

Corrigendum

The date for submission of bids for “Procurement of Laboratory furniture for BIO Laboratory in CPCB” under NGRBA project has been extended upto 16.03.2015 up to 3.00 p.m. The bids will be opened on 16.03.2015 at 3.30 p.m.

The other terms and conditions will remain unchanged.

**Member Secretary
Central Pollution Control Board**

**INVITATION FOR QUOTATIONS FOR CONSTRUCTION OF
CIVIL WORKS UNDER SHOPPING PROCEDURES**

To

Dear Sirs,

Sub: Invitation for quotations SITC of Laboratory furniture in BIO Laboratory, CPCB Delhi

1. You are invited to submit your most competitive quotation for construction of the following works:-

Brief Description of the Works	Approximate value of Works (Rs.)	Period of Completion
Supply, Installation, Testing and Commissioning of Laboratory furniture for BIO Laboratory, CPCB Delhi	Rs. 12,64,575/-	03 months

2. Government of India has received/has applied for/intends to apply for financing from the World Bank towards the cost of the NGRBA Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3¹. Deleted.

4. To assist you in the preparation of your quotation, we are enclosing the following:

- i. Layout Drawings of the works; enclosed
- ii. Structural Details; N.A.
- iii. Detailed Bill of Quantities, with estimated rates and prices; Estimated cost
- iv. Technical Specifications; Enclosed
- v. Instructions to Bidders (in two sections). Enclosed
- vi. Draft Contract Agreement format which will be used for finalizing the agreement for this Contract. Enclosed

5. You are requested to provide your best offer latest by 15.00 Hrs. on 04.03.2015. Late quotations will be rejected.

¹ Delete if inapplicable

6. Quotations will be opened in the presence of Bidders or their representatives who choose to attend at 03.30 PM on 04.03.2015 in the Training Hall Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032.
7. We look forward to receiving your quotations and thank you for your interest in this project.

Name: A B Akolkar, MS

Address: Central Pollution Control
Board, Parivesh Bhawan
East Arjun Nagar,
Delhi-110032

Tel. No: 01143102418

Fax No. 01122301122

Instructions to Bidders

SECTION - A

1. Scope of Works

The Central Pollution Control Board invites quotations for the construction of works as detailed in the table given below

Brief Description of the Works	Approximate value of Works (Rs.)	Period of Completion
Supply, Installation, Testing and Commissioning of Laboratory furniture in BIO Laboratory, CPCB Delhi	Rs. 12,64,575/-	03 months

The successful bidder will be expected to complete the works by the intended completion date specified above.

2. Qualification of the bidder: The bidder shall provide information on his qualification which shall include:-

- (a) total monetary value of works executed by him for each year of the last 3 years;
- (b) Report on his financial standing; and
- (c) Details of any litigation, during the last 3 years in which the bidder is involved, the parties concerned, and disputed amount in each case (Give details of both completed and pending cases).

3. To qualify for award of the contract the bidder:-

- (a) should have satisfactorily completed as a prime contractor at least one similar work of value not less than Rs. 500,000 in the last three years;
- (b) should possess valid electrical license for executing building electrification works (in the event of the works being sub - contracted, the sub-contractor should have the necessary license);
- (c) should possess required valid license for executing the water supply/sanitary works (in the event of the works being sub-contracted, the sub-contractor should have the necessary license);

4. Bid Price

- a) The quotation shall be for construction of the whole works as described in the Bill of quantities, drawings and technical specifications. Corrections, if any, in the quotation shall be made by crossing out, initialing, dating and re writing.
- b) All duties, taxes and other levies payable by the contractor under the contract shall be included in the total price.
- c) The rates quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.
- d) The rates should be quoted in Indian Rupees only.

5. Submission of Quotations

5.1 The bidder is advised to visit the site of works at his own expense and obtain all information that may be necessary for preparing the quotation.

5.2 Each bidder shall submit only one quotation. Bidders shall not contact other Bidders on matters relating to this quotation.

5.3 The quotation submitted by the bidder shall comprise the following :-

- (a) Quotation filled in the format given in Section B.
- (b) Signed Bill of Quantities; and
- (c) Qualification information form given in Section B duly completed.

5.4 The bidder shall seal the quotation in an envelope addressed to the Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032. The envelope will also bear the following identification:-

- Quotation for Supply, Installation, Testing and Commissioning of Laboratory furniture in BIO Laboratory, CPCB, Delhi
- Do not open before 03.30 PM on 04.03.2015.

5.5 Quotations must be received in the office of the Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032 not later than the time and date given in the letter of invitation. If the specified date is declared a holiday, quotations shall be received upto the appointed time on the next working day.

5.6 Any quotation received by the Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032, after the deadline for submission of quotations will be rejected and returned unopened to the bidder.

6. Validity of Quotation

Quotation shall remain valid for a period not less than 45 days after the deadline date specified for submission.

7. Opening of Quotations

Quotations will be opened in the presence of bidders or their representatives who choose to attend on the date and time and at the place specified in the letter of invitation.

- 8.** Information relating to evaluation of quotations and recommendations for the award of contract shall not be disclosed to bidders or any other persons not officially concerned with the process until the award to the successful bidder is announced.

9. Evaluation of Quotations

The Employer will evaluate and compare the quotations determined to be substantially responsive i.e. which

- (a) meet the qualification criteria specified in clause 3 above;
- (b) are properly signed; and
- (c) conform to all the terms and conditions, specifications and drawings without material deviations.

10. Award of contract

The Employer will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price and who meets the specified qualification criteria.

- 10.1** Notwithstanding the above, the Employer reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of contract.

