



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE -DEHRADUN

ARC-2023-24



**Life Insurance Corporation of India,
Divisional Office
Dehradun**

Tender No- LIC/DO/ENGG/LT-7/2023-24

**E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties,
For FY 2023-24 onward.**

**Date of downloading of e-tender 17.01.2024 at 10:00 Hrs
Last Date for Submission of Tender: 31.01.2024 up to 15.00 Hrs
Date of Opening of Tender: 01.02.2024 at 11.30 AM
Tender Issued To:-----

.....**


Sri. Divl. Manager






भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

North Central Zonal Office, Kanpur

INDEX

***E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.***

S No	Description	Page No		No. of pages
		From	To	
1.	Index	2	2	1
2.	Instructions for E-Tender Fee & EMD	3	4	2
3.	Letter from Sr. Divisional Manager to Contractor	5	6	2
4.	Letter from Contractor to Sr. Divisional Manager	7	8	2
5.	Appendix & Special Conditions of Contract	9	11	3
6.	No claim certificate	12	12	1
7.	E - Tendering Programme & key dates	13	14	2
8.	Instructions in regard Submission of online E - Tender	15	19	5
9.	General Terms & Condition of Contract	20	26	7
10.	Details of Properties & Condition of Contract	27	48	22
11.	Additional special Conditions	49	52	5
12.	General Premeables to schedule of quantities	53	90	38
13.	List of approved makes	91	97	7
14.	E-Measurement Sheet & Flow Chart of process	98	103	5
15.	Bank Account & other details	104	104	1
16.	Schedule of Rates	105	155	51
17.	Template to Quote the offer/ percentage rates	156	156	1



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

INSTRUCTION REGARDING SUBMISSION OF TENDER FEE AND EMD (BID – I)

***E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.***

BID – I : Tender Processing Fees and EMD as per amount mentioned below shall be remitted to LIC of India, North Central Zonal Office, Dehradun through NEFT/ RTGS/ Demand Draft drawn in favour of LIC of India, payable at Dehradun / MR (obtained by depositing cash on cash counters of North Central Zonal Office, Dehradun) in this Bid. The proof of remittance of above shall be uploaded in BID – I of e-tender.

- (1) **Tender processing fees:**Rs.500/- + GST (RUPEES FIVE HUNDRED Only GST Extra). Tender processing fees is non-refundable.
- (2) **EMD:** Earnest Money Deposit of Rs. 10,000/- (Rupees Ten Thousand Only)

Account Details for Tender Fee & EMD payment through Electronic Transfer in form of NEFT/ RTGS –Transfer in form of NEFT/ RTGS -

Name of Account Holder	LIC of India, Divisional Office Dehradun LIC OF INDIA A/C –II, D027
Type of Account	Current
Account Number	510101002407050
Bank Name	UNION BANK OF INDIA
Bank Address	75,Rajpur Road ,Himalayan Apartment ,Near Raj Plaza Dehradun,248001
IFSC Code	UBIN0812099

Note:

- (i) A scan copy of the Demand Draft / MR is to be uploaded in the e –tender portal and original copy of Demand Draft / MR is to be submitted to the following address on or before **31.01.2024 up to 15.00 Hrs**

Address: Sr. Divisional Manager, LIC of India, Divisional Office , Dehradun

- (ii) In case of NEFT/ RTGS Payment the Receipt of NEFT/ RTGS having UTR No. is to be uploaded. The Payment of EMD and Tender fee can be made together through NEFT/ RTGS.

REFUND OF EMD:

1. The earnest money of all bidders except lowest bidder shall be refunded after opening of financial/ price bid. However, being ARC if the tender other than lowest are willing to execute the work at the rate of lowest tenderer, the EMD shall be retained as part of SD and balance SD shall be deposited by the tenderer.
2. If lowest bidder withdraws his tender before expiry of validity period or before the issue of acceptance of bid, whichever is earlier, or makes any modifications in the terms and conditions of the tender which are not acceptable to the department, in such case the EMD will be forfeited by the department.
3. In case of forfeiture of EMD as prescribed in para 1 and 2 above, the bidder shall not be allowed to participate in the re-tendering process of the work.

The Tenderer has to submit the Bids as under:

- (1) BID I (EMD, Tender Processing Fee) & BID II (Price Bid):**EMD, Tender Processing Fees & Price Bid for said work will be opened on 01.02.2024 at 11.30 AM
- (a)** Tender form processing fee of Rs.500/-+GST (non-refundable) separately to be paid through NEFT/ RTGS/ Demand Draft drawn in favour of LIC of India, Payable at Dehradun / MR (Obtained by deposition cash at cash counter of Divisional Office, Dehradun). In case of tender fee payment through Demand Draft/ MR, Original Demand Draft/ MR to be submitted at Life Insurance Corporation of India, Divisional Office, Engineering Department before 31.01.2024 **up to 15:00 hrs** i.e the last date of submission of tender.
- (b)** Earnest Money Deposit of **Rs.10000/- (Rupees Ten Thousand Only)** separately to be paid through NEFT/ RTGS/Demand Draft drawn in favour of LIC of India, Payable at Dehradun / MR (Obtained by deposition cash at cash counter of Divisional Office, Dehradun). In case of EMD payment through Demand Draft/ MR, Original Demand Draft/ MR to be submitted at Life Insurance Corporation of India, Divisional Office, Engineering Department, Dehradun on or before 31.01.2024 **up to 15:00 hrs** i.e the last date of submission of tender.

Note: Original Demand Draft / MR to be submitted to above mentioned address on or before 31.01.2024 up to 15.00 hrs. Scan copy of Demand Draft/ MR/ Receipt of NEFT/ RTGS having UTR No. shall be uploaded on e-Tender Portal in BID I.

Note: - If Tender Fees and EMD amount submitted through NEFT/RTGS mode on or before 31.01.2024 up to 15:00Hrs.



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

LETTER TO CONTRACTOR FROM Sr. Divisional Manager

REF: Engg /

Dated :16/01/2024

To,

M/s-----

Dear Sir,

**E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.**

We hereby publish the TENDER on e-Tendering Portal (Website) through www.tenderwizard.com/lic **Electronic Mode** hereinafter referred as "**e Tendering**".

- 1) Please note that copy of above e-Tender can be downloaded from above portal (website) and should be mandatorily submitted in **Online Electronic Mode** hereinafter referred as "**Online Offer**". The submission of Online offer duly Encrypted & Digitally Signed on above portal should be in prescribed Electronic Forms (Online) available on above portal for respective tender in Online Envelope(s) on or before **As per the Key Dates mentioned in the tender document and online portal for above tender.**
- 2) Tender Processing Fees amount **Rs.500/-** + GST and EMD amount **Rs.10000/-** shall be remitted to the LIC of India, DO, Dehradun through NEFT/ RTGS/ Demand Draft / MR (Obtained by deposition cash at cash counter of Divisional Office, Dehradun) in this Bid. **The proof of remittance of above shall be uploaded in BID – I of e-tender as per the Key Dates** and the e Tenders will be opened at **As per the Key Dates** in the presence of contractors or accredited representatives, who wish to attend the online Tender Opening Process. The bidders can view the Tender Opening details through their respective Login IDs on the above mentioned e-Tender portal (Website).

The Tenderer should ensure that their tender is received **Online Electronically** on or before the due date and time as specified in "**Key Dates**" in the Tender Document and above mentioned Portal (website).



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

Please note that above e-Tendering System is an automatically time locked system which will be locked immediately as soon as due date and time is over and will not accept any offer after that. So, the tenderers are strictly advised to do their process well before the due date and time to avoid any such instances.

- 3) Instructions In regard to Submission of tenders on Electronic Tendering System (ETS) is attached in the Tender document. The tenderers are advised to carefully read the above document for understanding of e Tendering System. The above instructions will supersedes all the terms & conditions mentioned for submission of tender in document.
- 4) The Life Insurance Corporation of India does not bind itself to accept the lowest or any tender.

Yours sincerely,

Sr. Divisional Manager

LETTER FROM CONTRACTOR TO SR. DIVISIONAL MANAGER

The Sr. Divisional Manager,
Life Insurance Corporation of India,
North Central Zonal Office, Dehradun.

Dear Sir/Sirs,

***E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.***

1. Having examined the Specifications, conditions of tender, form of Percentage rate contract, Schedule of Quantities relating to the above work of the tender and the drawings and having visited and examined the site of the proposed works and having inquired the requisite information relating thereto as affecting the tender invited by you on behalf of the Life Insurance Corporation of India, I/We, the undersigned hereby offer to construct, execute, complete and maintain the proposed works on Percentage rate basis in strict accordance with the contract conditions and specifications for the sum as mentioned in the General Summary as may be ascertained in accordance with the said conditions.
2. I / We undertake to complete and deliver the whole of the work within a period as specified in Appendix to the Conditions of Contract from the date of issue of intimation from you that the tender has been accepted and upon receiving possession of the site. I/We shall be under the obligation to pay the sum of as stated in the Appendix to the Conditions of Contract for every day that the works shall remain incomplete, damages as compensation subject to the conditions of contract relating to an extension of time.
3. I/We submit herewith my/our tender along with Earnest Money remittance of, Rs.10000.00 (**Rupees Ten Thousand only**). I/ we hereby agree this sum shall be forfeited by the Life Insurance Corporation of India in the event of my/our tender being accepted and I/We fail to execute the contract when called upon to do so.

I/We note that earnest money remittance in form other than **NEFT/ RTGS/ Demand Draft/ MR (obtained through depositing cash on cash counters of Divisional Office, Dehradun)** payment shall not be accepted. In case tenderer failed to submit original Demand Draft/ MR to the Concerned Office, before specified date **AS per Key Dates**, the tender will be considered as non bonafied tender.

4. In the event of the tender being accepted, the E.M.D shall be retained as part of security deposit. The contractor has to deposit additional Security Deposit



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

with LICI for an amount of **Rs.10000.00** (EMD shall be converted in to SD). The total security deposit per group is Rs.20,000/-. No interest will be paid on SD. The Security Deposit **of Rs.20000.00 per group** will be released after successful completion of contract period including extension if any and plus Defect Liability Period as applicable for last awarded work under said contract.

5. I / We note that the Earnest Money deposited by me/us would be refunded to me/us.
 - a. On expiry of the validity of the tender or
 - b. earlier at the discretion of Sr. Divisional Manager in case my/our tender is not accepted.

Dated : / / 2024

Yours faithfully,

SIGNATURE OF THE CONTRACTOR

Name of the Partner of the Firm or Name of person having Power of Attorney to sign the contract. (Certified True Copy of the Power of Attorney should be attached).

**E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.**

APPENDIX TO CONDITIONS OF CONTRACT

FINANCIAL YEAR		2023-24 & onward
EARNEST MONEY DEPOSIT		Rs.10000/-
TYPE OF TENDER		Percentage Rate Tender
Sr. No.	PARTICULARS	DESCRIPTION
1	Earnest Money Deposit	Earnest Money Deposit of Rs.10000/- (Rupees Ten Thousand Only) through Demand Draft/ MR / Electronic Online Transfer (NEFT/ RTGS) to be paid.
2	Duration of contract /validity of Rates for ARC	The rate contract is valid for one year and may be extended subsequently after mutual consent. As deem fit by the Competent Authority of LIC.
3	Defects liability period	1) Six months from the date of completion of work for routine repair & maintenance. 2) Twelve months from the date of completion of addition and alteration/ major work. 3) Equal to warranty given by OEM of any fittings & fixtures in actual
4	Security Deposit	In case of tender is accepted EMD shall be converted into SD. The contractor has to deposit additional Security Deposit of amount Rs.10000.00 . The total security deposit per group is Rs.20,000/-. No interest will be paid on SD. The Security Deposit of Rs.20000.00 per group will be released after successful completion of contract period including extension if any and plus Defect Liability Period as applicable for last awarded work under said contract.
5	Validity	Tender submitted shall remain open for acceptance up to three months from the last date of the submission of the tender.
6	Insurance Policies	Contractors All Risk (CAR) Policy including Third Party Liability of Rs.500000/- only and Workmen Compensation policy for minimum 2 labours.(one skilled&one unskilled) or as per mutual agreement.

7	Liquidated Damages	At the rate of 1% (one percent) per week of value of work on accepted amount for individual work order, subject to max of 10% of accepted amount /value of work.
8	Contract labour act	Contractor to obtain labour license before commencement of work if applicable.
9	Water & Electricity Charges (if provided and used by the contractor)	The required water & electricity charges for the Charges will be deducted from each bill @ 0.5% of gross value of work.
10	Interim certificate	As per payment terms
11	Period of honoring Interim certificate	20 (Twenty) Days
12	Period of honoring Final certificate	90 days from the date of submission of final measurements with details.



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

SPECIAL CONDITIONS OF CONTRACT

1. The contractor shall be responsible to pay all statutory levies imposed by the State and Central Government such as Income Tax etc. but excluding GST. GST will be paid separately along with the bills as per applicable rates/ prevailing rates.
2. **The Electrical works carried out through ARC rates are of very emergent nature most of the time and requires immediate attention. The lowest contractor will be informed to attend the complaint by e-mail/ telephone / whatsapp/ work order / job card as per the circumstances and the contractor will be responsible to arrange to attend the complaint within time period as communicated. If the response of the contractor will not be as per time requirement, the work will be assigned to another contractor. No correspondence in this regard will be entertained thereafter.**
3. The Construction Associate shall submit the bill having GST Number clearly printed and showing the taxes separately.
4. **Labour cess:** Rates are inclusive of Labour cess (if any) and labour cess will be deducted from contractor's bill, as applicable.

Contractor shall also be responsible to seek permission from local authorities/ administration before starting the work & during the work in progress for unloading/keeping materials there or after completion of work, if required. if any. The above will supersede all provisions given in the tender elsewhere.

Sr. Divisional Manager



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

(TO BE GIVEN ON CONTRACTOR'S LETTERHEAD)

NO CLAIM CERTIFICATE CUM STAMPED RECEIPT

Received Rs. _____ (Rupees _____ only)
being the amount against my/ours final bill dated _____ for
_____ (Name of work) in full and final settlement of
bill.

I/We have no further claim for any amount on above work.

(Signature of Contractor on Revenue stamp)

Rubber Stamp / Seal of the Contractor /Company

**E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.**

1. Online bids are hereby invited for the works mentioned below through online e-Tendering System portal www.tenderwizard.com/lic **from the intended contractors.**

Sr. No.	Name of Work	Estimated Cost	Earnest Money Deposit (EMD)	Tender Document Fee
1.	As mentioned above	Up to 5.00 Lakh	Rs.10,000.00	Rs.500.00 + GST

2. Possession of Digital Signature Certificate (DSC) and registration of the contractor on the portal i.e. <http://www.tenderwizard.com/lic> is a prerequisite for e-Tendering.

3. For Digital Certificate issuance you may please contact our Service provider **Antares Systems Limited, E-tender helpdesk, 24, Sudha Complex, III Stage, IVth Block, Basaveshwara Nagar, Bangalore-560079,**

Help Desk Contact details:

Tel: 080-40482000 / 121 / 133 / 140

Mob:- 9686115304 / 9686115323

Email:-

raghuprashanth@antaressystems.com

lokesh.hr@antaressystems.com and

4. Last Dates of various activities by bidder:

Downloading of Tenders Documents : As per Key Dates

Bid Preparation and Submission : As per Key Dates

For further details and e-tendering schedule (Key Dates), please visit website above mentioned portal (website)

KEY DATES

Sr. No.	Department Stage	StartDateand Time	ExpiryDateand Time
1	Uploading of Tender document	16.01.2024	
2	Downloading of Tender Document	17.01.2024 at 10.00 Hrs	31.01.2024 up to 15.00 Hrs
3	Deposit of Tender fee & EMD.		
a	In case of Demand draft/MR (sealed envelope)	17.01.2024 at 10.00 Hrs	31.01.2024 up to 15.00 Hrs
b	In case of NEFT payment	17.01.2024 at 10.00 Hrs	31.01.2024 up to 15.00 Hrs
4	Online submission of tender	17.01.2024 at 10.00 Hrs	31.01.2024 up to 15.00 Hrs
5	Opening of EMD, Tender Fees and Price Bid	01.02.2024 at 11:30 Hrs onward	

Note: Key Dates mentioned here in above table are final and these supersede any discrepancy in the dates mentioned elsewhere in the tender.

INSTRUCTIONS TO CONTRACTORS REGARDING SUBMISSION OF E-TENDERS

1. All the Contractors intending to participate in the tenders processed online, are required to get registered for the Electronic Tendering System on the Portal <http://www.tenderwizard.com/LIC>
2. Tender Document can be down loaded as per key dates.
3. The Last Date of Submission on- line Bid as per key dates.

4. Obtaining a Digital Certificate:

The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. Digital signature certificate has two keys i.e. Public Key and Private Key. Public Key is used to encrypt the data and Private Key is used to decrypt the data. Encryption means conversion of normal text into coded language whereas decryption means conversion of coded language into normal text. These Digital Certificates are issued by an approved certifying authority, by the controller of Certifying Authorities, Government of India.

5. The contractors may also obtain Class III digital certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities on the portal <http://cca.gov.in>. or may obtain information and application format and documents required for issue of digital certificate from our service provider to Electronic Tendering System (ETS)

M/s Antares Systems Limited

E tender Help Desk

#24, Sudha Complex

03rd Stage, 04th Block

Basaveshwaranagara, Bangalore- 560079

Help Desk Contact details

Tel: 080-40482000/121/133/140

Mobile: 9686115304/9686115323

Email: lokesh.hr@antaressystems.com

raghuprashanth@antaressystems.com

6. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/ power of attorney to that User. The firm has to authorize a specific individual via an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to

represent adequate authority of the user to bid on behalf of agency for LIC of India, Divisional Office, Dehradun as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm. It shall be the responsibility of management / partners of the registered firms to inform the certifying authority or Sub Certifying Authority, in case of change of authorized user and that a fresh digital certificate is procured and issued an 'authorization certificate' for the new user. The procedure for application of a digital certificate will remain the same for the new user.

The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

7. Online Viewing of Scheduled date of e-tendering Programme :

The contractors can view the e-tendering Programme and the time schedule (Key Dates) for all the tenders floated using the electronic tendering system on the website <http://www.tenderwizard.com/LIC>

8. Submission of Earnest Money Deposit:

Tenderers have to deposit Earnest Money Deposit of amount **Rs.10000/-** (Rupees Ten Thousands only) through Demand Draft/ MR / Electronic Online Transfer (NEFT/ RTGS) to account mentioned on Page 3 of this part, before **last date of submission as per Key Dates**. Any tender, which is not accompanied by Tender Fee & Earnest Money Deposit, shall be summarily rejected. No interest will be paid for the period during which the earnest money lies in deposit with the Employer.

Refund of Earnest Money Deposit to the unsuccessful bidders will be made through RTGS/NEFT only.

It is mandatory to upload the scanned copy of receipt / UTR against EMD while Bid preparation stage on eTender Portal

9. Submission of Tender Document Processing Fees:

Tenderers have to pay Non refundable Tender Document Processing Fee of **Rs.500.00 (Rupees Five Hundred only) +GST** through Demand Draft/ MR/ Electronic Online Transfer (NEFT/ RTGS/ IMPS), in favour of “ **Life Insurance Corporation of India**” at **Dehradun**.

A scanned copy of the receipt / UTR of Tender document processing fees should be uploaded on e-Tender Portal while Bid Preparation Stage, otherwise Technical/Commercial bid will not be opened. Further, Original Demand Draft / MR to be submitted in office before last date as per Key Dates.

If the tenders are cancelled or recalled on any grounds, the tender document processing fees will not be refunded to the agency.

10. Download of Tender Documents

Download of Tender Documents: The tender documents can only be downloaded from the Electronic Tendering System on the Portal <http://www.tenderwizard.com/LIC>

11. Submission of Online Bids:

The Tenderers need to download the Bids Documents including the Blank Templates/ Formats / Forms etc of Technical & Price Bids. The Technical Bid and Price Bids to be filled without making any changes in the format of the files and the completely filled files of Technical Bid/Price Bid shall be uploaded on the e-Tender Portal at appropriate Bids using DSC within the time and last date specified for submission of Bids As per Key Dates.

The Scanned copies of self attested supporting documents (If any) of Bid I & Bid II (Price Bids) to be uploaded while submission of Bids.

The bidder should ensure that the status of a particular stage should be shown as "Submitted" before the expiry date and time of that particular stage and he should possess a copy of receipt of completion of each stage to be performed from his end. It will be the sole responsibility of the bidder if the status of a particular stage is "Pending" till the expiry date and time of that stage and he is not able to proceed further in the e-tendering process.

13 Other Information:

13.1 The intending bidders shall fill the **Percentage Rate** in the templates of the Price Bid. The Price Bid has to be submitted mandatory online. Tender processing fee and EMD should be uploaded mandatory while "Bid Preparation Stage". ~~The Prequalification documents along with following papers to be submitted before last date as mentioned in Key dates-~~

- ~~i. A list of all documents.~~
- ~~ii. Duly accepted power of Attorney in original along with its two certified copies in the name of bidder or authorized representative to act on behalf of the agency.~~

14. Price Bid envelope has to be submitted mandatory online and shall not be accepted physically under any circumstances. In case any bidder does not comply with procedure given above, it will be presumed that

he is not interested in the work and they will be disqualified from the bidding.

15. ~~Performa of Articles of Agreement (Annexure – 'A') should not be filled in by the tenderer. While the contract shall be deemed to have come into existence on issue of letter of acceptance to the Deleted tenderer, Formal agreement shall be signed thereafter with the successful tenderer on non-judicial stamp paper of requisite value as per the Performa of Articles of Agreement~~
16. Contractors are warned that Cash, or Encashable Cheque, or Bank or Insurance Guarantee, or Fixed Deposit receipt in lieu of the aforementioned form of Earnest Money remittance will not be accepted.
17. Tenders containing errors are liable to be considered non-bonafide at the discretion of the Sr. Divisional Manager.
18. Tenderer should note that tender shall remain open for consideration for a minimum period of **THREE MONTHS** from the date of online submission of tenders.
19. Tenderer should fill in all the relevant blanks on the relevant places as indicated below such as :
 - a. Letter from Contractor to Sr. Divisional Manager.
20. No alterations are to be made by the tenderer to the text or the Schedule of these tender papers. Any tenderer, which proposes any alterations or amendments to any of the condition/s laid down or which proposes any other conditions of any description whatsoever is liable to be rejected.
21. The tenderer is required to check the numbers of the pages and if any page be found missing or in duplicate, or the figure or writing indistinct, he must inform the Sr. Divisional Manager, Dehradun at once and have the same rectified. If the tenderer be in doubt about the precise meaning of any item or figure, for any reason whatsoever, he must inform Sr. Divisional Manager, Dehradun in order that the correct meaning may be decided upon before the date for the submission of the tender. Similarly if there is/are any ambiguities noticed in any of the tender clauses /Item specifications etc given at different places in tender document, the Tenderer should bring all such ambiguities to the notice of Sr. Divisional Manager, Dehradun before submission of tender for necessary rectification.

No liability whatsoever will be admitted nor claim allowed in respect of errors in the submitted tender due to missing / duplicate pages, indistinct writing or any other error in the tender documents which should have been rectified in the manner described above.

- 22 ~~In the event no rate has been quoted for any item(s), leaving space both in figure(s), words(s), it will be presumed Deleted contractor has included the cost of this item/ these item(s) in other it Deleted the rate for such item(s) will be considered as zero and work will required to be executed accordingly.~~
- 23 If any corrupt documents(s)/Files(s) are received by LIC on opening of Bids, the Tenderers will be solely responsible if their Bids becomes Non-Bonafied due to corrupt file.
- 24 Deleted
- 25 Deleted
- 26 Deleted
- 27 The tender shall be accompanied by a certified true copy of Power of Attorney in favour of the signatory to the tender documents. If the tender is submitted on behalf of a firm, it must be signed either by all partners or person holding a valid power of attorney from all partners constituting the firm. The person signing the tender on behalf of another partner(s) or on behalf of a firm or Company shall attach with the Tender a proper Power of Attorney duly executed in his favour by such other person(s) or by all the partners in accordance with the Constitution of the Company / Articles of Association, stating that he has the authority to sign on behalf of such other person(s) of the firm or the Company as the case may be, in all matters pertaining to the contract including the Arbitration Clause. Scanned copy of the Power of Attorney shall be uploaded on the eTender Portal.
- 28 The Life Insurance Corporation of India reserves the right to accept any tender or to accept tenders in part; to reject any or all tenders without assigning reasons thereof.
- Note: - Bidders participating in e-tendering shall check his/her validity of Digital Signature Certificate before bidding in the specific work floated online at the website <http://www.tenderwizard.com/LIC>. Also, the bidder will be held liable solely, in case, while bidding in particular stage - Date & Time expired as per the key dates available on the tender document. Key dates are subject to change in case of any amendment in schedule due to any reason stated by the Department.**

General terms and conditions of contract

1. This rate contract is meant for undertaking (i) Repairing work (ii) Renovation Works (iii) Addition and alteration works etc. In our buildings and each job will be executed under specific work order for any item or item of work (mentioned in attached schedule) irrespective of its/ their quantity.
2. The contractors are requested to quote their rate on percentage rate basis i.e Above/Below/At par in attached schedule of rates in words and figure, otherwise tender will not be entertained or will be considered as non bonafide. In case rates written in figure are not tallying with rate written in words, the rate quoted by contractor in words shall be taken for consideration.
3. **SITE**: The word "Site" wherever referred is of the "Premises" where the work has to be carried out as directed giving least inconvenience to occupants.
4. Work can be carried out before or after office hours or during nights, holidays and Sundays with prior written permission from the department, for which no extra shall be payable and the contractor shall cover for all such events in his quoted rates. Also, shifting the working office/ home furniture, cupboards, etc. and rearranging the same so as to not to disturb the functioning of office may also be involved. In such an event, contractor shall comply with instructions of Engineer-in-charge. Rates quoted for various items of work shall cover for all such events and no separate payment will be made.
5. The details of Security Deposit, Completion period, Defect Liability Period, Insurance Policies, Liquidated Damages etc., are as per enclosed Appendix to the conditions of contract. No interest shall be payable over the security deposits like Initial Security Deposit, Retention Money etc., lying in deposit with LIC of India.
6. **EARNEST MONEY DEPOSIT** :The amount of EMD is to be remitted online as instructed on page no 3 to 4 in favour of " **LIC of India** ". The amount of EMD shall be **Rs.10,000/- (Rupees Ten Thousand only)** as detailed in Appendix to the Conditions of Contract. No interest shall be payable on Earnest Money deposit lying with LIC of India.
7. **SECURITY DEPOSIT**:The EMD of **Rs.10,000/- (Rupees Ten Thousand only)** at Condition No.6 above, shall be converted as Security deposit **for successful Tenderer** and further **Rs.10,000/- (Rupees Ten Thousand only)** to be deposited by them thus to make total Security Deposit of **Rs.20,000/- (Rupees Twenty Thousand only)**.

The contractors other than lowest, who will be willing to work on approved rates will have to deposit one time a Security Deposit of **Rs.20,000/- (Rupees**

Twenty Thousand only) with LIC within period of 15 days from issue of letter by LIC in this regard and their EMD submitted at Condition No-5 above will be refunded subsequently.

The balance EMDs submitted by other tenderers shall be refunded after finalization of Annual Rate Contracts. **Once ARC is finalized and tenderer got the refund of EMD, no Contractor is entertained / allowed to submit the Security Deposited at last date to carry out the works.**

8. The contractors are requested to put their firm's endorsement on each page of the tender document in token of acceptance.
9. **WATER AND ELECTRICITY CHARGES** : Notwithstanding what is mentioned elsewhere in the tender, water and electricity (supply at one point), if provided by LIC, deduction will be made , from the value of work **@ 0.5% of Gross value of work and shall be recovered from the bills of the contractor.**
10. The contractor is to fully indemnify the LIC of India against any type of loss/ accident caused due to the negligence of contractor and the contractor should take all precautions for smooth execution of the work.
11. **CONTRACT LABOUR ACT:** The contractor shall pay his labour as per the Contract Labour Act and observe hours of work and conditions of employment according to the existing rules under contract labour act. Further it shall be contractor's responsibility to ensure that regular payments to his workers are made. The contractor shall fully indemnify LIC of India from any claim under Contract Labour Act. Labour license to be obtained from Central Labour Commissioner if applicable.
12. **WORKMEN'S COMPENSATION ACT:** The contractor shall fully indemnify the LIC of India from all claims for any injury caused to any person whether a workmen or not and LIC of India shall not be bound to defend any claim made under the Workmen's Compensation Act. All Contractors have to obtain **Workmen Compensation Policy** in the joint name of LIC of India and the contractor for the value as directed, **which shall remain in force till the completion of the work.**
13. **CONTRACTOR'S ALL RISK POLICY INCLUSIVE OF THIRD PARTY LIABILITY :**The contractor shall be responsible for all injuries / damages to his men , material and property etc , which may arise from the work , for negligence of himself and / or his workers and shall fully indemnify the LIC of India, for such expenses which shall be solely to the contractor's own account. All Contractors have to obtain **Contractor's All Risk Policy inclusive of Third Party Liability** in the joint name of LIC of India and the contractor for the value as directed, **which shall remain in force till the completion of ARC.** Tenderers should note that their rates quoted shall be firm during the currency of the contract irrespective of the quantity executed and no escalation shall

be permissible. The currency of contract shall be inclusive of extensions if granted.

14. No alterations or additions are to be made by the contractors to the text of Schedule of Rates and other tender papers. Violation of this instruction entails rejection of the tender at the discretion of the Sr. Divisional Manager, Dehradun.
15. Any tender which proposes any alterations to any of the condition laid down or which proposes any other condition of any description whatsoever is liable to be rejected at the discretion of the Sr. Divisional Manager, Dehradun.
16. The contractor is required to check the numbers of pages and if any page be found missing or in duplicate, or the figure or writing indistinct, he must inform the Sr. Divisional Manager, Dehradun in order that the correct meaning may be decided upon before the date for the submission of the tender.
17. If contractor is in doubt about the precise meaning of any item or figure, for any reason whatsoever, he must inform the Sr. Divisional Manager, Dehradun in order that the correct meaning may be decided upon before the date for the submission of the tender. No liability whatsoever will be admitted nor claim allowed in respect of errors in tender due to mistake in the Schedule of Quantities which should have been rectified in the manner described above.
18. All measurements of concealed items shall be got recorded before they are covered up / concealed.
19. Contractors will have to submit their bills in triplicate. The bill must be submitted in the first week of next month along with all the work certificates and documents of previous month work. After that we will not entertained the bills if it is not submitted in said duration.
20. Contractors to note that the quoted rates shall be firm throughout the currency of the contract. Any price variation towards Materials, Labour, Steel, Cement etc., is not allowed and will not be paid. Rates to be quoted taking the current market rates of materials into account. Rates quoted to be applicable for work at all levels. The use of lifts for taking materials shall not be permitted. The rates quoted shall include all taxes; octroi etc. and nothing extra shall be paid on any account.
21. The rates quoted shall cover for all material, labour, tools, plants, scaffolding, shuttering, curing etc. and any kind of taxes, fee, duties etc. that are payable. It also includes everything necessary for proper execution of work to the entire satisfaction of the department.

22. The screws, nails, iron oxidized hinges, necessary fasteners, holdfast etc. required for fixing doors, partitions, panels etc shall be included in the quoted rates of the respective items. No separate payments shall be made for this purpose.
23. **EXTRA ITEMS:** Extra Items if any shall be settled on the basis of cash memos for purchase of material and actual labour employed. Contractor shall be allowed 15% over the above to cover for, supervision, overheads and profit. Wherever applicable analysis of rates shall be on the pattern of C.P.W.D. analysis of rates. The decision of Sr. Divisional Manager shall be binding and final.
No extra / deviated items will be settled in absence of supporting documents. LIC of India does not bound itself to accept the rates mention in vouchers/ purchase bills and may settle the rate on basis of prevailing rates in market.
24. All materials used in the work shall be from list of approved makes enclosed and specification of work must be such as to comply with LIC standard specification unless otherwise mentioned it should be as per I.S. / C.P.W.D. specifications or as per quality specified in the tender and approved by the competent authority.
25. The contractor shall be responsible for all the damages and shall replace or make good at his own expense any material lost or damaged or quality not approved.
26. It may be noted that Time is essence of contract and the schedule time for completion has to be followed strictly. The work must be completed in all respect within specified time mentioned in work order. If the work is likely to be delayed due to any reason beyond the control of contractor, the contractor shall in advance seek the extension in time limit before the expiry of time.
27. In case of replacement of spares, it shall be certified by the occupants or Corporations Engineer.
28. LIC of India reserves the right to supply any material/ spares at its sole discretion.
29. No advance shall be payable for the commencement of any job.
30. All works shall be carried out as per local by-laws with respect to stocking of material, supplying of labour etc. Electrical work shall be carried out through a Licensed electrician, as per IE rules, local electricity authority rules, LIC material specifications and general conditions of contract and to the entire satisfaction of LIC Engineer. Alternate arrangement for restoring the supply shall be made without any extra charges.

31. The quantities given in estimate prepared on approved annual rates shall be approximate and may vary and payment will be made only as per the actual work executed at site as ascertained by joint measurements.
32. **MEASUREMENT:** The actual authorized quantities shall be measured jointly for payments on basis of rates quoted. The quantities are to be read in conjunction with specification and condition of contract and the rates quoted shall be for doing all the works as per specification complete, whether the same are reiterated or not.
33. The final bill of the work should be submitted within 30 days of completion of work failing which LIC shall finalize the bill, which shall be binding on the contractor.
34. In case of dispute the decision of the Sr. Divisional Manager, LIC of India, Divisional Office, Dehradun shall be conclusive and binding on the contractor.
35. Contractors to please note that the work is to be carried out in co-ordination with other agencies / occupants with least disturbance as directed. The Contractor should observe that his work shall not cause any nuisance to the public in general and to the neighboring occupants in particular.
36. **MALBA:** After completion of the work, the site should be cleared thoroughly of any mulba, debris etc., at the contractors own expenses and the rates quoted shall include the same.
37. **TESTING OF MATERIAL:** The contractor to account in his quoted rates, for the cost of required samples taken jointly for carrying out the tests and payments for testing charges. The testing charges only shall be reimbursed to contractor if the material conforms to specifications.
38. **VALIDITY:** The tender shall be valid for acceptance for a period of **3 months** from the last date of receipt of tender.
39. Deleted.
40. The rates once approved by the competent authority shall be **valid for one year** unless or otherwise the rates are further approved for more period by the competent authority .
41. In case of replacement of spares, it shall be certified by the occupants or Corporation's Engineer.
42. The lowest contractor will be awarded work up to their capacity which has duly approved by the competent authority during the empanelment of the agencies. however, LIC's reserves the right to invite separate tender for any

amount or of any type of repairs, renovations, additions and alterations works in the LIC Buildings irrespective of items in the Rate Contract Schedule.

43. If the contractor or its accredited representative fails to attend the office for consecutive 2 days to receive verbal instructions / work order or if the contractor, upon receiving written or verbal work order does not undertake the work within the next 24 hours or immediately as instructed in case of emergency. The Sr. Divisional Manager shall have liberty to cancel the Rate contract / work order and employ other agency to get the works done at the risk and cost of contractor and the differences in total cost thereof shall be deducted from the contractors bills of any other work such lying with LIC without making any reference to the contractor.
44. If any defect is noticed within twelve months after completion of the work, the contractor has to rectify the same at his cost and risk, failing which LIC reserves the right to get the defects rectified through any agency and deduct the cost thereof from the contractor's bill.
In case of defects, which are to be rectified immediately, and which cannot be held up for the want of the contractor, the same will be got done through any agency. Money spent for rectification shall be recovered from contractor bill or any dues payable to the contractor.
45. The Corporation Engineer may due to adequate reason as he thinks fit from time to time, terminate the contract by giving one month's notice. The contractor should then leave the buildings or the place of work in a decent and workable condition, failing which the LIC reserves the right to take any action as deemed fit against the contractor.
46. **Minimum Wages Act** : The Contractor shall pay rates of Wages and observe hours of work and conditions of employment according to existing rules under Minimum Wages Act. Further, it shall be contractor's responsibility to ensure that he pay his workmen wages which are not lower than the minimum prescribed by the Union Government and State Government. In which area this contract is being operated.
47. LIC reserves the right to accept any tender or to accept the tenders in part or to reject any or all the tenders without assigning any reason thereof.
48. Contractor please note that to carry out the said work permission if required from local authorities etc will be obtained by them including liasioning with them. No extra payment shall be made on this account. The contractor shall quote the rates on considering the same.
49. Delete
50. Work shall be given to lowest tenderer. However, in case lowest tenderer is not available for any reasons or not doing the work, then the work may be offered



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

to other tenderer i.e.; L2, L3, L4...etc at the lowest approved rates if they give their consent to carry out the work on the lowest approved rates. This clause shall be valid through out the currency of the contract.

