt of such notice, the Contractor shall, within 8 hours [24 hours for compressor and vacuum system] on a 24 (hrs) × 7 (days) × 365 (days) basis, repair or replace the defective equipment or parts thereof, free of cost, at the Consignee's site. The Contractor shall take over the replaced parts/equipment after providing their replacements and no claim, whatsoever shall lie on the Corporation for such replaced parts/equipment thereafter.
- 15.5 In the event of any rectification of a defect or replacement of any defective equipment during the warranty period, the warranty for the rectified/replaced equipment shall be extended from the date such rectified / replaced equipment starts functioning to the satisfaction of the Corporation.
- 15.6 If the Contractor, having been notified, fails to rectify/replace the defect(s) within 8 hours [24 hours for compressor and vacuum system] on a 24 (hrs) × 7 (days) × 365 (days) basis, the Corporation may proceed to take such remedial action(s) as deemed fit by the Corporation, at the risk and expense of the Contractor and without prejudice to other contractual rights and remedies, which the Corporation may have against the Contractor.
- 15.7 The Corporation/Consignee reserve its right to enter into Comprehensive Maintenance Contract between the Corporation/Consignee and the Contractor for a period of 4 years (i.e. 2nd year to 5th year, from the date of successful commissioning and handing over of MGPS) after the completion of warranty period, if in the opinion of the Corporation/ Consignee, the operation and maintenance of MGPS at all the facilities has been carried out satisfactorily.
- 15.8 During maintenance and warranty period, the Contractor's technical representative, shall attend to the machine /equipment within 48 hours and ensure uptime on immediate basis and shall ensure presence at the hospital site for 24 hours, after uptime is ensured.
- 15.9 The Contractor shall provide comprehensive on-site maintenance (including all spares, accessories and labour) for a period of 5 years from the date of final acceptance of the complete system after successful and complete installation and commissioning with regular updating of newer technology as and when evolved.
- 15.10 The Contractor should install, operate (24 x 7 with trained manpower) and maintain manifold and medical gas pipeline system.

- 15.11 The Contractor shall set-up a maintenance base to provide maintenance service, of the entire system being offered, at short notice during the warranty period. The technical maintenance personnel of the Contractor responsible for supervision and maintenance shall be available to reach the site(s) within 1 hour's notice.
- 15.12 If the performance of any individual equipment or system is not satisfactory, the same shall be replaced by the Contractor free of cost.
- 15.13 If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the Contractor.
- 15.14 Rectification of all faults appearing shall be periodically advised to the hospital, by the Contractor, the period being not more than a month.
- 15.15 Any lacuna or lacunae noticed in the functioning of the installation as a result of any design feature shall be rectified by the Contractor free of cost.
- 15.16 The Contractor shall fully associate the engineers and technicians of the Corporation during installation, testing, commissioning, operation and maintenance period.

16. Assignment

- 16.1 The Contractor shall not assign, either in whole or in part, its contractual duties, responsibilities and obligations to perform the contract, except with the Corporation's prior written permission.

17. Sub contracts

- 17.1 The Contractor shall notify the Corporation in writing of all sub contracts awarded under the contract. Such notification, shall not however, relieve the Contractor from any of its liability or obligation under the terms and conditions of the contract.

18. Modification of contract

- 18.1 If necessary, the Corporation may, by a written order given to the Contractor at any time during the currency of the contract, amend the contract by making alterations and modifications within the general scope of contract in any one or more of the following:
- a) Specifications, drawings, designs etc. where equipment to be supplied under the contract are to be specially manufactured for the Corporation,
 - b) Mode of packing,
 - c) Incidental services to be provided by the Contractor,
 - d) Mode of despatch,
 - e) Place of delivery, and
 - f) Any other area(s) of the contract, as felt necessary by the Corporation depending on the merits of the case.

- 18.2 Any such modification/ alteration in the contract made by the Corporation shall not exceed or be less than 40% of the number of units (numbers, sets or measurement units) as provided in the Price Schedule, irrespective of the Description of the Work, for which the Contractor shall be required to undertake the modified contract at the rates similar to that quoted in the Price Schedule.

- 18.3 Any such modification/ alteration in the contract made by the Corporation if found to be exceeding or be less than 40% of the number of units (numbers, sets or measurement units) as provided in the Price Schedule and in the event of any such modification/alteration causing increase or decrease in the cost of equipment and services to be supplied and provided, or in the time required by the Contractor to perform any obligation under the contract, an equitable adjustment shall be made in the Contract Price and/or contract delivery schedule, as the case may be, and the contract amended accordingly. If the Contractor does not agree to the adjustment made by the Corporation, the Contractor shall convey its views to the Corporation within 21 (twenty-one) days from the date of the Contractor's receipt of the Corporation's amendment / modification of the contract for mutual discussion and agreement.

19. Prices

- 19.1 Prices to be charged by the Contractor for supply of equipment and rendering of services in terms of the contract shall not vary from the corresponding prices quoted by the Contractor in its tender and incorporated in the contract.