- 10.2** The bidder whose quotation is accepted will be notified of the award of contract by the Employer prior to expiration of the quotation validity period.

11. Performance Security

Within 15 days of receiving letter of acceptance, the successful bidder shall deliver to the Member Secretary, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi-110032 the performance security (either a bank guarantee or a bank draft in favour of the Employer) for an amount equivalent of 3 % of the contract price. The Performance Security shall be valid till the expiry of the period of maintenance of the work, specified in clause 12. Failure of the successful Bidder to furnish performance security and signing the agreement within the period stipulated shall constitute sufficient grounds for annulment of award and debarring the bidder from participation in bidding by Employer for a period of one year ,in which case the Employer may make the award to the next lowest evaluated bidder or seek quotations afresh.

12. Period of Maintenance:

The “Period of Maintenance” for the work is six months from the date of taking over possession or one full monsoon season whichever occurs later. During the period of maintenance, the contractor will be responsible for rectifying any defects in construction free of cost to the Employer.

- 13.** Supply of all construction materials including cement and steel as per the specifications (ISI certification marked goods wherever available) shall be the responsibility of the contractor. Employer will not issue any material/equipment.

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SECTION - B

- 1. Format for Qualification Information.**
- 2. Format for Submission of Quotation.**
- 3. Format of Letter of Acceptance.**

QUALIFICATION INFORMATION

1 For Individual Bidders

1.1 Principal place of business: _____

Power of attorney of signatory of Quotation.
[Attach copy]

1.2 Total value of Civil Engineering construction work performed in the last three years (in Rs. Lakhs)

	20	
	20	
	20	

1.3 Work performed as prime contractor (in the same name) on works of a similar nature over the last three years.

<u>Project Name</u>	<u>Name of Employer</u>	<u>Description of work</u>	<u>Contract No.</u>	<u>Value of contract (Rs.Lakhs)</u>	<u>Date of issue of work order</u>	<u>Stipulated period of completion</u>	<u>Actual date of completion*</u>	<u>Remarks explaining reasons for delay and work completed</u>

Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Value of Contract (Rs. Lakhs)	Stipulated period of completion	Value of works* remaining to be completed (Rs. Lakhs)	Anticipated date of completion
(1)	(2)	(3)	(4)	(5)	(6)	(7)

* *Enclose a certificate from the Engineer concerned for completion as well as value of pending works.*

1.4 Proposed subcontracts and firms involved.

Sections of the works	Value of Sub-contract	Sub-contractor (name & address)	Experience in similar work
*	*	*	*
*	*	*	*
*	*	*	*
*	*	*	*

1.5 Evidence of access to financial resources to meet the requirements of working capital: cash in hand, lines of credit, etc. List them below and attach copies of support documents.

1.6 Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.7 Information on litigation history in which the Bidder is involved.

Name of the work	Agreement number/date	Name & address of Employer	Contract Value in Rs	Cause of dispute	Amount Disputed	Remarks showing present status

QUOTATION

*Description of the Works: SITC of Laboratory furniture in BIO Laboratory, CPCB, Delhi
To:

Subject : SITC of Laboratory furniture in BIO Laboratory, CPCB, Delhi

Reference : Letter No F. No. 4-1(9)/Bldg/Civil/NGRBA dated 10.02.2015

Sir,

We offer to execute the Works described in your letter referred to above in accordance with the Conditions of Contract enclosed therewith at percentage above / below the estimated rates, i.e., for a total Contract Price of -

Rs.** _____ [in figures]

Rs. _____ [in words].

This quotation and your written acceptance of it shall constitute a binding contract between us. We understand that you are not bound to accept the lowest or any quotation you receive.

We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery or collusive arrangements with the competitors. We will abide by the laws against fraud & corruption in force in India namely "Prevention of Corruption Act-1988 as amended on date.

We hereby confirm that this quotation is valid for 45 days as required in Clause 6 of the Instructions to Bidders.

We have not been debarred/removed from approved lists/ (dealings suspended) for participation in bidding for tenders by the Central/State Governments or by the World Bank.

Yours faithfully,

Authorized Signature : _____ Date: _____

Name & Title of Signatory : _____

Name of Bidder : _____

Address : _____

* ***To be filled in by the Employer before issue of the Letter of Invitation.***

** ***To be filled in by the Bidder, together with his particulars and date of submission at the bottom of this Form.***

**LETTER OF ACCEPTANCE
CUM NOTICE TO PROCEED WITH THE WORK**

(LETTERHEAD OF THE EMPLOYER)

Dated: _____

To: _____ [Name and address of the Contractor]

Dear Sirs,

This is to notify you that your quotation dated _____ for execution of the _____ for the contract price of Rupees _____ [amount in words and figures], is hereby accepted by us.

You are hereby requested to furnish performance security for an amount of Rs. _____ (equivalent to 3% of the contract price) within 15 days of the receipt of the letter. The Performance Security in the form of Bank guarantee or a Bank draft in favour of..... (Employer) shall be valid till the expiry of the period of maintenance i.e. up to _____. Failure to furnish the Performance Security will entail cancellation of the award of contract.

You are also requested to sign the agreement form and proceed with the work not later than _____ under the instructions of the Engineer, _____ and ensure its completion within the contract period.

With the issuance of this acceptance letter and your furnishing the required Performance Security, the contract ,for the above said work, stands concluded.

Yours faithfully,

**Authorized Signature
Name and title of Signatory**

Draft Contract Agreement form for Construction through National Shopping

ARTICLES OF CONTRACT AGREEMENT

This deed of agreement is made in the form of agreement on _____ day
_____ month _____ 20.. ____, between the
_____ (Employer) or his authorized representative (hereinafter
referred to as the first party) and _____ (Name of the Contractor), S/O
_____ resident of _____ (hereinafter referred to as the second party),
to execute the work of construction of _____ (hereinafter referred to
as works) on the following terms and conditions.