51. The Standard Security Deposit is Rs.20,000/-.

**E-TENDER FOR CIVIL, CARPENTRY, PAINTING, WATER SUPPLY & SANITARY
INSTALLATION WORKS at DO & its properties, For FY 2023-24 onward.**

TRADE PREMEABLES TO SCHEDULE OF QUANTITIES

1. The contractor is required to take all the debris without inconvenience to the user of the building.
2. All the chiseled/ dismantled material shall be carried away from LIC premises at the contractor's cost as per prevailing Municipal rules.
3. Erection of barricade around working area shall be done by the contractor at his own cost.
4. The charges for any testing, if done, from the approved laboratory shall be reimbursed if results are found satisfactory on testing.
5. All the work shall be carried out strictly as per detailed specification given in schedule of rates using approved brands of materials as enclosed with the tender.

LIST OF LIC BUILDINGS / PROPERTIES UNDER D.O., DEHRADUN

Name of Group	Number of Branches under the Group.
GROUP-A	D.O.Building, CBO-I,CBO-II, CBO-III, CAB, P&GS, (Dehradun), LIC Colony, all S.Os(S.O.Doiwala, ISBT, Survey Chowk, Nehru colony etc.) & Guest Houses EDMS /RMF centre Kunwa Wala, and other property in local area of Dehradun
GROUP-B	B.O.-I, B.O-II (Haridwar), BO-I, BO-II (Roorkee), BO-I, BO-II (Saharnpur), B.O.Deoband, B.O.Gangoh. B.O.Vikasnagar, B.O. Kotdwar. B.O.Rishikesh. S.O Lakhsar, Bahadrabad , CLIA-Sahranpur, Saharanpur and all other properties in these areas.
GROUP-C	B.O.Srinagar, B.O.Gopeshwar, B.O.Uttarkashi, B.O.New Tehri & Staff qtrs at New Tehri, B.O.Mussoorie & Guest house with other property at Mussoorie , all S.Os. (Naugaon, Pauri, Rudraprayag etc.) and other properties in these area.

Location in the above areas (hills and mufasil / Plane / local) may increase of decrease. Rates will be unified for all branches on over all basis including transport /loading/ connections / removing old unserviceable material as per detailed out in tender.

NOTE:

- i) Satellite office/CLIA Offices will be considered with parent Branch Office.
- ii) In case one contractor/agency quote lowest rates in more than two groups maximum two groups may awarded to him.
- iii) Other than lowest contractor/agency may be considered for other groups based on the lowest rates of L1, if they wish to work on L1 rates and give its consent for the same.

CONDITIONS OF CONTRACT

1. INTERPRETATIONS:

- 1.1 In construing these Conditions, the Specifications, the Priced Schedule of Quantities, Tender and Agreement, the following words shall have the meanings herein assigned to them except where the subject or context otherwise requires:
- 1.2 “Employer” shall mean THE LIFE INSURANCE CORPORATION OF INDIA and his (their) heirs, legal representatives, assignees and successors.
- 1.3 “Chief Engineer” shall mean the person occupying the post of head of the Zonal Engineering Department of the Corporation.
- 1.4 “Corporation’s Engineers” shall mean such Deputy Chief Engineers, Superintending Engineers and/or Executive Engineers of the Corporation, who shall from time to time be appointed by the Chief Engineer for supervising the work carried out by the Contractor or for any purpose in connection therewith:
- 1.5 The term “Site Engineer” shall mean the person appointed and paid by the Employer, acting under the order of the Corporation’s Engineer to superintend the work.
- 1.6 The Contractor shall mean the individual, firm or company whether incorporated or not, who is awarded the contract & shall include the legal representative of such individual or the persons composing such firm or company or the successors of such individual, firm or company & the permitted assignees of such individual, firm or company.
- 1.7 The “Site” shall mean the lands/buildings and/or other places on, in, into or through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.
- 1.8 “This Contract” shall mean the Articles of Agreement, these Conditions, the General Instructions to Contractor, General Preambles to Schedule of Quantities, Special Conditions, the priced Schedule of Quantities, the Specifications, the Appendices, the Drawings and other related correspondence.
- 1.9 “Act of Insolvency” shall mean any act of insolvency as defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any amending Statute.
- 1.10 “Notice in Writing” or written notice shall mean a notice in written, typed or printed characters, sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- 1.11 Words importing persons include Firms and Corporations, words importing the singular only also include the plural and vice versa where the context so requires.
- 1.12 The titles of the Clauses shall not affect or alter the meaning of Clauses and are solely for the purpose of facilitating reference.

- 1.13** The following abbreviations shall be followed for the designations of various LIC Officers:

<u>DESIGNATIONS</u>	<u>ABBREVIATIONS</u>
Executive Director (Engineering)	E.D.(E)
Zonal Manager	Z.M.
Chief Engineer	C.E.
Chief Architect	C.A.
Deputy Chief Architect	D.C.A.
Deputy Chief Engineer	Dy.C.E.
Superintending Engineer	S.E.
Senior Architect	S.A.
Executive Engineer	E.E.
Deputy Senior Architect	D.S.A.
Asstt. Secretary	A.S.

- 1.14** Wherever the words “approved”, “directed”, “as required”, “selected” or words of like effect are used, it is to be understood that the approval/direction, requirement or selection of the Corporation’s Engineer are intended unless otherwise specified.
- 1.15** The words “as described” shall mean the description in the Special Conditions, Specifications, General Instructions, Drawings etc. of this tender.
- 1.16** The words “allow” shall mean that the Contractor shall include in his rates for the particular matter referred to.
- 1.17** “Day Work” shall mean items of labour and/or materials which in the opinion of the Corporation’s Engineer are not capable of being evaluated by the accepted method of measurement and analysis.

2. SCOPE OF CONTRACT:

- 2.1** The Contractor shall carry out and complete the works in every respect in accordance with this Contract and in accordance with the directions and to the satisfaction of the Corporation’s Engineer. The Corporation’s Engineer may issue further drawings and/or written instructions, details, directions and explanation in regard to:
- The variation or modification of the Design, quality of works or the addition or omission or substitution of any work;
 - Any discrepancy in the Drawings or between the Schedule of Quantities and/or Drawings and/or Specifications;
 - The removal from the site of any materials brought thereon by the Contractor and the substitution of any other material thereof;
 - The removal and/or re-execution of any work executed by the Contractor;
 - The dismissal from the work of any persons employed thereupon;
 - The opening up for inspection of any work covered thereupon;

- g. The amending and making good of any defects under relevant Clause giving details of defects after completion.
- 2.2 The Contractor shall forthwith comply with and duly execute all works comprised in such Instructions subject to the provisions of relevant specific conditions of the Contract. In the event of any dispute or difference of opinion the contractor shall refer the matter within 7 (seven) days of the issue of such instruction to the Chief Engineer / Sr. Divisional Manager / Exe. Engineer whose decision shall be final & binding.

3. DISCREPANCIES :

- 3.1 If there are varying or conflicting provisions made in any one document forming part of Contract, the Exe. Engineer shall be the deciding authority with regard to the intention of the document and his decision shall be final and binding on the contractor.
- 3.2 The several documents forming the Contract are to be taken as mutually explanatory of one another, and the order of precedence shall be as follows;
- a) Special conditions
 - b) General preambles to schedule of quantities
 - c) General instructions
 - d) Conditions of contract
- 3.3 In case of discrepancies between the Schedule of Quantities, the specifications and/or drawings the following order of precedence shall be observed
- (a) Description in Schedule of Quantities
 - (b) Specifications of relevant Trade
 - (c) Drawings; detailed drawings shall be followed in preference to small scale drawings and figured dimension in preference to scale.
 - (d) Indian Standard Specifications of `BIS`

4. DRAWINGS AND SCHEDULE OF QUANTITIES:

- 4.1 Two complete sets of the Drawings and Specifications and Schedule of Quantities shall be furnished by the employer to the contractor. Two copies of the additional Drawings, if any, shall be furnished within such time as the Chief Engineer/ Sr. Divisional Manager may consider reasonable which may be necessary for execution of any part of the work. Such copies shall be kept on the work site and the SDM and his representatives shall at all reasonable times have access to the same and they shall be returned to the EE by the Contractor on completion of the contract.

This Contract and the signed Drawings, Specifications and Schedule of Quantities shall remain in the custody of the Employer.

5. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY FOR EXECUTION OF WORK:

- 5.1 Contractor shall provide everything necessary for the proper execution of the work according to the intent & meaning of the Drawings, Priced Schedule of Quantities and Specifications taken together, whether the same may or may not be explicitly shown or described therein provided that the same can reasonably be inferred there from and if the Contractor finds any discrepancy therein he shall immediately and in writing

refer the same to the SDM whose decision shall be final and binding on the Contractor.

- 5.2** The Contractor shall supply, fix and maintain at his cost during the execution of any work all the necessary Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, Pumping, Fencing, Boarding, Watching and Lighting by night as well as by day, required not only for the proper execution and protection of the said work but also for the protection of the Public and the safety of any adjacent Roads, Streets, Cellars, Vaults, Ovens, Pavements, Walls, Houses, Buildings and all other erections, matters or things and the Contractors shall take down and remove any or all such Centering, Scaffolding, Staging, Planking, Timbering, Strutting, Shoring, etc., as occasion shall require or when ordered to do so, and shall fully reinstate and make good all matters and things disturbed during the execution of the work to the satisfaction of the Corporation's Engineer.

6. AUTHORITIES NOTICES AND PATENTS:

- 6.1** The Contractors shall conform to the provisions of any Acts of the Legislature relating to the work and to the Regulations and Bye-Laws of any Authority and or any Water, Lighting and other Companies and/or Authorities with whose system the structure is proposed to be connected and shall before making any variations from the Drawings or Specifications that may be necessitated by so conforming give to the SDM written notice specifying the variations proposed to be made and the reasons for making them and apply for instructions thereon. In case the Contractor shall not within 7 (seven) days receive such instructions, he shall proceed with the work conforming to the Provisions, Regulations or Bye-Laws in question.
- 6.2** In particular, the Contractors shall be responsible to Register themselves under the Contract Labour (Regulation & Abolition) Act 1970 and Rules there under and any amendment thereto; they must comply with and carry out all the provisions and obligations under the said Act and Rules and furnish all information to Employer as may be required by it and shall indemnify the Employer against any penalties/claims arising from any default on their part.
- 6.3** The Contractor shall arrange to give all notices required by the said Acts, Regulations or Bye-Laws to be given to any Authority and to pay to such Authority or to any Public Office all fee that may be properly chargeable in respect of the work and lodge the receipts with the Employer.
- 6.4** The Contractors shall indemnify the Employer against all claims in respect of patent, rights, and shall defend all actions arising from such claims unless he has informed the Exe. Engineer before any such infringement and received his permission to proceed and shall himself pay all royalties, licence fees, damages, costs and charges of all and every sort that may be legally incurred in respect thereof.
- 6.5** The Contractor should observe that his work shall not cause any nuisance to the Public in general and to the neighboring occupants in particular.
- 6.6** Should the Contractor desire to work on Sundays, Holidays and during night hours, permission in writing from the Corporation's Engineer must be obtained in time. It

shall be the responsibility of the Contractor to obtain permission from Civil Authorities, if necessary.

7. SETTING OUT WORK:

7.1 The Contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time any error shall appear during the progress of any part of the work, the Contractor shall at his own cost rectify such error, if called upon, to the satisfaction of the Corporation's Engineer. The Contractor must not commence work until the outlines of the building and Centre line layout have been pegged out and approved by the Corporation's Engineer.

8. CONTRACTOR IMMEDIATELY TO REMOVE OFFENSIVE MATTER:

8.1 All soil, filth or other matter of an offensive nature taken out of any trench, sewer, drain, cesspool or other place shall not be deposited on the surface, but shall be at once carted away by the Contractor to some pit or place provided by him.

9. MATERIALS AND SAMPLES:

9.1 All the materials stores and equipment required for the full performance of the Contract must be provided through normal trade channels and must include octroi, excise and import duties, sales tax payable to all authorities and other charges. They shall be of approved quality and the best of their kind available and the Contractor must be entirely responsible for the proper and efficient carrying out of the work. The Contractor shall order all materials required for the execution of the work from local/outside sources as early as necessary to the satisfaction of the Corporation's Engineer and to ensure that such materials are on site well ahead of requirement for use in the work.

9.2 Before ordering such materials, the Contractor shall get samples of the materials approved well in time. Preference shall be given to ISI marked products and approved brands of requisite quality as mentioned in the tender. For materials, which are neither approved brands nor ISI marked, the same shall be got tested from approved laboratories at the Contractor's cost before approval. Approved brand and ISI marked product will also be tested if desired by the EE/ site Engineer and if the test results are satisfactory, the cost of testing shall be borne by the Employer otherwise by the Contractor. No claim will be allowed for delay to the progress of work caused by test. If called upon by the Executive Engineer the Contractor shall produce proof for having arranged for the supply of materials well in time.

9.3 The Contractor shall furnish well in time before work commences at his own cost, any samples of workmanship that may be called for by the Corporation's Engineer for his approval and any further samples in case of rejection until such samples are approved. Such samples when approved shall be the minimum standard for the work to which they apply. In case of items like suspended ceiling, partitions, etc. typical sample panels or proto-types shall be erected in position for approval before undertaking work. Rates quoted shall cover for such preliminary work.

10. ACCESS:

10.1 Any of the Corporation's Engineers or any persons authorized by any one of them shall at all reasonable time have free access to the work and/or the workshops, factories or other places where materials are being prepared or constructed for the Contract and also to any place where the materials are lying or from which they are being obtained and the Contractor shall give every facility to all of them necessary for inspection and examination and test of the materials and workmanship. Except the representatives of the Public Authorities, no person shall be allowed on the work at any time without the written permission of the Corporation's Engineer.

If any work is to be done at a place other than the site of the work, the Contractor shall obtain the written permission of the Corporation's Engineer for doing so.

~~11. CONTRACTOR'S SUPERVISION & MINIMUM REQUIREMENT OF TECHNICAL STAFF:~~

~~**11.1** The Contractor shall either himself supervise the execution of the contract or may appoint a Competent Agent approved by the CE to act in his stead.~~

~~**11.2** Where the contractor is not a qualified Engineer or even if he is so qualified, he cannot in the opinion of C.E., give his full personal attention to the works, he shall at his own expense employ person(s) possessing the qualification and experience as described hereunder as his accredited agent to supervise the works and to receive instructions from Corporation's Engineers. Any directions, instructions or notices given by the Corporation's Engineer to such supervisor(s) shall be deemed to be given to the contractors.~~

~~**a.** FOR WORKS COSTING UPTO Rs.100 LAKH:~~

~~A qualified resident Engineer having recognized diploma in Civil Engineering~~

~~**i)** In addition the contractor shall employ suitable number of supervisors with proper execution of the work as approved by the Chief Engineer.~~

~~**b.** The CE may vary any of the above qualification / experience at his discretion if so warranted by conditions prevailing and applicable to any particular work such as Air-conditioning, HT, and Interiors etc. **(Deleted)**~~

~~**c. RECOVERY FOR NON DEPLOYMENT OF ENGINEER/S AT THE SITE (DELETED)**~~

~~If the contractor fails to employ suitable person(s) to supervise the work or fails to appoint replacement(s) when necessitated, amount as stipulated in the Appendix to the conditions of contract shall be recovered from the contractor for each Engineer and each supervisor for the period of non-employment.~~

12. DISMISSAL OF WORKMEN:

12.1 The Contractor shall, on the instruction of the Corporation's Engineer, immediately dismiss from the work any person employed thereon, who may, in the opinion of the

Corporation's Engineer, be unsuitable or incompetent or who may misconduct himself and such person shall not be again employed or allowed on the work without the permission of the Corporation's Engineer.

13. DATES OF COMMENCEMENT AND COMPLETION:

13.1 The "Date of Commencement" shall be as stated in the Work Order and the Contractor shall thereupon and forthwith begin the work and shall regularly proceed with and complete the same on or before the "Date of Completion" stated in the Work Order, subject to the provisions for extension of time hereinafter contained.

14. ASSIGNMENT:

14.1 The whole of the work included in the Contract shall be executed by the Contractor and the Contractor shall not directly or indirectly transfer, assign or underlet the Contract or any part, share of interest therein nor shall he take a new partner without the written consent of the CE/ Sr.D.M. and no subletting shall relieve the Contractor from the full and entire responsibility of the Contract or from the active superintendence of the work during its progress.

15. DEVIATION, VARIATION, EXTRA/DEVIATED ITEMS AND PRICING:

15.1 The Contractor should note that unless otherwise stated, the tender is strictly on Item Rate basis. The quantities in the Schedule of Quantities approximately indicate the total extent of work and no variation i.e. additions, omissions or subtractions shall vitiate the Contract. No liability shall attach to the Employer for any error therein or variation there from.

15.2 The contractor may when authorized and shall when directed, in writing by the Sr. D.M. or the Corporation's Engineers, whom the Sr. D.M. may for that purpose appoint, add to, omit from, make alterations in, substitutions for, or vary the works shown upon the Drawings or described in Specifications or included in the priced Schedule of Quantities but the Contractor shall make no additions, omissions, alterations, substitutions or variations without such authorization or direction. A verbal authority or direction by the Sr. D.M., if confirmed by the contractor in writing within 7 (seven) days, be deemed to have been given in writing. Rate is to be adjusted where basic price of materials are mentioned.

15.3 The rates of such altered, additional or substituted works shall be determined in accordance with the following.

a. The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced therein.

b. The net price of the items in the original tender shall determine the value of the items omitted. However, if omissions vary the conditions under which any remaining items of the work are carried out or if the amount of any omission relative to the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Chief Engineer, the net rate or price contained in the Priced Schedule of Quantities or Tender or for any item of work involves loss or expenses beyond that

reasonably contemplated by the Contractor and is by reason of such omission rendered unreasonable or inapplicable, the Sr. D.M. shall fix another rate or price as in the circumstance he shall think reasonable and proper.

- c. If the rate for any altered, additional, or substituted item of work is not specified in the schedule of quantities, the rate for that item shall be derived from the rate for the nearest similar item specified therein.
- d. If the rate for altered, additional or substituted item of work cannot be determined in the manner specified above, then such items of work shall be priced on the basis of coefficients of labour and materials as given in the latest CPWD rate analysis handbook and rates for labour and materials wherever applicable shall be the market rate prevailing at the time of execution.
- e. Where such co-efficient are not available in C.P.W.D. rate analysis, the actual Labour/Materials involved and recorded by the Executive Engineer in executing the items shall be considered.
- f. Where extra work cannot be properly measured or valued, the Contractor shall be allowed “Day Work” prices at the net rates stated in the Tender or the Priced Schedule of Quantities or, if not so stated, then in accordance with the local “Day Work” rates and wages for the district, provided that in either case vouchers specifying the date and time (and if required by the EE the names of workmen employed) and materials incorporated be delivered for verification to the EE or his representative at or before the end of the week following that in which the work has been executed. The EE is not bound to recognize the cost of materials furnished in vouchers; the SDM at his discretion will fix the price of such materials based upon market value.
- g. While fixing rates of extra items 15% (Fifteen percent only) shall be allowed over and above the cost of material, labour and all applicable taxes, cess, statutory levies (excluding Income Tax) to cover all supervision, overheads and profits.
- h. The quantities in the schedule are provisional and may vary up to any extent. No extra item will be payable for variation in quantity.
- i. For all extra items of work, the contractor should submit to the concerned Corporation’s Engineer the necessary particulars along with his analysis and the rate he proposes to claim for consideration within a period of 4 (four) weeks from the time of cropping up of any authorized extra / deviated item. He shall also ensure that all the authorized claims are included in the final bill. If the contractor fails to submit his claim within the stipulated period or the period duly extended by the Corporation’s Engineer, then the SDM shall proceed to fix the rate for the item(s) and the same shall be final and binding on the contractor.
- j. The Contractor shall note that Extra/Deviated items claim and/or any other claim whatsoever if submitted after submission of his Final Bill will not be entertained and considered by the Employer. The Contractor shall not be allowed to make any Additions/ Alterations/ Revisions / Changes/ Modifications/ Variations in the final bill, after the final bill is submitted by him.

16. SUB-CONTRACTORS:

- 16.1** All specialist Merchants, Tradesmen and others, executing any work or supplying, fixing any goods for which provisional sums are included in the Schedule of Quantities and/or Specifications, who may be nominated or selected by the Sr.D.M., who shall be the final authority are hereby declared to be Sub-Contractors and are herein referred to as nominated Sub-Contractors.
- 16.2** No nominated Sub-contractor shall be employed on or in connection with the work against whom the Contractors shall make reasonable objection or (save where the Sr.D.M. and the Contractor shall otherwise agree) who will not enter into a Contract providing:-
- a. That the nominated Sub-Contractor shall indemnify the Contractor against the same obligation in respect of the Sub-Contractor as the Contractor is under, in respect of this Contract;
 - b. That the nominated Sub-Contractor shall indemnify the Contractor against claims in respect of any negligence by the Sub-Contractor or his servants or agents or any misuse by him or them of any scaffolding or other plant or the property of the Contractor or under any Workmen's Compensation Act in force.

17. THIRD PARTY LIABILITY, DAMAGE TO NEIGHBOURING PROPERTY, LOSS OF MATERIAL AND WORKMEN'S COMPENSATION:

- 17.1** The Contractor shall be responsible for all injury to persons, animals or things, and for all damage to structural and/or decorative part of property which may arise from the operations or neglect of himself or of any Sub-contractor or any of his Sub-Contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of his Contract. This Clause shall be held to include inter-alia, any damage to Building, whether immediately adjacent or otherwise and any damage to roads, streets, footpaths, bridges, or ways as well as all damage caused to the building, and the works forming the subject of this Contract by frost, rain, wind or other inclemency of the weather. The Contractor shall fully indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of all and any claim made in respect of injury or damage under any acts of Government or otherwise and also in respect of any award or compensation or damages consequent upon such claim.
- 17.2** The Contractor shall fully indemnify the employer against any loss, damage or deterioration for whatever reason, of all materials brought at site and especially material supplied by or paid for partly or wholly by the employer.
- 17.3** The Contractor shall reinstate all damage and loss of every sort mentioned in this Clause so as to deliver up the whole of the Contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of the third parties.
- 17.4** The Contractor shall fully indemnify the Employer against all claims which may be made against the Employer by any member of the Public or other third party in

respect of anything which may arise in respect of the works or in consequence thereof.

- 17.5** The contractor shall at his own expense arrange to effect from the date of commencement & maintain till the date of virtual completion of contract, with any licensed general insurance company, a **POLICY OF INSURANCE (Contractor's All Risk Policy)** to cover all such risks detailed above viz. loss, damage & third party liability etc. The policy shall be of an amount as mentioned in Appendix to Conditions of Contract and in the joint names of the employer & contractor and shall be deposited with the employer and renewed as required from time to time during the currency of the contract.
- 17.6** The Contractor shall also fully indemnify the Employer against all claims which may be made upon the Employer, whether under the **WORKMEN'S COMPENSATION ACT** or any other **STATUTE** in force during the currency of this Contract or at Common law in respect of any Employee of the Contractor or any Sub-Contractor and shall at his own expense effect and maintain until the Virtual completion of the work, with "licensed General Insurance Company" a **POLICY OF INSURANCE** of adequate amount in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the employer & renew the same as required from time to time during the currency of the Contract.
- 17.7** The Contractor shall be responsible for anything, which may be excluded from the Insurance Policies above referred to, and also for all other damage to any property arising out of or incidental to the negligence or defective carrying out of the Contract.
- 17.8** The amount of insurance to be taken for the above policies will be jointly decided between the contractor and the employer before issue of acceptance letter based on the tendered cost, nature of work, location of site, local hazards etc.
RECOVERY FOR NON EXTENSION OF INSURANCE POLICIES (WORKMEN'S COMPENSATION AND CONTRACTOR'S ALL RISK POLICY INCLUSIVE OF THIRD PARTY LIABILITY)
- 17.9** In default of the Contractor insuring as provided above, or having insured, failing to renew the same, as required, the Employer, on his behalf may so insure/renew and may deduct the premiums paid from any monies due or which may become due to the Contractor together with penalty amounting to Rs.10, 000/- or double the premium amount whichever is more, for each extension of such policy.
- 17.10** The Contractor shall also fully indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings at law and also in respect of any award of compensation of damages arising there from.
- 17.11** The Employer shall be at liberty and is hereby empowered to deduct fully the amount of any damages, compensation costs, charges and expenses arising or accruing any such claim of damage from any sum or sums due or to become due to the Contractor.
- 18. DELAY AND EXTENSION OF TIME:**
- 18.1** If the works be delayed due to any of the following:
- (a)** by force majeure ,

- (b) by reason of any exceptionally inclement weather,
- (c) by reason of proceedings taken or threatened by, or disputes with, adjoining or neighboring owners, or public authorities,
- (d) by the work, or delays, of other Contractors or Tradesmen engaged by the Employer,
- (e) by reason of any additional work or instruction ordered by the employer,
- (f) by reason of Civil Commotion, local commotion of workmen or strike or lock-out affecting any of the building trades,
- (g) in consequence of the Contractor not having received in due time necessary instructions from the Sr. D.M. for which he shall have specifically applied in writing,
- (h) from other causes which the Sr.D.M. may certify as beyond the Control of the Contractor,
- (i) by reason of non-payment of interim certificate at specified time,

then upon the happening of any such event causing delay the contractor shall immediately, give notice thereof in writing to the Corporation's Engineer, but shall nevertheless use constantly his best endeavours to make good this delay.

- 18.2** Request for extension of time shall be made by the contractor well in advance but at least 30 days before scheduled date of completion along with revised programme for completion of the work.
- 18.3** In case of strike or lockout the Contractor shall give written notice thereof to the Sr.D.M. as soon as possible but he shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably be required to the satisfaction of the Sr.D.M. to proceed with the work.
- 18.4** The Sr.D.M. shall make a fair and reasonable assessment of the delay and grant extension of time accordingly. Such extension shall be communicated to the contractor by the Corporation's Engineer within 3 (Three) months of the date of receipt of such request. Non-application by the contractor for extension shall however not be a bar for giving fair and reasonable extension which shall be as decided by the Sr.D.M..
- 18.5** The decision of the Sr.D.M. as communicated by the Corporation's Engineer to the contractor on the extension of time shall be final & binding.
- 18.6** No claim in respect of compensation or otherwise, howsoever arising, as a result of extension granted under the above conditions shall be admissible.

~~18.7 REWARDS FOR EARLY COMPLETION:~~

- ~~18.7 (a) If the Contractor completes the work 3 months earlier in all respects with respect to the final date of completion stated in the "Appendix to Condition of Contract" and the Chief Engineer certifies in writing that in his opinion the same has been completed, 0.5% of Final Contract Sum stipulated in the original contract shall be rewarded.~~

~~If the contractor completes the work in less than 3 months in advance in all respects with respect to the final date of completion stated in the “Appendix to Condition of Contract” and the Chief Engineer certifies in writing that in his opinion the same has been completed, 0.1% of Final Contract Sum stipulated in the original contract shall be rewarded. (Deleted)~~

19. DAMAGE FOR NON-COMPLETION:

19.1 If the Contractor fails to complete the work by the date of completion stated in the “Appendix to Condition of Contract” or within time properly extended under Clause (18) hereof and the CE certifies in writing that in his opinion the same ought, reasonably so, to have been completed, the Contractor shall pay or allow the Employer the sum named in the Appendix as “Liquidated Damages” for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any money due to the Contractor. In case liquidated damages in accordance with the above provision accrue to maximum limit as mentioned in the Appendix to the Conditions of the Contract, the Chief Engineer shall be at liberty to rescind the Contract and to get it completed entirely at the risk and cost of the Contractor through any other agency he decides to appoint. All extra expenses incurred shall be recoverable from the money due to Contractor or lying to his credit with the Employer against the present or any other Contract.

20. FAILURE BY CONTRACTOR TO COMPLY WITH CE'S INSTRUCTIONS:

20.1 If the Contractor after receipt of written notice from the Sr.D.M., requiring compliance with such further Drawings and/or his instructions, fails within 7 (seven) days to comply with the same the Sr.D.M. may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all additional costs incurred in connection therewith shall be deducted from any money due or to become due to the Contractor.

21 MEASUREMENT OF WORK:

21.1 All items having a financial value shall be entered by the Corporation Site Engineers or by an Engineer authorized for the purpose, in the Measurement Book (MB). All measurements and levels shall be taken jointly by the Site Engineer or his authorized representative and by the Contractor or his authorized representative from time to time during the progress of the work and such measurements shall be signed and dated by both the parties in token of their acceptance. If any of the measurements recorded are objected by any one of the party a note shall be made to that effect with reason, signed by both parties and referred to Corporation Engineer whose decision in the matter shall be final and binding.

21.2 If the contractor or his authorized representative does not attend for joint measurements periodically for the completed works, then the site engineer shall take measurements after giving notice in writing of at least 3(three) days. Measurement recorded in the absence of contractor shall be intimated with a copy of such measurements to the contractor. If the contractor fails to countersign or record objections within a week from date of measurement then, such measurements recorded in his absence by the Site Engineer shall be deemed to be accepted by and binding on the Contractor.

- 21.3** The Contractor shall, without any extra charge provide all assistance with every appliance, labour and other things necessary for taking measurements and recording levels including test checking of such measurements by any person authorized by the Employer.
- 21.4** All work shall be measured net as fixed in its place. All measurements of 'cutting' shall be held to include for the consequent wastage on the materials used.
- 21.5** Except where any general or detail description of the works expressly shows to the contrary, measurements shall be taken in accordance with the procedure set forth in the specifications notwithstanding any provision in the relevant Standard Method of measurement or any general or local custom. In the case of items for which procedure is not covered in the specification, measurement shall be taken in accordance with the relevant Standard Method of measurement issued by BIS and if for any item no such standard is available then a mutually agreed method shall be followed.
- 22. PAYMENTS:**
- 22.1** The Contractor shall be paid by the Employer, from time to time, by installment under Interim Certificate to be issued by the Corporation's Engineer to the Contractor on account of the work executed, as mentioned in the Appendix to the Conditions of Contract however subject to recoveries under this Contract. The Interim Certificate shall be based upon Interim Bills or Running Account Bills to be prepared by the Contractor and supported by the detailed measurements. Adequate references, sketches and cross references wherever necessary are also to be provided with detailed measurements. The Corporation's Engineer may allow inclusion in the Interim Certificate such amount as he may consider proper on account of materials delivered upon the site by the Contractor for use in the work but not incorporated in it.
- 22.2** Provided always that the issue by the Corporation's Engineer of any Certificate during the progress of the works or after their completion shall not relieve the Contractor from his liability in cases of fraud, dishonesty or fraudulent concealment relating to the work or materials or any matter dealt with in the Certificate in case of all defects and insufficiencies in the work or materials which a reasonable examination would not have disclosed. No Certificate of the Corporation's Engineer shall in itself be conclusive evidence that any work or materials to which it is related are in accordance with the Contract;
- 22.3** Payment upon the Corporation's Engineer's Certificate shall be made within the periods named in the Appendix "Period for honouring Interim Certificate" after such a Certificate has been delivered to the Employer;
- 22.4** The Sr.D.M. shall have power to withhold any Certificate if the work or any parts thereof are not being carried out to his satisfaction. However, if the final certificate is not issued within the period as mentioned under Clause No.22.5, 26 due to Audit para by CTE etc., the amount involved for such items of deficient work as decided by Chief Engineer would be with held. The same would be allowed as agreed upon by the CTE & the Exe. Engineer and the final certificate would accordingly be issued and final bill passed. For such with held amount, a simple interest @ 6% per annum shall be paid to the contractor along with the said payment. Such interest will be calculated from

the last date (as mentioned in Appendix to Conditions of Contract) for honouring final certificate till the date of payment.

- 22.5** The measurements and valuation in respect of the Contract shall be completed within the "period of Final Measurement" stated in the Appendix or if not so stated then within six months of the completion of the contract works as defined in Clause (26) hereof. No further claim shall be made by the contractor after submission of the final bill and these shall be deemed to have been waived and extinguished.
- 22.6** The final certificate shall be based on the submission of final measurements or overall measurements of the work (to be taken if so directed by Corporation's Engineer) with all relevant details similar to 22.1 above. The Sr.D.M. may direct the Contractor to resubmit details if the same are found incomplete to issue the final certificate and his decision to accept the details is final and binding on the Contractor.

Final Certificate shall be issued by the Sr.D.M. after the conditions are met with as per 22.4, 22.5, 22.6 and 26 and contractor's submission of **No Claim certificate cum receipt** as per the Performa given in Appendix to Conditions of Contract.

23. Clause stands Deleted

24. UNFIXED MATERIALS AND EQUIPMENTS:

- 24.1** All tools, plants and materials brought to the site by the Contractor shall vest in the Employer and shall not be removed from the site of works except by permission of the Corporation's Engineer in writing. The Employer shall have a lien on these materials and plants.

25. REMOVAL OF IMPROPER WORK:

- 25.1** The Corporation's Engineer shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or as may be specified in the order, of any materials, which in their opinion are not in accordance with the Specifications or instructions, the substitution of proper materials and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the Drawings and Specifications or Instructions and the Contractor shall forthwith carry out such an order at his own cost. In case of default on the part of the Contractor to carry out such an order, the CE shall have the power to employ other persons to carry out the same and all expenses consequent thereon or incidental thereto as certified by the Corporation's Engineer shall be borne by the Contractor and may be deducted from any amounts due or that may become due to the Contractor.

26. VIRTUAL COMPLETION:

- 26.1** The work shall be completed in accordance with the Contract and to the entire satisfaction of Chief Engineer. All unused materials, tools, plants, scaffoldings, temporary structures, hutments and things belonging to the Contractor shall be removed and the site of works cleared of rubbish and all waste materials by the contractor at his own expenses and delivered up tidy to the employer. After completion of the work, the contractor will serve a written notice to the Exe.Engineerto this effect. The Exe. Engineer after satisfying himself shall thereupon approve the

virtual completion. The Defect Liability Period shall commence from the date of such certification.

27. DEFECTS AFTER COMPLETION:

27.1 The defects, shrinkage, settlements or other faults, which may appear within “the Defects Liability Period, stated in the “Appendix to the Conditions of Contract” or if not stated then, within 12 (twelve) months after virtual completion of the work, arising on account of materials or workmanship not in accordance with the Contract shall, upon the directions in writing of the Corporation’s Engineer and within such reasonable time specified therein, be amended and made good by the Contractor at his own cost unless the Sr.D.M. shall decide that he ought to be paid for such amendment and for making good, and in case of default, the Sr.D.M. may employ and pay other persons to amend and make good such defects, shrinkage, settlement or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be recovered from any monies due or that may become due to the Contractor. The Sr.D.M. may in lieu of such amending and making good by the Contractors, deduct from any money due or that may become due to the Contractor, a sum to be determined by the Sr.D.M. equivalent to the cost of amending such work. Should any defective work have been done or materials supplied by any Sub-Contractor employed on the work, who has been nominated or approved by the Sr.D.M. as provided in Clause No.16 the Contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subjected to the provisions of this Clause and Clause No.2 hereof. The Contractor shall remain liable under the provision of this Clause notwithstanding the payment of any Certificate or the passing of any accounts.

28. PROVISIONAL SUMS, APPLICATION OF:

28.1 For all the work listed under items for which provisional sums are provided in the tender, the Sr.D.M. reserves the right to invite separate tenders or select or order from any manufacturer or firms at his discretion and reserves to himself the right of paying direct to persons or firms for any such work. The Contractor will not have any claims over these items, but if tenders are invited for such items, he will also be invited to quote along with others.

28.2 If ordered by the Sr.D.M., Contractor shall be required to carry out provisional sum items at the same conditions and rates as applicable for this Contract.]

29. OTHER PERSONS ENGAGED BY THE EMPLOYER:

29.1 Sr.D.M. reserves the right to execute any work not included in this Contract, which he may desire to have carried out, by other persons and the Contractor shall allow all reasonable facilities and the use of his scaffolding and plant for the execution of such work, but is not required to provide any special plant or materials for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the work included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or be occasioned by such work.

30. SUSPENSION BY THE CONTRACTOR:

30.1 If the Contractor except on account of any legal restraint upon the Employer preventing the continuance of the work, shall suspend the work or in the opinion of the Sr.D.M. shall neglect or fail to proceed with due diligence in the performance of his part of the Contract or if he shall make default in respect of Clause No.2, the Employer shall have the power to give notice in writing to the Contractor requiring that the work be proceeded within a reasonable manner and with reasonable dispatch. Such Notice shall purport to be a notice under this clause. After such notice is given, the Contractor shall not be at liberty to remove from the site of the work or from any ground contiguous thereto any plant or materials belonging to him, which shall have been placed thereon for the work and the Employer shall have a lien upon all such plant and materials to subsist from the date of such notice being given until the notice shall have been complied with. If the Contractor shall fail for 7 (seven) days after such notice given to proceed with the work as therein prescribed, the Sr.D.M. may proceed as provided in Clause No.31.