20. Taxes and Duties

- 20.1 The Contractor shall be entirely responsible for all taxes, duties, fees, levies etc. incurred until delivery of the contracted equipment to the Corporation, save and except what has been specified hereinbelow.
- 20.2 GST on all equipment supplied and services rendered will be required to be borne by the Contractor at actuals, which shall be reimbursed by the Corporation. Such reimbursement shall be claimed by the Contractor in the pro-rata bills raised on the Corporation in terms of Clause 21 of the GCC.

21. Terms and Mode of Payment

21.1 Payment Terms

Payment shall be made subject to recoveries, if any, by way of liquidated damages or any other charges as per terms and conditions of contract in the following manner.

A. Execution of Work (including one year operation and comprehensive maintenance) :

The payment to Contractor will be made as follows:

1. 60% of the Contract Price for the hospital as per the rates quoted by the Contractor in the Price Schedule against verification by the Corporation against supply of the equipment at the hospital. This payment may be made on pro rata basis subject to submission of maximum 2 nos. of bills for the hospital, where the 1st bill should be raised after supply of at least 80% of value of materials including supply of source equipment.
2. 30% of the Contract Price for the hospital, after successful installation and commissioning followed by satisfactory compliance check by the Contractor with approval of the Corporation and against submission of operation and maintenance manual along with as – built drawings (both hard and soft copies).
3. Balance 10% of the Contract Price, against successful operation and comprehensive maintenance of the installed MGPS for one year from the date of commissioning. This payment shall be made on half-yearly basis against the bill of the Contractor (of 5% of the Contract Price) along with documentary proof of service/maintenance report duly signed by the Superintendent of the hospital.

B. Comprehensive Operation & Maintenance (for 2nd to 5th year):

The Operation and Comprehensive Maintenance charges for 2nd to 5th year, if entered in the Operation and Comprehensive Maintenance Contract by the Corporation / Hospital Authority shall be paid half yearly in two equal installments. For this purpose, the Contractor should produce documentary proof i.e. service/ maintenance reports duly signed by Superintendent of the Hospital. Comprehensive maintenance charges will be paid either by the Corporation or by the Hospital.

- 21.2 The Contractor shall not be entitled to any interest on payments under the contract.
- 21.3 Where there is a statutory requirement for tax deduction at source, such deduction towards income tax and other taxes as applicable will be made from the bills payable to the Contractor at rates as notified from time to time.
- 21.4 The payment of bills of the Contractor shall be made by the Corporation in INR (Indian National Rupee).
- 21.5 While claiming payment, the Contractor is also to certify in the bill that the payment being claimed is strictly in terms of the contract and all the obligations on the part of the Contractor for claiming that payment has been fulfilled as required under the contract.
- 21.6 In case where the Contractor is not in a position to submit its bill for the balance payment for want of receipted copies of inspection note from the Consignee/user department and the Consignee/user department has not complained about the non-receipt, shortage, or defects in the supplies made, balance amount will be paid by the Consignee without Consignee's Receipt Certificate after three months from the date of the preceding part payment for the equipment in question, subject to the following conditions :-
- (a) The Contractor will make good any defect or deficiency that the Consignee may report within six months from the date of dispatch of equipment.
 - (b) Delay in supplies, if any, has been regularized.
 - (c) The Contract Price where it is subject to variation has been finalized.
 - (d) The Contractor furnishes the following undertakings :
 "I/We, _____ certify that I/We have not received back the Inspection Note duly receipted by the Consignee or any communication from the Corporation or the Consignee

about non-receipt, shortage or defects in the equipment supplied. I/We _____ agree to make good any defect or deficiency that the Consignee may report within three months from the date of receipt of this balance payment.

22. Delay in the Contractor's performance

- 22.1 The Contractor shall deliver the equipment and perform the services under the contract within the Delivery Schedule specified in Part - D of the Schedule of Requirements and as incorporated in the contract.
- 22.2 Subject to the provisions of 'Force Majeure', any unexcused delay by the Contractor in maintaining its contractual obligations towards delivery of equipment and performance of services shall render the supplier liable to any or all of the following sanctions:
- (i) Imposition of Liquidated Damages,
 - (ii) Forfeiture of its Performance Security and
 - (iii) Termination of the contract for default.
- 22.3 If at any time during the currency of the contract, the Contractor encounters conditions hindering timely delivery of the equipment and performance of services, the Contractor shall promptly inform the Corporation in writing about the same and its likely duration and make a request to the Contractor for extension of the Delivery Schedule accordingly. On receiving the Contractor's communication, the Corporation shall examine the situation as soon as possible and, at its discretion, may agree to extend the Delivery Schedule, with or without liquidated damages for completion of Contractor's contractual obligations by issuing an amendment to the contract.
- 22.4 When the period of delivery is extended due to unexcused delay by the Contractor, the amendment letter extending the Delivery Schedule shall, *inter alia*, contain the following conditions:
- (a) The Corporation shall recover from the Contractor, Liquidated Damages on the equipment and services, which the Corporation has failed to deliver within the Delivery Schedule stipulated in the contract.