2. Cost of the Contract

The total cost of the works (hereinafter referred to as the “total cost”) is Rs. ____ as
reflected in Annexure - 1.

3.1 Payments under its contract:

Payments to the second party for the work will be released after satisfactory
completion of the work.

3.2 Deleted

4. Notice by Contractor to Engineer

The second party, on the works reaching each stage of construction, issue a notice to
the first party or the Engineer nominated by the first party (who is responsible for
supervising the contractor, administering the contract, certifying the payments due to
the contractor, issuing and valuing variations to the contract, awarding extensions of
time etc.), to visit the site for certification of stage completion. Within 15 days of the
receipt of such notice, the first party or the engineer nominated by it, will ensure issue
of stage completion certificate after due verification.

5. Completion time

The works should be completed in 03 months from the date of this Agreement. In
exceptional circumstances, the time period stated in this clause may be extended in
writing by mutual consent of both the parties.

6. If any of the compensation events mentioned below would prevent the work being completed by the intended completion date, the first party will decide on the intended completion date being extended by a suitable period:

- a) The first party does not give access to the site or a part thereof by the agreed
period.

- b) The first party orders a delay or does not issue completed drawings, specifications or instructions for execution of the work on time.
 - c) Ground conditions are substantially more adverse than could reasonably have been assumed before issue of letter of acceptance and from information provided to second party or from visual inspection of the site.
 - d) Payments due to the second party are delayed without reason.
 - e) Certification for stage completion of the work is delayed unreasonably.
7. Any willful delay on the part of the second party in completing the construction within the stipulated period will render him liable to pay liquidated damages. @ Rs. 800/- per day which will be deducted from payments due to him. The first party may cancel the contract and take recourse to such other action as deemed appropriate once the total amount of liquidated damages exceeds 3 % of the contract amount.

(Note: The amount of liquidated damages per day should be determined at 0.05 to 0.1% of the contract value of the works per day and indicated here).

8. Duties and responsibilities of the first party

- 8.1 The first party shall be responsible for providing regular and frequent supervision and guidance to the second party for carrying out the works as per specifications. This will include written guidelines and regular site visit of the authorized personnel of the first party, for checking quality of material and construction to ensure that it is as per the norms.
- 8.2 The first party shall supply 3 sets of drawings, specifications and guidelines to the second party for the proposed works.
- 8.3 Possession of the site will be handed over to the second party within 10 days of signing of the agreement.
- 8.4 The Engineer or such other person as may be authorized by the first party shall hold meeting once in a fortnight where the second party or his representative at site will submit the latest information including progress report and difficulties if any, in the execution of the work. The whole team may jointly inspect the site on a particular day to take stock of activities.
- 8.5 The Engineer shall record his observations/instructions at the time of his site visit in a site register maintained by the second party. The second party will carry out the instructions and promptly rectify any deviations pointed out by the engineer. If the deviations are not rectified, within the time specified in the Engineer's notice, the first party as well as the engineer nominated by it, may instruct stoppage or suspension of

the construction. It shall thereupon be open to the first party or the engineer to have the deviations rectified at the cost of the second party.

9. Duties and responsibilities of the second party

9.1 The second party shall:

- a) take up the works and arrange for its completion within the time period stipulated in clause 5;
- b) employ suitable skilled persons to carry out the works ;
- c) regularly supervise and monitor the progress of work ;
- d) abide by the technical suggestions/direction of supervisory personnel including engineers etc. regarding building construction ;
- e) be responsible for bringing any discrepancy to the notice of the representative of the first party and seek necessary clarification :
- f) ensure that the work is carried out in accordance with specifications, drawings and within the total of the contract amount without any cost escalation ;
- g) keep the first party informed about the progress of work ;
- h) be responsible for all security and watch and ward arrangements at site till handing over of the building to the first party ; and
- i) maintain necessary insurance against loss of materials/cash, etc. or workman disability compensation claims of the personnel deployed on the works as well as third party claims.
- f) Pay all duties, taxes and other levies payable by construction agencies as per law under the contract (First party will effect deduction (TDS) from running bills in respect of such taxes as may be imposed under the law).

10. Variations / Extra Items

The works shall be carried out by the second party in accordance with the approved drawings and specifications. However, if, on account of site conditions or any other factors, variations are considered necessary, the following procedure shall be followed:-

- a) The second party shall provide the Engineer with a quotation for carrying out the Variation when requested to do so by the Engineer. The Engineer shall assess the quotation, which shall be given within seven days of the request before the Variation is ordered.

- b) If the quotation given by the second party is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.
- c) The second party shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

11. Securities

The Performance Security (Bank Guarantee from a Nationalized or Scheduled Bank in India in the format attached) shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a bank or surety acceptable to the Employer. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee.

12. Termination

12.1 The Employer may terminate the Contract if the other party causes a fundamental breach of the Contract.

12.2 Fundamental breaches of Contract include, but shall not be limited to the following:

- (a) the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer;
- (b) the Contractor has become bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (c) the Engineer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- (d) the Contractor does not maintain a security which is required;
- (e) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the clause 7 of this agreement

12.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.

12.4 If the Contract is terminated the Contractor shall stop work immediately, make the Site safe and secure and leave the Site as soon as reasonably possible.

13. Payment upon Termination

13.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less

advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law.

13.2 If the Contract is terminated at the Employer's convenience, the Engineer shall issue a certificate for the value of the work done, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

14. Dispute settlement

If over the works, any dispute arises between the two parties, relating to any aspects of this Agreement, the parties shall first attempt to settle the dispute through mutual and amicable consultation.