31. DETERMINATION OF CONTRACT BY EMPLOYER:

31.1 If the Contractor (being an individual or a firm) commit any “Act of Insolvency” or shall be adjudged as Insolvent or shall make an assignment or composition of the greater part in number or amount of his creditors or shall enter into a deed of assignment with his creditors, or being an Incorporated Company shall have an order made against him or pass an effective resolution for winding up either compulsorily or subject to the supervision of the Court or Voluntarily or if the official Assignee of the Contractor shall repudiate the Contract or if the official Assignee or the Liquidator in any such winding up shall be liable within 7 (seven) days after notice to him requiring him to do so, to show to the reasonable satisfaction of Sr.D.M. that he is able to carry out and fulfill the Contract and if required by the Sr.D.M. to give security therefore or if the Contractor (whether an Individual Firm or Incorporated Company) shall suffer execution to be issued or if the Contractor shall suffer any payment under this Contract to be attached by or on behalf of any of the creditors of the Contractors or if the contractor shall assign or sublet the Contract without the consent in writing of the Sr.D.M. first obtained or if the Contractor shall charge or encumber this Contract or any payment due or which may become due to the Contractor there under, or if the Sr.D.M. shall certify in writing that in his opinion the Contractor,

- a. has abandoned the Contract, or
- b. has failed to commence the work, or has without any lawful excuse under these conditions suspended the progress of the work for 7 (seven) days after receiving from the CE written notice to proceed, or
- c. has failed to proceed with work with such due diligence and failed to make such due progress as would enable the work to be completed within the time agreed upon, or
- d. has failed to complete the work within the stipulated date including authorized extensions or

- e. has failed to remove the materials from the site or to pull down and replace the work within 7 (seven) days after receiving a written notice from the Corporation's Engineer that the said materials or work were condemned or rejected or
- f. has neglected or failed persistently to observe and perform all or any of the acts, matters, or things, by this Contract to be observed and performed by the Contractor for 7 (seven) days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same, or
- g. has to the detriment of good workmanship or in defiance of the Sr.D.M's instructions to the contrary sub-let any part of the Contract.

then and in any of the said causes, the Sr.D.M. notwithstanding any previous waiver, after giving 7 (seven) days notice in writing to the Contractors, determine the Contract, but without thereby affecting the powers of the Sr.D.M. or the obligations and liabilities of the Contractor, the whole of which shall continue to be in force as fully as if the contract has not been so determined and as if the work subsequently executed had been executed by or on behalf of the Contractor. And further, the Employer, his agents or servants, may enter upon and take possession of the work and all plant, tools, scaffolding, sheds, machinery, steam and other power, utensils and materials, lying upon the premises or the adjoining lands or road and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the work or by employing any other Contractors or other person or persons to complete the work, and the Contractor shall not in any way interrupt or do any act, matter, or thing to prevent or hinder such other Contractor, other persons or person employed for completing and finishing or using the materials and plant for the work. When the work shall be completed or as soon thereafter as convenient, the Sr.D.M. shall give a notice in writing to the Contractor to remove his surplus materials and plant and should the Contractor fail to do so within a period of 14 (Fourteen) days after receipt thereof by him, the Employer may sell the same by public auction and shall give credit to the Contractor for the amount so realized. The Sr.D.M. shall thereafter ascertain and certify in writing under his hand what (if anything) shall be due or payable to or by the Employer for the value of the said plant and materials so taken possession of by the Employer and the expense or loss which the Employer shall have been put to in getting the work to be so completed, and the amount, if any, owing to the Contractor and the amount, which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be and the Certificate of the Sr.D.M. shall be final and conclusive between the parties.

32. TERMINATION OF CONTRACT BY CONTRACTOR:

- 32.1** If payment of the amount payable by the Employer under any Certificate of the EE shall be in arrears as unpaid for 60 (sixty) days after notice in writing requiring payment of the amount with interest of aforesaid shall have been given by the Contractor to the Employer, or if the work be stopped for six months under order of the Sr.D.M. or by any injunction or other order of any Court of Law, then and in any of the said cases, the Contractor shall be at liberty to determine the Contract by notice in writing to the Employer and he shall be entitled to recover from the Employer payment for all the work executed and for any loss, he may sustain upon any plant or material supplied or purchased or prepared for the purpose of the Contract.

32.2 In arriving at the amount of such payment, the net rates contained in the Contractor's original tender shall be followed or where the same may not apply, valuation shall be made in accordance with Clause No.15 hereof.

33. DETERMINATION OF CONTRACT DUE TO ABANDONMENT OR REDUCTION IN SCOPE OF WORK:

33.1 If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not require the whole or any part of the works to be carried out, the Sr.D.M. shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or advantage which he might have derived from the Execution of the whole of the works.

The Contractor shall be paid at contract rates for the full amount of work executed and in addition:

- a. The cost at site of all surplus approved materials collected for incorporation in the work, which the Contractor does not wish to retain and which shall thereafter become the property of the Employer.
- b. Where the Contractor desires to retain the surplus of approved materials (excepting materials supplied by the Employer or obtained in Employer's name, which shall, in any case, be returned to the Employer) the cost of handling and cartage charges for removal from the site to a reasonable distance not exceeding 25 kms.
- c. If upon the determination of the Contract under this condition, the Contractor is of the opinion that he has suffered hardship by reason of the operation of these conditions, he may refer the circumstances with full details to the Sr.D.M., who on being satisfied that such hardship exists or has existed, shall make such allowance, if any as in his opinion is reasonable, and his decision shall be final, conclusive and binding.

34. DISPUTES TO BE FINALLY DETERMINED BY Sr. DIVISIONAL MANAGER :

34.1 The Instruction, Decision, Opinion, Direction, Certificate or Valuation of the SDM with respect to all or any of the matters under Clause (2), (3), (5), (6), (9), (14), (15), (18), (23), (27), (30), (31) and (33) hereof (which matters are herein referred to as EXCEPTED MATTERS) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other Decision, Opinion, Direction, Certificate or Valuation of the Sr.D.M. or any refusal of the Sr.D.M. to give any of the same shall be subject to the right of Arbitration and review as given under Clause No.36.

35. SECURITY DEPOSIT AND PERFORMANCE GUARANTEE AND EMD:

35.1 Amount towards Security deposit shall be calculated as per details given under "APPENDIX TO CONDITIONS OF CONTRACT" in the tender. Security Deposit can be either in Cash or in the form of Bank Guarantee.

In case of cash option, the EMD shall be retained as part of Security Deposit and balance Security Deposit shall be accumulated through deductions from Running Account Bills at 7.5% (maximum) of gross amount of bill. In case of Bank Guarantee option, the Contractor shall furnish one Bank Guarantee for full amount of Security deposit valid till end of defects liability period OR, Two Bank Guarantees of like

amounts each equal to half the Security deposit; one valid till virtual completion and the other till end of defects liability period.

Amount towards Earnest Money deposit (EMD) shall be deposited as per details given in “APPENDIX TO CONDITIONS OF CONTRACT” in the tender. If the lowest tenderer withdraws his tender before the expiry of validity period or before the issue of letter of Acceptance, whichever is earlier, or makes any modification in the terms and conditions of the tender which are not acceptable to the department, then the EMD shall be forfeited.

- 35.2** Performance Guarantee under of “Appendix to Conditions of Contract” shall be only in the form of Bank Guarantee valid upto scheduled date of completion.
- 35.3** The Bank Guarantee/s shall be from any Nationalized / Scheduled Bank approved by the Sr.D.M., which is located at the Zonal Office Headquarters of L.I.C within whose jurisdiction the work falls or at the place of work. The Sr.D.M./E.E. may also permit the contractor to furnish the Bank Guarantee/s from a location other than the above where a Branch/ Divisional Office of the Corporation exist.
- 35.4** Bank Guarantee/s (BGs) against Security Deposit (SD) and Performance Guarantee (PG) shall be executed as per the specimen pro-forma at Annexure B and C. The Bank Guarantee/s against Security Deposit (SD) shall be submitted within 21 (twenty one) days from the date of issuance of letter of acceptance or within 21 (twenty one) days from the extended date as may be extended by the Sr.D.M.. The Bank Guarantee/s against Performance Guarantee (PG) shall be submitted within 20 (twenty) days from the date of commencement of work.
- 35.5** In case of failure by the contractor to furnish the Bank Guarantee against Performance Guarantee as per Cl.35.2 by the stipulated date, Employer shall without prejudice to any other right or remedy available in law, be at liberty to cancel the tender which may entail forfeiture of the Earnest Money of contractor.
- 35.6** ~~50% of the Security Deposit (cash option) shall be refunded after the certificate of virtual completion is issued to the contractor & provided that the employer has no claim for forfeiture of part or whole of the said deposit.~~
- 35.7** ~~Balance 50% of Security deposit will be refunded to the contractor after the satisfactory completion of the defects liability period, subject to deductions for any appropriations thereof required to be made by the employer as per the conditions of contract.~~
- 35.8** If one Bank Guarantee in lieu of total Security Deposit is furnished, the same will be released only after the successful completion of Defects Liability period subject to any appropriations as aforesaid.
- 35.9** If two Bank Guarantees in lieu of Security deposit are furnished, the First Bank Guarantee will be released after the certificate of Virtual completion is issued to the contractor and second shall be released after the satisfactory completion of Defects Liability Period subject to any appropriations as aforesaid.
- 35.10** Bank Guarantees towards Performance Guarantees (where applicable) shall be released after the virtual completion is issued.

- 35.11** Contractor shall keep the Security Deposit and Performance Guarantee, where applicable, replenished to its full value whenever any recovery or appropriation there from occurs. The employer reserves the right to do so from any money(s) due to the contractor lying with them.
- 35.12** The Contractor should note that no interest will be allowed on any part of the Security deposit.
- 35.13** No deductions will be effected from the bills when the total security deposit is paid in the form of Bank Guarantee(s) and the E.M.D shall be refunded after acceptance of Bank Guarantee(s).
- 35.14** In the event of failure by the contractor to submit Bank Guarantee(s) by the specified / extended date, recovery of Security deposit shall be affected from the R.A Bills. However, where the contractor fails to furnish Bank Guarantee against Performance Guarantee the matter shall be dealt with as per Cl. 35.5 above.
- 35.15** In all cases of Bank Guarantees, there shall be further provision of claim period of 6 months. If the contract period gets extended for any reason whatsoever, the contractor shall obtain the required extensions to the Bank Guarantee(s)

36. SETTLEMENT OF DISPUTES, ARBITRATION:

- 36.1** All disputes and differences of any kind whatsoever arising out of or in connection with the Contract or the carrying out of the work (whether during the progress of the work or after its completion and whether before or after determination, abandonment or breach of the Contract) shall be referred by the Contractor, in the first instance for their settlement, by Sr.D.M./E.E. - In-charge within 15 (fifteen) days of any such matter arising. The Sr.D.M./E.E. - In-charge shall upon receipt of such reference, convey his written instructions or decision within 30 (Thirty) days to the contractor.

If the contractor be dissatisfied with the decision of the Sr.D.M., the Exe. Engineer shall within 30 (thirty) days shall make efforts to resolve the dispute through mutual discussion by an independent Departmental Committee constituted by ED (Engg). If the contractor is still unsatisfied with the conclusion based on the committee's report on any matter other than EXCEPTED MATTERS, then and in any such case, the contractor shall within 30 (thirty) days after receiving notice of such decision give a written notice to the employer requiring that such matters in dispute(other than excepted matters) be arbitrated upon.

Such written notice shall specify the matters which are in dispute or difference of which such written notice has been given and no other shall be and is hereby to be referred to the Arbitration. In case the Contractor fails to serve the written notice on any or all the issues in dispute within 30 (Thirty) days the decision conveyed by the Sr.D.M. shall be taken as final, binding and conclusive and shall not be open to arbitration.

- 36.2** Any disputes or differences that the employer may have with the contractor shall also be referred to Arbitration.
- 36.3** All disputes between the parties to the contract (other than those for which the decision of the Sr.D.M. or any other person is by the contract expressed to be final &

- binding) shall after written notice by either party to the contract to the other of them be referred to sole arbitration by an Arbitrator to be appointed by the Executive Director (Engineering), which shall be final and binding.
- 36.4** If the arbitrator so appointed resigns his appointment or vacates his office or is unable or unwilling to act due to any reason whatsoever, the appointing authority shall appoint a new arbitrator in his place.
- 36.5** The Sole Arbitrator shall determine all matters in disputes other than EXCEPTED MATTERS (referred in Cl.No.34) which shall be referred to the Sole Arbitrator.
- 36.6** The references to arbitration by contractor on the matter of withholding by the Employer the certificate for interim payment can take place during the currency of the contract. However, on other kinds of disputes, unless both the parties agree in writing, reference of such disputes to arbitration shall not take place until after the completion or alleged completion of the work or termination or determination of contract.
- 36.7** It is a term of the contract that the person invoking Arbitration shall state the facts supporting his claim, the points at issue and the relief or remedy sought.
- 36.8** It is also a term of the contract that if the contractor does not make any demand for arbitration in respect of any claims within 120 days of receiving the intimation from the Corporation that the final bill is ready for payment, the claims if any received after 90 days period shall be absolutely barred from reference to the Arbitrator.
- 36.9** The Arbitration shall be conducted in accordance with the provisions of the Arbitration and Conciliation Act 1996 or any statutory modifications or Amendment to it from time to time.
- 36.10** In all cases Arbitration shall give separate award for each dispute or difference referred to him. The Arbitration shall decide each dispute in accordance with term of the contract and give a reasoned award. The venue of arbitration shall be in accordance with Arbitration Act. However, it may preferably be at L.I.C. of India, Zonal Centre or Place of Work Site.
- 36.11** The work under contract shall continue during the Arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.
- 36.12** The Arbitration is deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims.
- 36.13** Any fees payment/ reimbursements payable to the Arbitrator shall be shared equally by both the parties.
- 36.14** The Contractor hereby also agrees that Arbitration under this Clause shall be a condition precedent to any right of action in Law Courts under the Contract.

LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE -DEHRADUN

ADDITIONAL SPECIAL CONDITIONS

1. The method of measuring the various items of work shall be done generally as described in the relevant items in Schedule of Quantities. In case of any doubt, the mode of measurement shall be in accordance with the latest Indian Standards code of procedure for method of measurement of Building Works (I.S.: 1200)
2. The rates quoted by the contractor shall include all the materials, all lead and lifts, scaffolding, labour, equipment, etc. needed for the job unless otherwise stated.
3. Unless otherwise stated, all measurements shall be net and of finished size only. All waste, extra quantities, etc. necessary for the completion of work shall be allowed by the contractor in his rates.
4. As the premises where the work is to be carried out are our working offices therefore, the contractor shall follow the following discipline :-
 - (a) The contractor shall carry out the work without causing any disturbance to the working of offices & office bearers. Most of the work is to be carried out after office hours. The contractor may have to work during night to complete the work within stipulated time limit. The contractor has to make arrangement for placing the material after unloading including permission of local authorities/administration if reqd. The work is to be carried out in proper phased manner. The contractor should take proper precautions and make safety of LIC's property etc.
 - (b) All the loose furniture items shall be manufactured (except finishing/lamination work) at contractor's own workshop outside the LIC premises and brought at site. In case of framework of partitions and other combine units of furniture's, all preliminary works like cutting, planning, rebating joinery work to be carried out at contractor's own workshop and only assembling / fixing in position shall be done at site.
 - (c) After the manufactured furniture items are brought at site for installation, the contractor should get it approved before carrying out finishing / lamination work.
5. At the time of installation of furniture items, minor finishing or touch up to the furniture items, the contractor shall have to :-

- (a) Cover the floor area entirely with thick plastic / ply sheet/ tarpaulin or such other material to safeguard the same throughout the execution of the contract.
 - (b) Make good any damage, disturbances that may occur during the execution to any of the finished surfaces or such occurrences as may be brought to his attention with identical finishing.
 - (c) Co-operate and co-ordinate with any other agency that may be engaged by LIC to do certain variations/additions/alterations in the work already executed.
6. The work shall be approved in process and at each stage the approval of the Sr.D.M. or his representatives shall be obtained in writing. The contractor is also required to produce prototype of all different items of furniture to be made for the above work for which they have quoted, without any additional cost, for Sr.D.M.'s approval. The approved samples will form a part of total work.
 7. The work shall be started immediately after the receipt of work order and completed in all respects with from the date commencement. In the event of failure to complete the entire work by the scheduled date or any extended date approved by the Sr.D.M., the liquidated damages will be recovered from the contractor's bills as per clause 4 of "Appendix to Conditions of Contract".
 8. The tender shall be valid for the acceptance for a **period of 3 months from the last date of receipt of tender.**
 9. Rated quoted by the contractor shall be FIRM throughout the currency of the contract (including extension of time granted, if any) and will not be subject to any escalation due to variation in cost of material and labour or due to increase in taxes and duties levied by the Local/Govt. Authorities. The contract can be renewed after **expiry** at the discretion of the Employer on the same rates/ or by increasing the rates based on variation in price indices for labour and material (RBI indices). In such event the contractors has to carry out the contract at these mutually agreed existing/increased rates during the year of renewal
 10. All interior /civil work shall be carried out as per layout plan, drawings, design and pattern etc.
Set of drawing/layout is kept in our office; contractor may go through complete set of design/drawing in the working hours well before last date of receipt of tender.
 11. The Contractors shall be allowed use of water /electricity surplus to requirements of the Employer from existing wells or other source if any, on the site, but no guarantee is given that the quantity available shall be sufficient. In case, such water /electricity from the Employer's source is used then water charges will be recovered from the Contractor's bill/s at the rate as mentioned in Sl.No. 12 "Appendix to the Conditions

of Contract”. The contractor will make his own arrangements for plumbing and storing of water and distribution of electricity from single source.

12. During the execution of work i.e. fabrication of furniture items at contractor’s workshop wherever it is located, the Corporation’s engineer may visit and inspect the work at any point of time. The contractor shall arrange for such inspection and co-operate with the Corporation’s Engineer. In case of any discrepancy, the Schedule of Quantities shall supersede the drawings.
13. **Samples & Testing of Material:** - The Contractor at his own cost, furnish samples of any material such as timber, plywood, laminate, hardware etc. that may be called by the Sr.D.M. for his approval. Preference shall be given to ISI marked products and approved brands of requisite quality as mentioned in the tender. For materials, which are neither approved brands nor ISI marked, the same shall be got tested from approved laboratories at the Contractor’s cost before approval. Approved brand and ISI marked product will also be tested if desired by the Sr.D.M. and if the test results are satisfactory, the cost of testing shall be borne by the Employer otherwise by the Contractor. No claim will be allowed for delay to the progress of work caused by test. If called upon by the Executive Engineer the contractor shall produce proof for having arranged for the supply of materials well in time.
14. Only materials actually required /certified by LIC for the execution of work as per the prescribed specifications would be brought at site. These materials would not be allowed to be taken back from the site except those rejected by the LIC of India but quality/breakage and not conforming to the specifications.
15. The contractor shall make adequate arrangement for watchmen to guard to materials brought by them at site and shall ensure the safety, breakage and theft of materials fixed or unfixed by him or other sub-contractors.
16. The contractor will have to strictly follow and abide by all the labour laws in force applicable to the work involved, and shall indemnify the employer against any penalties /claims arising from any default on their part.
17. If the contractor finds any difficulty regarding the finance to maintain the progress of the work, he may request the Executive Engineer for consideration of relaxation in minimum value of interim certificate and the same may considered by the Executive Engineer provided he finds that the request is genuine.
18. The contractor shall have to submit their RA/ final bills in the E- measurement format as given in annexure A1, A2, B & C. The contractors shall require their bills as per the process given in flow chart in annexure –D. This clause regarding measurement of work & submission of bills will supersede all provisions given in the tender elsewhere.



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

19. TAXES, DUTIES, LEVIES AND DEDUCTION AT SOURCE:

The contractor shall be responsible to pay all statutory levies imposed by the State and Central Government such as Income Tax and Labour Cess etc. The quoted rates are excluding GST and the same shall be paid separately as per applicable rates. It is mandatory for all contractors to submit GST IN number

Liabilities towards Swachh Bharat cess for Contractor and Employer shall be in accordance with relevant provisions of the Finance Act, 2012 or any amendment issued by concern Authority time to time.

Labour cess : Rates are inclusive of Labour cess and labour cess will be deducted from contractors bill as applicable.

GENERAL PREAMBLES TO SCHEDULE OF QUANTITIES

These preambles apply to all the sections of the "Schedule of Quantities".

1. RATE TO COVER:

- 1.1 The rates quoted by the Contractor shall be held to include for providing and fixing, all conveyance and delivery, loading & unloading, carrying in, storing, hoisting, all labour, setting, fitting and fixing in position, making straight, cutting, waste, return of packing and all materials and labour and everything else necessary for the proper completion of each item of work to the approval of Corporation's Engineer and for Establishment Charges, overheads and profits. The Contractor shall provide at his expense all labour, materials and things required by the Corporation's Engineer for testing and measuring the work, for weighing, testing the efficiency of any portion of the work, all planking, gangways etc. necessary for affording access to every part of the work except where specifically stated otherwise.
- 1.2 The Contractor should also cover in his rates for the method of work, cost of materials, labour etc., to comply with the "Trade Specifications", General Instructions to Contractor", "Conditions of Contract", "Special Conditions", (if any), and all documents of this contract.
- 1.3 All the materials or procedure or Specifications for work, unless otherwise stated, shall conform to the current Indian Standard whether or not specific mention is made thereof. The Contractor shall be responsible for and shall replace or make good at his own expense, any materials lost or damaged, or of quality not approved, temporarily disturbed roads, pavements, approaches, gates, walls or any such dismantling carried out to execute the work.
- 1.4 All rates quoted shall include for Supplying and fixing although the same may not have been mentioned in the item of the Schedule of Quantities. Words "Providing and Fixing where used shall have same meaning as "Supplying and Fixing".
- 1.5 Rates quoted shall include for hoisting to any height, and the work at all levels and lift of materials shall not form any criterion for any extra claims, except where otherwise specified.

2. ANCILLARY WORKS:

- 2.1 The Contractor shall have to carry out all ancillary and connected work within and near vicinity of the plot of the proposed work and inside the Building if ordered to do so by the Sr.D.M. at the rates quoted in the Schedule of Quantities, at any time during the currency of this Contract including extension of time, if any granted.

3. PRICE FLUCTUATION / VARIATION:

3.1 Rates quoted by the Contractor shall be firm throughout the currency of the Contract including extensions of time, if any granted. No price adjustment due to variation in cost of materials or labour or any variation under any State or Central Legislation or any other reason whatsoever shall be allowed.

4. TESTING OF MATERIALS:

4.1 The Corporation's Engineer may instruct Contractor to test any material to be incorporated in work even if it is not specifically mentioned

4.2 For all tests all incidental charges such as cutting, loading, unloading, transporting, casting etc shall be at contractor's cost and shall be borne by him.

5. "PRINCIPAL MAKE/S OR OTHER EQUAL AND APPROVED" FOR MATERIALS / PRODUCTS:

5.1 The Contractor shall note that materials having "ISI" monogram shall primarily be used in the work. If in the tender "Certain Principal Make / Makes or other equal and approved of any material / Product is mentioned in any item or Trade Preambles relating to the particular items in its respective Trade Schedule, the Contractor shall have to use the Principal Make/Makes specified in the relevant item or the trade Preambles. In case the specified particular Principal make / makes of the materials product is/are not readily available, the Contractor shall take prior permission and approval of the Sr.D.M. in writing before use of the alternative equivalent make of the Material / Product.

5.2 All principal makes specified for any item shall be treated at par as per the accepted quoted rate.

5.3 Use of the make other than the Principal Make/Makes (which shall be treated as an Equivalent make) shall be at the discretion of the Sr.D.M. and such Make/Makes shall be used after the approval of the Sr.D.M..

5.4 In such cases the Contractor will not be paid any extra payment over the accepted quoted rate in any case. However if it is ascertained that the price of approved Equivalent Make or the Material/product is lower than that for the Principal Make/Makes of the same material / product the difference of the price shall be payable by the contractor to LIC. Such difference of price shall be suitably decided by the Sr.D.M. whose decision shall be final and binding to the Contractor in this regard.

6. MODE OF MEASUREMENT

Mode of measurements shall be in accordance with current India Standard Method of Buildings Works unless otherwise stated, in the tender. Where otherwise stated provision made in this contract shall hold good. In particular unless otherwise stated. All works is measured NET as fixed in its place.

7. QUANTITIES PROVISIONAL

All quantities in this schedule are PROVISIONAL and likely to increase or decrease. Some of the items may be omitted altogether. No claim whatsoever shall be entertained on this account.

GENERAL SPECIFICATIONS

1. GENERAL

This specifications is for work to be done, item to be supplied and materials is to be used in the works as shown and defined on the drawings and described herein, all under the supervision and to the satisfaction to the Executive/Superintending Engineer.

- 1.01 The workmanship is to be the best available and of a high standard, use must be made of specialist tradesman in all aspect of the work, and allowance must be made in the rates for so doing.
- 1.02 The materials and items to be provided by the contractor shall be the best of their respective kinds, approved by the Executive Engineer, in accordance with any samples which may be submitted for approval and generally in accordance with the specifications. Where materials or products are specified in this specification, and /or bill of quantities by the name of the manufacturer of the brand, trade mark of catalogue references, the contractor will be required to obtain the approval of the Executive Engineer before using a material or product other than that specified. The contractor shall produce all invoices, vouchers or receipted accounts for any materials if called upon to do so by the Executive Engineer.
- 1.03 Samples of all materials are to be submitted to the EXe Engineer for his approval before the contractor orders for delivery in bulk to the site. Samples, together with their pickings are to be provided free of charge by the contractor and should any materials be rejected they will be removed from the site at the contractor's expense. All samples will be retained by the Exe. Engineer for comparison with materials which will be delivered to the site. Also, the contractor will be required to submit specimen finishes of colours, fabrics etc. for the approval of the Exe. Engineer before proceeding with the work. Should it be necessary to prepare shop drawing, then four copies of such drawings shall be submitted for approval of the Exe. Engineer who will retain two copies, all at the contractor's expense.
- 1.04 The contractor shall be responsible for providing and maintaining and boxing or other temporary coverage required for the protection of dresses or finished work if left unprotected. He is also to clean out all shelving's, out ends and other waste from all parts of the works before coverings or in-fillings are constructed.

- 1.05 Templates, boxes and moulds shall be accurately set out and rigidly constructed so as to remain accurate during the time they are in use.
- 1.06 All unexposed surfaces of timber e.g. false ceiling, backing fillets, back of door frames, cupboard framing, grounds etc. are to be treated with two coats of approved timber preservative before fixing or covering.
- 1.07 Only first class workmanship will be accepted Contractor shall maintain uniform quality and consistency in workmanship throughout.

2. TIMBER: Timber generally is to be the best of its kind, well and properly seasoned, of nature growth, free from worm holes, large loose or dead knots or other defects and sawn die square and will not suffer wrappings, splitting or other defects through improper handling.

- 2.01 The hardwood is to be Sal/Teak or other similar locally obtainable Joinery hardwood, with a moisture content of 12%.
- 2.02 Wood to be best quality from Dandle free from soft heart, worm and “bees” holes and with a maximum moisture content of 12%. Teak veneers and fitches shall match each other throughout and where possible match existing fitches within building.
- 2.03 Shelves generally shall be constructed of plywood with edging of 12mm thick teak tongued on.
- 2.04 One of the following I.S. SPECIFICATIONS or such approved adhesives
 - IS – 851-1957 Synthetic resin adhesive for construction work in wood.
 - IS 849-1957 Cold setting casin glue for wood.

Where glue joinery and carpentry work is likely to come into contact with moisture, the glue shall be waterproof. The use of animal glues will not be permitted.

- 2.05 Timber is to be cut to the required sizes and lengths as seen as practicable after the works are begun and stored under cover so that the air will circulate freely around it. Joinery is to be prepared immediately after the placing of the contract, framed up (but not bonded) and stored until required for fixing in position, when it is to be bonded and wedged up. Any portions that wrap or develop shakes or other defects are to be replaced before wedging on.

The whole of the work is to be framed and finished in a proper and workman like manner in accordance with the detailed drawings, and wherever required fitting with all necessary metal ties, straps, belts, screws, etc. Running bended joint are to be cross tongued with teak tongued and where over 38mm thick double tongued. Joiner's work generally is to be finished with fine class papered surfaces unless otherwise specified.

- 2.06 Templates, boxes and moulds shall be accurately set out and rigidly constructed so as to remain accurate during the time they are in use.
- 2.07 Grounds are to be clean sawn, free from large knots, splayed as required, plugged and fixed to walls etc. at 450mm centers.
- 2.08 Wood plugs are to be cut on the twist. Patent wall plugs or plastic filling may be used in lieu of wood plugs with the approval of the Interior Designer.
- 2.09 All unexposed surfaces of timber, e.g. false ceiling, backing fillets, backs of door frames, cupboard framing, ground etc. are to be treated with two coats of atlas 'A' or other equal and approved timber preservative or vacuum pressure impregnated with approved water soluble timber preservative before fixing or bedding.
- 2.10 The service stations, bare counters, shelving etc. shall be generally constructed of plywood as described and specified, properly housed, grooved, tongued, glued – blocked and screwed together and entirely to the satisfaction of the Chief Engineer. A prototype sample of all custom made pieces must be prepared and submitted to the Chief Engineer for his approval before proceeding with the work in quality.

3. JOINERY

Joinery is to be prepared immediately after the placing of the contract, framed up boned and wedge up. Any portions that rap or other defects are to be replaced before wedging up. The whole of the work is to be framed and finished in a proper and workmanlike manner, in accordance with the detailed drawings, wrought and wherever required, fitted with all necessary metal ties, straps belts, screws, glue etc. Running beaded joints are to be cross tongued with wood tongues a where over 38mm thick double cross tongued. Joiner's work general to be finished with fine sand/glass paper.

- 3.01 JOINTS: All joints shall be standard mortise and tenon, dovetail and cross halved. Nailed or glued butt joints will not be permitted. Screws, nails etc. will be standard iron or sired of nettle fold make unless stated otherwise, where mortise and tenon joints are used, tenons should fit the mortises exactly.
- 3.02 Nailed or glued but joints will not be permitted, except in exceptional cases with approval of Exe. Engineer.
- 3.03 Where screws shown on a finished surface, these will be sunk and the hole plugged with a wood plug of the same wood and grain of the finished surfaces unless detailed otherwise. Nails on finished surfaces will be neatly punched and the hold filled with wood filler to match the colour.
- 3.04 Should joints in joiner's work open, or other defects arise within the period stated for defect liability in the contract and the clause thereof be deemed by the Exe. Engineer to be due to such defective joinery, shall be taken down and refilled, redecorated and / or replaced if necessary and any work destructed shall be made good at the contractor's expense.

- 3.05 Nails, spikes and bolts shall of lengths and weights approved by the Exe. Engineer. Nails shall comply with IS 1959-1960 or equivalent approved quality sample. Brass headed nails are to comply with B.S.1210 Wire staples shall comply with B.S.1494 or equivalent.
- 3.06 The contractor surface of dowels, tennons, wedges etc. shall be glued with an approved adhesive.
- 3.07 Where glued, joinery and carpentry work is likely to come into contact with moisture the glue shall be water proof.

4.0 HARDWARE AND METALS

The hardware throughout shall be of approved manufacturer and supplier, well made and equal in every respect to the samples to be deposited with Exe. Engineer. The contractor may be required to produce and provide samples and he should allow in his rates for so doing.

- 4.01 Fittings generally shall have a satin chrome on anodized finish, unless otherwise specified, and shall be suitable for their intended purposes. In any case, it will have to be approved by Exe. Engineer before the contractor procures it at site of work.
- 4.02 Screws are to be match the finish of the articles to be fixed and to round or flat headed or counter sunk as require.
- 4.03 Screws up and protect the brass and bronze surfaces with a thick grease or other suitable protective material, renew as necessary and subsequently clean off and clear away on completion.
- 4.04 Aluminium or stainless steel shall be approved manufacture and suitable for its particular application. Generally, the surface of aluminium shall have an anodized finish and both shall comply with the samples approved by Exe. Engineer.
- 4.05 All steel, brass, bronze, aluminium and stainless steel articles shall be submitted to a reasonable test for strength, if so required by the Exe. Engineer, at the contractor's expense.
- 4.06 All brazing and welds are to be executed in a clean and smooth manner, rubbed down and left in the flattest and tidiest way, particularly where exported.
- 4.07 Chromium plating shall be in accordance with BG.S.1224 or as per approved specifications for "normal outdoor conditions" and shall be on a base material of copper or brass.

5.0 FIBRE GLASS

The fiber glass decorative panels shall be constructed of 30% glass fiber chopped strand mat reinforced with 70% polyester resin, the fiberglass and resin to be either pigmented or sprayed with and fired with tarred paint. The panels shall be made in moulds to the approved design drawings and to the thickness required by the Exe. Engineer. The fiber glass panels are obtainable from approved suppliers.

6.0 GLAZIER

All glass to be of approved manufacture complying with IS3548 1966, or as per approved quality and sample, to be of the qualities specified and free from bubbles, some wanes, air holes and other defects.

- 6.01 The compound for glazing to metals is to be special non-hardening compound manufacture for the purpose and of a brand quality approved by the Exe. Engineer.
- 6.02 In cutting glass, proper allowance be made for expansion. Each square of glazing to be in one whole sheet.
- 6.03 On completion, clean all glass inside and out, replace all cracked, scratched or broken panels and leave in good condition to the satisfaction of the Exe. Engineer.

7.0 PAINT AND POLISHES

All material required for the works shall be of specified all approved manufacture, delivered to the site in manufacturer's containers with seal, etc. unbroken and are to be clearly marked with the manufacturer's name of trade mark with a description of the contents and colour. All materials are to be stored on the site of the works.

- 7.01 Spray painting with approved machines will be permitted only if written approval has been obtained from the Exe. Engineer prior to painting. No spraying will be permitted in case of priming coats and/or where the soiling of adjacent surface is likely to occur. The buzzle and pressure to be so operated so as to give an even coating throughout to the satisfaction of the Exe. Engineer. The paint used for spraying is to comply generally with the specifications concerned by is to be specially prepared by the manufacturer for spraying. Thinning of paint made for brushing will not allowed.
- 7.02 Wood preservative shall be Solignum or other equal and approved impregnating wood preservative and all concealed wood work shall be so treated.
- 7.03 All brushed, tools, pots, Kuttles, etc. used in carrying out the work shall be clean and free from foreign matter and are to be thoroughly cleaned out before being used with a different type or class of material.
- 7.04 All iron or steel surface shall be thoroughly scraped and rubbed down with wire brushes and shall be entirely free from rust, mill scale, etc. before applying the priming coat.

- 7.05 Surface of new wood work which are to be painted are to be finished with fine sand/glass paper.
- 7.06 Surface of previously painted wood work which shall be painted are to be cleaned down with soap and water, detergent solution or approved solvent to remove, dirt, grease etc. whilst wet the surface shall be flatted down with a suitable abrasive and then rinsed down and allowed to dry. Minor areas of defective paint shall be removed by scraping back to a firm edge and the exposed surface touched in with primer described and stopped with putty where woodwork has been previously painted or polished and is to be newly polished, the existing finish shall be completely removed by scraping, burning off or rubbing down.
- 7.07 Surface of previously painted metal which will be painted are to be cleaned down and flatted down as described in surfaces of previously painted wood work. Minor areas of defective paint and any rust and loose scale shall be removed completely by chipping, scraping and wire brushing back to the bare metal and touched in with primer as described.

8.0 EXCAVATION, PCC, RCC, BRICK WORK, PLASTER, FLOORING, DADO & OTHER MISC.CIVIL WORKS

All above civil works including shall be done as per LIC's Builder's work specification or current GTR specification.

9. FABRICS AND WALL COVERINGS

The fabrics or wall coverings shall be in conformity with the tender specifications and as approved by Exe. Engineer. The wall paper or fabric shall be applied with an approved method or adhesive after necessary preparation of surfaces and in accordance with the manufacturer's recommendations and the approval of the Exe. Engineer. The lengths of wall covering are to be hung with an overlap at least 1" and cut flush as recommended by the manufacturer. A sample of the colour and style shall be produced for the Exe. Engineer's approval.

10 UPHOLSTERY

This will of first class standard workmanship with webbing, no-sag springs, coiled springs, padding and filling as specified on drawing covering fabrics will be seen tufted and corded as shown on the drawing and as approved by the Exe. Engineer.