- (b) That no increase in price on account of any ground, whatsoever, including any stipulation in the contract for increase in price on any other ground and also including any enhancement of taxes or duties which may be levied in respect of the equipment and services specified in the contract, which takes place after the date of delivery stipulated in the contract shall be admissible on such of the said equipment and services as are delivered and performed after the date of the delivery stipulated in the contract.

- 22.5 The Contractor shall not dispatch the equipment after expiry of the Delivery Schedule. The Contractor is required to apply to the Corporation for extension of Delivery Schedule and obtain the same before dispatch. In case the Contractor dispatches the equipment without obtaining an extension, it would be doing so at its own risk and no claim for payment for such supply and / or any other expense related to such supply shall lie against the Corporation.

23. Liquidated Damages

- 23.1 If the Contractor fails to deliver any or all of the equipment or fails to perform the services within the time frame(s) incorporated in the contract, the Corporation shall, without prejudice to other rights and remedies available to the Corporation under the contract, deduct from the Contract Price, as Liquidated Damages, a sum equivalent to 0.5% per week of delay or part thereof on delayed supply of equipment and/or services until actual delivery or performance subject to a maximum of 10% of the total Contract Price. Once the maximum delay has been committed by the Contractor, the Corporation may proceed for termination of the contract, in accordance with the terms of the contract without prejudice to the Corporation's right to terminate the contract even prior thereto for breach by the Contractor.
- 23.2 No Liquidated Damages shall be imposed on the Contractor by the Corporation, without giving a reasonable opportunity to the Contractor to explain the reason behind its delay.

24. Termination for default

- 24.1 The Corporation, without prejudice to any other contractual rights and remedies available to it (the Corporation), may, by written notice of default sent to the Contractor, terminate the contract in whole or in part, if the Contractor fails to deliver any or all of the equipment or fails to perform any other contractual obligation(s) within the time period specified in the contract

or within any extension thereof granted by the Corporation, or there has been a material breach in compliance with the Schedule of Requirements by the Contractor including any declaration by the Contractor, in terms of the contract.

24.2 In the event, the Corporation terminates the contract of the Contractor in whole or in part, the Corporation may procure equipment and/or services similar to those cancelled, in such terms and conditions and in such manner as it deems fit at the Contractor's risk and cost and the Contractor shall be liable to the Corporation for the extra expenditure, if any, incurred by the Corporation for arranging such procurement.

24.3 Unless otherwise instructed by the Corporation, the Contractor shall continue to perform the contract to the extent not terminated.

25. Termination for insolvency

25.1 If the Contractor becomes bankrupt or otherwise insolvent, the Corporation reserves the right to terminate the contract at any time, by serving written notice to the Contractor without any compensation, whatsoever, to the Contractor, subject to further condition that such termination will not prejudice or affect the rights and remedies which have accrued and / or will accrue thereafter to the Corporation.

26. Force Majeure

26.1 Notwithstanding the provisions contained in GCC clauses 22, 23 and 24, the Contractor shall not be liable for imposition of any such sanction so long the delay and/or failure of the Contractor in fulfilling its obligations under the contract is the result of an event of Force Majeure.

26.2 For purposes of this clause, Force Majeure means an event beyond the control of the Contractor and not involving the Contractor's fault or negligence and which is not foreseeable and not brought about at the instance of, the party claiming to be affected by such event and which has caused the non -performance or delay in performance. Such events may include, but are not restricted to, acts of the Corporation either in its sovereign or contractual capacity, wars or revolutions, hostility, acts of public enemy, civil commotion, sabotage, fires, floods, explosions,

epidemics, pestilence, quarantine restrictions, strikes excluding by its employees, lockouts excluding by its management, and freight embargoes.

- 26.3 If a Force Majeure situation arises, the Contractor shall promptly notify the Corporation in writing of such conditions and the cause thereof within 21 (twenty one days) of occurrence of such event. Unless otherwise directed by the Corporation in writing, the Contractor shall continue to perform its obligations under the contract as far as reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.
- 26.4 If the performance in whole or in part or any obligation under this contract is prevented or delayed by any reason of Force Majeure for a period exceeding 60 (sixty) days, either party may at its option terminate the contract without any financial repercussion on either side.
- 26.5 In case due to a Force Majeure event, the Corporation is unable to fulfill its contractual commitment and responsibility, the Corporation will notify the Contractor accordingly and subsequent actions taken on similar lines described in above sub-paragraphs.

27. Termination for convenience

- 27.1 The Corporation reserves the right to terminate the contract, in whole or in part for its (Corporation's) convenience, by serving written notice on the Contractor at any time during the currency of the contract. The notice shall specify that the termination is for the convenience of the Corporation. The notice shall also indicate *inter alia*, the extent to which the Contractor's performance under the contract is terminated, and the date with effect from which such termination will become effective.
- 27.2 The equipment and services which are complete and ready in terms of the contract for delivery and performance within 30 (thirty) days after the Contractor's receipt of the notice of termination shall be accepted by the Corporation following the contract terms, conditions and prices. For the remaining equipment and services, the Corporation may decide:
- a) To get any portion of the balance completed and delivered at the contract terms, conditions and prices; and / or

- b) To cancel the remaining portion of the equipment and services and compensate the Contractor by paying an agreed amount for the cost incurred by the Contractor towards the remaining portion of the equipment and services.