In the event of agreement not being reached, the matter will be referred for arbitration by a Sole Arbitrator not below the level of retired Superintending Engineer, PWD to be appointed by the first party. The Arbitration will be conducted in accordance with the Arbitration and Conciliation Act, 1996. The decision of the Arbitrator shall be final and binding on both the parties. The Arbitrator shall give his award/decision within 60 days of start of proceedings

Signed and delivered by Sri. _____ for and on behalf of the Contractor

In the presence of the Witness:

i)

ii)

SIGNATURE

Signed and delivered by Sri _____ Deputy Executive Engineer/Executive Engineer/Superintending Engineer _____ of _____ for an on behalf of the Government.

In the presence of the Witness:

i)

ii)

SIGNATURE

BILL OF QUANTITIES

Annexure I

S. N.	ITEM	QUANTITY					Unit	Estimated cost		Amount (Rs.)
		HALL 1	HALL 2	HALL 3	HALL 4	TOTAL QTY		In Figure (Rs.)	In Words	
A	Storage Unit with Cam lock : 760 mm Depth, 880Ht (RECESS handle)									
a	With Metal Shutter and Drawers									
1	MF7-430-1S-9H (LH)	1	-	-	-	1				
2	MF7-450-1S-1D-9H (LH)	-	-	1	-	1				
3	MF7-750-2S-1D-9H	2	2	1	-	5				
4	MF7-C-900-1S-9H (RH)	-	-	1	-	1				
5	MF7-SU-750-2S-9H	-	-	-	1	1				
6	MF7-SU-900-2S-9H	-	1	-	-	1				
7	AF7-430-1S-9H (RH)	1	-	-	-	1				
8	AF7-600-2S-1D-9H	6	8	-	-	14				
9	AF7-750-2S-1D-9H	-	2	-	3	5				
10	AF7-SU-600-2S-9H	1	-	-	-	1				
11	AF7-LS600-S-9H	-	-	2	-	2				
B	Cover Panel									
1	End side panel for main unit, 600mm D, 900mm Ht.	4	4	2	-	10				
2	Side cover panel (for End LS), 750D, 900mm Ht	-	-	2	-	2				
C	Double Sided Reagent Shelf 2-tier, 300mm Depth (660mm Ht.)									
1	A-RS-D-1200	1	1	-	-	2				
	With 2 cutouts for 6 module plates									
2	M-RS-D-1350	1	1	-	-	2				
	With 2 cutouts for 6 module plates									
3	A-RS-D-1350	-	1	-	-	1				
	With 2 cutouts for 6 module plates									

D	Single Sided Bench Mounted Electrical Trunking									
1	BM-ET-S-1050	-	-	1	-	1				
	With 2 cutouts for 6 module plates									
2	BM-ET-S-1350	-	-	1	-	1				
	With 2 cutouts for 6 module plates									
E	KD Wall Mounted (Top) Storage Unit With Cam Locks (RECESS Handles)- 700mm Ht. With Metal Facia									
1	MT-750-2S	1	1	1	1	4				
2	AT-750-2S	3	3	2	2	10				
F	Sinks and Accessories									
1	PP Drop-in Sink Overall Size : 548 x 398 x 235mm Model No. PP001-101, Color-Black	1	1	-	1	3				
2	Waste For PP Drop In Sink Model NO.PP050-013 Color-Black (Size : 38 x 76mm dia.)	1	1	-	1	3				
3	Anti-Siphon bottle trap Size : 38mm Model No. PP100-010, Color- Black	1	1	-	1	3				
4	Flexible/ F Serated Connector size : 38mm x Length = 1m Model No. PP080-002, Color-Black	1	1	-	1	3				
G	Water Faucets									
1	3 Way Faucet Bench mounted 3 way water fittings with 8" swing gooseneck	1	1	-	1	3				
H	Emergency Shower									
1	PVC emergency safety shower Emergency Shower with eye/face wash , All PVC construction	1	-	-	-	1				
I	Electrical Fittings and accessories									

1	6 Module Plate	8	12	4	-	24			
2	16A, 1 way Switch	16	24	8	-	48			
3	6/16A, 6 pin shutter Socket	16	24	8	-	48			
J	WorkSurface								
1	Jet Black Granite (Sq.mt.) 20 (±2) mm thk.	5.2	6.8	3.1	2.4	17.51			
2	Silicon Sealant - Black	1.00	1.00	1.00	1.00	4			
3	Masking Tape	1.00	1.00	1.00	1.00	4			
4	Neoprene Strip (Running Meter) (30mm wide & 6 mm thick)	20	30	10	10	70			
5	SR-998 Glue for Neoprene Mat. (Litres)	1.00	1.00	1.00	1.00	4			
K	Anti Vibration Table								
1a	AVT 2 : 900 x 600 x 900mm	8	5	-	-	13			
1b	AVT 2 : GRANITE SLAB	8	5	-	-	13			
1c	AVT 2 : KADAPPA SLAB	8	5	-	-	13			
L	Other Lab Accessories								
1	REV STOOL MCH HT ADJ + BACK HI BASE	3	3	2	2	10			
M	INSTALLATION								
A	TOTAL BASIC SUPPLY								
B	VAT 12.5%								
C	INSTALLATION								
D	Service Tax @ 12.36%								
	Grand Total (A+B+C+D)								