11. CUSHION VENTS

Brass "Cushion Vents" should be installed at the back or under side of seat cushions (especially those covered in leather vinyl plastic or very tightly woven fabric) to allow air to escape easily and to prevent torn seams.

12 MATERIALS

Finished timber shall be of the type specified. Furnishing, fabrics, colour, pattern, substance to be as specified and manufactured or supplied by the company specified, no variation of this will be permitted unless with prior approval of the Chief Engineer.

13. POLISH

French Polish : The basic material shall be shellac dissolved in methylated spirit.

13.01 Preparation: The timber must be well sanded and clean, and the grain filled with grain filler. Any staining must be done before applying the polish.

13.02 Equipment : The polishing rubber the most important implement in French polish shall consist of a pad of cotton wool, which acts as a reservoir for the polish, and a cover of soft white linen or cotton fabric, similar to a well-worn handkerchief, which acts as a filter. The rubber must never be dipped into the polish; it should be changed by pouring the polish on to the pad with the cover removed.

13.03 Application : Work evenly over the surface with a slow figure of eight motion until the timber is coated with a thin layer of polish. The object is to apply a series of thin coats, allowing only a few minutes for drying between the coats. When a level and even bodied surface is obtained the work is ready for the second stage i.e. spiriting off.

Allow the work to stand for at least eight hours, then take a fresh rubber with a double thickness of cover material and charge it with methylated spirit. The object of spiriting off into remove the rubber marks and to give the brilliance of finish.

13.04 Finally, work in the direction of the grain and continue until the surface is free from smears and rubbers marks then leave to harden off.

13.05 Wax Polish : Wax polish shall contain silicones and driers. A good silicon wax is to be used not a creamy or spray. The timber shall be sealed first with another finish such as Ronseal, before applying the wax.

13.06 Application : Apply a light coat of the sealer by brush or cloth direct to the unfilled timbered, working it in and finishing evenly with the grain. Allow to dry thoroughly then sand lightly with fine abrasive paper.

13.07 Apply a heavy coat of wax by cloth or on flat surfaces, with a stiff brush work it well into the timber and finish off by stroking with grain before leaving to harden. Leave for several hours before rubbing up with a soft brush. Finally, buff with the grain with a soft cloth.

13.08 Transparent coloured polyurethane (Melamine) : This shall be applied where natural grain of the wood is required to show Polyurethane gives tough surface which resists chipping, scratching and boiling water.

13.09 Application: Clean off all grease and wax with an abrasive and white spirit this should not be applied in humid conditions.

13.10 Apply the first coat, preferably of clear hard glaze, with a cloth pad. Leave this to dry for at least six hours, then apply further coats with a paint brush. If you wait for longer than 24 hours between coats, rub down the previous coat with fine glass paper or a medium grade of steel wool. Obtain a matt finish, if required by giving final coat of clear Ronseal Matt coat.

14.0 PAINTING

14.01 Painting to wall ceilings and other masonry/concrete surfaces including scaffolding.

- i. Sand papering, cleaning the surface, filling the cracks/holes etc.
- ii. Apply a coat of double boiled linseed oil/ a cement primer to the full surface.
- iii. Sand papering and applying 2nd time lambi/putty.
- iv. Apply 2nd time cement primer to the full surface.
- v. Sand papering and applying third time touch to lambi / putty to the full surface as per requirements.
- vi. Sand papering the putty work and painting with coats of oil bound distemper to the walls of approved make and shade and quality.

14.02 : Painting to wall, ceilings other masonry/concrete surfaces including scaffolding as per providing prior treatment and process as per item 14.01(A) above for either type Paints viz. Synthetic Enamel Paint, Flat Oil Paint, plastic emulsion paint, luster paint and velvet paint with 3 coats of approved shade, colour, make and quality.

14.03 Painting of wood work including scaffolding.

- i. Sand papering, cleaning the surfaces and applying one coat wood primer.
- ii. Applying 2nd lambi /putty to the full surface.
- iii. Sand papering and applying a coat of synthetic enamel paint to the full surface.
- iv. Sand papering the surface and applying 3rd time lambi/putty to the full surface.
- v. Sand papering the putty work and applying 2nd coat of synthetic enamel paint.
- vi. Final sand papering with minor touch up etc. and apply 3rd coat of synthetic enamel paint to the full surface.

14.04 Painting to wood work including scaffolding as per providing prior treatment and process as per item 14-03(C) above either type of paints viz. Plat oil paint, plastic emulsion paint luster paint with 3 coats of approved shade, colour, make and quality.

14.05 All painting work to be carried out as specified above and as per as per LIC's Builder's work specification .

14.06 All wood work to be carried out as specified above and as per as per LIC's Builder's work specification .

WATER SUPPLY, INTERNAL SANITARY INSTALLATIONS AND DRAINAGE WORK
GENERAL SPECIFICATION

1. GENERAL

- 1.1** All water supply, internal sanitary installations and drainage work shall be carried out by skilled and licensed plumbers manner complying in all respects with the requirements of the relevant by-laws of the Municipal or of the local bodies in whose jurisdiction the work is to be executed.
- 1.2** All fittings are to be accurately placed in the positions as directed by Executive Engineer, to be securely plugged to walls with hard wood or any other approved plugs or set in cement as required and are to be left in a clean, sound and perfect condition.
- 1.3 ALL SIZES AND LENGTHS TO BE VERIFIED AT SITE.**
- 1.4** The whole of the work is to be tested at Contractor's expense at such times and in such manner as Executive Engineer shall direct and to the latter's satisfaction. The Contractor shall also make arrangements for the disinfections of all mains and tanks intended for potable water to the satisfaction of the Executive Engineer and rates quote shall include for same. The mains and tanks should be thoroughly flushed with clean water after disinfections.
- 1.5** All damage done to floors, walls etc., during the process of fixing of water supply, internal sanitary installations and drainage work shall be restored to original condition to the satisfaction of the Executive Engineer at the Contractor's Expense.
- 1.6** All the materials shall be in accordance with the specifications and shall be approved by the Executive Engineer before bulk supplies are brought to site. The Contractor shall furnish well in time before work commences, at his own cost, any samples of materials or workmanship that may be called or by the Executive Engineer for his approval or rejection and any further samples in case of rejection until such samples are approved. Such samples when approved shall be the minimum standard for the work to which they apply. Where materials are specified to complete with an Indian Standard Specification, the Contractor shall, if required, furnish the Manufacturer's Certificate that the materials satisfy plumbing works, typical samples proto types shall be erected in position for approval before undertaking work. Rates quoted shall cover for such preliminary work. Materials rejected shall be removed forth with by the Contractor off the Premises.

Sewers and drains shall be laid in proper alignment and gradient in accordance with the rules and regulations of statutory bodies whose approval are necessary on completion.

II. WATER SUPPLY :**2. CAST IRON PRESSURE PIPE AND SPECIALS.**

2.1 Pipes and Specials : All pipes and specials shall be of cast or spun iron, straight with spigot and socket ends or with flanged ends as specified and shall conform to the latest edition of the Indian Standards Specification for class 'LA' pipes. Class A pipes may be used when the test water pressure exceeds 120 metre of head. The pipes and special shall be suitable for jointing with lead unless otherwise specified. As far as possible only standard specials shall be used.

2.1.1 All pipes shall be coated inside and outside while hot with an approved anti-corrosive paint having a tar or other suitable base.

2.1.2 Excavation of trenches for C.I. pipes and Specials :

2.2.1 EXCAVATION :

The trenches for the pipes shall be excavated to lines and levels as directed. The bed of the trenches shall have to be truly and evenly dressed throughout from one change of grade to the next.

2.2.2 The gradient is to be set out by means of boning rods and should the required depth be exceeded at any point the trench shall be refilled as directed by the Executive Engineer at the Contractor's expense.

2.2.1.3 The bed of the trench, if in soft or made up earth, shall be well watered and rammed before laying the pipes and depressions thus formed shall be filled with sand or other soft materials as the Executive Engineer may direct.

2.2.1.4 If rock is met with, it shall be removed to 15 cm below the level of the pipe valves and fittings and the trench shall be refilled with sand or other suitable materials.

2.2.1.5 The excavated materials shall not be placed within 1 metre or half the depth of the trench, whichever is greater from the edge of the trench.

2.2.1.6 The trench shall be kept free from water. Shoring and timbering shall be provided wherever required.

2.2.1.7 The width of trench at bottom between laces of sheeting shall be such as to provide not less than 20mm clearance on either side of pipe. Trench shall be of such extra width when required as will permit the convenient placing of timber support, strutting and planning and handling of specials.

2.2.2 Road Crossing : All road crossing will be excavated half at a time the second half being commenced, after the pipes have been laid in the first half and the trench refilled. The trench at existing road crossing shall be tiled with mud concrete for the full depth except for the top 15 cm layer, which will be filled with cement concrete 1:2:4. The rates quoted shall also cover the cost of breaking road surfaces of all types wherever met with including their foundations.

2.2.3 Protection of Existing Service: All pipes, water mains cables etc., met within the course of excavation shall be carefully protected and supported by the Contractors at their own cost to the satisfaction of the Executive Engineer. Such mains will be hung from timbers placed across the trench. Care shall be taken not to disturb the electrical and communication cables, removal of which if necessary shall be arranged by the Executive Engineer.

2.2.4 LIGHTING AND WATCH :

The open trenches shall be provided with fencing and watchmen to guard against accidents. Red flags during day and red lights during night shall be provided at the ends and at intervals along the sides of the trenches.

2.2.4.1 Sign boards with necessary wording such as "SLOW" , "ROAD CLOSED" etc., shall be provided at least 30 metres ahead of road crossings where the work is in progress. The precautions will be continued till the surface is restored. The Contractor shall be held responsible for compensation as a result of accident or injury to any person or property due to improper fencing or inadequate lighting arrangements.

2.2.4.2 Temporary bridges of planks shall be provided over the trenches for keeping open the access to private or public property.

2.3 LAY OF PIPES AND SPECIALS :

2.3.1 Stacking : The pipes and specials shall be lined up on one side of the trench, socket facing up hill or in the direction of flow of water.

2.3.2 Laying : Before being laid the pipes shall be examined to see that there are no cracks or defects subject to the approval of the Executive Engineer, the damaged portion of the cracked pipe may be cut a point not less than 15 cm beyond the visible extremity of the crack with diamond pointed chisel. Before lowering the pipe in the trench, the pipes shall be thoroughly cleaned of all dust and dirt. Special care shall be taken to clean the inside of the sockets and the outside of the spigots. Holes to receive the sockets shall be excavated in the trench bed so as to firmly bed the full length of the pipe.

2.3.2.1 The pipes shall be lowered into the trench by means of suitable pulley blocks, shearings, chain, ropes etc., in no case the pipes shall be rolled and dropped into the trench. After lowering the pipes, the spigot of one pipe shall be carefully centered into the socket of the next pipe and driven to the full distance that it can go and the pipe line laid to levels required, being kept in position by earth filling well watered and rammed at two or more places in its length.

2.3.2.2 Specials shall also be laid in their proper position as stated above.

2.3.2.3 The pipes laid on level ground, will be laid with socket facing the direction of flow of water. In all other cases, the sockets will be laid facing up hill.

2.3.2.4 Any deviation either in plan or elevation of less than $11\frac{1}{4}$ (Degree) percent shall usually be effected by laying the straight pipes round a flat curve of such radius that minimum thickness of lead at the face of the socket shall not be reduced below 12 mm or the opening between spigot and socket increased beyond 12 mm at any joint. A deviation of about $2\frac{1}{2}$ degree can be effected at each joint in this way.

2.3.2.5 At the end of each day's work, the last pipe to be laid shall have its open end securely closed with a wooden plug to prevent access to dirt and animals.

2.2 Thrust blocks and Anchorage :

Portland cement concrete thrust blocks of suitable design shall be provided at all bends of the pipes so as to withstand dynamic and static forces likely to be developed due to water running through the pipes. The thrust blocks shall be made after the joints have been chalked with lead and these shall be paid for separately, unless otherwise specified.

2.5 LEAD CAULKED JOINT :

2.5.1 Lead for joints : It shall be bluish grey in colour very soft and malleable of uniform quality readily melted free from foreign material and shall conform to I.S.782.

2.5.2 Spun yard for joints : This shall be of best quality preferably white, it shall be free from oil, tar or greasy substances and shall be soaked in hot coaltar or bitumen and dried before use.

2.5.3 JOINTING :

The yarning materials shall be placed around the spigot of the pipe and shall be of proper dimensions to centre the spigot in the socket. When spigot is shoved home, the yarning material shall be driven tightly against the inside base or hub of the socket with suitable yarning tools. When a single strand of yarning material is used, it shall have an overlap at the top not more than 5 cm. When more than a single strand is required for a joint, each strand shall be cut to sufficient length so that the ends will meet without causing overlap. The ends of the strands shall meet on opposite sides of the pipe and not on the top or at the bottom. Successive strands of yarning material shall be driven home separately. The leading of the pipes etc., shall be done by means of ropes covered with clay or by using special leading rings. The lead shall be rendered thoroughly fluid and each joint shall be filled in one pouring.

2.5.4 Quantity of lead and yarn : Approximate weight of lead and yarn required for joint for various sizes of C.I. pipes and specials shall be as per I.S.3114 as under :-

Dia of Pipe	Lead/Joint	Spunyarn /Joint
80 mm	1.8 Kg.	0.10 Kg.
100 mm	2.2 Kg.	0.18 Kg.
125 mm	2.6 Kg.	0.20 Kg.
150 mm	3.4 Kg.	0.20 Kg.
200 mm	5.0 Kg.	0.30 Kg.
250 mm	6.1 Kg.	0.35 Kg.
300 mm	7.2 Kg.	0.48 Kg.
350 mm	8.4 Kg.	0.60 Kg.
400 mm	9.5 Kg.	0.75 Kg.

NOTE : The quantities of lead and spun yarn given in this table are provisional and a variation of 20 % is permissible.

2.5.5 CAULKING :

After the joints have been run they must be thoroughly caulked until they are perfectly water-tight. Caulking of joint will be done after a convenient length of pipe has been laid and leaded. The leading ring shall first be removed and any lead, outside the socket shall be removed and any lead, outside the socket shall be removed with a flat chisel and then the joint caulked round three times with caulking tools of increasing thickness and a hammer of 2 to 3 Kg. weight. Lead joints shall not be covered till the pipe line has been tested under pressure but the rest of the pipe line may be covered up to prevent expansion and contraction due to variation in temperature.

2.5.6 LEAD WOOL JOINT :

When it is impractical or dangerous to use woolen lead for joints they may be made with lead wool inserted in strings not less than 6mm thick and thoroughly caulked.

2.6 FLANGED JOINTS :

C.I. pipes may also be jointed by means of flanges cast on where specified. The jointing material between flanges of pipes shall be compressed fiber board of rubber of thickness between 1.5 mm to 3mm. The fiber board shall be impregnated with

chemically neutral mineral oil and shall have a smooth and hard surface. Its weight per Sqm. shall be not less than 112 gm/mm thickness.

- 2.6.1** Each bolt shall be tightened a little at a time taking care to tighten diametrically opposite bolts alternatively. The practice of fully tightening the bolts one after another is highly undesirable.

2.7 TESTING :

Before testing, the trench shall be partially back-filled except at the joints. Completed pipe line shall be subjected to the following tests :

- a. Pressure test at a pressure of at least double the maximum working pressure ; pipe and joints shall be absolutely water tight under the test.
- b. Leakage test (To be conducted after the satisfactory completion of the pressure test) for a duration of two hours.

- 2.7.1** Where any section of a main is provided with concrete thrust blocks or anchorage, the pressure test shall not be made until at least five days have elapsed after the concrete was cast.

2.7.2 PRESSURE TEST PROCEDURE :

Each valued section of the pipe shall be slowly filled with water and all air shall be expelled from the pipe through hydrants and blow offs. If these are not available at high places, necessary tapping may be made at points of highest elevation before the tests made and plugs inserted after the tests have been completed.

- 2.7.2.1** The specified pressure shall be applied by means of a pump connected to the pipe in a manner satisfactory to the Executive Engineer. The duration of the test shall not be less than 5 minutes.

- 2.7.2.2** All exposed fittings, valves, hydrants and joints should be carefully examined during the test. When the joints are made with lead, all such joints showing visible leaks shall be recaulked until tight. Any cracked or defective pipes, fittings, valves or hydrants discovered in consequence of this pressure test shall be removed and replaced by sound materials and the test shall be repeated at Contractor's own expense until satisfactory results are obtained.

2.7.3 LEAKAGE TEST PROCEDURE :

Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valved section thereof, necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

2.7.3.1 Should any test of pipe laid disclose leakage greater than that permitted by IS Code of Practice 3114, defective joints shall be repaired at Contractor's own expense until the leakage is within the specified allowance.

2.8 Refilling: Refilling in trenches for pipes shall be commenced as soon as the joints have been tested and passed. The filling on top and round the pipes, shall be done with great care and in such a manner so as to obtain the greatest amount of compactness and solidity possible. For this purpose each filling shall be done in regular layer of 15 cm (Watered and rammed at each layer). All surplus earth shall be disposed of as directed by the Executive Engineer.

3. G.I. PIPES AND FITTINGS :

3.1.1 Pipes and fittings : The pipes shall be of the class specified in the Schedule of quantities and shall be galvanized steel welded and seamless, screwed and socketed and shall conform to the latest Indian Standard

3.1.2 Specifications for such pipes. They shall be manufactured by a firm of repute. All fittings shall be of malleable iron galvanized fittings of approved make.

3.1.1 The details of screwed and socketed G.I. pipes regarding nominal bore thickness and weight shall be as per IS 1239 (Part I) as under :-

Nominal Bore	Light	Medium	Heavy
15 mm	0.96	1.23	1.46
20 mm	1.42	1.59	1.91
5 mm	2.03	2.46	2.99
32 mm	2.61	3.17	3.87
40 mm	3.29	3.65	4.47
50 mm	4.18	5.17	6.24
65 mm	5.92	6.63	8.02
80 mm	6.98	8.64	10.30
100 mm	10.20	12.40	14.70

(The above weights are for black pipes and theoretical weights of galvanized pipes are of about 6% higher).

3.1.3 The pipes shall be tested to withstand a pressure of 50 Kg/Sqcm. without showing defects of any kind. These shall be supplied screwed with taper threads and the sockets with parallel threads.

3.2 LAYING IN TRENCHES FOR EXTERNAL WORK :

G.I. pipes and fittings shall be laid in trenches. The width of the trench shall be the minimum width required for the working. The pipes laid underground shall not be less than 60 cm from the ground level. They shall be surrounded on all sides by approved quality material. The work of excavation and refilling shall be done as specified earlier for Cast Iron Pressure Pipes. All pipes and fittings laid below ground shall be painted with anti-corrosive bitumastic paint and wrapped with hessian and again coated with anti-corrosive bitumastic paint of approved quality. The cost of the above shall be included in Contractor's rates.

3.2.1 Pipes embedded in masonry/concrete shall be treated similarly as described above.

3.3 Fixing of pipes for internal work : G.I. pipes and fittings on the walls shall be fixed by means of standard pattern holder bat clamps, keeping the pipe 12mm clear of the plastered surface of wall everywhere, or concealed (Inside chase) as directed. Where pipes are to be concealed in walls and floors by cutting chases, the pipes and fittings shall be coated with bitumen wrapped with hessian and again painted with one coat of anti-corrosive bitumen of approved quality and rates quoted shall include for same. Cutting long lengths of horizontal chases on the walls for concealing pipes shall be avoided.

3.3.1 All exposed G.I. pipes and fittings shall be painted with two coats of synthetic enamel paint of approved quality, manufacture, colour and shape, over a coat of red-oxide or other approved primer after cleaning thoroughly the surface of the pipes and fittings and allowed to dry. The cost of such painting shall be included in the rates quoted by the Contractor.

3.3.2 All pipes and fittings shall be fixed truly vertical and horizontal or as directed by the Executive Engineer. Care shall be taken to ensure that concealed G.I. Pipes (Used for external or internal works) are not laid in lime mortar or lime concrete surroundings.

3.4 Jointing : Where pipes have to be cut or re-threaded ends shall be carefully filed out so that obstruction to bore is offered.

3.4.1 In jointing the pipes, the inside of the soaked and the screwed end of the pipe shall be rubbed over with white lead and few turns of home yarn wrapped round the screwed end of the pipe which shall then be screwed home in the socket with a pipe wrench. Care must be taken that all pipes and fittings are kept at all times free from dust and dirt during fixing.

- 3.5 All G.I. pipes and fittings may be tested to a pressure of 7 kg/Sqcm. to ensure that pipes have proper threads and that proper materials (Such as white lead and hemp) have been used in jointing. All leaky joints must be made leak proof by tightening or redoing at Contractor's expense.

4. **WATER METERS, SLUICE VALVES AND OTHER APPLIANCES :**

4.1 **WATER METERS (DOMESTIC TYPE) :-**

Water meters up to 50 mm nominal size shall conform to I.S. specifications for water meters (Domestic Type) I.S.779 of Type A unless otherwise specified. The meter body shall be of bronze gun metal or brass and marked to read in liters complete with registration box, cap and lid. The water meters shall be provided with strainers. Strainers shall be of a material which is not susceptible to electrolytic corrosion. They shall be laid easy to remove and clean and shall be possible to remove and clean the strainer in such a way as not to permit disturbing the registration box or tampering with it. Meters provided with internal strainer involving opening of the registration box for cleaning , shall be fitted with an additional strainer on the inlet side and rates quoted by Contractor shall include for such additional strainer, cost of testing and sealing by local municipal authorities.

4.1.1 **CONNECTIONS :**

The meter casing shall be lifted in the pipe line by two conical or cylindrical nipples or tail pipes with connecting nuts which shall be provided with each meter. The nipples of waters shall be made of the same materials as specified for body.

4.1.2 **MAKINGS :**

Each meter shall be marked with the following information :

- a. Nominal Size.
- b. Direction of flow.
- c. ISI Certification mark
- d. Manufacturers name and trade mark.

4.2 **WATER METERS (BULK TYPE) :**

These shall conform I.S. : 2373 and shall be of size 50mm and above. They shall be of (Impeller) vane wheel type or helical type. The body of the meter shall be made from cast iron. The meter casing shall be fitted into the pipe line by means of a double flange, the internal diameter of which shall be equal to nominal size of meter. The meter shall be provided with registration box and cap of brass or cast Iron. Provision shall be made to lock the lid to registration box. Meters shall be supplied and fitted with an External Strainer (Dirt Box) for suitable materials not susceptible to

electrolytic corrosion and rates quoted by Contractor shall include for the same. Meters shall be provided with makings as described in Clause 4.1.2 above.

4.3 **FERRULES** :

Brass ferrules shall conform to IS : 2962. Necessary saddle pieces of approved type shall be used for all take of the service connections and rates quoted shall include for the same.

4.4 **SLUICE VALVES** :

Sluice valves shall conform to IS:780 and shall be of Class I type unless otherwise specified with double flange and hand wheel for operation. The body, dome, cover, stuffing box, thrust plate, wedge, gland and cap may be of cast iron but the spindle shall be of brass or Aluminum bronze. Valve shall be fixed to spigot and socket cast iron and steel pipes by means of suitable flanged spigots or flanged socketed tail piece as directed and rates quoted by Contractor shall include for the same before the valves are actually fixed, they shall be cleaned and greased and it should be seen that all parts are in perfect working condition.

4.4.1 **SURFACE BOXES FOR SLUICE VALVES** :

This shall conform to I.S.3950 with a cast iron frame and mild steel hinge pin. The upper surface of the cover shall have non slip surface. The surface boxes shall be coated with a composite on having bitumen or tar base. The minimum weight of surface box shall be 33 kg. The internal size of surface box shall be 230 mm x 150 mm x 150 mm.

4.5 **AIR VALVES** :

These are placed at every summit in the pipe line to permit the escape of air when the main is filled and if any air is carried into the main. Fixing of air valves may be done by means of fixing saddle pieces on pipes and drilling the same where necessary. Rates quoted shall include for the same.

4.6 Brick Masonry Chambers for housing meters, valves and appurtenances : These shall be constructed as per size as indicated. This shall be measured and paid for separately. The bricks used shall be of best quality locally available and from approved source and shall be laid in cement mortar 1:3. The walls shall be plastered both inside and outside with 20 mm thick cement plaster 1:3. The foundation concrete shall be of P.C.C. 1:4:8 and 75 mm thick. The top slab shall be of 100mm thick R.C.C. 1:2:4 unless otherwise specified.

INTERNAL SANITARY APPLIANCES

5. SQUATTING PATTERN W.C.PAN :

5.1. W.C. PAN :

The pan shall be of white vitreous china of specified size and pattern ("Orissa" or "Long pattern" as specified) with an integral flushing rim. It shall have the flushing horn in the front unless it is not possible to accommodate cistern to suit this design. The pan shall be approved quality conforming to I.S. specifications IS: 2556 (part iii). It shall have 100 mm C.I. or porcelain trap 'P' of 'S' type, with effective seal 50mm and 50mm vent arm.

5.1.1 FIXING :

The W. C. pan shall be sunk in floor sloped towards in a workman like manner, care being taken not to damage the pan in the process of fixing. If damaged in any way, it shall be replaced at Contractor's cost. It shall be fixed on a proper cement concrete base of 1:3:6 proportion taking care that the cushion is uniform and even without having any hollows between the concrete base and pan and finished just below level of run of pan to receive the specified thickness to the floor finishing. A pair of foot rests for long pattern pans shall be fixed at a convenient angle where specified.

5.1.2 The joint between the pan and the trap shall be made with cement mortar 1:1 and shall be leak proof.

5.2 Flushing Cistern : The flushing of the W. C. pan shall be done by pull and let go flushing cistern of the valve less siphonic type conforming to IS:774 unless otherwise specified. The cistern shall be of cast iron, mosquito proof, of 12.5 litres capacity or other specified together with cover lever, G.I. chain and pull of specified quality, ball valve with copper or plastic float as specified and necessary unions etc. for connection with inlet and outlet pipes and overflow.

5.2.1 Brackets : The cistern shall be fixed on cast iron or rolled steel cantilever brackets which shall be firmly embedded in the wall in CM 1:3 or fixed by using wooden plugs and screws, to the satisfaction of the Executive Engineer.

5.2.2 Overflow : The cistern shall be provided with 20mm G.I. overflow pipe with fittings which shall terminate into mosquito proof coupling secured in a manner which will permit it to be readily cleaned or renewed when necessary. The length of the overflow shall be as per Municipal requirements.

5.2.3 Flush pipe : The outlet of flush pipe from the high level cistern shall be of 32 mm galvanised wrought iron pipe not less than 1.00 mm thick or light quality G.I. pipe B class or lead pipe of minimum thickness 2.6mm as specified, which shall be connected to the WC pan by means of an approved type of joint. The flush pipe shall be fixed to wall by using holder bat clamps or embedded as required. Where lead

pipe pieces are required to be used in conjunction with G.I. Flush pipes for ensuring proper connection, the contractor shall do so at his own cost and rates quoted shall include for the same.

5.2.3.1 If the connection between the cistern and the W.C. pan is made with G.I. pipe, the bends and off sets shall be made cold, and connection to the pan may be made means of an approved type of joint or while lead mixed with chopped hemp.

5.2.4 PAINTING :

Inside of cistern and fittings shall be painted with approved bitumastic paint and outside of the cistern, brackets, overflow and flush pipe etc. shall be painted with a priming coat or red oxide, and finishing two or more coats of white zinc or any other colour and shade to match with the painting of surround-ing walls. The cost of such painting shall be included in the rate quoted for the flushing cistern.

Plastic Flushing Cistern (Low Level) :The low level plastic flushing Cistern shall be clock valve based on buoyancy principal and controlled by a water clock, designed for feather operation and shall conform to IS : 7231-1984 . The cistern tank shall have plastic body and shall be fixed in position along with all internal parts as per manufacture. The cistern shall have capacity of 10 litres. It shall be fixed in position along with all internal parts as per manufactures manual. There shall be a provision of 15 mm dia overflow outlet from which 15 mm dia G.I. 'B' class (Medium quality) over flow pipe shall be provided to be terminated with a P.V.C mosquito proof coupling at 75 mm above W.C. floor level or as per municipal requirements if any. The out let or flush pipe from the cistern will be 32 mm P.V.C. Pipe which shall be connected to the W.C. pan with approved type of joint .

Rates Quoted for the low level flushing cistern should include for :-

- (1) Flushing cistern with all internal fittings and concealed brackets, flushing handle (Knob) etc.
- (2) P.V.C. inlet pipe connection piece 15 mm dia with brass nuts.
- (3) 15 mm dia C.P. brass stop cock weighing not less than 400 gms.
- (4) 32 mm dia P.V.C. flush pipe (15 mm dia G.I. medium quality 'B' class overflow pipe if required length shall be measured & paid extra under relevant item of the trade .)
- (5) Painting of G.I. overflow pipe with 3 coats of first quality synthetic enamel paint including a coat of primer.

6. PEDESTAL WASH DOWN WATER CLOSET :

6.1 W.C. PAN :

The W.C. pan shall be of white vitreous china of one piece construction of wash down type with integral 'P' or 'S' trap as required. it shall be of approved quality and pattern conforming to IS Specification IS 2556 (part - II).

6.2 SEAT & COVER :

The seat with lid shall be of well seasoned teakwood varnished or Mahogany polished or plastic seat as specified with rubber bullers and shall be fixed in position by using Chromium plated (CP) brass hinges and screws. The seat shall be non absorptive and free from cracks and crevices in the material. The plastic seat and cover where specified shall conform to I.S. Specifications and shall be black colour unless otherwise specified.

6.3 FLUSHING CISTERN :

The flushing of the W.C. pan shall be done by high level or low level valve less siphonic flushing cistern of approved quality, as specified. In the former case the specifications will be same as those for flushing cisterns of squatting pattern W.C. pans. In the latter case there shall be white glazed vitreous china or porcelain enameled or plastic as specified of 12.5 litre or of other capacity cistern as specified with all internal fittings, brackets and C.P. brass flushing handle, Which shall be fixed at low level and connected to the W.C. pan by means of 40mm diameter white enameled porcelain bend and rubber or 'Light' quality G.I. pipe or 2.6mm thick lead pipe connection or as other specified.

6.3.1 OVERFLOW :

There shall be 20mm overflow with mosquito proof coupling of approved design which shall conform to the specification as stated under squatting pattern W.C. pan.

7. BOWL URINAL :**7.1 BOWL URINAL :**

The urinal shall be flat back or angular pattern lipped from basin or required dimensions of white vitreous China and one piece construction with integral flushing box rim or an approved make as specified. it shall be fixed in the position by using wooden plug embedded in the wall with screws of proper size. Each urinal shall be connected to a 40mm embedded in the wall with screws of proper size. Each urinal shall be connected to a 40mm diameter waste lead pipe unless otherwise specified, which shall discharge into a channel or a floor trap, or as specified. The connection between the urinal and flush or waste pipe shall be made by means of white lead mixed with chopped hemp. The flush pipe and waste pipe shall be concealed where directed.

7.2 **FLUSHING :**

The flushing of the urinals shall be done by automatic flushing cisterns conforming to I.S. specifications. Then cistern shall be of cast iron not less than 5mm body thickness or other specified having valve less siphon automatic flushing arrangement of specified capacity. It shall be supported on a pair of R.S. or C.I. cantilever brackets which shall be embedded or fixed to wall by means of wooden plugs and screws. The cistern shall be connected to the urinal basin by means of a G.I. Medium Quality or a lead or specified type of flush pipe with fittings. The pipe shall be fixed by using proper holder bat clamps or concealed by embedding as directed. The body thickness shall not be less than 6mm in the case of vitreous sanitary cistern and 1.60mm before coating in the case of pressed steel cistern. The latter should be porcelain enameled against corrosion.

7.2.1 **CAPACITY :**

The capacity of the flushing cistern and the size of the flush pipe for the number of urinals in a range will be as follows :-

Number of Urinals in a range	Capacity of flushing cistern	Main	Size of pipe distribution.
1.	5.0 litres	-	15mm
2.	10.0 litres	20mm	15mm
3.	12.5 litres	25mm	15mm
4.	12.5 litres	25mm	15mm

7.2.2 The joint between the urinal basin and flush and waste pipe shall be made by means of putty or white lead mixed with chopped hemp or as specified in case of lead pipes.

7.2.3 Painting : The inside and the outside of the cast iron cistern the fittings and brackets shall be painted as given under flushing cistern for squatting pattern W.C. pan.

8. **STALL URINALS :**

8.1 **URINAL STALLS :**

The urinal stall and its screens shall be of white vitreous china of approved quality and manufacture. the stall shall be 114cm high and 46cm wide and 40cm deep. The stall shall be provided with 84cm x 36cm division plates. In case of range of two more

urinals, there shall be further division plates similar to end screens. The range shall have 15cm deep tread plates of fire clay unless otherwise specified.

8.2 FLUSHING :

The stall be provided with white glazed vitreous china automatic flushing cistern or proper capacity with 6mm minimum body thickness unless otherwise specified. The cistern shall be complete with fittings and brackets which shall be fixed to the wall. The cistern shall be connected to the stall through standard size C.P. brass flush pipe with spreader arrangement and clamps unless otherwise specified. Capacity of flushing cistern and relevant sizes of flush pipe for stall urinals shall be the same as specified for bowl urinals.

8.2.1 OUTLET :

Each range of stalls shall be provided with C.I. urinal trap with vent arm having C.P. brass outlet grating of size 50mm for one or two stalls and 75mm for more stalls or as specified.

9. SQUATTING PLATES :

9.1 SQUATTING PLATES :

The urinal plates shall be of white glazed vitreous china with integral flushing rim of size 600 mm x 350 mm as specified. There shall be white glazed vitreous channel with stop and outlet pieces in front. The plate and channel shall be of approved quality and conform to IS Specifications 2556 (Part VI).

9.2 FLUSHING :

Each set of plates shall be provided with automatic C.I. cistern complete with G.I. flush pipe with fittings and spreaders arrangements fixed with holder-bat clamps or embedded as specified. There shall not be more than four plates in a range fed by a single cistern.

9.2. 1 CAPACITY :

The capacity of the flushing cistern and the size of the flush pipe for the number of squatting plate urinals in a range will be as follows :

Number of Urinals in a range	Capacity of flushing cistern	Main	Size of pipe distribution.
1.	5.0 litres	-	20mm
2.	10.0 litres	25mm	20mm
3.	12.5 litres	32mm	20mm
4.	12.5 litres	32mm	20mm

9.2.2 The cistern shall be fixed R.S. or C.I. cantilever brackets which shall be embedded or fixed to the wall by means of wooden plugs and screws.

9.2.3 The joint between the urinal plate and the flush pipe shall be made with putty or white lead mixed with chopped hemp.

9.2.4 Painting : The inside and outside of the cistern, the fittings and brackets shall be painted as described for flushing cistern for squatting pattern W.C. pan.

9.3 Outlet : The squatting plate or a range of squatting plates shall be provided with a 65mm diameter standard urinal C.I. trap with vent arm having 65mm C.P. brass outlet grating or as specified.

9.4 Walling : The squatting plate shall have 1.22M high wall in front and on either side, this shall be lined as specified.

10. WASH BASINS :

10.1 Basins: The wash basins shall be of white vitreous china of approved quality, make and pattern conforming to I.S. Specifications. It shall be of one piece construction with an integral combined, overflow. The size of the basin shall be as specified.

10.2 Fittings : Each wash basin shall be provided with 15mm C.P. brass pillar taps as specified, 32mm C.P. waste with C.P. brass bottle trap or G.I. trap and plug as specified, C. P. chain and rubber plug, unions, joint etc. complete in all respects of approved quality.

10.3 Fixing : The basin shall be supported on a pair of R.S. or C.I. cantilever brackets embedded or fixed in position by means of wooden cleats and screws. These brackets shall be painted to the required shade as given under flushing cistern for

squatting pattern W.C. The wall plaster shall be cut to rest over the top edge of the basin. After fixing the basin, plaster shall be made good and surface finished to match with the existing one.

- 10.4** Waste connection : The waste pipe shall discharge into a floor trap leading to a gully trap, on ground floor and on upper floors it may be connected to a waste pipe stack. The C.P. brass bottle trap and Union shall be connected to 32mm G.I. light class waste pipe or lead pipe as specified which shall be suitable bent towards the wall and/or concealed in the wall as directed.

11. SINKS :

- 11.1** Sinks : The sink shall be of white glazed fine clay with wire type overflow conforming to I.S. Specifications unless otherwise specified . The size of the sink shall be as specified. The sink shall be of approved quality and manufactured.

- 11.2** Fittings : Each sink shall be provided with 40mm C.P. brass waste coupling and union of standard pattern C.P. brass chain and 40mm rubber plug may be provided where specified.