28. Indemnification

The Contractor shall indemnify, defend and hold the Corporation, the Hospital and the Government harmless against any or all proceedings, actions and third party claims arising out of a breach by the Contractor of any of its obligations under this contract. This indemnity shall be limited in respect of making harmless to the Corporation, the Hospital and the Government. The Contractor shall indemnify the Corporation, Hospital and/ or the Government against all actions, suits, claims and demands brought or made against it, in respect of anything done or committed to be done by the Contractor in execution of or in connection with the work of this contract and against any loss or damage to the Corporation, Hospital and/ or the Government in consequence to any action or suit, or a legal proceeding, being brought against the Contractor for anything done or committed to be done in the execution of this contract. The Contractor will abide by the job safety measures prevalent in India and will free the Corporation, Hospital and/ or the Government from all demands or responsibilities arising from accidents or loss of life, on account of the Contractor's negligence and responsibility. The Contractor will pay all indemnities arising from such incidents without any extra cost to the Corporation, Hospital and/ or the Government and will not hold the Corporation, Hospital and/ or the Government responsible or obligated. The Corporation, Hospital and/ or the Government may at their discretion and entirely at the cost of the Contractor defend such suit, either jointly with the Contractor or severally in case the latter chooses not to defend the case and /or proceeding.

29. Confidentiality

- 29.1 The Corporation and the Contractor, its agents, employees, sub-contractors and servants shall keep confidential and shall not, without the written consent of the other party hereto, divulge to any third party any documents, data, or other information furnished directly or indirectly by the other party hereto, in connection with the contract, whether such information has been furnished prior to, during or following competition or termination of the contract. Notwithstanding the above, the Contractor may furnish to its sub-contractor such documents, data, and other

information it received from the Corporation to the extent required for the sub-contractor to perform its work under the contract, in which event the Corporation shall obtain from such sub-contractor an undertaking of confidentiality similar to that imposed on the Corporation.

- 29.2 The Contractor shall not use such documents, data and other information received from the Corporation for any purpose unrelated to the contract. Similarly, the Contractor shall not use such documents, data and other information received from Contractor for any purpose other than the performance of the contract.
- 29.3 The obligation of a party under the two foregoing paragraphs shall not apply to information that:
- (a) Now or hereafter enters the public domains through no fault of that party;
 - (b) Can be proven to have been possessed by that party at time of disclosure and which was not previously obtained, directly, from the other party, or
 - (c) Otherwise lawfully becomes available to that party from a third party that has no obligation of confidentiality.

30. Dispute Resolution Mechanism

Unless settled amicably, all disputes and differences shall be settled by the parties by arbitration. Unless otherwise agreed by both parties:

- (a) the dispute shall be settled under the rules of arbitration of the Arbitration & Conciliation Act, 1996 (including any amendment(s) or re-enactments thereof),
- (b) the dispute shall be settled by a sole Arbitrator to be appointed by the Principal Secretary, Department of Health & Family Welfare of the Government of West Bengal, India,
- (c) the arbitration shall be conducted in accordance with the rules of the Arbitration & Conciliation Act, 1996 (including any amendment(s) or re-enactments thereof),
- (d) the arbitration shall be held at Kolkata,
- (e) Courts at Kolkata shall alone have jurisdiction (to the exclusion of all other Courts) to entertain all disputes arising out of this contract, and
- (f) the arbitration shall be conducted in English.

31. Miscellaneous

(a) Governing law and jurisdiction

This contract shall be construed and interpreted in accordance with and governed by the laws of India, and the Courts at Kolkata shall have jurisdiction over matters arising out of or relating to this contract.

(b) Waiver of immunity

Each party unconditionally and irrevocably:

- (i) agrees that the execution, delivery and performance by it of this contract constitute commercial acts done and performed for commercial purpose;
- (ii) agrees that, should any proceedings be brought against it or its assets, property or revenues in any jurisdiction in relation to this contract or any transaction contemplated by this contract, no immunity (whether by reason of sovereignty or otherwise) from such proceedings shall be claimed by or on behalf of the party with respect to its assets;
- (c) waives any right of immunity which it or its assets, property or revenues now has, may acquire in the future or which may be attributed to it in any jurisdiction; and
- (d) consents generally in respect of the enforcement of any judgment or award against it in any such proceedings to the giving of any relief or the issue of any process in any jurisdiction in connection with such proceedings (including the making, enforcement or execution against it or in respect of any assets, property or revenues whatsoever irrespective of their use or intended use of any order or judgment that may be made or given in connection therewith).