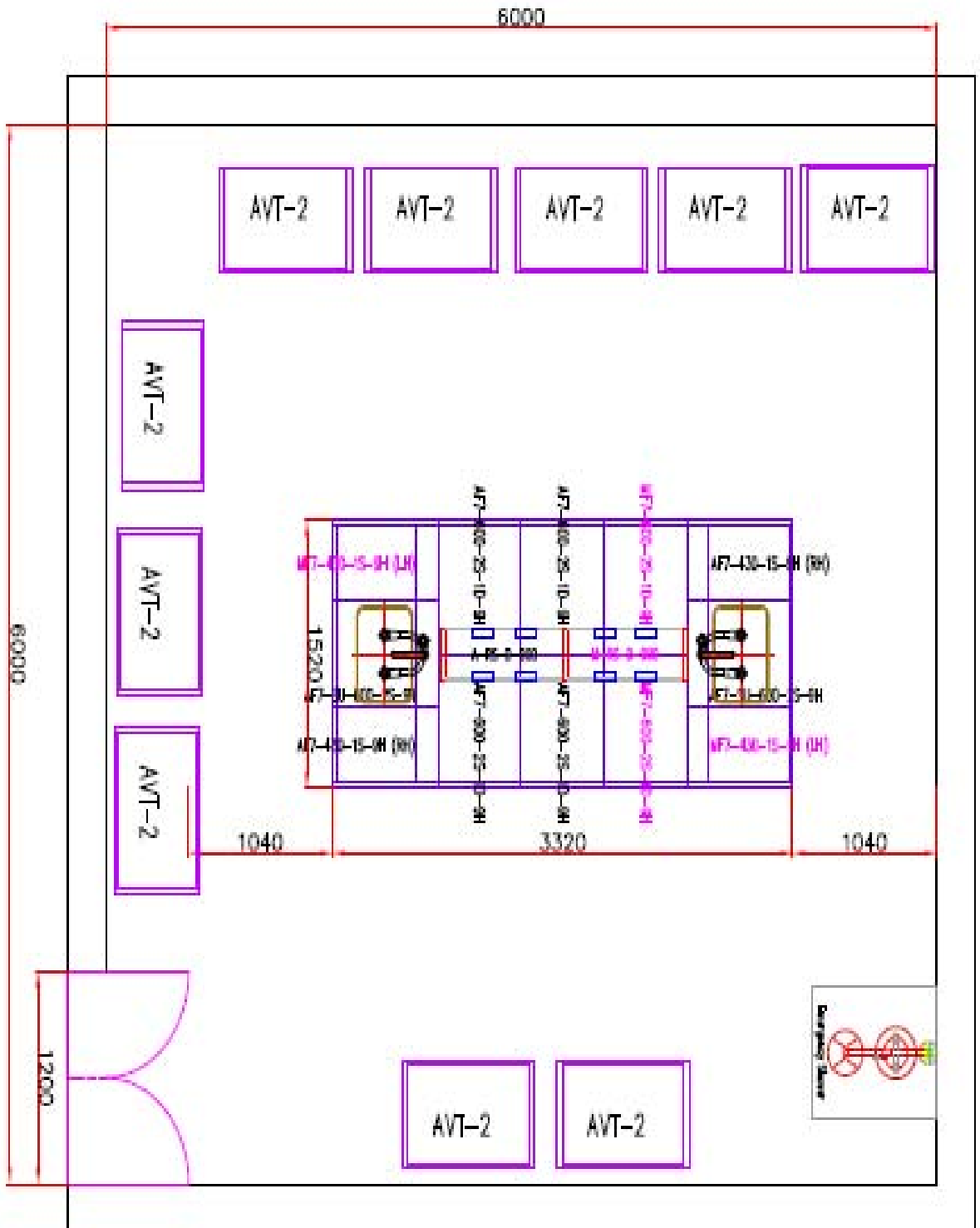
Gross Total Cost : Rs.

We agree to execute the works in accordance with the approved drawings and technical specifications at percentage above/below the estimated rates, i.e., for a total contract price of Rs.(amount in figures) (Rs. amount in words).