- 11.3** Fixing : The sink shall be supported on C.I. cantilever brackets embedded, fixed into position. These brackets shall be painted to the required shade as given under flushing cistern for W.Cs. The wall plaster on the rear shall be cut to overhang the top edge of the sink.

- 11.4** Waste connection : The waste pipe shall discharge into a floor trap leading to a gully trap on ground floor and may be connected to a waste pipe stack on upper floors. C.P. brass coupling and union shall be connected to 40mm G.I. light quality waste pipe provided with suitable tee and plug for cleaning purposes.

12. TOILET REQUISITES :

12.1 MIRROR :

The mirror shall be of approved make glass with beveled edges. The size and shape of the mirror shall be as specified. It shall be mounted on an asbestos sheet and shall be fixed in position by means of C.P. brass screws and washers over rubber washers and wooden plugs firmly embedded in the wall. C.P. brass clamps with C.P. screws may be and alternative method for fixing.

12.2 GLASS SHELF :

The shelf shall be of glass of approved quality with edges rounded off. The size of the shelf shall be as specified. The shelf shall have C.P. brass guard rail with rubber washers on positions resting on glass plate and C.P. brass brackets which shall be fixed with C.P. brass screws to wooden plugs firmly embedded in the wall.

12.3 TOWEL RAIL :

The towel rail shall be of C.P. brass with two C.P. brass brackets. The size of the rail shall be as specified. The bracket shall be fixed by means of C.P. brass screws to wooden cleats firmly embedded in the wall.

12.4 TOILET PAPER HOLDER :

The paper holder shall be wooden or of C.P. brass or vitreous china as specified. The wooden paper holder shall be made of well seasoned teakwood finished with beeswax. These shall be fixed in position by means of C.P. brass screws and wooden cleats embedded in the wall.

12.5 LIQUID SOAP HOLDER :

This shall be of glass or C.P brass as specified. It shall be fixed in position by means of C.P. brass screws and wooden cleats embedded in the wall. The liquid soap holder shall be of approved size and make.

12.6 SHOWER ROSE :

The shower rose shall be of C.P. brass swivelling type approved size, make and design. Where specified , the same shall be provided with a C.P. brass shower arm with necessary C.P.brass wall flange and fitting.

12.7 WATER CONNECTORS :

Water connection to flushing cistern, wash basins etc. shall be by means of lead pipe or white polythene pipe connection pieces as specified with C.P. brass connectors on either ends and a stop cock. The size of the lead pipe or polythene pipe connection and stop cock will depend upon the size of water connection and shall be as specified. The length of the connecting pieces shall be at least 375 mm.

13. CAST IRON SOIL, WASTE, VENT AND RAINWATER PIPES AND FITTINGS

13.1 CAST IRON PIPE AND FITTINGS :

Cast iron soil, waste, vent and Rainwater pipes and fittings where specified shall conform to the latest Indian Standards Specifications for these pipes. The pipes shall have spigot and socket ends and shall be with or without ears as directed by the Executive Engineer.

13.2 WEIGHTS :

The standard weights and thickness of pipes are given below and a tolerance up to minus 10% may however be allowed against these standard weights.

SOIL WASTE AMD VENT PIPE						
SAND CAST			SPUN IRON		RAIN WATER	
Nominal dia of pipe	Minimum Thickness	Nominal weight for 2 m long pipe exclusive of ears	Minimum thickness	Nominal weight for 2m long pipe	Minimum thickness	Nominal weight for 1.8 m long pipe exclusive of ears
Mm	mm	kg	mm	kg	mm	kg
50	5	12.65	3.5	9.2	3	7.5
75	5	18.36	3.5	13.8	3	11.0
100	5	24.15	4.0	21.0	3	14.0
150	5	35.66	5.0	38.5	4	26.0

13.2.1 These shall be free from cracks and other flaws. the interior of pipes and fittings shall be clean and smooth. These pipes shall be coated internally and externally with suitable coating material having a tar or other approved base, in accordance with relevant I.S. Specification for these pipes.

13.2.2 The access door fitting shall be of proper design so as not to form any cavities in which filth may accumulate. Doors shall be provided with 3mm rubber insertion packing and when closed and bolted they shall be watertight and airtight.

13.3 FIXING :

The pipes and fittings shall be fixed to walls at least 5cm clear of the finished surface of wall by using proper holder bat clamps. The pipes shall be fixed perfectly vertical or in a line as directed. The spigot end shall about the shoulder of the socket and leave no annular space in between. The pipes shall be strongly supported at the foot by a bed of cement concrete 1:3:6, 150 mm thick and rates quoted shall include for provision of the same. All soil pipes shall be carried up above the roof and shall have a suitable cowl. The bends in the bottom most soil or waste stack shall necessarily be of long radius and preferably made of two 135 degree C.I. bends.

13.3.1 Connections between main pipe and the branch pipes shall be made by using proper branches and bends invariably with access doors for cleaning.

13.4 CEMENT MORTAR JOINTS :

Where specified, the pipes jointed with cement mortar joints shall be as under :

Closely twisted spun yarn gasket of such diameter as required to support the spigot of pipe at the proper grade and make truly concentric joints, and in one piece of sufficient length to pass around the pipe and lap at the top, shall be thoroughly

saturated in cement paste. This gasket shall be laid in the socket for the lower third of the circumference of the joint and covered with cement mortar 1:1. The spigot of the pipe shall be thoroughly cleaned with a wet brush, inserted and carefully driven home after which a small amount of mortar shall be inserted in the annular space around the entire circumference of the pipe and solidly rammed into the joint with a caulking tool the mortar previously placed being driven ahead of the gasket. The remainder of the joint shall then be completely filled with cement mortar 1:1 and beveled off at an angle of 45 degrees with the outside of the pipe.

- 13.4.1** Where any water closet pan or earthen ware pan connected to such pan is to be jointed with C.I. soil pipe, the joint between the pan/trap and the socket of the C.I. pipe shall always be of a flexible nature and such joint shall be made with a mixture of bitumen and chopped asbestos fibre (not dust).

13.5 LEAD CAULKED JOINTS :

Where the pipes are to be jointed with lead caulked joints, the same shall be done as follows :

The annular space between the socket and spigot will be first well packed in with spun yarn leaving 25mm from the tip of the socket for lead. The joint may be leaded by using proper leading rings or if they are not available by wrapping a ring of hemp rope covered with clay round the pipe at the end of the socket, leaving a hole through which lead shall be poured in (for pipes with sockets facing upwards 12mm high clay bound on the socket edge may be used).

- 13.5.1** The lead shall be rendered thoroughly fluid and each joint filed in one pouring. Before caulking, the projecting lead shall be removed by flat chisels and then the joint caulked round with proper caulking tools and a hammer of 1 to 1 ½ kg. in weight in such a manner as to make the joint quite sound. After being well set up the joint is to be let flush, neat and even with the socket.

13.6 TESTING :

All cast iron pipes and fittings including joints will be tested for gas tightness by a smoke test and hydraulic performance by a water test and left in working order after completion.

13.6.1 SMOKE TEST :

Smoke shall be pumped into the drains at the lowest end from a smoke machine which consists of a blow and burner. The materials usually burnt are greasy cotton waste which form clear pungent smoke which is easily detectable by sight as well as by smell if leaking at any point of the drain.

13.6.2 WATER TEST :

The water test may be applied before the appliances are connected and may be carried out in sections so as to limit the static head to 4.5 metres.

13.6.3 The contractor will have to rectify all defects traced in such tests at his own expense to the satisfaction of the Executive Engineer.

13.7. PAINTING :

All the exposed C.I. pipes and fittings shall be painted with two coats of oil paint of approved quality, manufacture, colour and shade to match the surroundings. The cost of such painting should be included in the contractor's rates.

13.7.1 The surface of the pipes and fittings to be painted shall be cleaned thoroughly. Red oxide or other approved primer shall be painted and allowed to dry. The finishing shall be done by painting 2 or more coats with paints in an approved colour and shade.

13.8 On no account shall lime mortar or lime concrete come in direct contact with C.I. pipes.

14. ASBESTOS CEMENT RAIN WATER, SOIL, WASTE AND VENT PIPES AND FITTINGS :

14.1 PIPES AND FITTINGS :

Asbestos Cement Rainwater, soil, waste and vent pipes and fittings shall conform to the latest Indian Standard Specifications for these types of pipes. The pipes shall have spigot and socket ends. The access door fittings shall be of proper design so as not to form any cavities in which filth may accumulate. Doors shall be provided with 3mm rubber insertion packing and when closed and bolted they shall be water, light and airtight.

14.2 THICKNESS AND SIZES :

The standard thickness and sizes with permissible tolerance of the dimension for pipe and fittings shall be as given below

Nominal diameter Variation in of pipe of Fitting mm	Thickness of pipe or Fitting mm	Permissible variation in thickness mm	Permissible variation External Diameter. mm
50	6.5	+/- 1.0	+/- 1.5
60	6.5	+/- 1.0	+/- 1.5
80	8.0	+/- 1.0	+/- 1.5
90	8.0	+/- 1.0	+/- 1.5
100	8.0	+/- 1.0	+/- 1.5
125	9.5	+/- 1.0	+/- 2.5
150	9.5	+/- 1.0	+/- 2.5

14.3 **FIXING :**

The pipes and fittings shall be fixed to walls at least 5 cm clear by using proper holder bats weighing 1 to 1½ Kgs each. The spigot end shall be abut the shoulder of the socket and leave no annular space in between. All soil pipes shall be carried up above the roof and shall have an A.C. Cowl . The bends in the bottommost soil or waste stack shall necessarily be of C.I. long radius and preferably made of two 135 Degree C.I bends Connections between main pipe and the branch pipes shall be made by using proper branches and bends invariable with access doors for cleaning .

14 Jointing: A.C. pipes shall be jointed with cement Mortar Joints 1:1 as described for Cast iron pipes.

14.4 Testing : The joints of Pipes shall be tested by smoke test and water test as described for Cast iron pipes.

14.5 Painting : A.V. Pipes shall be painted to match the surroundings and rates quoted shall included to cover the same.

15. **LEAD PIPES :**

15.1 Lead Pipes : All lead pipes shall be hydraulic drawn and of equal substance throughout and shall conform to the relevant I.S. Specifications. When not supported on bearers, all lead pipes shall be supported by strong lead tracks at least 40 mm wide soldered on to the pipes at suitable intervals .The Size and weights of these pipes for flushing and soil, waste and ventilating pipes shall be given.

15.2 WIPED SOLDER JOINTS :

All joints of lead pipes shall be wiped solder joints as described below :

The pipe ends to be jointed shall be cleaned with a wire brush and freed from oxide if any. Chalk shall then be rubbed to kill the greasy nature of the lead. After this, plumbers black shall be applied. The length of the joint as given below shall then be marked on the pipe. a fine shaving of lead shall be removed from this length with a shave hook. Tallow shall then be smeared over the prepared surface. The molten solder, an alloy composed of 3 parts of tin and 7 parts of lead, shall be poured in a thin stream from a ladle moved in an elliptical direction over the joint position including a portion of the coiled pipe at each end beyond the mark. When sufficient solder has been poured the joint shall be wiped with a pad of wiping cloth with long continuous movements in one direction only so as to leave a neatly formed elliptical shaped joints. Surplus solder remaining on the joint shall be removed with a tool called "draw of".

15.2.1 The minimum and maximum length of the wiped solder joint shall be 8 cm & 9cm respectively.

15.2.2 The joints shall be watertight, airtight and shall be free from tears, burrs, strings, rebinds or droppings.

15.3 CLEANING ACCESS :

Brass screw cleaning access shall be provided on lead pipe wherever necessary and directed Rates quoted shall include for the above.

15.4 LEAD PIPE CONNECTION :

The joints between lead pipe and C.I. or stoneware pipe shall be made as under:

Where any stoneware or C.I. pipe or trap is connected with a lead soil, waste, or vent pipe or trap, there shall be inserted between the two, a 4.5 mm thick brass ferrule or thimble 150 mm long which shall be slipped into or over the lead pipe and jointed to it by means of a wiped solder joint. The other end of the ferrule shall then be inserted into the socket of the cast iron or stoneware pipe. In the case of former, the joint shall be made with molten lead (9 lead caulked) and in case of the latter with cement mortar 1:1 as in stoneware pipe drains.

15.4.1 The joints between outgo of a W.C. pan and a lead pipe shall be made as under :

The lead pipe shall be slipped into a brass thimble or socket and jointed to it by a wiped solder joint. The outgo of a W.C. pan shall then be inserted into the socket and jointed by using cement mortar as in stoneware pipe drains.

15.5. PAINTING :

All exposed lead pipes shall be painted as in cast iron pipes and fittings. The cost of such painting should be covered in the contractor's rates.

16. PLUMBERS BRASS WORK AND WATER AND WASTE FITTINGS :

16.1 General : Generally, the whole of plumbers brass work or gunmetal fittings shall be of heavy quality and approved manufacture and pattern. They shall in all respects comply with the latest Indian Standard specifications. Brass castings for valves, unions, thimbles, ferrules, taps, traps, waste etc., shall be in all respects sound and good, free from laps, blow holes fittings, plugs, burns stops or patches. The fittings shall be fixed in the pipe line in a workman like manner. Care shall be taken to see that joints between fittings and pipes are made leak proof. The fittings and joints shall be tested to a pressure of 20 kg. per sq. Cm. unless otherwise specified. The defective fittings and the joints shall be required, redone or replaced Brass work requiring connection to lead pipes shall have tinned ends.

16.2 Screws down bib and stop taps : These shall be of cast brass of bronze, or 'polished bright' or 'chromium plated' finished and of size as specified and shall conform to I.S. 781.

16.2.1 Unless otherwise indicated, the minimum finished weights of bib taps and stop taps shall be as given below :

Minimum finished weight in kg.

Size in mm	Bib taps	Stop taps
15	0.40	0.40
20	0.75	0.75
25	1.25	1.30
32	-	1.80
40	-	2.25
50	-	3.85

16.2.2 Washers for cold water taps shall be of selected leather, rubber asbestos composition or of plastics as directed. Washers for hot water taps shall be of good quality fibre or rubber asbestos composition as directed.

16.3 Pillar Taps : Pillar Taps shall be of cast brass of chromium plated finished and of size as indicated and shall conform to I.S. 1795. Washers shall be of materials as for bib taps and stop taps.

16.3.1 Unless otherwise indicated the minimum finished weights of pillar taps shall be as given below :

Size in mm	Minimum finished weight in kg.
15	0.60
20	1.00
25	1.50

16.3.2 Ball valves : Ball valves shall be of high pressure type, made of (excluding the float or ball) brass of size indicated and shall conform to IS : 1703. The float shall be of copper sheet or polythene as indicated. unless otherwise indicated, the minimum finished weights of ball valves exclusive of the float) and those of copper floats shall be as below :

Nominal size in mm	Weight in kg.		Diameter of float in mm
	Ball valve exclusive of float	Copper	
15	0.30	0.22	127
20	0.47	0.32	152
25	0.87	0.68	203
32	1.20	0.92	229
40	1.65	1.05	254
50	1.92	1.53	305

16.4.1 The minimum thickness of the copper sheet used for making floats shall be 0.55 mm.

16.5 Siphon traps (Galvanized malleable iron or brass) : Traps for lavatory basins, sinks and baths shall be of C.P. brass unless otherwise specified or G.I. of approved manufactures. Traps for lavatory basins and sinks shall have one inspection eye, fitted with screw plug and washer, while for baths the traps shall have 2 branches screwed externally, one of which shall be fitted with washered cap and other with a vent tail pipe and union nut for overflow connection. A loose coupling nut shall be fitted to the inlet for coupling to the waste and the outlet shall be either plain tails for lead pipe or screwed with pipe thread and provided with union tail and pipe.

- 16.6** Waste fittings : Waste fittings shall be brass chromium plated conforming to I.S. 2963. Sink waste shall be of 40 mm bore and wash basin waste shall be 32 mm bore, unless otherwise specified.
- 16.7** Waste plug and accessories : Waste plug shall be of hard rubber or other equally suitable material and shall conform to IS : 3311. The depth and thickness of the plug shall be such as to provide the required rigidity and water tightness. Each waste plug shall have a loose shackle. The shackle and other metal components shall be of corrosion resistant material.
- 16.7.1** Plug chains shall be made of brass or bronze wire, of diameter not less than 1.80 mm, with brazed oval links approximately 13mm in length.
- 16.7.2** Chain stays shall be of brass or bronze and shall be of bolt or screw type as indicated.
- 16.8** **LEAD TRAPS** :
- These shall be of size and pattern as indicated. The weights of lead sheets used in manufacture of traps shall be not less than 30 kg/sq.m.
- 16.8.1** The traps shall be supplied with brass screw caps, the screw of which shall be lead burnt or soldered to the trap with a well reinforced joint. Neither the screwed end of the cap, when screwed home, nor the sleeve shall protrude beyond the inner surface of the trap. A washer to render the cap water-tight shall be supplied with every cap.
- 16.9** **GATE VALVE** :
- The Valves used for cold water services shall be of gunmetal and conform to Class - I type of IS 778. For hot water installations Class - II valves shall be used. The gate valves shall be the full way opening type with a metallic hand wheel fixed on the head of the spindle. The valves shall have screwed or flanged ends as approved by the Executive Engineer.
- 16.10** Globe valves (screw down stop valves) : These shall be of gunmetal Class - I type for cold water services conforming to I.S. 778 unless otherwise specified. The valves shall have screwed or flanged ends as directed. The valves shall be provided with metallic hand wheel fixed on the head of the spindle.
- 16.11** Check (non return) valves : These shall be of gun metal Class – I type for cold water services conforming to I.S. : 778, unless otherwise specified. The valves shall have screwed or flanged ends as directed. They shall be suitable for horizontal or vertical use as directed.
- 16.12** **FOOT VALVES** :
- Foot valves shall be of swing or lift type and provided with brass strainer and conform to the requirements of I.S. : 4038. The ends shall be screwed or flanged as directed.

16.13 FLOOR TRAPS :

The traps shall be of Cast Iron and self cleaning design. The traps shall be of specified size and fitted with a hinged C.P. or Cast iron grating as specified.

- 16.13.1** The grating shall be fixed flush with the floor while the trap shall rest on a 1:6 cement mortar bed.
- 16.13.2** When one pipe or single stack system of plumbing is employed it shall be essential to provide deep seal Cast iron floor traps of effective water seal 50mm complying with the requirements of Indian Standard specification.

17. WATER TANKS :

- 17.1** Water Tanks : Hoisting of readymade mild steel galvanized Iron, RCC or Asbestos Cement water tanks into position shall be carried out with proper tackle, care being taken that no part of the tank or of the structure is damaged with operation. The tanks shall be installed truly level. Steel tanks of capacity up to 1800 litres (Mild steel or Galvanised iron or specified) shall be of 3.2 mm thick sheet reverted to 32mm x 32mm x 6mm angle iron frame complete with MS cover and frame weighing 15 kg. with locking arrangement including providing pads of size as required for inlet and outlet pipes G.I. overflow pipe piece with mosquito proof couplings and scour pipe with backing nut of required size shall be also provided. Supports for tanks shall be provides as specified shall be measured and paid for separately.
- 17.1.1** Molded P.V.C. Water Tanks : Polyethylene water storage tanks shall be one piece molded in single wall construction without any seams, welds or joints from F.D.A approved grades of High Density polyethylene (HDPE) and of approved manufacture . The tank should satisfy the tests of safe storage of drinking water (Portability) and necessary test certificates from approved test laboratory should be produced for test of portability of water stored in tanks. The water tanks shall be of specified capacity and cylindrical vertical /Horizontal type with closed tops as specified in schedule of quantities The tanks should be provided with double seal mosquito proof light duty manhole cover with locking arrangements of diameter not less than 400 mm and shall be provided with G.I. fittings like inlet outlet for water connections wash out overflow with mosquito proof P.V.C. coupling brass ball cock with P.V.C coupling brass ball cock with PV.C. Floats all of specified sizes. The tanks shall be hoisted and installed in position as per manufactures instructions manual and shall comply with the local municipal regulations. No leaks whatsoever shall be around the insert of water connection like inlet/ outlet pipe wash out etc. or any part of the body of the tank after the tank is filled with water to its full capacity.

The rates quoted shall include for :

- (1) Hoisting and installation in position

- (2) providing and fixing all fixture and fittings like G.I. inlet ,outlet overflow with mosquito proof P.V.C. coupling, wash out brass ball cock with polyethylene float, all of specified sizes.
- (3) Manhole cover double seal mosquito proof of specified sizes.
- (4) Leakage test for the tank by filling water to full capacity after installation and completing all water supply connections.

17.2 PIPE INSERTS :

GI pipe inserts to be kept in position for outlets, washouts and inter connection of tanks while casting RCC water tanks shall be of the specified size and diameter and shall be threaded throughout its length. A 150mm x 150mm MS plate 6mm thick shall be welded centrally on to the threaded body of pipe as directed. Rates quoted shall include for the same.

17.3 OVERFLOW PIPES :

Overflow pipe inserts for tanks shall be of the specified size and diameter with an approved mosquito proof coupling and rates quoted shall include for the same.

17.4. All Water Supply & Sanitary Installation work is to be carried out as per above given specification or LIC's standard builder's work specification.

LIFE INSURANCE CORPORATION OF INDIA

LIST OF PRINCIPAL MAKES / AGENCIES / BRANDS OF VARIOUS MATERIALS

1. Materials used in the work should be from the following list of principal makes/ brands. In case of non-availability of these makes/brands, Chief Engineer shall allow materials licensed by BIS bearing "ISI" monogram at par with principal makes.
2. For all other manufactured materials for which principal makes are not mentioned the materials allowed to be used in the work shall have BIS certification and samples for which are to be got approved prior to use of the same in the work.
3. For some materials BIS certification may not be available. In such cases the samples shall have to be got approved before using in the work.

SI. No	MAKES / AGENCIES / BRANDS	SI. No.	MAKES / AGENCIES / BRANDS
1.	GI PIPES	2.	GI PIPE FITTINGS
	a. Jindal		a. R-Brand
	b. Zenith		b. K.S.Brand
	c. Apollo		c. Zoloto
	d. GST		d. RR
	e. Prakash		e. SSS
	f. QST		f. NMC
3.	COPPER PIPES / TUBES	4.	MULTI LAYER COMPOSITE PIPES
	a. Rajco Metal Industries		a. Ki TEC
	b. B.P.Conex		b. Kisan
	c. Comap		c. Flowguard CPVC Astral
5.	PVC PIPES AND FITTINGS	6.	UPVC (UNPLASTICIZED PIPES & FITTINGS)
	a. Chemplast		a. Prince
	b. Prince		b. Supreme
	c. Supreme		c. Paras
	d. Finolex		
	e. Oriplast		
7.	GATE VALVES, GLOBE VALVES	8.	FOOT VALVES , CHECK VALVES
	a. Leader		a. Kirloskar
	b. Kirloskar		b. Leader
	c. Zoloto		c. Ashoka
	d. Orient		
9.	WATER METERS	10	FERRULES
	a. Capstan		a. Leader

	b. Anandaasahi		b. Hindco
	c. Dasmesh		c. Neta
	d. Remco		d. Annapurna
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
11	BIB COCKS, STOP COCKS, PILLAR TAPS ETC.	12	LOW LEVEL FLUSHING CISTERNS (PVC / CERAMIC)
	a. Jaguar (Continental Series)		a. Parryware
	b. Marc (Oriental Series)		b. Cera
	c. Essco		c. Hindware
	d. ARK		d. Commander
	e. GEM		
13.	VITREOUS SANITARY WARE LIKE IWC, WASH BASIN, URINALS, EWC ETC.	14.	PLASTIC SEAT AND COVER
	a. Parryware		a. Commander
	b. Cera		b. Parryware
	c. Hindware		c. Bestolite
	d. Neycer		d. Duroshine
15.	BATHROOM FITTINGS	16.	CI PIPES & FITTINGS
	a. Jaguar (Continental Series)		a. Hind
	b. ESSCO		b. BIS
	c. Gem		c. BIC
	d. ARK		d. NECO
	e. Marc (Oriental Series)		
17.	CI NAHANI TRAP	18.	SW PIPE
	a. BIC		a. HIND
	b. SKF		b. PERFECT
	c. NECO		c. BURNS
	d. RAJCO		
19.	PVC CABINET MIRROR	20.	SLUICE VALVE
	a. Commander		a. Leader
			b. Kirloskar
21.	HDPE / LDPE / LLDPE WATER STORAGE TANKS	22.	CERAMIC / GLAZED TILES
	a. Sintex		a. Nitco
	b. Polycon		b. Kajaria

	c. G&P		c. Euro
			d. H. R. Johnson
			e. SOMANY
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
23.	VITRIFIED TILES	24.	PLY WOOD(BWR) BLOCK BOARD
	a. Nitco		a. Kitply
	b. Kajaria		b. Archid
	c. RAK		c. Green Ply
	d. EURO		d. Century Ply
	e. SOMANY		e. Bhutan Board
			f. Sharon
			g. Anchor
			h. Swastik
			i. National
25.	FLOAT GLASS	26.	PVC DOORS & DOOR FRAMES
	a. Saint Gobain		a. Rajshri
	b. Modi Guard		b. Sintex
	c. Triveni Sheet Glass		c. Supreme
	d. Indo Asahi Glass Co.		
	e. Tata		
	f. Atul		
27.	ALUMINIUM EXTRUDED SECTIONS	28.	STAINLESS STEEL KITCHEN SINKS
	a. Hindal		a. Nirali
	b. Jindal		b.Farnkee
	c. Indal		c. Jayna
	d. Hindalco		d. Diamond
			e. Neelkanth
29.	PRE - LAMINATED / VENEERED PARTICLE BOARD	30.	FLUSH DOOR SHUTTERS
	a. Novopan		a. Kutty Flush Doors
	b. Green Lam		b. Century
	c. Kitlam		c. Green Ply
	d. Archid Lam		d. Shiva Hari Ply wood Ltd. (Corbett)

	e. Swastik		e. Anchor Ply
			f. Swastik Ply
			g. Western India
			h. Parvathi Wood
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
31.	DECORATIVE LAMINATES	32.	FLOOR SPRINGS
	a. Green Lam		a. Everite
	b. Merino		b. Hardwyn
	c. Sunmica / Formica		c. Efficient Gadgets
	d. Century		d. Garness
	e. Durian		e. Dormer
	f. Sundek		
	g. Anchor		
	h. Decolam		
33.	VENEERS	34.	MDF BOARDS
	a. Decowood		a. Duratuff
	b. Euro Veneers		b. Nuwud
	c. Durian		c. Century
	d. Green Lam		d. Novopan
			e. Kitply
			f. Green Ply
35.	ADHESIVES	36.	WOOD PRESERVATIVES
	a. Fevicol-SH		a. Bison
	b. Araldite		b. Godrej
	c. Ciba Giegy		c. Kot
	d. Mowool -HV of Mafatlal		
37.	HARDWARE FITTINGS	38.	DOOR CLOSERS
	a. Jyoti		a. Everite
	b. Argent		b. Hardwyn
	c .C.I.E.F.		c .Efficient Gadgets
	d. Classic		d. Ebco
	e. Everite		e. Dorma
	f. Metaco India		f. Garness
	a. JH Alumium		
	h. PV Radhakrishna		
	i. Etalia		
	j. Hardwin		
39.	DRAWER SLIDERS	40.	LOCKS
	a. Efficient Gadgets		a. Godrej

	b. EBCO		b. Golden
	c. Etahoa		c. Efficient Gadgets
	d. Sisco		d. Mark
			e. Sheet
			f. Vision
			g. Dorma
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
41.	MIRRORS	42.	WATER PROOFING COMPOUND
	a. Atul		a. Impermo
	b. Sun		b. Cico
	c. Commander		c. Pidilite
	d. Saint Gobain		d. Roff
	e. Globe		e. Choksey
	f. Modi Guard		f. Hindustan Ciba Gaigey
			g. Accoproof
			h. Sika
			i. Fosroc
43.	STEEL WINDOWS AND VENTILATORS	44.	AC PIPES / SHEETS
	a. Agew Steel Mfg Co. Ltd.		a. Charminar
	b. Sen Harvic		b. Everest
	c . Hopes		c. Visakha
	d. Diana Casements		d. Orient
	e. Madhu Industries Bangalore		e. Ramson
	f. Mulltiwin Unique Metal Windows		
	g. Ankur Industries		
	h. Modern Fabricators		
45.	SPECIAL PROTECTIVE & DECORATIVE FINISH	46.	OIL BOUND DISTEMPER
	a. Snowcem Paints		a. Asian
	b. Asian Paints		b. Berger
	c. Berger		c. Jenson & Nicholson
	d. Jenson & Nicholson		d. ICI
	e. Kansai- Nerolac		e. Kansai-Nerolac
	f. ICI		f. Godawari
	g. Godawari		
47.	CEMENT PAINT	48.	SURFACE TEXTURE
	a. Snowcem Plus		a. Heritage (Bakelite Hylam Ltd.)
	b. Berger		b. Spectrum
	c. Asian		
	d. Jenson & Nicholson		

	e. Kansai – Nerolac		
	f. ICI		
	g. Godawari		
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
49.	TEXTURED PAINT	50.	ENAMEL PAINT / PRIMERS / READY MIXED PUTTY FOR WOOD WORK, IRON & STEEL
	a. Snowcem India Ltd.-Santex matt		a. Asian
	b. Asian		b. Berger
	c. Jenson & Nicholson		c. Jenson & Nicholson
	d. Berger		d. Kansai – Nerolac
	e. Kansai – Nerolac		e. ICI
			f. MRF
			g. Godawari
51.	WALL PUTTY	52.	EXTERIOR EMULSION
	a. Birla wall care		a. Asian Paints-Apex
	b. Snowcem paints		b. Berger Paints
	c. JK		c. Kansai – Nerolac
	d. Asian Paints		d. MRF
			e. Jenson & Nicholson
			f. ICI
			g. Godawari
53.	CEMENT CONCRETE PIPES	54.	EXPANSION JOINT BOARD
	a. The Indian Hume Pipe		a. Shalimar Tar Products
	b. Premiere Pre-stressed Co.		b. Lloyds insulations
			c. Fosroc
			d. Shalitex
55.	FALSE CEILING	56.	VERTICAL BLINDS
	a. Indian Gypsum		a. Vista Levlor
	b. Armstrong		b. Trac
	c . Daikin		c. Mac
	d. QED Panels		d. MARVEL
	e. Insula		
57.	ADHESIVE FOR TILE FIXING	58.	PAVING TILES
	a. Roffe		a. Eurocon
	b. Bal endura		b. Ultra
	c. Cera Bond		c. Duracrete
	d. Fosroc		

	e. Choksey Chemicals		
	f. Dr.Fixit		
	g. Sika		
	h. Sunanda		
Sl. No	MAKES / AGENCIES / BRANDS	Sl. No	MAKES / AGENCIES / BRANDS
59.	PVC FLOORING	60.	VINYL FLEXIBLE FLOORING
	a. Flora		a. Wonder Floor
	b. Armstrong		b. Armstrong
			c. BHOR
			d. Rikvin
			e. Tusker
61.	FIBRE GLASS DOORS	62.	SS / CP FRICTION HINGES
	a. Master craft		a. Ebco
			b. Jyoti
			c. Everest
			d. Magnum
63.	SOFT BOARD	64.	SCREW
	a. Jolly Board		a. Nettlefold
			b. GKW
65.	FIBRE REINFORCED COMP.DOOR		
	a. Loknath Unique		



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

E-MEASUREMENT SHEET

Bill No:

Annexure-A1

Item no	Description of item	Unit	No	Length	Breadth	D/H	Qty	Remarks / Notes.
i	Name of the work							
ii	Agreement No & date / Contract Ref:							
iii	Name of the Construction Associate & address							
iv	Name and Designation of LIC measurer with S.R. No.							
v	Period of measurement							
vi	Name of the Construction Associate's authorised Engineer/s attending measurement. Authorisation letter ref:							

Signature of Construction Associate's Engineer. (Name)

Signature of LIC Site Engineer (Name & S.R. No)

Signature of LIC Test Checking Engineer (Name & S.R. No)



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

E-MEASUREMENT SHEET (Reinforcement)
R.A. BILL..... / FINAL BILL

Annexure-A2

- i) Name of the work
- ii) Agreement No & date / Contract Ref:
- iii) Name of the Construction Associate & address
- iv) Name, Designation of LIC measurer with S.R. No
- v) Period of measurement
- vi) Name of the Construction Associate's authorised Engineer/s attending measurement.
- Authorisation letter ref:

Location Description and size of RCC Member.	1	2	3	4	5	6	7	8	Diameter of bars and Total length as per column 7									
									9	10	11	12	13	14	15			
Number of RCC members																		
Sketch of reinforcement bar and position in RCC member if possible to draw.																		
Reinforcement bar as marked on the drawing / Position of bar																		
Number of bars																		
Length of bars																		
Total length of bars, col (2)x(5)x(6)																		
Remarks																		

Signature of Construction Associate's Engineer.
(Name)

Signature of LIC Site Engineer
(Name & S.R. No)

Signature of LIC Test Checking Engineer
(Name & S.R. No)





भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

ABSTRACT SHEET
A/C R.A. BILL / FINAL BILL

Annexure -B

- i Name of the work
- ii Agreement No & date / Contract Ref.
- iii Contract Amount :
- iv Name of the Construction Associate & address:
- v Name, Designation of LIC measurer with Sr. No.
- vi Period of measurement :
- vii Name of the Construction Associate's authorised Engineer/s attending measurement. Authorisation letter ref:
- viii Date of Submission :

SI No	T. Item No	Description of Item	Unit	Tender Qty	Qty up to previous Bill	Qty in this Bill	Cumulative Total Qty	Rate in Rs.	Amount in Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)=(6)+(7)	(9)	(10)=(8)X(9)

Note: For any inadvertent deviations in Item Description, unit or Rate after importing the file, the original contract document will prevail upon

Authorised Signatory of Construction
Name & Designation



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE -DEHRADUN

ARC-2023-24

DRAFT INVOICE

Annexure - C

CONSTRUCTION ASSOCIATES NAME AND ADDRESS, GST NO....., STATE CODE PAN NO.....

To,

....., LIFE INSURANCE CORPORATION OF
INDIA,..... OFFICE

LIC GST NO.....

STATE CODE :.....