(c) Delayed payments

The parties hereto agree that payments due from one party to the other party under the provisions of this contract shall be made within the period set forth therein, and if no such period is specified, within 15 (fifteen) days of receiving a claim supported by relevant documents. In the event of delay beyond such period, the defaulting party shall pay interest for the period of delay calculated at a rate equal to State Bank of India Savings Rate. However, delay in payment by the Corporation to the Contractor shall not be a ground for termination of this contract by the Contractor unless such delay is more than 90 days in terms of this contract.

(d) Waiver

Waiver, including partial or conditional waiver, by either party of any default by the other party in the observance and performance of any provision of or obligations under this contract:-

- (a) shall not operate or be construed as a waiver of any other or subsequent default hereof or of other provisions of or obligations under this contract;
- (b) shall not be effective unless it is in writing and executed by a duly authorised representative of the party; and
- (c) shall not affect the validity or enforceability of this contract in any manner.

Neither the failure by either party to insist on any occasion upon the performance of the terms, conditions and provisions of this contract or any obligation thereunder nor time or other indulgence granted by a party to the other party shall be treated or deemed as waiver of such breach or acceptance of any variation or the relinquishment of any such right hereunder.

(e) Exclusion of implied warranties etc.

This contract expressly excludes any warranty, condition or other undertaking implied at law or by custom or otherwise arising out of any other agreement between the parties or any representation by either party not contained in a binding legal agreement executed by both parties.

(f) Severability

If for any reason whatever, any provision of this contract is or becomes invalid, illegal or unenforceable or is declared by any court of competent jurisdiction or any other instrumentality to be invalid, illegal or unenforceable, the validity, legality or enforceability of the remaining provisions shall not be affected in any manner, and the parties will negotiate in good faith with a view to agreeing to one or more provisions which may be substituted for such invalid, unenforceable or illegal provisions, as nearly as is practicable to such invalid, illegal or unenforceable provision. Failure to agree upon any such provisions shall not be subject to Dispute Resolution Mechanism set forth under this contract or otherwise.

(g) Third Parties

This contract is intended solely for the benefit of the parties and their respective successors and permitted assigns, and nothing in this contract shall be construed to create any duty to, standard of care with reference to, or any liability to, any person not a party to this contract.

(h) Successors and Assigns

This contract shall be binding upon, and inure to the benefit of the parties and their respective successors and permitted assigns.

(i) Notices

Any notice or other communication to be given by any party to the other party under or in connection with the matters contemplated by this contract shall be in writing and shall:

- (a) in the case of the Contractor, be given by facsimile, by electronic mail or by letter delivered by hand to the address given and marked for attention of the person set out below or to such other person as the Contractor may from time to time designate by notice to the Corporation; provided that notices or other communications to be given to an address outside Kolkata may, if they are subsequently confirmed by sending a copy thereof by registered acknowledgement due, air mail or by courier, be sent by facsimile to the number as the Kolkata may from time to time designate by notice to the Corporation;
- (b) in the case of the Corporation, be given by facsimile, by electronic mail or by letter delivered by hand and be addressed to the Managing Director of the Corporation with a copy delivered to the Corporation's Representative or such other person as the Corporation may from time to time designate by notice to the Contractor; and
- (c) any notice or communication by a party to the other party, given in accordance herewith, shall be deemed to have been delivered when in the normal course of post it ought to have been delivered.

(j) Language

All notices required to be given by one party to the other party and all other communications, documentation and proceedings which are in any way relevant to this contract shall be in writing and in English language.

SECTION - VI

CONTRACT FORMS (COF)

FORM OF AGREEMENT

(on non judicial stamp paper of appropriate value)

THIS AGREEMENT is made on _____ day of _____ Two Thousand _____ between WEST BENGAL MEDICAL SERVICES CORPORATION LIMITED (WBMSCL) hereinafter called the “Employer” (which expression shall, wherever the context so demands or requires, include their successors in office and assigns) of the One Part and M/s. _____ hereinafter called the “Contractor” (which expression shall, wherever the context so demands or requires, include his/their successors and assigns) of the Other Part.

WHEREAS the Employer is desirous that Project should be executed and has by Notification of Award dated _____ accepted a tender submitted by the Contractor for the project at a total Contract Price of Rs. _____/- (Rupees _____ only)

NOW THIS AGREEMENT WITNESSETH as follows : -

1. In this Agreement, words and expressions shall have the same meaning as are respectively assigned to them in the General Conditions of Contract hereinafter referred to.

2. **Documents**

The following documents in conjunction with Addenda/Corrigenda to Bidding Documents shall be deemed to form and be read and construed as part of this Agreement viz.

- i) Notice Inviting e-Tender.
- ii) Instructions to Bidders.
- iii) Schedule of Requirements.
- iv) Bidding Forms.
- v) General Conditions of Contract.
- vi) Contract Forms.

- vii) Drawings.
- viii) Amendment to Bidding Documents.