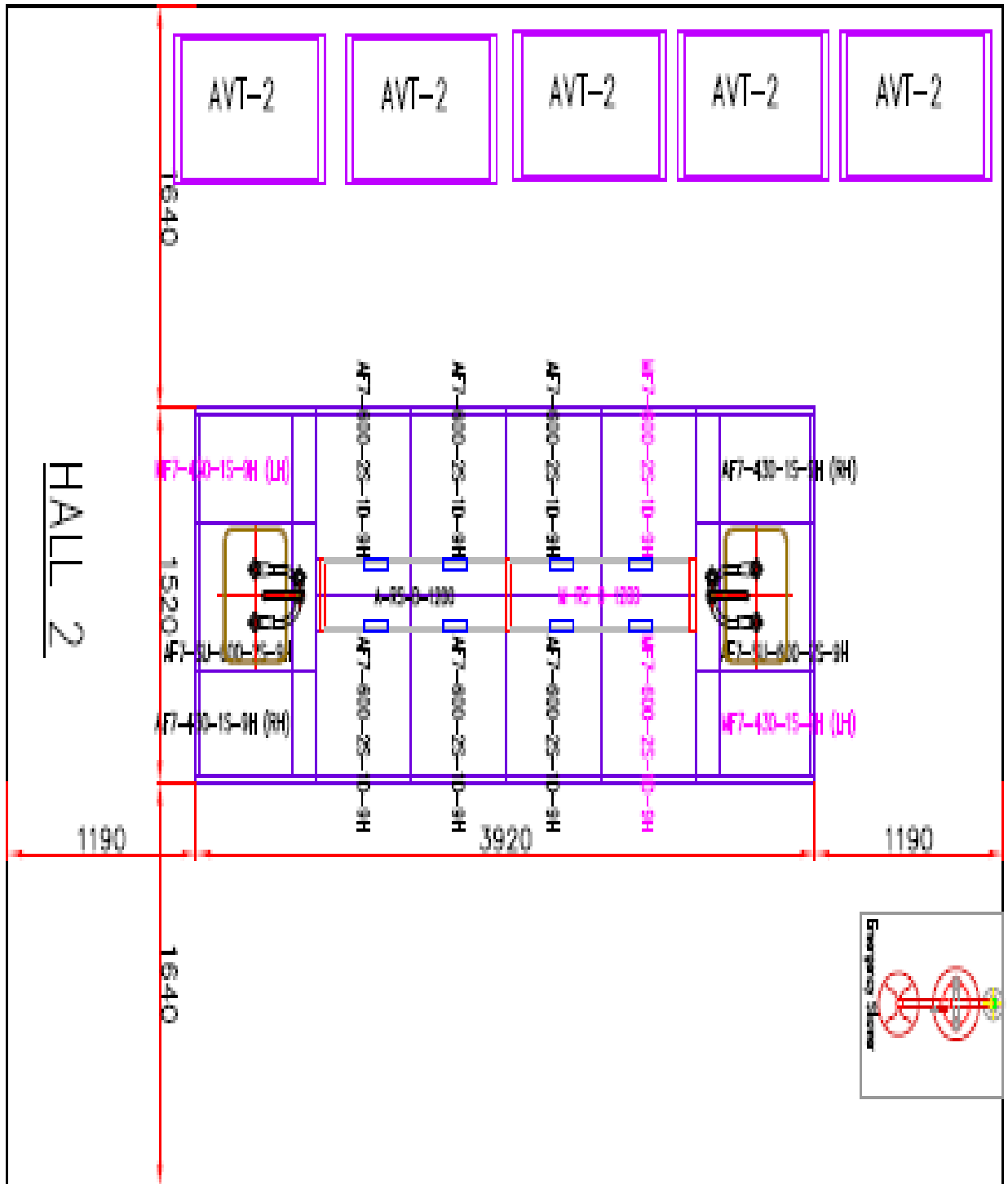
Signature of Contractor

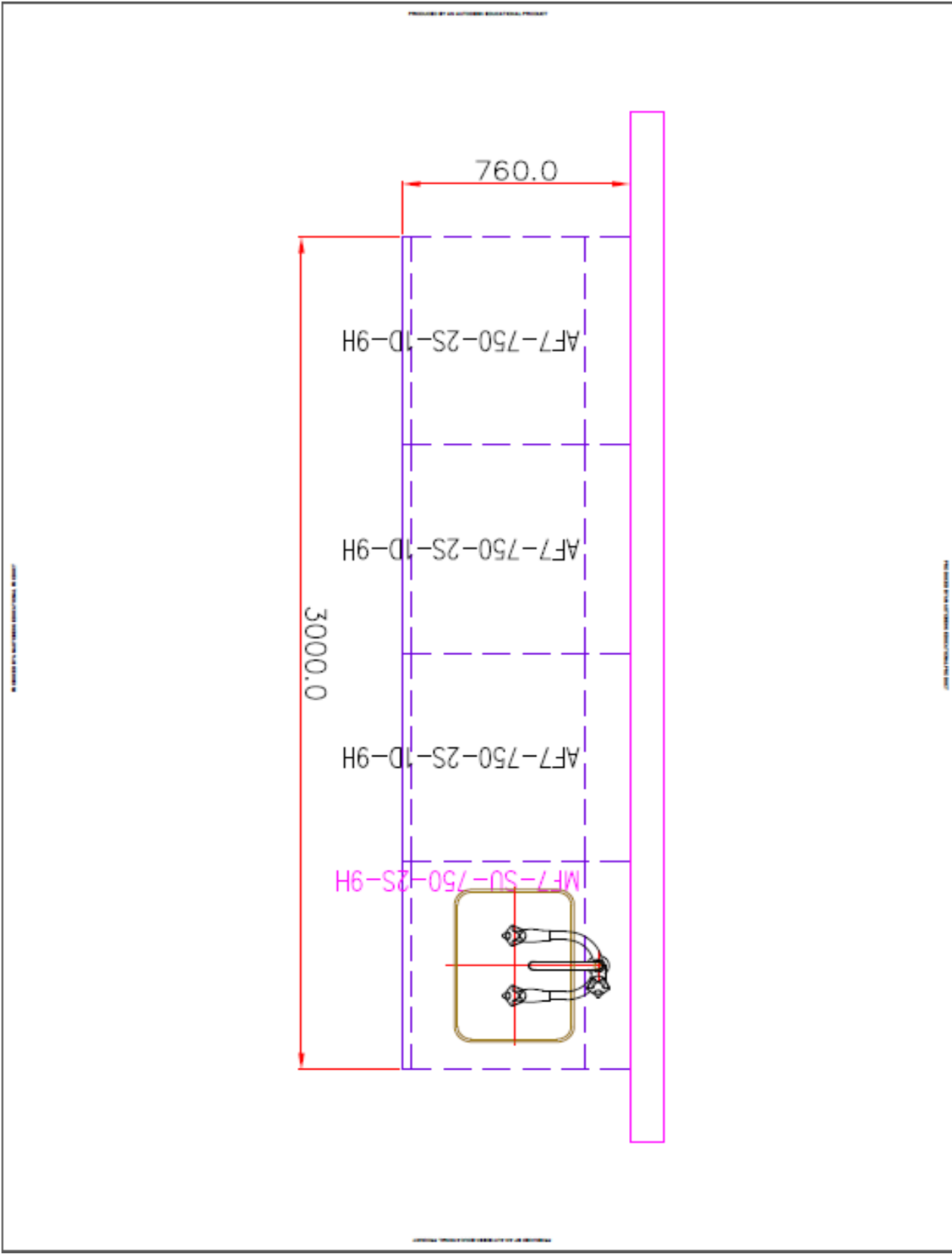
(Where there is a discrepancy between the amount in figures and words, the amount in words will prevail)