INVOICE NO.:

DATE:

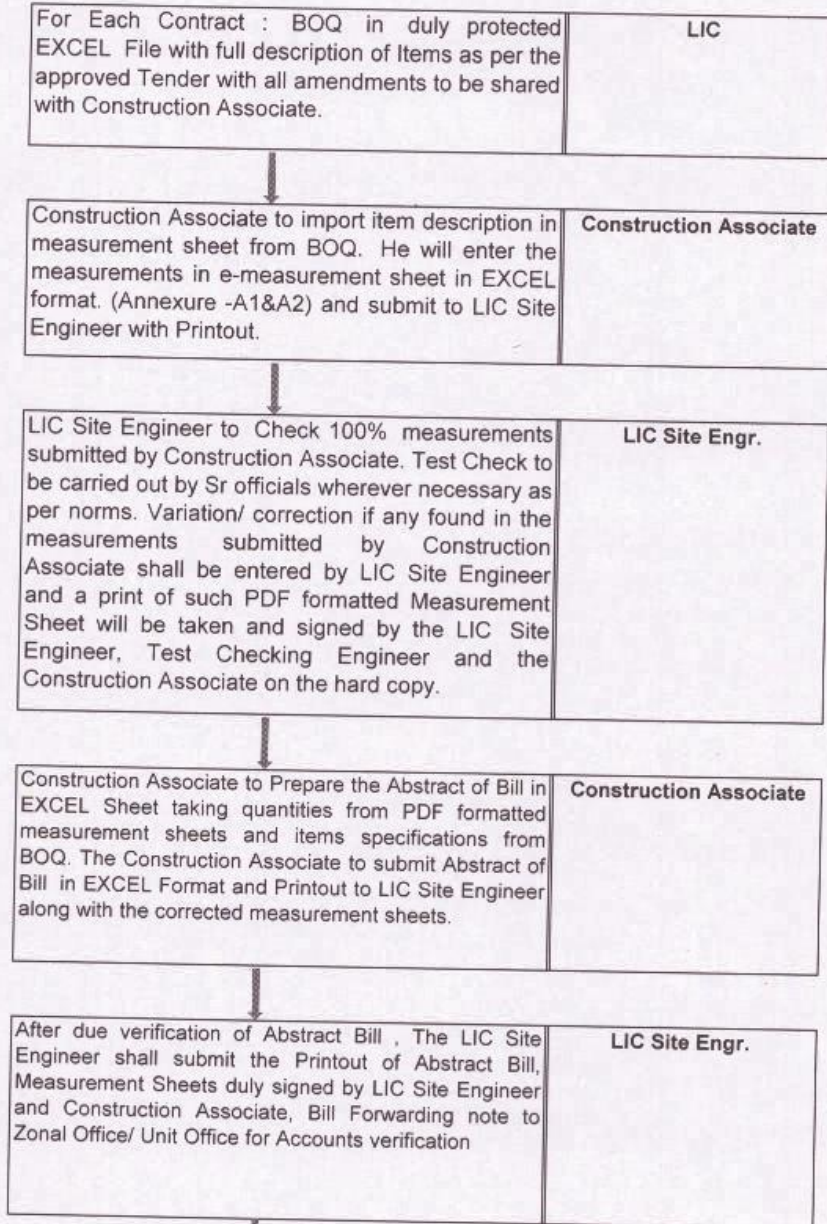
REF OF WORKORDER :

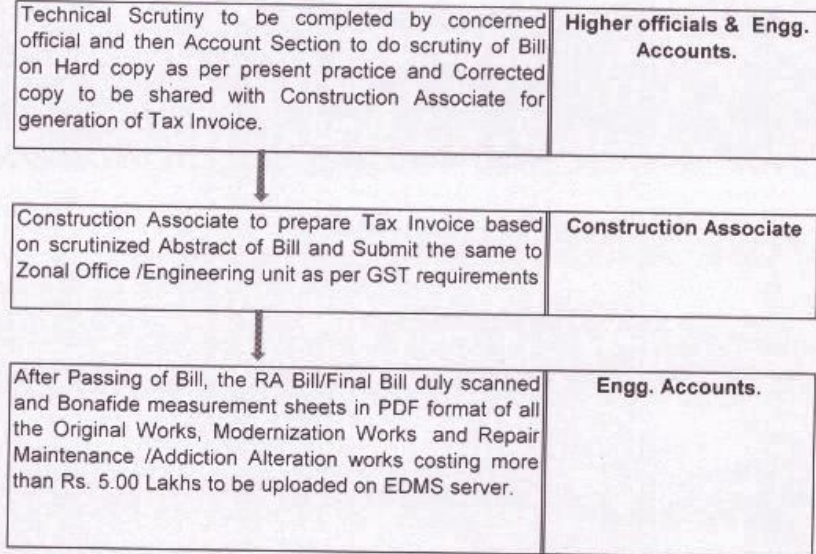
NAME OF WORK:

Sl No (1)	T. Item No (2)	Description of Item (3)	Unit (4)	Tender Qty (5)	Qty up to previous Bill (6)	Qty in this Bill (7)	Cumulative Total Qty (8)=(6)+(7)	Rate in Rs. (9)	Amount in Rs. (10)=(8)X(9)

Date of Submission :

Authorised Signatory of
Construction Associate
Name & Designation

Annexure-D
FLOWCHART OF e-MEASUREMENT PROCESS.
ACTION BY
**MASTER
FOLDER**




भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

Bank Account and other Details

TO be submitted along with Tender

S. No.	Particulars	
1	Name of Company / Firm / Entrepreneur Institute etc.	
2	Address Phone Number Mobile No E mail	STD Code.....No.....
3	Bank Account Details: a) Name of the Bank b) Account No c) Type of Account d) IFSC / RTGS Code (Enclose Copy of Cancelled Cheque)
4	PAN No*	
5	GST No*	
I declare that the above furnished information is correct. During the contract period, if any changes took place in the above said information, the same shall be informed wit the valid reasons.		

*Self attested copies to be enclosed.

SIGNATURE with Seal of the firm



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL OFFICE –DEHRADUN

ARC-2023-24

Tender for Annual Rate Contracts for Civil work, Wood Work & Painting Work for LIC Properties in Dehradun for the year 2023-24			
Item No.	Description	Unit	Rates
	EARTHWORK		
C-1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil asdirected, within a lead of 50 m. ALL KIND OF SOIL	Cum	180.00
C-2	Extra for every additional lift of 1.5 m or part thereof in excavation / bankingexcavated or stacked materials. All kinds of soil	Cum	92.00
C-3	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	223.00
C-4	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5 kms also including ramming and watering of earth in layers not exceeding 20cmm in trenches, plinth, sides of foundations, etc. complete.	Cum	323.00
C-5	Supplying and filling in plinth with sand under floors, including watering,ramming, consolidating and dressing complete.	Cum	1895.00
C-6	Removing of unwanted plants from brick work / R.C.C slab from its roots pouring of approved quality acid and repairing the same portion with brick work / R.C.C asper requirement for all girth and for all heights	Each	185.00
C-7	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	13.00
C-8	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared and disposing of the same to contractors own dump outside the work site.	Sqm	7.00
C-9	Grassing with "DOOB" grass including watering and maintenance of the lawn for 30days or more till the grass form a thick lawn free from weeds and fit for mowing including supplying of good earth if needed (the good earth shall be paid seperately) in Rows 7.5 cm apart in either direction	Sqm	48.00
C-10	Spreading the sludge, dump manure or / and good earth in required thickness (cost of sludge , dump manure or / and good earth to be paid seperately)	sqm	24.00
	ANTI TERMITE TREATMENT		
C-11	Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos/ Lindane emulsifiable concentrate of 20%	Litre	176.00

Item No.	Description	Unit	Rates
C-12	Diluting and injecting chemical emulsion for POST-CONSTRUCTION anti-termite treatment (excluding the cost of chemical emulsion) :		
a	Along external wall where the apron is not provided using chemical emulsion @ 7.5litres / sqm of the vertical surface of the substructure to a depth of 300 mm including excavation channel along the wall & rodding etc. complete: With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	mtr	28.00
b	Along the external wall below concrete or masonry apron using chemical emulsion @ 2.25 litres per linear metre including drilling and plugging holes etc.: With Chlorpyriphos/ Lindane E.C. 20% with 1% concentration	mtr	39.00
c	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 :2 (1 cement : 2 Coarse sand) to match the existing floor: With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	mtr	225.00
d	Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1cement : 2 coarse sand) to the full depth of the hole : With Chlorpyriphos/Lindane E.C. 20% with 1% concentration	mtr	31.00
e	Treatment at points of contact of wood work by chemical emulsion Chlorpyriphos/Lindane (in oil or kerosene based solution) @ 0.5 litres per hole by drilling 6 mm dia holes at downward angle of 45 degree at 150 mm centre to centre and sealing the same.	mtr	226.00
C-13	Damp proof course with water proofing compound 50mm thick 1:2:4 PCC (Zone-III sand) including applying one coat of bitumen@ 1.75kg. per Sqm. including side shuttering, using 12mm & down aggregates.	Sqm	510.00
C-14 a	Providing and laying cement concrete in retaining walls, return walls, walls (any thickness) including attached pilasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window sills, fillets, sunken floor etc., up to floor five level, excluding the cost of centering, shuttering and finishing : 1:2:4 (1 Cement : 2 coarse sand (Zone-III): 4 graded stone aggregate 20 mm nominal size from natural sources).	Cum	8220.00
C-14 b	-do- but including 25%Manufactured sand and 25%Recycled Coarse Aggregate	Cum	8005.00
C-15	P/ Laying PCC 1:4:8 excluding cost of centring & shuttering(1 Cement: 4 CoarseSand (Zone-III): 8 stone aggregate 40 mm down nominal size from natural sources) wherever required	Cum	5546.00
C-15 a	P/ Laying PCC 1:5:10 excluding cost of centring & shuttering(1 Cement: 5Coarse Sand (Zone-III): 10 stone aggregate 40 mm down nominal size from natural sources) wherever required	Cum	5305.00
C-15 b	-do- but manufactured sand RCA & 40mm CA from Recycled coarse aggregate	Cum	3893.00
C-16 a	P/ Laying Cement Concrete1:2:4 in position excluding cost of centring & shuttering(1 Cement: 2Coarse Sand (Zone-III): 4 stone aggregate 20 mm down nominal size from natural sources) wherever required	Cum	6458.00
C-16 b	-do- but 25% manufactured sand from RCA & 25% 20mm CA from Recycled coarse aggregate	Cum	6247.00
C-17 a	Providing and laying P. C. C. 1 : 3 : 6 (1 cement : 3 coarse sand (Zone-III) :6 stoneaggregate 20 mm and down gauge size from natural sources) where ever required & at all levels excluding the cost of centering, shuttering	Cum	5991.00
C-17 b	-do- but 25% manufactured sand from RCA & 25% 20mm CA from Recycled coarse aggregate	Cum	5100.00
C-18	P.C.C. 1:3:6, (1cement: 3coarse sand Zone-III:6 graded stone aggregate 20mm nominal size) 100mm thick in plinth protection broom finished with proper slope as directed including dressing of earth and joints 12mm. thick filled with bitumen and sand mix at intervals of 6.00 R.M. Rate to include cost of sides shuttering .	Sqm	614.00
C-18	P.C.C. 1:3:6, (1cement: 3manufactured sand: 6 graded stone aggregate 20mm nominal size RCA)100mm thick in plinth protection broom finished with proper slope as directed including dressing of earth and joints 12mm. thick filled with bitumen and sand mix at intervals of 6.00 R.M. Rate to include cost of sides shuttering	Sqm	517.00

Item No.	Description	Unit	Rates
C-19	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	7552.00
C-20	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :		
a i)	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III): 3 graded stone aggregate 20 mm nominal size).	Cum	7334.00
a ii)	-do- but 20% manufactured sand from RCA & 20% Recycled Coarse Aggregate	Cum	7173.00
b i)	1:2:4 (1 cement : 2 coarse sand (Zone-III) : 4 graded stone aggregate 20mm nominal size from natural sources).	Cum	6967.00
b ii)	-do- but using 20% manufactured sand and 20% Recycled Coarse Aggregate	Cum	6798.00
C-21 A i)	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size from natural sources).	Cum	8930.00
C-21 A ii)	-do- but 20% manufactured sand from RCA & 20% Recycled Coarse Aggregate	Cum	8790.00
C-21 B i)	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size) from natural sources.	Cum	9399.00
C-21 B ii)	-do- but 20% manufactured sand from RCA & 20% Recycled Coarse Aggregate	Cum	9238.00
C-22	Cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 40 mm nominal size) in pavements, laid to required slope and camber in panels as required including consolidation finishing and tamping complete. incl. Filling of grooves 12 mm wide for panel of not more than 9.00 sqm. with bitumen all complete as directed at site where ever required & at all levels excluding the cost of centering, shuttering	Cum	6978.00
CENTERING / SHUTTERING			
C-23	Centering and shuttering including strutting, propping etc. and removal of form for all heights :		
a)	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	270.00
b)	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	Sqm	587.00
c)	Suspended floors, roofs, landings, balconies and access platform, Shelves (Cast insitu)	Sqm	672.00
d)	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	533.00
e)	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	705.00
C-24	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level and above plinth. Thermo-Mechanically Treated bars of grade Fe-500 D or more	K.G	79.00

<u>BRICK WORK</u>			
Item No.	Description	Unit	Rates
C-25	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	5838.00
C-26	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	7267.00
C-27	Providing and laying 75 mm thick compacted bed of dry brick aggregate of 40 mm thick nominal size including spreading, well ramming, consolidating and grouting with jamuna sand, including finishing smooth etc. complete as per direction of Engineer-in-charge.	Sqm	172.00
C-28	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level: Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	893.00
C-29	Stone tile work for wall lining upto 10 m height with special adhesive over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand), including pointing in white cement with an admixture of pigment to match the stone shade. 8mm thick (mirror polished and machine cut edge)		
A	Granite stone of any colour and shade	Sqm	2345.00
B	Raj Nagar plain white marble/ Udaipur green marble/ Zebra black marble	Sqm	2058.00
C-30	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with sand,with common burnt clay non modular bricks	Sqm	643.00
C-31	Providing gola 75 x 75mm in cement concrete 1: 2 : 4 (1 Cement : 2 Coarse Sand : 4 Stone aggregate 10 mm and down gauge) including making chase and finishing with cement mortar 1:3 (1 Cement : 3 Fine Sand) as per standard design in 75 X 75 mm deep chase.	Metre	228.00
C-32	Providing precast cement concrete Jali 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 6 mm nominal size), reinforced with 1.6 mm dia mild steel wire, including centering and shuttering, roughening cleaning fixing and finishing in cement mortar 1:3 (1 cement: 3 fine sand) etc.complete, excluding plastering of the jambs, sills and soffits.		
a)	40mm thick	Sqm	1254.00
<u>STEEL WORK</u>			
C-33	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete: Fixed to openings /wooden frames with rawl plugs screws etc.	K.G	173.00
C-34	Providing and fixing 1mm thick M.S. sheet door with frame of 40x40x6 mm angle iron and 3 mm M.S. gusset plates at the junctions and corners, all necessary fittings complete, including applying a priming coat of approved steel primer. Using M.S. Flat 30x6 mm for diagonal braces i/c fixing of 6nos.hodfasts 250x35x3mm in pcc 1:2:4 blocks i/c locking arrangement ,sliding bolt, tower bolt,handles ,painting etc.	Sqm	4192.00
C-35	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required: In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	K.G.	125.00
C-36	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2 mm and braced with flat iron diagonals 20x5 mm size, with top and bottom rail of T-iron 40x40x6 mm, with 40 mm dia steel pulleys, complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	Sqm	8240.00

Item No.	Description	Unit	Rates
C-37	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters 80 x 1.20mm laths with 1.20mm thick top cover.	Sqm	2515.00
C-38	Providing and fixing ball bearing for rolling shutters.	Each	372.00
C-39	Extra for providing mechanical device chain and crank operation for operating rolling shutters Exceeding 10.00 sqm and upto 16.80 sqm in the area	Sq.M	972.00
C-40	Extra for providing grilled rolling shutters manufactured out of 8 mm dia M.S. bar instead of laths as per design approved by Engineer-in-charge. (area of grill to be measured)	Sq.M	587.00
C-41	Oiling & greasing of rolling / collapsible shutter, channel etc complete including removing of dust (if any) to make smooth functioning.	Sqm	89.00
C-42	Replacement of old MS spring and fixing new spring of size 22.5 cm long of grade 6 for rolling shutter including removing and refixing of shutter.	No.	493.00
a)	27.5 CM Long	No.	1032.00
b)	46 CM Long	No.	1375.00
C-43	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete	no.	163.00
C-44	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners, stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	Kg	537.00
C-45	Easing, oiling and cleaning steel window shutter/grill gate and repairing the locking arrangement if required.	Sqm	165.00
C-46	Removing the fabricated items and stacking the same in the premises as directed including mending good the damages :		
(a)	Rolling Shutters	Sqm	88.00
(b)	Collapsible Gate	Sqm	50.00
(c)	Metal windows/ doors with/ without shutters/ frame. (If frame is removed along with the shutter, only the measurement over the frame will be considered)	Sqm	37.00
(d)	Grills/ Gates	Sqm	28.00
	Note : For fixing of above items same rates will be allowed where necessary		
C-47	Hire charges for one day only for welding machine including cartage, taking lead from the electric main connection for welding of tanks etc. including labour i.e welder, helper etc. complete.	one item	825.00
	This item is to be operated on specific instructions of the Competent Authority.		
	PRIME COST ITEMS: Any hardware item if ordered to be purchased from market shall be paid as per paid voucher plus overheads.		0.25
C-48	Providing and fixing oxidised steel peg stay 300mm long for steel window .	No.	45.00

Item No.	Description	Unit	Rates
C-49	- Do- as item no above, but oxidised steel two point handle.	No.	68.00
C-50	Providing and fixing protruding steel hinges for steel shutters of door / window etc including removing and refixing the shutters if necessary.	No.	106.00
C-51	Providing and fixing MS members of steel frame / shutters by welding including taking out and refixing glass panes if required.	Kg.	138.00
C-52	Providing and fixing G.I Chicken wire mesh of size 20 mm X 26 gauge for ceiling plaster.	Sqm	246.00
C-53	Providing and fixing weld mesh of size 25 mm X 25 mm, 10 gauge including welding as well as carpentry as the case may be, to the satisfaction of Engineer -in - Charge.	Sq.M	479.00
C-54	Welding by gas or electric plant including transportation of plant at site etc complete	1 cm	3.00
C-55	Providing and fixing weld mesh of size 25mm x 50mm x 10 Gauge item includes welding as well as carpentry as the case may be, to the satisfaction of Engineer -in - Charge.	Sq.M	430.00
C-56	Providing and fixing weld mesh of size 25mm x 75mm x 10 Gauge item includes welding as well as carpentry as the case may be, to the satisfaction of Engineer -in - Charge.	Sq.M	400.00
C-57	Providing and fixing 16 mm M.S. Fan clamps of standard shape and size in existing R.C.C. slab, including cutting chase, anchoring clamp to reinforcement bar, including cleaning, refilling, making good the chase with matching concrete, plastering and painting the exposed portion of the clamps complete.	no.	409.00
C-58	Repairing works in Rolling shutter, Collapsible gate, Steel window, etc. will be executed after ascertaining nature of repairs, replacement of parts if involved and payment will be made on the following basis :		
	Repairing by cutting all rivets as necessary, dismantling by parts and reassembling all members including welding, straightening bent members, new riveting and fitting in position (cost of new parts will be paid separately)		
(a)	Collapsible Gate	Sq.M	258.00
(b)	Window Grill/ Railing	Sq.M	94.00
(c)	M. S. Gate	Sq.M	144.00
(d)	Rolling Shutter	Sq.M	94.00
C-59 A	Providing and fixing M.S. hold fasts of size 300 mm. X 30mm. X 5mm. To be fixed to the Wooden/RCC frames by means of suitable bolts & nuts and fixed in the jambs with P.C.C., 1:2:4 of suitable size (including the cost of concrete.)	No.	69.00
C-59 B	Providing and fixing M.S. hold fasts of size 150mm. X 30mm. X 5mm. To be fixed to be Wooden frames by means of suitable bolts & nuts and fixed in the jambs with P.C.C., 1:2:4 of suitable size (including the cost of concrete.)	No.	54.00
C-59 C	Providing & fixing 125 mm long coach screws to doors / window frames abutting R.C.C. columns and fixing the same with necessary rawl plugs / electric drill driven into column.	No.	63.00
C-60	Replacement of M.S. side guide rail/channel of 5 mm thick for rolling shutter in required height with locking arrangement including welding painting of required finish complete as directed	RM	825.00

Item No.	Description	Unit	Rates
C-61	Replacement of M.S. locking plate 2 mm thick in required height with locking arrangement for rolling shutter including welding painting of required finish complete as directed	RM	620.00
C-62	Replacement of shutter cover of 18 guage G.I. Sheet of required length and width with locking arrangement for rolling shutter including welding painting of required finish complete as directed	RM	1084.00
C-63	Replacement of G.I. Sheet laths of 18 guage and 8 cm wide inter locked together through their entire length and jointed together at the end by end locks and painting with 2 coats of synthetic enamel paint over 1 coat of zinc chromate primeretc. complete.	RM	443.00
C-64	Fencing with angle iron post placed at required distance embedded in cement concrete blocks, every 15th post, last but one end post and corner post shall be strutted on both sides and end post on one side only and provided with horizontallines and two diagonals interwoven with horizontal wires, of barbed wire weighing 9.38 kg per 100 m (minimum), between the two posts fitted and fixed with G.I. staples, turn buckles etc. complete. (Cost of posts, struts, earth work and concretework to be paid for separately). Payment to be made per metre cost of total lengthof barbed wire used.	RM	17.18
C-65	with spiral 600 mm dia including Y shape M.S angle (M.S section to be paid separately-- with 5 wire @ 150 c/c and spiral wire as per CPWD standards	RM	412.00
C-66	Patchwork with 3 mm MS plate including cutting into shape the patch in geometrical shape, removing old corroded sheet, if any, welding from outside around the patch etc. complete including welding, painting as directed.		
a)	Patch area above 0.02 sq. metres	Sq.M	3800.00
b)	Patch less than 0.02 Sq. mt. In one piece	Job	625.00
c)	-- do --- as above but with 5mm th. Plate		
d)	Patch area above 0.02 sq. metres	Sq.M	6600.00
e)	Patch area above 0.02 sq. metres	Job	680.00
C-67	Removing the fabricated items and stacking the same in the premises as directedincluding mending good the damages :		
a	Rolling Shutters	Sqm	71.00
b	Collapsible Gate	Sqm	45.00
c	Metal windows/ doors with/ without shutters/ frame. (If frame is removedalongwith the shutter, only the measurement over the frame will be considered)	Sqm	34.00
d	Grills/ Gates	Sqm	32.00

Item No.	Description	Unit	Rates
ALUMINIUM			
C-68 a	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	381.00
C-68 b	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) Anodised aluminium (anodised transparent or dyed to required shade according to IS: 1868, Minimum anodic coating of grade AC 15)	Kg	466.00
C-69 a	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : power coated aluminium (Minimum thickness of powder coating 50 micron)	Kg	409.00
C-69 b	For shutters of doors, windows & ventilators including providing and fixing hinges/pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) POWDER COATED aluminium (Minimum thickness of powder coating as 50 micron as detailed in above similar items for fixed portion of powder coated aluminium)	KG	495.00
C-70	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):		
a	With float glass panes of 4.0 mm thickness	Sqm	894.00
b	With float glass panes of 5.50 mm thickness	Sqm	1162.00
c	With float glass panes of 8 mm thickness	Sqm	1312.00
PLASTER			
C-71	12 mm cement plaster of mix : 1:4 (1 cement: 4 coarse sand)	Sqm	269.00
C-72	15 mm cement plaster on rough side of single or half brick wall of mix 1:4 (1cement: 4 coarse sand)	Sqm	310.00
C-73	18 mm cement plaster in two coats under layer 12 mm thick cement plaster 1:5 (1 cement : 5 coarse sand) finished with a top layer 6 mm thick cement plaster 1:6 (1 cement : 6 fine sand).	Sqm	388.00
C-74	6 mm cement plaster of mix : 1:3 (1 cement : 3 fine sand)	Sqm	222.00

Item No.	Description	Unit	Rates
C-75	Neat cement punning	Sqm	60.00
C-76	Providing and fixing double scaffolding system (cup lock type) on the exterior side, up to seven story height made with 40 mm dia M.S. tube 1.5 m centre to centre, horizontal & vertical tubes joining with cup & lock system with M.S. tubes, M.S. tube challies, M.S. clamps and M.S. staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for the required duration as approved and removing it there after .The scaffolding system shall be stiffened with bracings, runners, connection with the building etc wherever required for inspection of work at required locations with essential safety features for the workmen etc. complete as per directions and approval of Engineer in-charge .The elevational area of the scaffolding shall be measured for payment purpose .The payment will be made once irrespective of duration of scaffolding. (In case of Single scaffolding the rate will be halved).Note: - This item to be used for maintenance work judicially, necessary deduction for scaffolding in the existing item to be done. This item is applicable for the work on exposed or external surfaces of the building and to be carried out only after permission of the Dy Chief Engineer/ Superintending Engineer/ Executive Engineer.	Sqm	250.00
C-77	Jhoola charges for the work wherever required including helpers as required for one day (for special jobs)	job	357.00
FLOORING			
C-78	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete. 40 mm thick with 20 mm nominal size stone aggregate	Sqm.	478.00
C-79	Cement plaster skirting up to 30 cm height, with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement. 18 mm thick	Sqm.	500.00
	Providing / fixing the following materials of approved make , shade ,size and thickness in flooring / landing / midlanding / kitchen platform/ treads of steps etc. Over cement mortar bedding of average 20 mm thickness of C:M 1:4 including using the cement slurry, filling joints with white cement mixed with pigment of matching colour including rubbing , machine polishing (mirror polishing) etc. complete at all levels		
C-80	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand): 25 mm thick.	Sqm	1496.00
i.	18 mm (minimum) thick Raj Nagar plain	Sqm	1747.00
ii	18 mm (minimum) thick Udaipur Green Marble	Sqm	1842.00
iii	18 mm (minimum) thick Zebra black Marble	Sqm	2354.00
C-81 i.	18mm Granite of any colour and shade except cherry/ ruby red and black	Sqm	3427.00
C-81 ii.	18mm Granite of any shade but colour cherry/ ruby red and black	Sqm	2348.00
C-82	Providing and laying Ceramic glazed floor tiles of size 300x300 mm or above (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in all colours, shades, except White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick bed of cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigments etc., complete.	Sqm	971.00

Item No.	Description	Unit	Rates
C-83	Rectified jointless ceramic tiles of minimum group IV 1st quality 8mm (approx.) thick, minimum size 600 x 600 mm in cement mortar as mentioned above or with specified adhesive (Minimum Basic price Rs. 40/- per sq.ft.)	Sqm	1074.00
C-84	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc.,		
(a)	Size of Tile 600x600 mm	Sqm	1242.00
(b)	Size of Tile 800x800 mm	Sqm	1648.00
(C)	Size of Tile 1000x1000 mm	Sqm	2238.00
C-85	Deduct for not using 20 mm thick cement mortar 1:4 (1 cement : 4 coarse sand)bedding in laying of floor tiles and jointing with grey cement slurry @ 3.3kg/sqm	Sqm	645.00
C-86	Fixing glazed/ Ceramic/ Vitrified floor tiles with cement based high polymer modified quick-set tile adhesive (Water based) conforming to IS: 15477, in average 3mm thickness.	Sqm	556.00
C-87	Grouting the joints with white cement and matching pigment inthe items of fixingof vitrified tiles	Sqm	178.00
C-88	P/L Vitrified tiles with anti skid properties of minimum thickness as per manufacture and minimum size 600 x 600 mm conforming to IS 15622 of approved brand and manufacturer in all colours and shade laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS 15477 in average 6mm thickness, including grouting of joints (Payment for grouting of joints to be made separately. mortar as mentioned above or with specified adhesive (Minimum Basic price excluding GST= Rs.80/- per sq.ft.)	Sqm	1479.00
C-89	Providing and laying 2mm thick homogeneous vinyl flooring / skirting of approved colour and MARBLEX/ RICKVIN make venyl to in size not exceeding 450x450mm fixed with adhesive all as per manufacture's specification complete as directed.	SqM	878.00
C-90	Extra for marble stone flooring in treads of steps and risers using single length upto 2.00 metre.	Sqm	615.00
C-91	Providing /fixing the following materials of approved make, shade, size and thickness in Skirting / Dado /Cladding / Risers of steps etc. Over cement mortar bedding of average 12 mm thickness of C:M 1:4 including using the cement slurry, filling joints with white cement mixed with pigment of matching colour including rubbing , machine polishing(mirror polishing if required) etc. complete .		
a)	Kota stone slabs 20 mm thick in risers of steps, skirting, dado and pillars laid on 12 mm (average) thick cement mortar 1:3 (1 cement: 3 coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of the slabs, including rubbing and polishing complete.	Sqm	1787.00
C-92	Extra for pre finished nosing in treads of steps of Kota stone/ sand stone slab.	Metre	138.00
C-93	Extra for Kota stone/ sand stone in treads of steps and risers using single lengthup to 1.05 metre.	Sqm	32.00

Item No.	Description	Unit	Rates
C-94	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete	Sqm	823.00
C-95	Providing and fixing glazed screen printed border tile 75mm wide having thickness 5mm, of approved quality & make, in all shades, design and prints, in dado, over 12mm thick bed of cement mortar 1:3 (1 Cement : 3 Coarse sand) and jointing with grey cement slurry @ 3.3 kg/sqm including pointing with white cement mixed with pigment of matching shade, all complete as approved by Engineer - in - Charge.	Rmt	148.00
C-96	Providing edge moulding to 18 mm thick marble stone counters, Vanities etc., including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.		NIL
C-97	Marble work	Metre	215.00
C-98	Granite work	Metre	367.00
C-99	Rubbing & polishing of marble mosaic / marble stone flooring, dado with stone.	Sqm	90.00
C-100	Grouting of the joints of flooring tiles having joints of 3 MM width,with spacers & filling/grouting the joints by using epoxy grout mix of 0.70 Kg of organic coated filler of desired shade(0.10 Kg of hardener & 0.20 Kg of Resin per Kg), including filling/ grouting and finishing complete as per instructions of Engineer Incharge and as per approved pattern & design. Tile size 600 x600mm	Sqm	227.00
C-101	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.Upto 5mm depth and 5 mm width	Rm	62.00
ROOFING/SHEETS			
C-102	Providing and fixing asbestos sheet for ceiling wall etc. over existing frame work with polymer coated J, or L hooks, bolts & nuts 8 mm dia. G.I. plain & bitumen washers etc complete including taking out the damaged portion if any		
C-103	6 mm thick corrugated sheets	SQM	523.00
C-104	6 mm thick plain A.C. sheet	SQM	445.00
C-105	4 MM thick plain A.C. sheet	SQM	314.00
C-106	Providing and fixing corrugated Fibre sheet of 2mm thick of approved quality withnecessary nails etc. complete (frame work to be paid separately) of 2 mm thick	SQM	732.00
C-107	Providing and fixing polycarbonate sheet of 10 mm thick of approved quality withnecessary nails etc. complete (frame work to be paid separately)	SQM	1236.00
C-108	Providing and fixing Plain Fibre sheet of 2mm thick of approved quality withnecessary nails etc.complete (frame work to be paid separately) of 2 mm thick	SQM	588.00

Item No.	Description	Unit	Rates
C-109	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required. 1.00 mm thick with zinc coating not less than 275 gm/m ² .	Sqm	1158.00
C-110	Providing high impact Polypropylene reinforced cement 6 mm thick corrugated sheets (as per IS: 14871) roofing up to any pitch and fixing with polymer coated J, or L hooks, bolts and nuts 8 mm dia. G.I. plain and bitumen washers or with self drilling fastener and EPDM washers etc. complete (excluding the cost of purlins, rafters and trusses), including cutting sheets to size and shape wherever required	Sqm	405.00
C-111	Extra for providing and fixing wind ties of 40x 6 mm flat iron section	Rmt	144.00
C-112	Providing ridges or hips of width 60 cm overall width plain G.S. Sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.		NIL
C-113	0.63 mm thick with zinc coating not less than 275 gm/m ²	Rmt	658.00
C-114	Fitting / Fixing CGI/ AC sheets supplied by LIC including taking out old damaged sheets , scaffolding etc	Sqm	100.00
C-115	Providing and fixing plain multipurpose cement board (High pressure steam cured) with suitable screws for cement particle board in ceiling etc. complete (frame work to be paid seperately). 8mm tk as per IS 14862	Sqm	1060.00
C-116	6 mm thick Cement fiber board as per IS: 14862	Sqm	675.00
C-117	6 mm thick Cement bonded wood particle board as per IS:14276	Sqm	655.00
C-118	Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :		
a)	12.5mm thick tapered edge gypsum plain board conforming to IS: 2095- Part I	Sqm	1005.00

Item No.	Description	Unit	Rates
C-119	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified.		
a)	2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	Sqm	1034.00
b)	2 mm thick flat/Plain	Sqm	919.00
DISMANTLING			
C-120	Demolishing brick work In cement mortar manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.	CuM	1490.00
C-121	Removing mortar from bricks and cleaning bricks including stacking within a lead of 50 m (stacks of cleaned bricks shall be measured): From brick work in cement mortar	1000 nos	4842.00
C-122	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	49.50
C-123	Dismantling aluminium/ Gypsum/wooden partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus material and stacking of serviceable material as directed by Engineer-in-charge.	Sq.M	41.00
C-124	Dismantling tile work in floors and roofs laid in cement mortar including stacking material as directed by Engineer-in-charge.		
a)	For thickness of tiles 10 mm to 25 mm	Sq.M	53.00
b)	For thickness of tiles above 25 mm and up to 40 mm	Sq.M	82.00
C-125	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material as directed by Engineer-in-charge.	Sq.M	192.00
C-126	Dismantling precast concrete or stone slabs in walls, partition walls etc. including stacking within 50 metres lead :		
a)	Thickness up to 40 mm	Sq.M	209.00
b)	Thickness above 40 mm up to 75 mm	Sq.M	313.00
C-127	Demolishing cement concrete manually/ by mechanical means including disposal of material as per direction of Engineer - in - charge.		
a)	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	CuM	1760.00
b)	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	CuM	1087.00
C-128	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	CuM	2567.00
C-129	Dismantling brick tile covering in terracing including stacking of serviceable material and disposal of unserviceable material to contractor's own dump .	Sqm	76.00

Item No.	Description	Unit	Rates
C-130	Dismantling doors, windows and clerestory windows (Steel or wood) shutterincluding chowkhats, architrave, holdfasts etc. complete and stacking as directed		
a)	Of area 3 sq. metres and below.	Each	265.00
b)	Of area beyond 3 sq. metres.	Each	363.00
C-131	Dismantling roofing including ridges, hips, valleys and gutters etc., and stackingthe material as directed		
a)	G.S. Sheet	Sqm	119.00
b)	Asbestos sheet	Sqm	56.00
C-132	Removing the old damaged tarfelt carefully along with peagravel / sand if any mending good the damage to the surface with patch plaster where required etc. complete and as directed disposing the debirs to contractors own dump.	Sqm	75.00
C-133	Dismantling steel work in built up sections in angles, tees, flats hannels includingall gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking as directed by Engineer -in-charge.	Kg	4.00
C-134	Dismantling steel work manually/by mechanical means in built up sectionswithout dismembering and stacking within 50 metres lead as per direction of	Kg	2.80
C-135	Dismantling the damaged concrete including plaster (average thickness upto 25 mm) in ceiling and beam/ chajja/ band/ moulding wrapping the affected surface with approved 24 gauge wiremesh and fixing with nails after cleaning the effected portion (concrete/steel) with emry paper/cloth applying a coat of cement wash & cement concrete 1:2:4 with 6mm stone chip & 1:4 cement plaster over to match the existing surface.	Cum	272.00
C-135 A	Do as per item above but without chicken mesh, complete as directed.	Each	221.00
C-136	Removing & refixing of MS grill with screw etc complete.		137.00
C-137	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Sqm	192.00
C-138	For attending various miscellaneous repairs and maintenance job of civil in natureetc. charges of following are to be paid as under :		
i	Supply of Mason as required per day	Per Day	714.00
ii.	Supply of Helper as required per day	Per Day	645.00
C-139	Providing and laying 60mm thick facory made cement concrete interlocking paver block of M - 30 grade made by block making machine with strong vibratory compaction, of approved s;ze, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	834.00
WATER PROOFING			
<i>Note : Surface treated shall remain under guarantee bond of 5 years, in prescribedformat and the work shall be carried out by approved specialized agency</i>			
C-140	Dismantling of cement based water proofing including PCC and flooring in sunken portion (where no basin is available) of toilet including disposal of material to the contractor's own dump	cum	750.00

Item No.	Description	Unit	Rates
C-141	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours.(b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	Sqm	453.00
C-142	Providing and laying integral cement based water proofing treatment including preparation of surface as required for treatment of roofs, balconies, terraces etc consisting of following operations: (a) Applying a slurry coat of neat cement using 2.75 kg/sqm of cement admixed with water proofing compound conforming to IS.2645 and approved by Engineer-in-charge over the RCC slab including adjoining walls upto 300 mm height including cleaning the surface before treatment. (b) Laying brick bats with mortar using broken bricks/brick bats 25 mm to 115 mm size with 50% of cement mortar 1:5 (1 cement : 5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge over 20 mm thick layer of cement mortar of mix 1:5 (1 cement :5 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer-in-charge to required slope and treating similarly the adjoining walls upto 300 mm height including rounding of junctions of walls and slabs. (c) After two days of proper curing applying a second coat of cement slurry using 2.75 kg/ sqm of cement admixed with water proofing compound conforming to IS : 2645 and approved by Engineer in-charge. (d) Finishing the surface with 20 mm thick jointless cement mortar of mix 1:4 (1 cement :4 coarse sand) admixed with water proofing compound conforming to IS : 2645 and approved by Engineer in-charge including laying glass fibre cloth of approved quality in top layer of plaster and finally finishing the surface with trowel with neat cement slurry and making pattern of 300x300 mm square 3 mm deep. (e) The whole terrace so finished shall be flooded with water for a minimum period of two weeks for curing and for final test. All above operations to be done in order and as directed and specified by the Engineer-in-Charge :With average thickness of 120 mm and minimum thickness at khurra as 65 mm.	Cum	1335.00
C-143	Providing & doing polymer modified cement mortar plaster to ceiling, beams, columns having following specification for full height of building. Rate shall be inclusive of cost of providing & erecting MS tubular platform type scaffolding for carrying out the work including removal of the same. a . Providing & applying Polymer modified cement slurry over the prepared surface with 1 volume of SBR : 1 volume of water : 3 volume of cement . b. Providing & doing Polymer modified cement mortar plaster 15-20 mm thick (an average thickness of 18 mm) in C:M 1:4 (1cement : 4coarse sand sieve no 16/32 upto 4.75 mm) having 3.5 kg of SBR per bag of cement ,all complete as per the direction of Engineer Incharge.	SQM	430.00
C-144	Providing & applying 20 mm thk. cement plaster in 1:3 (1 cement : 3 coarse sand)finished with a floating coat of neat cement.	SQM	505.00
C-145	Providing and laying four courses water proofing treatment with bitumen felt over roofs consisting of first and third courses of blown bitumen 85/25 or 90/15 conforming to IS : 702 applied hot @ 1.45 Kg per square metre of area for each course, second course of roofing felt type 3 grade-I (hessian based self finished bitumen felt) and fourth and final course of stone grit 6 mm and down size or peasized gravel spread at 6 cubic diameter per square metre including preparation of surface but excluding grading complete with Bitumen felt (hessian base) type 3 grade I conforming to IS : 1322	SQM	379.00