3. **Previous Communications**

This document constitutes the entire Contract between the parties and supersedes all previous communications, whether oral or written, in relation, to the Project to be undertaken in accordance with the Contract.

4. **Execution of Project**

In consideration of the payment to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute, complete, remedy defects therein and maintain the Project in conformity in all respects with the provisions of the Contract.

5. **Payment**

The Employer hereby covenants to pay to the Contractor in consideration of the execution, completion, remedying of any defects therein and maintenance of the Works, the Contract Price or such other sum as may become payable under the provisions of the Contract at the time and in the manner prescribed by the Contract.

6. **Commencement of the Project**

This Contract will remain in effect from _____ and expire on _____ unless terminated earlier in accordance with the provisions of the Contract.

7. **Acknowledgement**

The Contractor shall confirm acceptance of the terms of this Contract by signing and returning to WBMSCL the duplicate copy enclosed herewith within a period of 14 days from date of receipt of Notification of Award.

IN WITNESS whereof the parties hereto have caused their respective hands to be hereinto affixed the day and year first above written.

In the capacity of _____

On behalf of M/s. _____ (The Contractor)

Witnesses (Signature, name & Designation)

- 1.
- 2.

For and on behalf of WBMSCL (The Employer)

In the presence of

Witnesses (Signature, Name & Designation)

- 1.
- 2.

FORM OF PERFORMANCE SECURITY BANK GUARANTEE

In consideration of the Employer having agreed under the terms and conditions of contract made vide his Notification of Award No.-----dated ----- between West Bengal Medical Services Corporation Ltd. (WBMSCL) (the Employer) represented by its Managing Director and (hereinafter called "the said Contractor) for Design, Supply, Installation, Commissioning, Operation & Maintenance of Medical Gas Pipeline System (MGPS) for Trauma Care Facilities at Singur Rural Hospital (herein after called the said Agreement") the Contractor having agreed to production of a irrevocable Bank Guarantee for Rs. ----- (Rupees ----- Only) as a Security/Guarantee for compliance of his obligations in accordance with the terms and conditions in the said Agreement:

1. We ----- (indicate the name of the Bank) (hereinafter referred to as "the Bank" hereby undertake to pay to the WEST BENGAL MEDICAL SERVICES CORPORATION LTD., an amount not exceeding Rs. ----- (Rupees -----only) on demand by WBMSCL.
2. We -----(indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from WBMSCL for and on behalf of the Employer as an Agent/Power of Attorney Holder stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs.----- ---- (Rupees -----only).
3. We, the said Bank further under take to pay to the Employer represented by WBMSCL for and on behalf of the Employer as an Agent/Power of Attorney Holder any money so demanded notwithstanding any dispute or disputes raised by the Contractor in any suit or proceeding pending before any court or Tribunal relating thereto, our liabilities under this present being absolute and unequivocal. The payment so made by us under this Guarantee shall be a valid discharge of our liability for payment thereunder and the Contractor shall have no claim against us for making such payment.
4. We ----- (Indicate the name of the Bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all dues of

the Employer under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till the Employer's Representative on behalf of the Employer certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor and accordingly discharges this Guarantee.

5. We ----- (indicate the name of the Bank) further agree with the Employer, that the Employer shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Employer against the said Contractor(s) and to forbear from or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Employer or any indulgence by the Employer to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
7. This Guarantee will neither be cancelled nor revoked by the Bank without the written authorization of WBMSCL. For this purpose, the beneficiary WBMSCL would inform the Bank of their authorized signatories together with the specimen signatures.
8. This Guarantee shall be valid up to -----unless extended on demand by the Employer. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.----- (Rupees ----- Only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this Guarantee, all our liabilities under this Guarantee shall stand discharged.

Dated the ----- day of ----- for ----- (indicate the name of the Bank).