Nomenclature	Detail Description
Storage units	
MF6-450-1S-1D-9H (LH)	MF = Main floor unit ,6 = 600 depth,450 = 450 width, 1S = 1 shutter, 1D = 1 drawer, 9H = 900 height
AF7-SU-600-2S-7H	AF = Add On floor unit ,7 = 750 depth,SU= Sink Unit, 600 = 600 width, 2S = 2 shutters, 7H =750height
AF9-LS-750-K-9H	AF = Add On floor unit ,9 = 900 depth,LS= Leg Space, 750 = 750 width, K =KBPT, 7H =750height (K = KBPT i.e. keyboard pull-out Tray (Similarly P for plain, S for slim drawer)
Reagent Shelf	
M-RS-S-600	M= Main Unit, RS= Reagent Shele, S= Single Sided, 600= 600 Width
A-RS-D-600	A= Add On Unit, RS= Reagent Shele, D= Double Sided, 600= 600 Width
Wall mounted electrical trunking	
WM-ET-600	WM= Wall mounted, ET= Electrical Trunking, 600= 600 Width
Bench Mounted Electrical Trunking	
BM-ET-S-260	BM= Bench mounted, ET= Electrical Trunking, S= Single Sided, 260= 260 Width
BM-ET-D-261	BM= Bench mounted, ET= Electrical Trunking, D= Double Sided, 260= 260 Width
Top Unit	
With Metal Facia	
MT-300-1S (LH)	MT= Main Top Unit, 300= 300 Width, 1S= 1 Shutter (Lelf hand)
AT-450-1S (RH)	AT= Add On Top Unit, 450= 450 Width, 1S= 1 Shutter (Right hand)
With Metal - Glass Facia	
MT-600-2S-MGS	MT= Main Top Unit, 600= 600 Width, 2S= 2 Shutter, MGS= Metal Glass Facia
AT-600-2S-MGS	AT= Add On Top Unit, 600= 600 Width, 2S= 2 Shutter, MGS= Metal Glass Facia



HALL 1





HALL NO 4

TECHNICAL SPECIFICATIONS

LABORATORY FURNITURE

Scope of Work

Supply and Installation of Laboratory Workbenches/Storage units including granite worktops and other supporting structures/hardware's based on the specified Make List. This includes delivery to Central Pollution Control Board, unloading the consignment and transporting it from the place of storage to the installation site.

Supply & Installation of all utility service outlets and accessory fittings, electrical receptacles, plumbing and electrical switches & fittings identified on drawings as mounted on the laboratory furniture.

Supply & Installation of all laboratory sinks, bottle traps, drain troughs etc.

Supply & Installation of service structures where specified and setting in place reagent shelves of the type shown in the drawings.

Removal of debris, dirt and rubbish accumulated as a result of installation/commissioning of the laboratory furniture and accessories and leaving the premises broom clean and orderly.

Basis of Work

It is the intent of this specification to use specified make list as the standard of construction for steel laboratory furniture. The construction standards of this product line shall provide the basis for quality and functional installation.

Central Pollution Control Board reserves the right to reject qualified or alternate proposals and to award based on product value where such action assures the owner greater integrity of product.

Participants in the quotation process have the option of clarifying deviations to the specified design, construction or materials.

Without such clarifications, sealed quotations to Central Pollution Control Board will be construed as being in total conformance to the requirements of the specification.

Quality Assurance

The steel laboratory furniture manufacturer shall provide work tops and casework all manufactured & shipped with proper packing & shall take the full responsibility of the entire Scope of Works as specified in the tender.

General Performance: Furniture shall meet the performance requirements and shall follow SEFA 8 guidelines

Submittals

Manufacturer's Data: Submit installation instructions for each type of casework.

Samples: Samples if called for will be reviewed for color, texture, and pattern only.

Shop Drawings – Submit shop drawings for furniture assemblies showing the required details

Products/Manufacturers

The selected manufacturer must warrant for a period of one-year starting (date of acceptance or occupancy, whichever comes first that all products sold under the contract referenced above shall be free from defects in material and workmanship.

ABCD will retain the above samples of the successful manufacturer or owner to insure that material delivered to jobsite conforms in every respect to the samples submitted if need be.

UNIQUE LABORATORY FURNITURE

FLOOR UNITS

GENERAL DESCRIPTION

The steel frames, panels & shutters shall be made from Prime Quality CRCA (Cold Rolled Close Annealed) Steel.. All cabinet bodies shall be of over closing design with fully knock down construction and having a main and add on construction to avoid any gaps in between two units. All units shall have interlocking type construction to form a rigid integral structure. These units shall be supported on wide base high grade plastic legs of diameter 40 mm. These legs shall be height adjustable with a range of +/- 50 mm. Each unit shall have a locking facility with 180° and 10 lever cam lock mechanism.

FEATURES

Surface Treatment: The complete M.S. material of cabinet shall be pre – treated (degreased, Zinc Phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat shall be 50 microns, which passes the test of Salt Spray for 1000 hours and having the Scratch Hardness of 3Kgs.

Cabinet frame: Frame is a combination of 1.2 mm horizontal stiffeners and 0.8 mm vertical panel of CRCA MS sheet.