Item No.	Description	Unit	Rates
C-146	Deduct for omitting in water proofing treatment final course of spreading stone grit 6 mm down size or pea sized gravel at 6 cu dm per sqm	SQM	14.00
C-147	P/L soling of 15 cm thick of approved brick bats including Supply of brick bats and preparing surface complete, i.e. properly hand packed and set on ends including watering and consolidation.	SQM	191.00
C-148	Providing and laying APP (Atactic Polypropylene Polymer) modified prefabricated five layer 3 mm thick water proofing membrane, black finished reinforced with non-woven polyester matt consisting of a coat of bitumen primer for bitumen membrane @ 0.40 litre/sqm by the same membrane manufacture of density at 25°C, 0.87-0.89 kg/ litre and viscosity 70-160 cps. Over the primer coat the layer of membrane shall be laid using Butane Torch and sealing all joints etc. and preparing the surface complete. The vital physical and chemical parameters of the membrane shall be as under : Joint strength in longitudinal and transverse direction at 23°C as 650/ 450N/5cm. Tear strength in longitudinal and transverse direction as 300/250N. Softening point of membrane not less than 150°C. Cold flexibility shall be upto -2°C when tested in accordance with ASTM, D - 5147. The laying of membrane shall be got done through the authorised applicator of the manufacturer of membrane .	SQM	468.00
C-149	Providing and laying water proofing treatment on roofs of slabs by applying applying: a) after surface preparation, first layer of slurry of cement @ cement slurry mixed with water proofing cement compound consisting of 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. b) laying second layer of Fibre glass cloth when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10 cm. c) third layer of 1.5 mm thickness consisting of slurry of cement @ 1.289 kg/ sqm mixed with water proofing cement compound @ 0.670 kg/sqm and coarse sand @ 1.289 kg/sqm. This will be allowed to air cure for 4 hours followed by water curing for 48 hours. The entire treatment will be taken upto 30 cm on parapet wall and tucked into groove in parapet all around. d) fourth and final layer of brick tiling with cement mortar (which will be paid for separately. For the purpose of measurement the entire treated surface will be measured.	SQM	513.00
C-150	Prime cost for purchase of hardware fittings for door , window of required approved pattern and make etc. as directed by Engineer - in - Charge for those items whose rates are available in ACR (Payment shall be made on actual cash memos).		
C-151	Contractor's percentage on prime cost items comprising labour charges, transportation charges, overheads and profit etc.	%	25.00
SALVAGE			
C-152	Salvage value to be given by the contractor for taking away following items		
	(a) steel window/ventilators	sqm	368.00
	(b) reinforcement bars	Kg	19.00
	(c) MS grills/angles/ channels etc.	Kg.	24.00
	(d) Full bricks	100 no.	105.00
	(e) AC sheet	sqm.	43.00
	(f) GI sheet	sqm.	63.00
C-153	Cutting holes in concrete/brick work at all levels. Scaffolding /staging beyond 8.00 meters to be paid separately as an item no.169).		
(a)	Size (200X200X200)	No	96.00
(b)	Size (250X250X250)	No	159.00
(c)	Size (300X300X250)	No	238.00
C-153	Cleaning of structural glazing / ACP paneling at any level/ height with approved cleaning agent with necessary arrangement all complete.	sqm	25.00
C-154	Cleaning of lamination at any floor / at any level with approved cleaning agent complete.	sqm	5.00

Item No.	Description	Unit	Rates
	Painting Work		
P-1	Providing & Applying three or more coats of white wash to ceiling /wall etc. to given an even shade	Sqm	28.00
P-2	Colour washing such as green, blue or buff to give an even shade :New work (two or more coats) with a base coat of white washing with lime	Sqm	39.00
P-3	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	14.00
a	Applying priming coat: With ready mixed pink or Grey primer of approved brand and manufacture on wood work (hard and soft wood)	Sqm	54.00
b	With ready mixed aluminium primer of approved brand and manufacture on resinous wood and plywood	Sqm	55.00
c	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/steel works	Sqm	49.00
d	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	Sqm	26.00
P-4	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade : Two or more coats on new work	Sqm	115.00
P-5	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	168.00
P-6	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade : Old work (one or more coats)	Sqm	48.00
P-7	Distemping with oil bound washable distemper of approved brand and manufacture to give an even shade including scrapping, applying cement primer and base putty to achieve a smooth finish : Old work (Two or more coats)	Sqm	102.00
P8	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : One or more coats on old work	Sqm	76.00
P-8(a)	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade : Two or more coats on old work	Sqm	102.00
P9	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: One or more coats on old work	Sqm	80.00
P9(a)	Wall painting with plastic emulsion paint of approved brand and manufacture to give an even shade: Two or more coats on old work	Sqm	102.00
P-10	French spirit polishing : Two or more coats on new works including a coat of woodfiller	Sqm	323.00
P-11	Polishing on wood work with ready mixed wax polish of approved brand and manufacture : New work	Sqm	144.00
P-12	Floor polishing on masonry or concrete floors with wax polish of approved brand and manufacture.	Sqm	70.00
P-13	French spirit polishing : One or more coats on old work	Sqm	184.00
P-14	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to, prepare the surface even and smooth complete.	Sqm	108.00

Item No.	Description	Unit	Rates
P-15	Polishing on wood work with ready made wax polish of approved brand and manufacture : 1 Old work	Sqm	82.00
P-16	Grinding and polishing of existing mosaic /marble /kota stone floorin /dado/scarting properly by hand including wax polishing.	Sqm	154.00
P-17	P/A painting two or more coats of 1st quality synthetic enamel paint on G.I pipeson external surface of the building.		
a	15-25mm dia	Rm	17.00
b	32-50mm dia	Rm	25.00
c	65-80 mm dia	Rm	27.00
P-18	P/A two or more coats of 1st quality Synthetic enamel paint (Hand painting) togive an even shade.		
a	ceilling fan /Exhaust fans of any size	NO.	85.00
b	MS ladder(per flight)	NO.	177.00
c	MS hand rail including bracket.	Rm	14.00
P-19	P/A two or more coats of 1st quality Synthetic enamel paint (Hand painting) totube light fitting of any size to give an even shade.	NO.	43.00
P-20	Cleaning cermic tiles of DADO /Floor and sanitary fitting in WC & Bath with dilute acid alkali and using firm pumic stone removing stains and washing down with fresh water .	Sqm	22.00
P-21	Cleaning of WC pan /Wash basin /Urinal part /Sink etc Using suitable dilute acid	NO.	55.00
P-22	Cleaning of window glass pan /wire gauge be suitable solution	Sqm	22.00
P-23	Removal of left out malva in case of change of occupancy and disposal of malva to contractors on damp per flat	L.S	675.00
P-24	Finishing walls with Acrylic Smooth exterior paint of required shade:		
a	Old work (Two or more coat applied @ 1.67 ltr/ 10 sqm) on existing cement paintsurface sqm 68.95	Sqm	98.00
b	Old work (One or more coat applied @ 0.90 ltr/10 sqm)	Sqm	66.00
P-25	P/ doing 2 or more coats with Epoxy paint of approved Brand and manufacture(ICI, Asian or other equivalent brand) on MS/ wood work on all locations and all heights over a coat of epoxy primer of approved manufacturer including preparation of smooth surface with desired putty, scrapping of existing surface and painting etc. complete all as per manufacturer's specifications	Sqm	177.00
P-26	Finishing walls with textured exterior paint of required shade :		
	New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/ 10 sqm	Sqm	215.00
P-27	Finishing walls with Acrylic Smooth exterior paint of required shade :		
	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	Sqm	146.00
P-28	P/A Melamine spray polish to wood work of approved shade including surafce preparation etc complete for new work one or more coats	Sq.m	104.00

Item No.	Description	Unit	Rates
P-32	P/A Melamine spray polish to wood work of approved shade including surface preparation etc. complete. For Caping of low ht.partition etc of section of appx.Size 75 x 25 mm to 50 x 25 mm	Rmt.	43.00
P-29	P/A Melamine spray polish to wood work of approved shade including surface preparation etc. complete. For Wooden mouldings of tables etc.of size 38 x 38 mm to 38x25mm	Rmt.	30.00
P-30	P/A Melamine spray polish to wood work of approved shade including surface preparation etc. complete. For Wooden mouldings of tables etc. out of sect. 35 x 12 mm & below	Rmt.	32.00
P-31	P/A Melamine spray polish to wood work of approved shade including surface preparation etc. complete. For Wooden mouldings of tables etc. out of sect. 25 x 20 mm & below	Rmt.	24.00
P-32	Removing , dry cleaning and fixing of venetian/ vertical blind including minorrepairing not involving replacement of parts (Which will be paid separately)	Sqm	150.00
P-33	Cleaning , sweeping , dusting and moping the flat ,glasses etc with soap water etcand carrying away the garbage to contractors on dump.		
A	Flat having floor area up to 100 Sqm	NO.	800.00
B	Flat having floor area beyond 100 Sqm	NO.	1080.00
P-34	painting one or more coats of 1st quality synthetic enamel paint or Bituminous paint on C.I Pipe including scaffolding /Jhoola if required) on external surface of thebuilding.		
a	50mm	RM	29.00
b	75mm	RM	44.00
c	100mm	RM	59.00
d	150mm	RM	87.00
P-35	Patch repairing including removing of nails/ patch plastering /putty filling etccomplete in one flat area less than 2.5 Sqm	L.S	370.00
P-36	Supply of painter	Per Day	714.00
P-37	Supply of helper	Per Day	645.00
P-38	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq. meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In- Charge.		
a	With cement mortar 1:4 (1 cement : 4 fine sand)	Sqm	405.00
b	With cement mortar 1:4 (1cement: 4 coarse sand)	Sqm	419.00
P-39	Cleaning of structural glazing / ACP paneling at any level/ height with approvedcleaning agent with necessary arrangement all complete.	sqm	28.00
P-40	Cleaning of lamination at any floor / at any level with approved cleaning agent complete.	sqm	7
Wood work			
W -1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid forseparately).		
a	Second class teak wood	CuM	115367.00

Item No.	Description	Unit	Rates
b	Sal wood	CuM	93574.00
c	Kiln seasoned and chemically treated hollock wood	Cum	65058.00
W-2	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality:1.0 mm thick	Sqm	670.00
W-2(a)	Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt/ suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S, including cost of adhesive of approved quality: 0.8 mm thick	Sqm	475.00
W-3	Providing and fixing 1.00 mm thick metallic Laminate of approved make, shade and pattern with approved quality adhesive like fevicol.	Sqm	1770.00
W-4	Providing and fixing 19 mm thick commercial Board BWR Grade of approved make with necessary nails , fevicol etc. all as directed including 6 mm thick teak wood lipping for the exposed edges etc. complete fixed in position as required	Sqm	1463.00
PLYWOOD			
W5	P/F BWR Ply confirming to IS - 303 with nails & approved fire retardant adhesive etc. wherever required.		
a	4.00 mm thick plywood	Sqm	580.00
b	6 .00 mm thick ply	Sqm	990.00
c	9 .00 mm thick ply	Sqm	1200.00
d	12 .00 mm thick ply	Sqm	1525.00
e	19 .00 mm thick ply	Sqm	2270.00
TEAK WOOD BEADING			
W-6	Supplying and fixing teak wood moulded beading including painting of first quality synthetic enamel paint of approved make and shade over a coat of primer of following size		
a	19 x 6 mm	R.M	53.00
b	20 x 10 mm	R.M	89.00
c	20 x 20 mm	Rm	159.00
d	25 x 25 mm	R.M	223.00
e	25 x 12 mm	Rm	133.00
f	35 x 35 mm	Rm	370.00
g	40 x 15mm	R.M	211.00
h	50x12 mm	Rm	222.00
W-7	Providing and fixing panelled or panelled and glazed shutters for doors, windows and clerestory windows, including ISI marked M.S. pressed butt hinges bright finished of required size with necessary screws, excluding panelling which will be paid for separately, all complete as per direction of Engineer-in-charge.		
a	Second class teak wood for 30 mm thick shutters	Sqm	2947.00
b	Second class teak wood for 35 mm thick shutters	Sqm	3248.00
W-8	Providing and fixing ISI marked flush door shutters conforming to IS :2202 non decorative type core board constructions with frame of 1st class hard wood and well matched commercial ply veneering with vertical grains or cross grains and faceveneered on both faces of shutters including ISI marked stainless steel butt hinges with necessary screws .		

Item No.	Description	Unit	Rates
a	35 mm thick	Sqm	2706.00
b	30 mm thick	Sqm	2472.00
W-9	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters:		
a	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	1767.00
b)	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	1650.00
W-10	Extra for Providing and fixing flush doors with decorative veneering instead of non decorative ISI marked flush door shutters conforming to IS: 2202 (Part I) On one side only	Sqm	358.00
W-11	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	352.00
W-12	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors(cost of glass excluded) (overall area of door shutter to be measured): Rectangular or square	Sqm	153.00
W-13	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws :		
a	Second class Teak Wood 35 mm thick shutters . With ISI marked stainless steel butthings of required size	Sqm	3807.00
b	Second class teak wood 30 mm thick shutters. With ISI marked stainless steel butthings of required size:	Sqm	3387.00
W-14	Providing and fixing wire gauge shutters using stainless steel grade 304 wire gauge with wire of dia 0.5 mm and average width of aperture 1.4 mm in both directions for doors, windows and clerestory windows with necessary screws :		
a	Second class teak wood of 35 mm thick shutters.With ISI marked stainless steelbutt hinges of required size.	Sqm	3915.00
b	Second class teak wood of 30 mm thick shutters.With ISI marked stainless steelbutt hinges of required size.	Sqm	3492.00
GLASS WORK.			
W-15	Providing & fixing glass panes with putty / wooden beading/ glazing clips/ Stainless steel brackets fittings etc in Aluminium/steel/ wooden doors, windows, clerestory windows, all complete with :		
a	4.0 mm thick glass panes	Sqm.	824.00
b	5 mm thick glass panes	Sqm.	1090.00
W-16	Providing and fixing glass panes to door / window etc. including taking outdamaged putty or beading and replacing with good quality putty, nails, CP teak beading as required		
a	8 mm thick clear sheet glass	Sq M	1242.00
b	10 mm thick clear sheet glass	Sq M	1495.00
c	12 mm thick clear sheet glass	Sq M	2070.00
d	4mm pin headed glass	Sq M	550.00

Item No.	Description	Unit	Rates
W-17	Renewing glass panes, with putty and nails wherever necessary including rackingout the old putty:		
a	Float glass panes of thickness 4 mm	Sqm	826.00
b	Float glass panes of thickness 5.5 mm	Sqm	1092.00
W-18	Renewing glass panes, with wooden fillets wherever necessary		
a	Float glass panes of thickness 4 mm	Sqm	1185.00
b	Float glass panes of thickness 5 mm	Sqm	1450.00
W-19	Renewal of old putty of glass panes (length)	mtr	41.00
W-20	Refixing old glass panes with putty and nails	Sqm	529.00
W-21	Fixing old glass panes with wooden fillets (excluding cost of fillets)	Sqm	492.00
W-22	Extra for sand blasting i.e etching on the glass of any thickness (Note : only glazedarea shall be measured for payment)	Sqm	572.00
W-23	Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of flush door shutters (over all area of door shutter to be measured).	Sqm	352.00
W-23B	Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors(cost of glass excluded) (overall area of door shutter to be measured): Rectangular or square	Sqm	153.00
W-24	Providing and fixing fly proof galvanized M.S. wire gauge to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm all complete. With 2nd class teak wood beading 62X19 mm	Sqm	1021.00
W-25	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete. With 2nd class teak wood beading 62X19 mm	Sqm	1235.00
W-26(A)	Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete. 20 mm diameter.	Metre	259.00
W-26(b)	Providing and fixing brass curtain rods of wall thickness 1.25 mm with two brass brackets fixed with brass screws and wooden plugs etc. wherever necessary complete. 25 mm diameter.	Rm	318.00
W-26(c)	Providing & Fixing Droppery rod End Fancy Sockets (Round) etc. all complete	Each	110.00
W-27(a)	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets : 20 mm dia (heavy type)	Metre	136.00
W-27(b)	Providing and fixing nickel plated M.S. pipe curtain rods with nickel plated brackets : 25 mm dia (heavy type)	R.M.	140.00
W-28	P/F Armstrong false ceiling system (prima fine fissured micro look) grids of 600x600mm. with G.I. Ceiling frame work as per manufacturer's specification and laying prima fine fissured acoustic ceiling tiles 12 mm. thick of 600x600mm.micro look having .55 NRC & 95%RH & 83% LR.The cost to include the cost of frame work for fixing light fittings.The cut out shal not be deducted for measuring ceiling area.	Sqm	982.00

Item No.	Description	Unit	Rates
W-29	P/F fixing 100mm wide vertical blinds of Vista Levelor (Classic range) with louvers, headrails, carriers, control box, installation brackets and other hardware as per manufacturer specifications etc. complete as per directions of Engineer Incharge	Sqm	1128.00
W-30	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	Kg	492.00
W-31	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body /plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge. 21.4.1 With stainless steel cover plate minimum 1.25 mm thickness PC= Prime Cost. Payment as per paid vouchers and fixed overheads	Each	2147.00
W-32	Providing & fixing bright finished BRASS Hardware fittings & fixtures including cadmium plated brass screws.		
a	100mm long brass hinges	No.	PC
b	P/F Multipurpose Lock to Tables / drawers etc.	No.	PC
W-33	Providing & fixing bright finished S.S./ Brush steel Hardware fittings & fixtures including cadmium plated brass/s.s. screws.		
a	P/F Godrej night latch 6 lever (with 3 keys)	No.	PC
b	P/f. M.S. aldrops bolt of 300 mm long	No.	PC
c.	P/F Godrej mortice lock 6 lever with handle	No.	PC
d	P/F new magic eye / peep eye to door	No.	PC
e	P/f approved quality Magnatic catcher(Tripple speed vertical type)	No.	PC
f	P/f approved quality Magnatic catcher(Double speed Horizontal type)	No.	PC
g	P/F Godrej cyllindrical lock	No.	PC
h	P/f of 300 mm long Powder coated Telescopic Drawer Channels	1 Set	PC
W-34	Providing & fixing ISI mark Anodised aluminium Hardware fittings & fixtures including cadmium plated brass screws.		
a	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete .Size250x16 mm	No.	PC
b	Alu. Tower bolt of size 200 x 10 mm	No.	PC
c.	Alu. Tower bolt of size 150 x 10 mm	No.	PC
d	Alu. Tower bolt of size 100 x 10 mm	No.	PC
e	Alu. Handles D type size 125 mm	No.	PC
f	Alu. Double barrel door stopptter	No.	PC
g	Alu. hook & eye 150 mm	No.	PC
h	-do- 100mm	No.	PC
i	Providing and fixing aluminium casement stays, ISI marked, anodised (anodic coating not less than grade AC 10 as per IS : 1868) transparent or dyed to required colour and shade, with necessary screws etc. complete.	No.	PC
W-35	Removing, repairing and refixing the mortice lock / godrej night latch, etc	Each	185.00

Item No.	Description	Unit	Rates
W-36	Providing and fixing godrej make Door Closers with projecting arms to be fixed as per the manufactures instruction .	No.	PC
W-37	P/making necessary arrangement for fixing A.C. unit including cutting of window /grill ,P/F t.w. framework of sect 50 x50 mm , leaving the A.C. machine size & blocking the balance area with 6 mm th B.W.R. ply incl. Painting with synth. enamel paint etc complete.	No.	1843.00
W-38	Providing and fixing sun control film of garware make or equivalent including removing of old one	SqM	465.00
W-39	P/F drying wire in 3 or 4 rows (M.S. wire coated with PVC or Nylon wire) to be fixed on wooden battens of 400x75x30mm size incl. Painting the battens (Total wire length - 15.0 M.Min.)	Set	348.00
W-40	Fixing chowkhats in existing opening including embedding chowkhats in floors or walls cutting masonry for holdfasts, embedding hold fasts in cement concrete blocks of size 15 x 10 x 10 cm with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size), painting two coats of approved wood preservative to sides of chowkhats and making good the damages to walls and floors as required complete, including disposal of rubbish to the dumping ground, all complete as per directions of Engineer-In-Charge.		
a	Door chowkhats	each	1320.00
b	Window chowkhats	each	831.00
W-41	Fixing chowkhat in existing opening in brick/ RCC wall with dash fasteners/ Chemical fasteners of appropriate size (3 nos on each vertical member of door chowkhat and 2 nos on each vertical member of window chowkhats), including Cost of dash fasteners/ chemical fastener.	Each	167.00
W-42	Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per directions of Engineer-In-Charge. For door/ window/ clerestory window	Sqm	918.00
W-43	Removing and refixing of existing wooden/Aluminium partitions including doors including nails, adhesives , screws all complete as directed by Engineer - in- charge.	Sqm	63.00
W-44	Removing A.C. unit & fixing A.C. unit only at new place with 6mm thick commercial ply & beading including necessary painting, making good etc. complete	No.	572.00
W-45	Salvage value payable to LIC for old wooden doors/ windows/ partitions etc.	Sq.M.	-170.00
W-46	Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.		
a)	Door	Each	312.00
W-47	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :		
	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :		
a	Of area 3 sq. metres and below	Each	104.00
b	Of area beyond 3 sq. metres	Each	137.00

Item No.	Description	Unit	Rates
W-48	Providing and fixing Pre -laminated medium density fibre board exterior grade (Grade-I) IS:14587:1998 marked, to frame, backing or studding with screws etc. complete (Frames, backing or studding to be paid separately). Pre-laminated withdecorative lamination on both side exterior Grade - I MDF Board 12 mm thick conforming to IS:14587	Sqm	815.00
W-49	Providing and fixing in wall lining medium density fibre board IS: 14587:1998 marked, Pre-laminated with one side decorative lamination and other side balancing lamination, with necessary fixing arrangement and screws etc. all complete. 12 mm thick.	Sqm	967.00
W-50	Providing and fixing plain aluminium sheet 1mm thick with brass nails to doorsand as kick plate etc	Sq M	397.00
Supplying of labours:			
W-51	Supplying -Carpenter	Per Day	714.00
W-52	Supplying - Helper	Per Day	645.00
W-53	Providing and fixing factory made uPVC door frame made of uPVC extruded sections having an overall dimension as below (tolerance ± 1 mm), with wall thickness 2.0 mm (± 0.2 mm), corners of the door frame to be Jointed with galvanized brackets and stainless steel screws, joints mitred and Plastic welded.The hinge side vertical of the frames reinforced by galvanized M.S. tube of size 19X 19 mm and 1mm (± 0.1 mm) wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturer's specification and direction of Engineerin- charge		
W-54	Extruded section profile size 48x40 mm	RM	204.00
W-55	Extruded section profile size 42x50 mm	RM	246.00
W-56	Providing and fixing to existing door frames.24 mm thick factory made PVC door shutters made of styles and rails of a uPVC hollow section of size 59x24 mm and wall thickness 2 mm (± 0.2 mm) with inbuilt edging on both sides. The styles and rails mitred and joint at the corners by means of M.S. galvanised/ plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel SUB HEAD : 9.0 WOOD & P.V.C. WORK 162 Code Description Unit Rate No. screws. The styles ofthe shutter reinforced by inserting galvanised M.S. tube of size 20x20 mm and 1 mm (± 0.1 mm) wall thickness. The lock rail made up of 'H' section, a uPVC hollow section of size 100x24 mm and 2 mm (± 0.2 mm) wall thickness, fixed to the shutter styles by means of plastic/galvanised M.S. 'U' cleats. The shutter frame filled with a uPVC multi-chambered single panel of size not less than 620 mm, having over all thickness of 20 mm and 1 mm (± 0.1 mm) wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6 mm galvanised M.S. rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in-charge. (For W.C. and bathroom door shutter).	Sqm,	1570.00
W-57	Replacement of the existing Armstrong false ceiling tiles including removal of oldceiling tiles	Sqm.	561.00
W-58	Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315, having brand logo embossed on the body /plate with double spring mechanism and door weight upto 125 kg, for doors, including cost of cutting floors, embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-charge.		
a	With stainless steel cover plate minimum 1.25 mm thickness	Each	PC
	PC= Prime Cost items. Payment shall be based on paid voucher and fixed overheads.		
W-59	Providing & fixing bright finished BRASS Hardware fittings & fixtures including cadium plated brass screws.		
A	100mm long brass hinges	No.	PC

Item No.	Description	Unit	Rates
B	75 mm long brass hinges	No.	PC
C	Sliding door bolt (Aldrop) of size 250 x 16 mm	No.	PC
D	Tower bolt of size 200 x 10 mm	No.	PC
E	Tower bolt of size 150 x 10 mm	No.	PC
F	Tower bolt of size 75 x 10 mm	No.	PC
G	Handles without base plate size 125 mm	No.	PC
H	Handles without base plate size 100 mm	No.	PC
I	Handles without base plate size 75 mm	No.	PC
J	Furniture handles of approved design.	No.	PC
K	hook & eye 150 mm	No.	PC
L	hook & eye 100 mm	No.	PC
M	Cupboard/ wardrobe lock with 6 lever of approved make.	No.	PC
N	P/F Multipurpose Lock to Tables / drawers etc.	No.	PC
O	Providing & fixing bright finished S.S./ Brush steel Hardware fittings & fixtures including cadium plated brass/s.s. screws.		
1	250 x 19 mm Brush handels of approved make & design.	Pair	PC
2	100X58X1.9mm SS hinges	No.	PC
3	75X47X1.8 mm SS hinges	No.	PC
4	Magnetic Catcher	No.	PC
5	Telescopic Drawer channel 450 mm long inclusive all Earl Bihari	Pair	PC
6	100 x 16 mm steel door handels of approved design & make	No.	PC
7	75 x 12 mm steel handles of approved make & design.	No.	PC
8	Steel 'Vacant/ 'Occupied' indicating toilet latch of approved make	No.	PC
9	P/F Godrej night latch 6 lever (with 3 keys)	No.	PC
10	P/f. M.S. aldrop bolt of 300 mm long	No.	PC
11	P/F Godrej / Laxmi mortice lock with handle	No.	PC
12	P/F new magic eye / peep eye to door	No.	PC
W-60	Removing, repairing and refixing the mortice lock / godrej night latch, etc	No.	150.00
W-61	Providing and fixing overhead Door Closers with projecting arms of "Everite" or other approved make- model 'Sterling' as per the manufactures instruction.	No.	896.00
W-62	Providing and fixing overhead sliding Door Closers of " EVERITE" or other equivalent make as per the manufactures instruction.	No.	PC
W-63	P/F aluminium sheet of 20 gauge in "U" shape continuously to door fixed with brass nails 300 mm on rear side 600 mm on front side etc. complete including removing & refixing the doors	Sqm	601.00
W-64	P/making necessary arrangement for fixing A.C. unit including cutting of window /grill ,P/F t.w. framework of sect 50 x50 mm , leaving the A.C. machine size & blocking the balance area with 6 mm th B.W.R. ply incl. Painting with synth. enamel paint etc complete.	Each	1672.00
W-65	Providing and fixing sun control film of garware make or equivalent including removing of old one	Sqm	PC
W-66	P/F drying wire in 3 or 4 rows (M.S. wire coated with PVC or Nylon wire) to be fixed on wooden battens of 400x75x30mm size incl. Painting the battens (Total wire length - 15.0 M.Min.)	set	PC

Item No.	Description	Unit	Rates
W-67	Providing and fixing 12 mm thick frameless toughened glass door shutter bottom pivot & spring type fixing arrangement and making necessary holes of approved brand and manufacture, including providing and fixing top & etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc. to be paid separately).	Sqm	4523.00

SANITARY & WATER SUPPLY WORKS ARC 2023-24 for DIVISION DEHRADUN			
T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-1	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required :		
a)	W.C. pan with ISI marked white solid plastic seat and lid	each	4858.00
b)	W.C. pan with ISI marked black solid plastic seat and lid	each	4758.00
S-1B	Extra for using coloured pedestal type W.C pan (European type) with low level cistern of same colour instead of white vitreous china W.C pan and cistern	each	147.00
S-2	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :		
a	W.C. pan with ISI marked white solid plastic seat and lid	each	6086.00
b	W.C. pan with ISI marked black solid plastic seat and lid	each	5986.00
S-3	Providing and fixing vitreous china dual purpose closet suitable for use as squatting pan or European type water closet (Anglo Indian W.C pan) with seat & lid fixed with C.P. brass hinges and rubber buffers, 10 litre low level flushing cistern with fitting and brackets, 40 mm flush bend, 20 mm over flow pipe, with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required:		
	White vitreous china dual purpose WC pan with white solid plastic seat and lid with white vitreous china flushing cistern and C.P. flush bend	each	9054.00
S-4	Providing and fixing water closet squatting pan (Indian type W.C. pan) with 100 mm sand cast Iron P or S trap, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:		
	White Vitreous china Orissa pattern W.C. pan of size 580x440 mm with integral type foot rests	each	4944.00
S-5	Providing and fixing white vitreous china water closet squatting pan (Indian type) :		
a	Long pattern W.C. pan of size 580 mm	each	1462.00
b	Orissa pattern W.C. pan of size 580x440 mm	each	2418.00
S-5A	Extra for using coloured W.C. pan instead of white W.C. pan : Orissa pattern W.C. pan 580x440 mm	each	364.00

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
S-6	<i>Providing & fixing White vitreous china water closet squatting pan (Indian type) along with "S" or "P" trap including dismantling of old WC seat and "S" or "P" trap at site complete with all operations including all necessary materials, labour and disposal of dismantled material i/c malba, all complete as per the direction of Engineer-in charge.</i>		
a	<i>Long pattern W.C Pan of size 580x440 mm</i>	<i>each</i>	<i>2598.00</i>
b	<i>Orissa pattern W.C Pan of size 580x440 mm</i>	<i>each</i>	<i>3376.00</i>
S-7	<i>Providing and fixing a pair of white vitreous china foot rests of standard pattern for squatting pan water closet :</i>		
a	<i>250x130x30 mm</i>	<i>each</i>	<i>192.00</i>
b	<i>250x125x25 mm</i>	<i>each</i>	<i>196.00</i>
S-8	<i>Supply and fixing Porcelain Vitreous china half round channel 150X70mm with stop end/T junction/with hole as per site condition of Neycer make over bed mortar 1:3 complete</i>	<i>R.M.</i>	<i>1092.00</i>
S-9	<i>Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:</i>		
a	<i>White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P.brass pillar taps</i>	<i>Each</i>	<i>2975.00</i>
b	<i>White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P.brass pillar tap</i>	<i>Each</i>	<i>2600.00</i>
c	<i>White Vitreous China Wash basin size 550x400 mm with a pair of 15 mm C.P.brass pillar taps</i>	<i>Each</i>	<i>2770.00</i>
d	<i>White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm C.P. brass pillar tap</i>	<i>Each</i>	<i>2395.00</i>
e	<i>White Vitreous China Angle back wash basin size 600 x480 mm with single 15mm C.P. brass pillar tap</i>	<i>Each</i>	<i>2600.00</i>
f	<i>White Vitreous China Angle back wash basin size 400 x400 mm with single 15mm C.P. brass pillar tap</i>	<i>Each</i>	<i>2248.00</i>
g	<i>White Vitreous China Flat back wash basin size 450x300 mm with single 15mm C.P. brass pillar tap</i>	<i>Each</i>	<i>2078.00</i>
S-10	<i>Providing and fixing white vitreous china wash basin including making all connections but excluding the cost of fittings</i>		
a	<i>Flat back wash basin of size 630x450 mm</i>	<i>Each</i>	<i>1008.00</i>
b	<i>Flat back wash basin of size 550x400 mm</i>	<i>Each</i>	<i>803.00</i>
c	<i>Angle back wash basin of size 600x480 mm</i>	<i>Each</i>	<i>1008.00</i>
d	<i>Angle back wash basin of size 400x400 mm</i>	<i>Each</i>	<i>656.00</i>
e	<i>Flat back wash basin of size 450x300 mm</i>	<i>Each</i>	<i>486.00</i>
S-11	<i>Providing and fixing white vitreous china pedestal for wash basin completely recessed at the back for the reception of pipes and fittings</i>	<i>Each</i>	<i>1315.00</i>
S-12	<i>Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-</i>		
	<i>White Vitreous China Wash basin size 550x400 mm with a) 15 mm CP Brass single hole basin mixer</i>	<i>Each</i>	<i>3982.00</i>

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-13	<i>Providing and fixing wash basin with C.I. brackets, 15 mm PTMT pillar cock, 32 mm PTMT waste coupling of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. White Vitreous China Flat back wash basin size 550x400 mm with single 15 mm PTMT pillar cock.</i>	<i>Each</i>	<i>2211.00</i>
S-14	<i>Counter Wash basin of Oval shape of white glazed Vitreous China 400mm size approx with CP swan neck pillar tap, 32mm C.P. brass waste coupling, 32mm dia PVC waste pipe, 15mm dia. polythene pipe inlet, 15mm dia. C.P. angular brass stop cock, unions, joints, etc. supported on painted C.I.bracket etc. complete.</i>	<i>Each</i>	<i>6975.00</i>
S-15	<i>Wash basin of white glazed Vitreous China size 550 x 400mm of approved make with 15 mm dia. C.P. brass pillar tap Jaquar or Equivalent approved make, 32mm C.P. brass waste coupling, 32mm dia PVC waste pipe, 15mm dia. polythene pipe inlet, 15mm dia. C.P. angular brass stop cock, unions, joints, etc. supported on painted C.I.bracket etc. complete.</i>	<i>Each</i>	<i>5440.00</i>
S-16	<i>Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :</i>		
a	<i>Kitchen sink with drain board 510x1040 mm bowl depth 200 mm</i>	<i>Each</i>	<i>5503.00</i>
b	<i>Kitchen sink with drain board 510x1040 mm bowl depth 225 mm</i>	<i>Each</i>	<i>5854.00</i>
S-17	<i>Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS:13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :</i>		
a)	<i>S.S. Kitchen sink without drain board 610x510 mm bowl depth 200 mm</i>	<i>Each</i>	<i>3750.00</i>
b)	<i>S.S.Kitchen sink without drain board 610x460 mm bowl depth 200 mm</i>	<i>Each</i>	<i>2925.00</i>
c)	<i>Kitchen sink without drain board 470x420 mm bowl depth 178 mm</i>	<i>Each</i>	<i>2575.00</i>
S-18	<i>Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :</i>		
a)	<i>100 mm dia</i>	<i>Each</i>	<i>146.00</i>
b)	<i>150mm dia</i>	<i>Each</i>	<i>167.00</i>
S-19	<i>Providing and fixing PTMT swivelling shower, 15 mm nominal bore, weighing not less than 40 gms</i>	<i>Each</i>	<i>93.00</i>
S-20	<i>Providing and fixing round C. P. Brass over head 100mm. dia shower revolving type of Jaquar or equivalent make</i>	<i>Each</i>	<i>PC</i>
S-21	<i>Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required.</i>		
a	<i>One urinal basin with 5 litre white P.V.C. automatic flushing cistern</i>	<i>Each</i>	<i>4620.00</i>