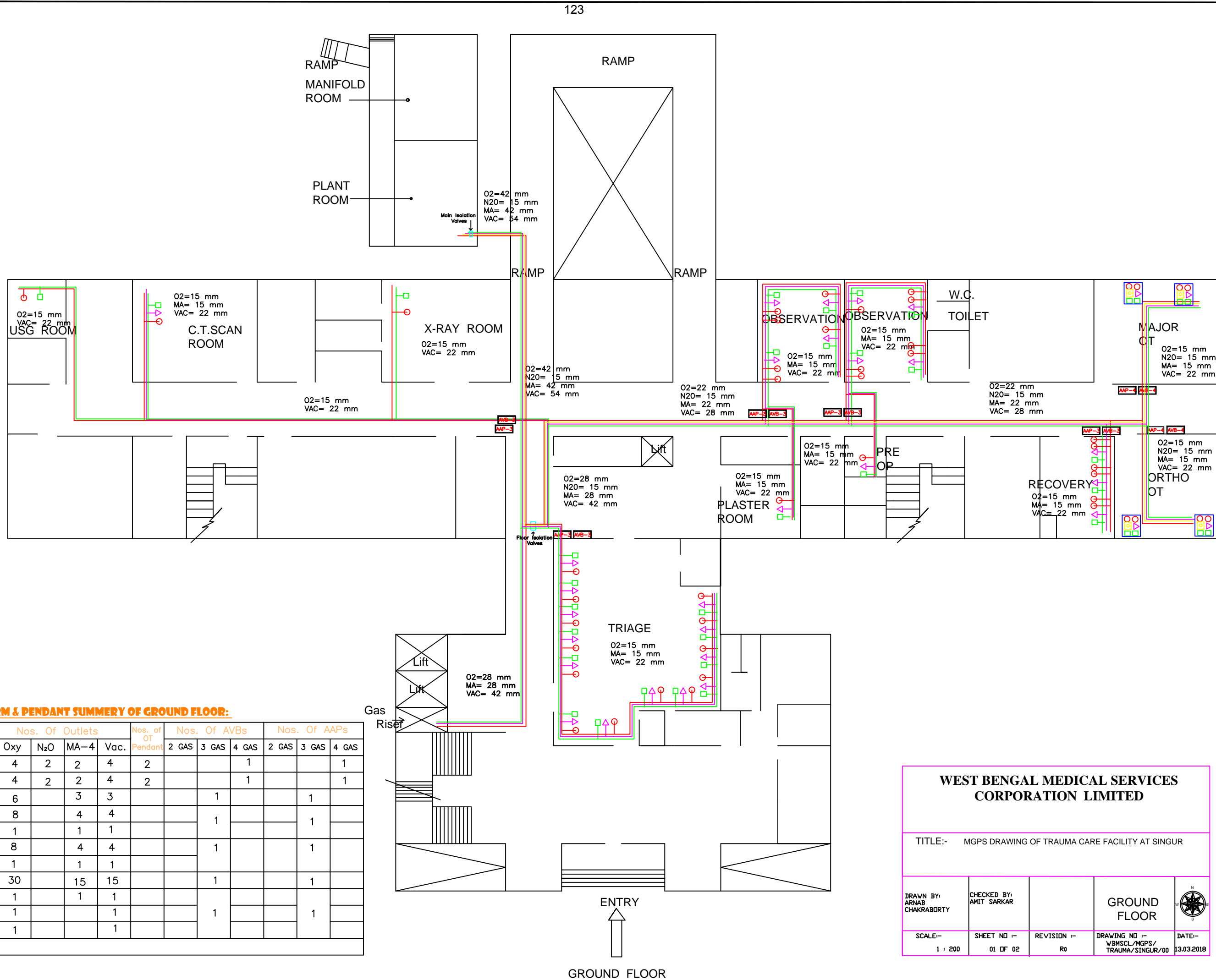
Note : To be put in sealed cover by Bank and addressed to the concerned officer of WBMSCL.

SECTION - VII

DRAWINGS

LEGEND USED

	OXYGEN OUTLET
	Nitrous Oxide OUTLET
	MA-4 OUTLET
	VACUUM OUTLET
	OXYGEN LINES
	Nitrous Oxide LINES
	MA-4 LINES
	VACUUM LINES
	FLOOR ISOLATION VALVE
	OT CEILING PENDANT (OUTLET=O2-2, VAC-2, MA4-1 & N2O-1.)



OUTLET, VALVE BOX, ALARM & PENDANT SUMMARY OF GROUND FLOOR:

Sl. No	LOCATION	Beds/Tables	Nos. Of Outlets				Nos. of OT Pendant	Nos. Of AVBs			Nos. Of AAPs		
			Oxy	N ₂ O	MA-4	Vac.		2 GAS	3 GAS	4 GAS	2 GAS	3 GAS	4 GAS
1	MAJOR OT	2	4	2	2	4	2			1			1
2	ORTHO OT	2	4	2	2	4	2			1			1
3	RECOVERY	3	6		3	3			1			1	
4	OBSERVATION 1	4	8		4	4			1			1	
5	PRE OP	1	1		1	1							
6	OBSERVATION 2	4	8		4	4			1			1	
7	PLASTER	1	1		1	1							
8	TRIAGE	15	30		15	15			1			1	
9	CT Scan	1	1		1	1							
9	USG	1	1			1						1	
9	X RAY	1	1			1							