Cover panels: End side panel, false panel and back panel of 0.8 mm thick CRCA MS sheet.

Shelves and Drawers: CRCA shelves shall have a load carrying capacity of 40 kg. The overall load carrying capacity of cabinet shall be 80 Kg of UDL (40 kgs. on each shelf and 40 kgs. on bottom). The overall load carrying capacity of drawer shall be 40 kgs. of UDL for a pair of ball slide.

Door Pulls: Pull shall be stainless steel (SS304) with D type construction. Flush pulls shall be of PVC, providing a recessed finger grip. Finger holes or slots machined into doors will not be acceptable.

Drawers: The outer drawer and door head shall have plastic inserts with non-sharp rectangular edges to eliminate sharp raw edges of steel. Drawer and door, when closed, shall be over closing on the cabinets.

Slides: High precision Double Extension Ball slides which enable the drawer to open fully. They shall have passed more than 55000 cycles of Drawer Cycle test (forward & backward movements) with a 15kg load in the drawer.

Shutters: Metal Shutters shall be double walled and made up of 0.8mm thick CRCA MS sheet with profil inserts and 40-50 microns pure epoxy powder coated. It shall have good scratch resistance, reasonable chemical resistance to acids, alkalis, organic solvents and heat resistance properties.

Hinges: Hinges shall be made of MS with Cathode electrode deposition for better corrosion resistance. The hinges shall be spring loaded with 105 degree opening. Welding of hinges to door or case will not be accepted. Doors less than 36" in height shall be hung on one pair of hinges, and doors over 36" high shall be hung on 3 hinges in case of under storage cabinets.

Positive Catch: All units shall be with self closing type spring loaded hinges. The hinge shall close the doors once left at certain angles. No additional catch will be allowed in the units.

Shelf supports: Shelf support clips shall be of nickel-plated steel.

Legs: All Legs shall be made of plastic with a load carrying capacity of 450 kg/each. All units shall be on plastic legs for better clean ability of the lab area. Fully enclosed flush design will not be acceptable. Leg shall be able take evenness of the floor. It shall have at

least 50mm adjustability.

Skirting (Optional): Skirting shall be made up of Poly Vinyl Chloride that is light in weight & is not affected by water that comes in contact while cleaning the floor.

Support Bracket: Granite/Reagent Support Brackets serve the purpose of supporting the granite with carrying the service lines. It shall be made of 2 mm CRCA MS sheet with epoxy powder coating.

Configuration of Storage Units: The storage units shall be available in three configurations:

Storage unit with one/two shutters and one adjustable shelf

Storage unit with one drawer, one/ two shutters and one adjustable shelf

Storage unit with 4 drawers (only with 450 mm width unit).

All storages shall be with locks when not specified.

SINK UNITS

Sinks shall be available in Steel (with or without drain board), Ceramic & Polypropylene. The standard size of is as follows:

SS Sink: 520 x 440 x 200 mm

Ceramic Sink: 515 x 375 x 145 mm

Sink unit shall also have 3-way (2 Straight + 1 Swan Neck) water faucet made up of Brass and with Epoxy powder coatings.

REAGENT SHELVES

Reagent Shelves shall be of complete modular design consisting of horizontal 2 stage storage shelves. The end vertical support shall be 0.9mm & horizontal shelves of 0.8mm thick CRCA M.S. Each shelf shall have a load carrying capacity of 30 kgs. of UDL for the length of 1000 mm. Each vertical panel shall be assembled with horizontal shelf with M6 fasteners having Zinc-Cobalt coating for better corrosion resistance. The complete M.S. material of cabinet shall be pre-treated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat shall be 45-50 microns, which passes the test of Salt Spray for

ELECTRICAL TRUNKING

Electrical trunking shall be made up of 0.8mm thick CRCA MS Sheet. The complete M.S. material of cabinet shall be pre-treated (degreased, Zinc phosphated) and epoxy powder coated for better corrosion resistance. The thickness of powder coat shall be 45-50 microns, which passes the test of Salt Spray for 1000 hours. It shall have a high temperature withstanding capacity with excellent electrical insulation properties. The rear portion of above accessories which is in contact with live metal shall be made from thermo set material which shall not melt on heating. It shall be available in 3 types:

Wall Mounted

Bench Mounted Single side

Bench Mounted Double side

TOP UNITS

The unit shall be of the same construction as that of the base storage cabinets and shall have a completely finished interior same as exterior. Glass used shall be as per the Schedule of Quantities' requirement

APPROVED MAKES

S. No	Description	Approved Make
1	Steel	All the material used preferably of ISI make
2	Powder Coating	
3	Water Faucets and Gas Valves	
4	Eye Wash and Body Shower	
	Laboratory Sinks	
6	Switches and Sockets	
7	Data and Voice Sockets	
8	Hinges	
9	Legs	
10	Locks and Double Extension Ball Slides	
11	Exhaust Blower	

Format of certificate

Certified that the works upto ----- stage(as defined in clause 3.1 of the Agreement) in respect of construction of ----- at ----- have been executed satisfactorily in accordance with the terms and conditions of the agreement and as per approved drawings and technical specifications.

Signature
Name & Designation
(Official address)

Place :
Date :

Office seal

PERFORMANCE BANK GUARANTEE
(To be given from a nationalized or scheduled bank in India)

To: _____ *[name of Employer]*
_____ *[address of Employer]*

WHEREAS _____ *[name and address of Contractor]* (hereinafter called "the Contractor") has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ *[name of Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of _____ *[amount of guarantee]* ¹ _____ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ *[amount of guarantee]*¹ as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defects Liability Period.

Signature and seal of the guarantor _____
Name of Bank _____
Address _____
Date _____