WEST BENGAL MEDICAL SERVICES CORPORATION LIMITED

TITLE:- MGPS DRAWING OF TRAUMA CARE FACILITY AT SINGUR

DRAWN BY:
ARNAB
CHAKRABORTY

CHECKED BY:
AMIT SARKAR

GROUND
FLOOR



SCALE:-
1 : 200










SHEET NO :-
01 OF 02

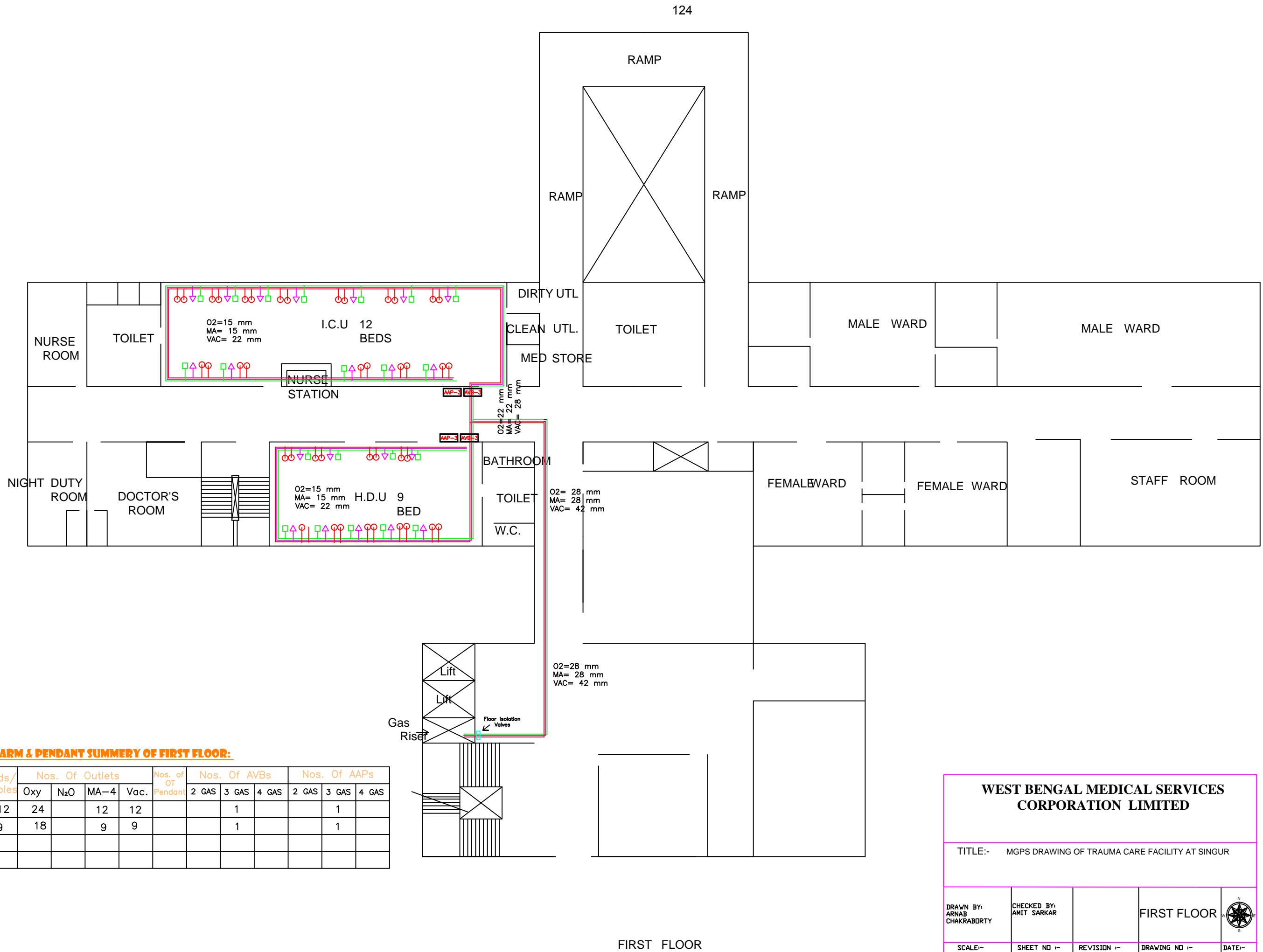
REVISION :-
R0

DRAWING NO :-
WBMSCL/MGPS/
TRAUMA/SINGUR/00

DATE:-
13.03.2018


LEGEND USED

	OXYGEN OUTLET
	Nitrous Oxide OUTLET
	MA-4 OUTLET
	VACUUM OUTLET
	OXYGEN LINES
	Nitrous Oxide LINES
	MA-4 LINES
	VACUUM LINES
	FLOOR ISOLATION VALVE



OUTLET, VALVE BOX, ALARM & PENDANT SUMMARY OF FIRST FLOOR:

Sl. No	LOCATION	Beds/Tables	Nos. Of Outlets				Nos. of OT Pendant	Nos. Of AVBs			Nos. Of AAPs		
			Oxy	N ₂ O	MA-4	Vac.		2 GAS	3 GAS	4 GAS	2 GAS	3 GAS	4 GAS
1	I.C.U 12 BED	12	24		12	12			1			1	
2	H.D.U 9 BED	9	18		9	9			1			1	

WEST BENGAL MEDICAL SERVICES CORPORATION LIMITED				
TITLE:- MGPS DRAWING OF TRAUMA CARE FACILITY AT SINGUR				
DRAWN BY: ARNAB CHAKRABORTY	CHECKED BY: AMIT SARKAR		FIRST FLOOR	
SCALE:- 1 : 200	SHEET NO :- 01 OF 02	REVISION :- R0	DRAWING NO :- WBMSCL/MGPS/TRAUMA/SINGUR/01	DATE:- 13.03.2018