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-22	Providing and fixing white vitreous china flat back or wall corner type lipped front single urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with standard flush pipe and C.P. brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required.	Each	4070.00
S-23	Providing and fixing white vitreous china flat back half stall urinal of size 580x380x350 mm with white PVC automatic flushing cistern, with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS :2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :		
a	Single half stall urinal with 5 litre P.V.C. automatic flushing cistern	Each	8880.00
b	Range of two half stall urinals with 5 litre P.V.C. automatic flushing cistern	Each	13253.00
S-24	Providing and fixing white vitreous china flat back single half stall urinal of size 580x380x350 mm with fittings, standard size C.P. brass flush pipe, spreaders with unions and clamps (all in C.P. brass) with waste fitting as per IS : 2556, C.I. trap with outlet grating and other couplings in C.P. brass, including painting of fittings and cutting and making good the walls and floors wherever required :	Each	7962.00
S-25	Providing and fixing stone slab with table rubbed, edges rounded and polished, of size 75x50 cm or any size deep and 1.8 cm thick, fixed in urinal partitions by cutting a chase of appropriate width with chase cutter and embedding the stone in the chase with epoxy grout or with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 6 mm nominal size) as per direction of Engineer in-charge and finished smooth.		
a)	White Agaria Marble Stone	Sqm	2684.00
b)	Granite Stone of approved shade	Sqm	3106.00
S-26	Providing and fixing white vitreous china squatting plate urinal with integral rim longitudinal flush pipe.	each	2972.00
S-27	Providing and fixing toilet paper holder :		
a	C.P.Brass	Each	597.00
b	Vitreous china	Each	406.00
S-28	Supply and fixing C.P.Brass Soap Dish Local Make (Heavy Duty of approved design	Each	300.00
S-29	Supplying and fixing CP (Chrome plated) brass Soap Dish.- Jaquar.	Each	PC
S-30	Providing and fixing PTMT soap Dish Holder having length of 138mm, breadth 102mm, height of 75mm with concealed fitting arrangements, weighing not less than 106 gms.	Each	85.00
S-31	Supply and fixing C.P.brass liquid soap holder	Each	370.00
S-32	Providing and fixing PTMT liquid soap container 109 mm wide, 125mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms	Each	129.00
S-33	Supply and fixing Acrylic liquid soap holder Local	Each	200.00

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
S-34	<i>Providing and fixing P.V.C. low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fittings and fixtures complete</i>		
a)	<i>10 litre capacity - White</i>	<i>Each</i>	<i>897.00</i>
b)	<i>10 litre capacity - coloured</i>	<i>Each</i>	<i>867.00</i>
S-35	<i>Supplying and fixing 10 liters virtuous china low level flushing Cistern (white) of approved make with either side or bottom inlet side over flow, brackets (painted) complete with all internal fittings.</i>		
a)	<i>10 litre (full flush) capacity-white</i>	<i>Each</i>	<i>1693.00</i>
b)	<i>10 litre (full flush) capacity-coloured</i>	<i>Each</i>	<i>2221.00</i>
S-36a	<i>Supply and fixing CP Brass flush pipe 32 mm. dia for low level flushing cistern in white colour for IWC</i>	<i>Each</i>	<i>376.00</i>
S-36b	<i>Supply and fixing CP Brass flush pipe 32 mm. dia for low level flushing cistern in white colour for EWC</i>	<i>Each</i>	<i>355.00</i>
S-37	<i>Providing & fixing of bracket for basin/sink with 20mm dia G.I. pipe (medium quality) including painting etc. complete :-</i>	<i>Each</i>	<i>52.00</i>
S-38	<i>Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C.waste fittings complete.</i>		
a)	<i>32mm dia Semi rigid pipe</i>	<i>each</i>	<i>92.00</i>
b)	<i>32 mm dia Flexible pipe</i>	<i>each</i>	<i>89.00</i>
S-39	<i>Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C.waste fittings complete.</i>		
a)	<i>40mm dia Semi rigid pipe</i>	<i>each</i>	<i>92.00</i>
b)	<i>40 mm dia Flexible pipe</i>	<i>each</i>	<i>89.00</i>
S-40	<i>Providing and fixing C.P. brass chain and rubber plug complete for sink or washbasin:</i>		
a)	<i>32 mm dia</i>	<i>each</i>	<i>67.00</i>
b)	<i>40 mm dia</i>	<i>each</i>	<i>67.00</i>
S-41	<i>Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.</i>	<i>each</i>	<i>826.00</i>
S-42	<i>Providing and fixing 600x450 mm beveled edge mirror of superior glass (of approved quality) complete with 6 mm thick hard board ground/wall fixed to wooden cleats with C.P. brass screws and washers complete</i>	<i>Each</i>	<i>1237.00</i>
S-43	<i>Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing</i>		
a	<i>Rectangular shape 453x357 mm</i>	<i>Each</i>	<i>1016.00</i>
b	<i>Rectangular shape 1500x450 mm</i>	<i>Each</i>	<i>1593.00</i>

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
S-44	<i>Providing & fixing 5 mm thk. Full length mirror of approved make & quality with 6mm thick asbestos, cement board backing fixed to walls including 40x20 mm teak wood frame with sprit polish, wooden plug, C.P. brass screws etc. complete.</i>	<i>Sqm</i>	<i>2081.00</i>
S-45	<i>Supplying fitting & fixing box type cabinet mirror of approved quality size 300 mm.X450mm X 100mm.</i>	<i>Each</i>	<i>884.00</i>
S-46	<i>Providing and fixing solid plastic seat with lid for pedestal type W.C. pancomplete :</i>		
a	<i>Black solid plastic seat with lid</i>	<i>Each</i>	<i>410.00</i>
b	<i>White solid plastic seat with lid.</i>	<i>Each</i>	<i>521.00</i>
c	<i>Coloured (other than black & white) solid plastic seat with lid</i>	<i>Each</i>	<i>508.00</i>
S-47	<i>Providing and fixing uplasticised PVC connection pipe with brass unions : 15mm.dia. .</i>		
a)	<i>30 cm length</i>	<i>each</i>	<i>66.00</i>
b)	<i>45 cm length</i>	<i>each</i>	<i>76.00</i>
S-48	<i>Providing and fixing Chrome Plated (C.P.) brass 600mm long towel rail.- Jaquar .</i>	<i>Each</i>	<i>PC</i>
S-49	<i>Providing and fixing Chrome Plated (C.P.) brass 600mm long towel rail.- Of Approved make (Heavy)</i>	<i>Each</i>	<i>PC</i>
S-50	<i>Supply and fixing C.P.Brass copper pipe with nut and washer upto 450 mm long.</i>	<i>each</i>	<i>156.00</i>
S-51	<i>C.P. brass pillar cock raised projected nose of 15mm. Dia. (Similar to Cat. No. 508 of Essco Super Delux) complete</i>	<i>each</i>	<i>PC</i>
S-52	<i>-do- but standard 15 mm dia. Rocket type or equivalent (Similar to Cat. No. 507of Essco) complete</i>	<i>each</i>	<i>PC</i>
S-53	<i>C.P. Brass pillar cock 15 mm Dia. (Jaquar) complete..</i>	<i>each</i>	<i>PC</i>
S-54	<i>C.P. bib cock or stop cock 15 mm. dia. superior quality (Similar to Cat. No.511/513 of Essco) complete</i>	<i>each</i>	<i>PC</i>
S-55	<i>As above but long neck type (Similar to Cat. No. 512 of Essco) complete</i>	<i>each</i>	<i>PC</i>
S-56	<i>Providing and fixing C.P. brass angular stop cock for urinal of approved quality conforming to IS:8931 a) 15 mm nominal bore- Jaquar Make</i>	<i>each</i>	<i>PC</i>
S-57	<i>Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931:15mm nominal bore</i>	<i>each</i>	<i>485.00</i>
S-58	<i>Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. -15 mm nominal bore. Jaquar Make</i>	<i>each</i>	<i>PC</i>
S-59	<i>Supply and fixing 15mm. Dia C.P. spreader for half stalled urinal of Essco make</i>	<i>each</i>	<i>PC</i>

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-60	Providing and fixing C.P. Brass extension nipple (size 15mmx50mm) of approved make and quality as per direction of Engineer-in-charge.	Each	54.00
S-61	Supply and fixing 15mm. Dia C.P. wall flange heavy type	each	27.00
S-62	P/F 15 mm Pillar tap JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-63	P/F 15 mm C.P Concealed stop cock regular body with adjustable wallflange heavy quality JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-64	P/F 15 mm nominal dia C.P. brass short body bib cock with wall flangeof JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-65	P/F C.P. brass long body bib cock with wall flange of JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-66	P/F 15 mm dia C.P.brass angle valve/ angular stop cock with wall fangesfor basin mixer and geyser of JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-67	Providing and fixing 15 mm nominal bore, central hole C.P. brass basin mixer without popup waste system with 400 mm long braided hoses of approved quality and make JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-68	P/F 15 mm dia C.P.brass wall mixer non telephonic shower arrangement with connecting legs and wall flanges of approved make. etc. complete.JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-69	P/F 15 mm dia C.P.brass wall mixer with hand shower arrangement with connecting legs and wall flanges and wall bracket for hand shower of approved make. etc. complete.JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-70	P/F 15 mm dia C.P.brass kitchen sink mixer with swinging casted spoutwall mounted model with connecting legs and wall flanges etc. complete.JAQUAR MAKE CONTINENTAL SERIES	each	PC
S-71	P&F hand shower e80mm round shape single flow (ABS Body Chrome Plated) with gay face plate with rubbit cleaning system etc. complete JAQUAR MAKE Cat No. HSH-1929	each	PC
S-72	P&F Easy flex tube in chrome finish 1.5 m long with nuts etc. completeJAQUAR MAKE Cat no. SHA-571	each	PC
S-73	P/f 8 mm dia CP Jet with flexible tube up-to 1.00 mt length for EWC-- ofapproved quality	Each	271.00
S-74	P&F hand shower (health faucet) (ABS Body) with 1 meter long PVC tubeand wall hook etc. complete JAQUAR MAKE Cat no. ALD-BLK-583	each	PC
S-75	P&F 32 mm size full thread waste coupling with 80 mm height etc.complete JAQUAR MAKE Cat no. ALD-705	each	PC

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
S-76	<i>P&F 32 mm size bottle trap (with internal partition) with 250 mm & 190 mm long wall connection pipes and wall flange etc. complete JAQUAR MAKE Cat no. ALD-769L250X190</i>	<i>each</i>	<i>PC</i>
<i>S-77</i>	<i>P/F 15 mm dia C.P.brass two way bib cock etc. complete.JAQUAR MAKE CONTINENTAL SERIES</i>	<i>each</i>	<i>PC</i>
<i>S-78</i>	<i>P/F 15 mm dia C.P.brass two way Stopcock / Angle Valve etc. complete.JAQUAR MAKE CONTINENTAL SERIES</i>	<i>each</i>	<i>PC</i>
S-79	<i>Salvage value to be given by the contractor for taking away following old unserviceable item. such as brass / CP brass fittings.</i>		
	<i>CI/GI/ MS pipes</i>	<i>%</i>	<i>6</i>
	<i>CP Brass fittings</i>	<i>%</i>	<i>8</i>
	<i>PVC flushing cistern low level/automatic urinal cistern</i>	<i>No</i>	<i>-30</i>
	<i>P.V.C old water storage tank.</i>	<i>Rs. Per Litre</i>	<i>0.5</i>

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
	ISI CP FITTINGS		
S-80	<i>Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :15mm nominal bore</i>	<i>Each</i>	<i>381.00</i>
S-81	<i>Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.:15 mm nominalbore</i>	<i>Each</i>	<i>657.00</i>
S-82	<i>Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms :15mm nominalbore</i>	<i>Each</i>	<i>640.00</i>
S-83	<i>Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931 :15mm nominal bore</i>	<i>Each</i>	<i>600.00</i>
S-84	<i>Providing and fixing PTMT(poly tetramethylene terephthalate) bib cock of approved quality and colour</i>		
a)	<i>15mm nominal bore, 86 mm long, weighing not less than 88 gms</i>	<i>Each</i>	<i>96.00</i>
b)	<i>15 mm nominal bore, 122mm long, weighing not less than 99 gms</i>	<i>Each</i>	<i>126.00</i>
c)	<i>15 mm nominal bore, 165 mm long, weighing not less than 110 gms</i>	<i>Each</i>	<i>137.00</i>
S-85	<i>Providing and fixing gun metal gate valve with C.I. wheel of approved quality(screwed end) :</i>		
a)	<i>20mm. Dia nominal bore</i>	<i>each</i>	<i>405.00</i>
b)	<i>25mm. Dia nominal bore</i>	<i>each</i>	<i>467.00</i>
c)	<i>32mm. Dia nominal bore</i>	<i>each</i>	<i>517.00</i>
d)	<i>40mm. Dia nominal bore</i>	<i>each</i>	<i>620.00</i>
e)	<i>50mm. Dia nominal bore</i>	<i>each</i>	<i>770.00</i>
f)	<i>65mm. Dia nominal bore</i>	<i>each</i>	<i>1307.00</i>
g)	<i>80mm. Dia nominal bore</i>	<i>each</i>	<i>1953.00</i>
S-86	<i>Providing and fixing gun metal non- return valve of approved quality (screwed end) :</i>		
a)	25 mm nominal bore		
a(i)	<i>25 mm nominal bore Horizontal</i>	<i>Each</i>	<i>444.00</i>
a(ii)	<i>25 mm nominal bore Vertical</i>	<i>Each</i>	<i>503.00</i>
b)	32 mm nominal bore		
b(i)	<i>32 mm nominal bore Horizontal</i>	<i>Each</i>	<i>594.00</i>
b(ii)	<i>32 mm nominal bore Vertical</i>	<i>Each</i>	<i>682.00</i>
c)	40 mm nominal bore		

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
c(i)	40 mm nominal bore Horizontal	Each	715.00
c(ii)	40 mm nominal bore Vertical	Each	920.00
d)	50 mm nominal bore		
d(i)	50 mm nominal bore Horizontal	Each	1029.00
d(ii)	50 mm nominal bore Vertical	Each	1158.00
e)	65 mm nominal bore		
e(i)	65 mm nominal bore Horizontal	Each	1836.00
e(ii)	65 mm nominal bore Vertical	Each	1865.00
f)	80 mm nominal bore		
f(i)	80 mm nominal bore Horizontal	Each	2748.00
f(ii)	80 mm nominal bore Vertical	Each	3100.00
S-87	Supply and fixing C.P. Flange with standard numbers of holes with nuts, bolts, washers etc.		
a)	15 mm. dia. to 25 mm. dia.	each	50.00
S-88	Supply and fixing H.C.I./S.C.I. soil/vent pipe (BIC or equivalent) including jointing with 1:2 cement mortar, hemp fibre, fixing materials such as nails, bobbing, clamps hooks etc. complete. (fittings will be paid separately.)		
a)	100mm dia Sand cast iron S&S pipe as per IS: 1729	R.M.	893.00
b)	100mm dia: Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	R.M.	945.00
c)	100mm dia: Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	R.M.	931.00
d)	75 mm dia: Sand cast iron S&S pipe as per IS: 1729	R.M.	817.00
e)	75 mm dia: Centrifugally cast (spun) iron socket & spigot (S&S) pipe as per IS: 3989	R.M.	914.00
f)	75 mm dia: Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	R.M.	761.00
S-89	Providing and filling the joints with spun yarn, cement slurry and cement mortar 1:2 (1 cement : 2 fine sand) in S.C.I./ C.I. Pipes :		
a)	75 mm dia pipe	each	122.00
b)	100 mm dia pipe	each	143.00
S-90	Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion, (i) Single socketed pipes.		
a)	75 mm diameter	R.M.	187.00
b)	110 mm diameter	R.M.	280.00
c)	Providing & fixing 160 mm dia.unplasticised Rigid PVC rain water pipes ISI approved (4Kg/Sqcm)make fix to wall including all rubber gasket, lubricants /solvent cement etc. and all specials such as bends, junction, cleaning eye, tees, off-sets etc. as directed by the Engineer-in-charge and painting etc. complete.160 mm. dia	R.M.	767.00
S-91	Providing & laying UPVC heavy duty soil waste & vent pipes ISI approved (6kg/Sqcm) including all rubber gasket, lubricants/ solvent cement etc. and all specials such as bends, junction, cleaning eye, tees, off-sets etc., as directed by the Engineer-in-charge and painting etc. complete.		
a)	75 mm dia	R.M.	367.00
b)	110 mm. dia	R.M.	505.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-92	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge. Internal work: exposed on wall		
a)	15 mm nominal outer dia Pipes	R.M.	224.00
b)	20 mm nominal outer dia Pipes	R.M.	285.00
c)	25 mm nominal outer dia Pipes	R.M.	358.00
d)	32 mm nominal outer dia Pipes	R.M.	439.00
e)	40 mm nominal outer dia Pipes	R.M.	591.00
f)	50 mm nominal outer dia Pipes	R.M.	813.00
S-93	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls		
a)	15 mm nominal outer dia Pipes	R.M.	387.00
b)	20 mm nominal outer dia Pipes	R.M.	450.00
c)	25 mm nominal outer dia Pipes	R.M.	549.00
d)	32 mm nominal outer dia Pipes	R.M.	625.00
S-94	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal		
a)	15 mm nominal outer dia Pipes	R.M.	194.00
b)	20 mm nominal outer dia Pipes	R.M.	241.00
c)	25 mm nominal outer dia Pipes	R.M.	325.00
d)	32 mm nominal outer dia Pipes	R.M.	381.00
e)	40 mm nominal outer dia Pipes	R.M.	490.00
f)	50 mm nominal outer dia Pipes	R.M.	712.00
g)	62.50 mm nominal inner dia Pipes	R.M.	1382.00
h)	75 mm nominal inner dia Pipes	R.M.	1745.00
i)	100 mm nominal inner dia Pipes	R.M.	2465.00
S-95	Providing and fixing C.I. bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete		
a)	100 mm dia Sand cast iron S&S as per IS -1729	each	465.00
b)	100 mm dia Sand cast iron S&S as per IS -3989	each	524.00
c)	100 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	483.00
d)	75 mm dia Sand cast iron S&S as per IS -1729	each	386.00
e)	75 mm dia Sand cast iron S&S as per IS -3989	each	397.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
f)	75 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	386.00
S-96	Providing and fixing plain bend of required degree.		
a)	100 mm dia Sand cast iron S&S as per IS -1729	each	362.00
b)	100 mm dia Sand cast iron S&S as per IS -3989	each	386.00
c)	100 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	303.00
d)	75 mm dia Sand cast iron S&S as per IS -1729	each	273.00
e)	75 mm dia Sand cast iron S&S as per IS -3989	each	262.00
f)	75 Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	215.00
S-97	Providing and fixing single equal plain junction of required degree with accessdoor, insertion rubber washer 3 mm thick, bolts and nuts complete.		
a)	100x100x100 mm Sand cast iron S&S as per IS - 1729	each	588.00
b)	100x100x100 mm Sand cast iron S&S as per IS - 3989	each	641.00
c)	75x75x75 mm Sand cast iron S&S as per IS - 1729	each	503.00
d)	75x75x75 mm Sand cast iron S&S as per IS - 3989	each	503.00
S-98	Providing and fixing single equal plain junction of required degree :		
a)	100x100x100 mm Sand cast iron S&S as per IS - 1729	each	509.00
b)	100x100x100 mm Sand cast iron S&S as per IS - 3989	each	620.00
c)	100x100x100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	503.00
d)	75x75x75 mm Sand cast iron S&S as per IS - 1729	each	396.00
f)	75x75x75 mm Sand cast iron S&S as per IS - 3989	each	437.00
g)	75x75x75 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	279.00
S-99	Providing and fixing single unequal plain junction of required degree - 100x100x75 mm		
a)	Sand cast iron S&S as per IS - 1729	each	650.00
b)	Sand cast iron S&S as per IS - 3989	each	737.00
c)	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	each	474.00
S-100	Providing and fixing terminal guard (cowl) / socket :		
a)	100 mm.Sand cast iron S&S as per IS - 1729	each	344.00
b)	100 mm Sand cast iron S&S as per IS - 3989	each	385.00
c)	75 mm.Sand cast iron S&S as per IS - 1729	each	279.00
d)	75 mm Sand cast iron S&S as per IS - 3989	each	273.00
S-101	Providing and fixing on wall face unplasticised - PVC moulded fittings/accessories for unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A, including jointing with seal ring conforming to IS : 5382, leaving 10 mm gap for thermal expansion		
a)	75mm dia Coupler	Each	70.00

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
b)	110 mm dia Coupler	Each	105.00
c)	75mm dia Single pushfit Coupler	Each	70.00
d)	110 mm dia Single pushfit Coupler	Each	105.00
e)	Single tee with door- 75x75x75 mm	Each	124.00
f)	Single tee with door- 110x110x110 mm	Each	180.00
g)	Single tee without door- 75x75x75 mm	Each	109.00
h)	Single tee without door- 110x110x110 mm	Each	167.00
i)	Bend 87.5°-75 mm bend	Each	80.00
j)	Bend 87.5°-110 mm bend	Each	116.00
k)	75 mm Shoe (plain)	Each	71.00
l)	110 mm Shoe (Plain)	Each	102.00
S-102	Providing and fixing PVC pipe clips/ clamps of approved design to PVC pipes (75mm to 160 mm dia) by means of hard wood plugs, screwed with M.S. Screws i.e. cutting brick work and fixing in cement mortar 1:4 and making good the wall etc,complete.	each	147.00
S-103	Providing and fixing M.S. stays and clamps for sand cast iron/ centrifugally cast(spun) iron pipes etc. of diameter		
a)	50mm	each	65.00
b)	75 mm	each	70.00
c)	100mm	each	113.00
S-104	100 mm. C.I. floor trap, heavy quality with including bedding in cement mortar 1:6.		
a)	P Trap	each	720.00
b)	S Trap	each	994.00
S-105	Supplying and fixing C.I. cover without frame for manholes :		
a)	455x610 mm rectangular C.I. cover (light duty) the weight of the cover to be not less than 23 kg	each	1176.00
b)	500 mm diameter C.I. cover (medium duty) the weight of the cover to be not less than 58 kg	each	2822.00
c)	560 mm diameter C.I. cover (heavy duty) the weight of the cover to be not less than 108 kg	each	6114.00
S-106	Providing and fixing in position pre-cast R.C.C. manhole cover and frame of required shape and approved quality		
a)	L D- 2.5 Rectangular shape 600x450 mm internal dimensions	each	1100.00
b)	L D- 2.5 Square shape 450 mm internal dimensions	each	919.00
c)	L D- 2.5 Circular shape 450 mm internal diameter	each	919.00
d)	M D - 10 Square shape 450 mm internal dimension	each	1102.00
e)	M D - 10 Circular shape 500 mm internal diameter	each	926.00
f)	M D - 20 Circular shape 560 mm internal diameter	each	1310.00
S-107	Supplying and fixing C.I. cover 300x300 mm without frame for gully trap (standard pattern) the weight of cover to be not less than 4.5 kg	each	589.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-108	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix(1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete : For pipes 100 to 250 mm diameter	each	600.00
S-109	Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design :Withcommon burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	4900.00
S-110	Constructing brick masonry road gully chamber 45x45x77.5 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) with precast R.C.C. vertical gratingcomplete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	5487.00
S-111	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. (The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.)	Sq.M.	453.00
S-112	Providing and laying Neat cement finishing/punning .	Sq.M.	60.00
S-113	Wrought Iron door flange with nuts and bolts for soil and R.W. pipes of any size or shape.	each	75.00
S-114	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, i/c cuttingand making good the walls etc. Internal work - Exposed on wall		
a)	15 mm dia nominal bore	R.M.	267.00
b)	20mm dia nominal bore	R.M.	327.00
c)	25mm dia nominal bore	R.M.	431.00
d)	32mm dia nominal bore	R.M.	494.00
e)	40mm dia nominal bore	R.M.	636.00
f)	50mm dia nominal bore	R.M.	783.00
S-115	Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making goodthe wall :		
a)	15 mm dia nominal bore	R.M.	425.00
b)	20 mm dia nominal bore	R.M.	474.00
c)	25 mm dia nominal bore	R.M.	549.00
S-116	Providing and fixing G.I. pipes complete with G.I. fittings including trenching andrefilling etc. External work		
a)	15 mm dia nominal bore	R.M.	235.00
b)	20mm dia nominal bore	R.M.	276.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
c)	25mm dia nominal bore	R.M.	366.00
d)	32mm dia nominal bore	R.M.	401.00
e)	40mm dia nominal bore	R.M.	490.00
f)	50mm dia nominal bore	R.M.	574.00
g)	65mm dia nominal bore	R.M.	674.00
h)	80mm dia nominal bore	R.M.	806.00
S-117	Making chases up to 7.5x7.5 cm in walls including making good and finishing with matching surface after housing G.I. pipe etc. metre 154.15(Cost of pipe will be paid separately)	R.M.	151.00
S-118	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	each	331.00
S-119	Providing and fixing G.I. fittings (medium quality) of any type viz. bends, elbow, tees, reducers, sockets, jam nuts, nipples/crosses, plug, caps union or long screw with socket and jam nut etc. of good quality, heavy type wherever necessary to be replaced and will be paid in this item.		
a)	15 mm. dia. to 25 mm. dia.	No.	60.00
b)	32 mm. dia. to 50 mm. dia.	No.	166.00
S-120	Polythene ball of approved quality for ball cock		
a)	15mm. dia	each	40.00
b)	20mm. dia	each	54.00
c)	25mm. dia	each	81.00
S-121	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./H.P.H.D. plastic ball.		
a)	15 mm nominal bore, 105 mm long, weighing not less than 138 gms	each	142.00
b)	20 mm nominal bore, 120 mm long, weighing not less than 198 gms	each	196.00
c)	25 mm nominal bore, 152mm long, weighing not less than 440 gms 20 mm nominal bore, 120mm long.	each	403.00
S-122	Insertion rubber sheet 3 mm. thick :		
a)	For flanges of 15 mm. to 25 mm. dia.	No.	13.00
b)	For flanges of 32 mm. to 50 mm. dia.	No.	19.00
c)	For flanges of 65 mm. to 100 mm. dia.	No.	28.00
S-123	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :		
a)	15 mm nominal bore	each	323.00
b)	20 mm nominal bore	each	369.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
c)	25 mm nominal bore	each	376.00

S-124	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	each	777.00
S-125	Providing and fixing C.I. grating, round/square, heavy type.		
a)	75 mm. dia. to 100 mm. dia.	No.	105.00
b)	125 mm. dia. to 150 mm. dia.	No.	131.00
c)	175 mm. dia. to 225 mm. dia.	No.	168.00
S-126	C.P. Grating (125 mm. dia)/ heavy duty.	No.	131.00
S-127	Providing, laying and jointing glazed stoneware pipes class SP-1 with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete :		
a)	100 mm. dia. S.W. pipe	R.M.	329.00
b)	150 mm. dia. S.W. pipe	R.M.	518.00
c)	200 mm. dia. S.W. pipe	R.M.	728.00
d)	250 mm dia, S.W. pipe	R.M.	1135.00
S-128	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) up to haunches of S.W. pipes including bed concrete as per standard design :		
a)	100 mm. dia. S.W. pipe	R.M.	373.00
b)	150 mm. dia. S.W. pipe	R.M.	605.00
c)	200 mm. dia. S.W. pipe	R.M.	710.00
d)	250 mm dia, S.W. pipe	R.M.	828.00
S-129	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W. pipes including bed concrete as per standard design		
a)	100 mm. dia. S.W. pipe	R.M.	785.00
b)	150 mm. dia. S.W. pipe	R.M.	960.00
c)	200 mm. dia. S.W. pipe	R.M.	1120.00
d)	250 mm dia, S.W. pipe	R.M.	1295.00
S-130	Constructing brick masonry manhole in cement mortar 1:4 (1 cement: 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone- III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix(1 cement : 4 coarse sand (zone- III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5		
a)	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	10247.00
b)	Extra for depth beyond 45 cm of brick masonry chamber For 900x800 mm size with common burnt clay F.P.S. (non modular) bricks	each	7126.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-131	Constructing brick masonry chamber for underground C.I. inspection chamber and bends with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg), R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 Fine sand : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12mm thick with cement mortar 1:3 (1 cement : 3 coarse sand), finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design:		
a)	Inside dimensions 455x610 mm and upto 450 mm deep for pipe line with three or more inlets : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5.	each	5639.00
b)	Inside dimensions 500x700 mm and upto 450 mm deep for pipe line with one or	each	6408.00
c)	Inside dimensions 600x850 mm and upto 450 mm deep for pipe line with one or two inlets : With common burnt clay F.P.S. (non modular) bricks of class designation 7.5.	each	7552.00
S-132(a)	Extra for depth beyond 45 cm of brick masonry chamber For 455x610 mm size with common burnt clay F.P.S. (non modular) bricks	each	4945.00
S-132(b)	Extra for depth beyond 45 cm of brick masonry chamber For 500x700 mm size	each	5399.00
S-132 (c)	Extra for depth beyond 45 cm of brick masonry chamber For 600x850 mm size with common burnt clay F.P.S. (non modular) bricks	each	6293.00
S-133	Providing and fixing S.W. intercepting trap in manholes with stiff mixture of cement mortar 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete		
a	100 mm dia	each	332.00
b	150 mm dia	each	450.00
S-134	Supplying and fixing G.I. U clamp made from 25 mm. X 3 mm. flat, bent to shape fixing with Couch screws including grouting the same into wall :		
a)	15 mm. dia. to 25 mm. dia.	No.	21.00
b)	32 mm. dia. to 50 mm. dia.	No.	24.00
c)	65 mm. dia. to 100 mm. dia.	No.	32.00
d)	125 mm. dia. to 150 mm. dia.	No.	35.00
S-135	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:		
a)	100x100 mm size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2151.00
b)	150 x 100 mm size P type With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	each	2170.00
S-136	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	per litre	8.50
S-137	Providing and fixing rectangular high density polyethylene water storage tank with cover, conforming to ISI : 12701, colour of opaque white or as approved by Engineer-in-charge. The rate includes making necessary holes for inlet, outlet & over flow pipes. The base support i/c fittings & fixtures for tank shall be paid separately	per litre	8.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-138	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of: (i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface. (ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface. (iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area. (iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).sqm 705.70	Sq.M.	679.00
S-139	Professional Charges for obtaining necessary permission from Local Municipal Corporation for repairing, cleaning, replacing existing sewer pipe lines including necessary follow up with Municipal Corporation.	Complete Job	2800.00
S-140	Charges for cutting of metallic road/pavement of any thickness including cutting trenches in any kind of soil expect ANY TYPE OF ROCKS upto 1.5 meters depth & width 0.75 meters, refilling the same in layers and ramming, after the work is over as per directions.	Sq.M.	240.00
S-141	Transportation charges for carting away the waste/ Malba/ debris/excavated earth etc. beyond 50 meters lead and outside the LIC premises to contractor's own dump etc. complete all as per Engineer Incharge's direction. (one unit = 5 Cu.M. or part of it). For 2 KM @119.54/ Cum	One unit	651.00
S-142	For attending various miscellaneous repairs and maintenance job of sanitary and water supply nature etc. charges of following are to be paid as under :		
a)	Unskilled cooli / majdoor/ Helper etc.	Day	645.00
b)	Plumber / mason (Semi-skilled).	Day	714.00
S-143	Arrangement of scaffolding / staging with working platform etc if required for any type of repairing work including cost of all materials and labour made with 100mm dia bamboos/ salballah etc and removing away the same from the worksite to Contractor's own dump after completion of work.	Sq.M.	59.00
S-144	Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal & vertical tubes joint with cup & lock system with M.S. Tubes, M.S. tube chalis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the scaffolding shall be measured for payment purpose. (2) The payment will be made once only for execution of all items for such works.	Sq.M.	250.00
	NB : The items will only be operated for replacement of GI/C.I/PVC pipes and uprooting of trees on external façade of building beyond 8 Mtr height. PTMT (poly tetramethylene terephthalate) fittings :		

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
S-145	<i>Providing and fixing PTMT(poly tetramethylene terephthalate) bib cock of approved quality and colour</i>		
a)	<i>15mm nominal bore, 86 mm long, weighing not less than 88 gms</i>	<i>Each</i>	<i>96.00</i>
b)	<i>15 mm nominal bore, 122mm long, weighing not less than 99 gms</i>	<i>Each</i>	<i>126.00</i>
c)	<i>15 mm nominal bore, 165 mm long, weighing not less than 110 gms</i>	<i>Each</i>	<i>137.00</i>
d)	<i>15 mm nominal bore, 90 mm long, weighing not less than 93 gms</i>	<i>Each</i>	<i>149.00</i>
S-146	<i>18.55 Providing and fixing PTMT stop cock of approved quality and colour.</i>		
a)	<i>15 mm nominal bore, 86 mm long, weighing not less than 88 gms</i>	<i>Each</i>	<i>91.00</i>
b)	<i>20 mm nominal bore, 89 mm long, weighing not less than 88 gms</i>	<i>Each</i>	<i>100.00</i>
c)	<i>Concealed stop cock, 15 mm nominal bore, 108 mm long, weighing not less than 108 gms</i>	<i>Each</i>	<i>161.00</i>
S-147	<i>Providing and fixing PTMT pillar cock of approved quality and colour.</i>		
a)	<i>15 mm nominal bore, 107 mm long, weighing not less than 110 gms</i>	<i>Each</i>	<i>159.00</i>
b)	<i>15 mm nominal bore, 125 mm long foam flow, weighing not less than 120 gms</i>	<i>Each</i>	<i>170.00</i>
S-148	<i>Providing and fixing PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fittings arrangement of approved quality and colour.</i>		
a)	<i>450 mm long towel rail with total length of 495 mm, 78 mm wide and effective height of 88 mm, weighing not less than 170 gms</i>	<i>Each</i>	<i>503.00</i>
b)	<i>600 mm long towel rail with total length of 645 mm, width 78 mm and effective height of 88 mm, weighing not less than 190 gms</i>	<i>Each</i>	<i>526.00</i>

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-149	<i>P/f of Standard size PVC tank/ Sintex tanks Cover with locking arrangement</i>	<i>Each</i>	<i>190.00</i>
	FITTING AND FIXING ITEMS :		
	Fixing charges for following items :		
S-150	<i>G.I. pipe of any type of with all type of G.I. fittings viz; Union, Tees, Elbows, Sockets, Nipples, Clamps, Jam Nuts, Reducers, bends, plugs etc.</i>		
a)	<i>15mm. to 25mm. dia.</i>	<i>R.M.</i>	<i>15.00</i>
b)	<i>32mm. to 50mm. dia.</i>	<i>R.M.</i>	<i>20.00</i>
c)	<i>65mm. to 100mm. dia.</i>	<i>R.M.</i>	<i>33.00</i>
S-151	<i>Fitting and fixing water cooler with filter etc. and making all required inlet and outlet connection including shifting the cooler from any position of the building.</i>	<i>No.</i>	<i>131.00</i>
S-152	<i>Prime Cost item for providing of Premium quality fittings and fixtures as per direction / GM ferrule, stop cock & other sanitary/ hardware items which are not included in schedule etc as per requirement and with prior approval of competent authority. The original purchase voucher/ cash memo has to be produced for reimbursement.</i>	As per actual	
S-153	<i>CP & OH for supplying and fixing of prime cost items mentioned as above, all labour & material charges and profit and overhead expenses.</i>	25% on actual cost of fittings	
S-154	<i>Repairing flushing cistern including repairing ball cock with ball displacer, liver, bridge piece, valves, handles, washers, syphon, chain pull, valve fittings, overflow, etc. including supplying necessary parts, if any and adjusting the same.</i>		
a)	<i>Pull and let go cistern of any type and size.</i>	<i>No.</i>	<i>52.00</i>
b)	<i>Low level C.I. or porcelain/P.V.C Cistern.</i>	<i>No.</i>	<i>78.00</i>
c)	<i>Repairing and adjusting any type and size of cistern.</i>	<i>No.</i>	<i>27.00</i>
S-155	<i>Repairing Brass cocks and valves of any type and quality for the following dia :</i>		
a)	<i>15mm. to 25mm. dia.</i>	<i>No.</i>	<i>33.00</i>
b)	<i>32mm. to 50mm. dia.</i>	<i>No.</i>	<i>46.00</i>
c)	<i>65mm. to 100mm. dia.</i>	<i>No.</i>	<i>65.00</i>
S-156	<i>Repairing C.P. Brass cocks of any type and quality including replacement of spindle, 15mm. to 25mm. dia.</i>	<i>No.</i>	<i>136.00</i>
S-157	<i>Petty masonry repairs to manhole, inspection pits including providing, if required with bedding materials.</i>	<i>No.</i>	<i>196.00</i>
S-158	<i>Repairing & replacing washers for cocks and valves 15mm. dia to 25mm. dia.</i>	<i>No.</i>	<i>22.00</i>
S-159	<i>Repairing leaks of any type of waste pipe by applying putty joints etc. complete.</i>	<i>No.</i>	<i>16.00</i>

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-160	Repairing Bottle trap. 25mm. to 40mm. dia.	No.	27.00
S-161	Repairing C.I. Sluice Valve :-		
a)	15mm. to 25mm. dia.	No.	46.00
b)	32mm. to 50mm. dia.	No.	102.00
c)	65mm. to 100mm. dia.	No.	158.00
	CLEANING ITEMS :		
S-162	Cleaning soil waste vent pipe or rain water pipe lines with all types of fittings including opening and refixing the same to restore normal condition :-		
a)	up to 65mm. dia.	R.M.	11.00
b)	75mm. to 100mm. dia.	R.M.	13.00
c)	125mm. to 150mm. dia.	R.M.	14.00
S-163	Cleaning G.I. pipe lines with all types of fittings including opening and re-fixing the same to restore normal condition :-		
a)	15mm. to 25mm. dia.	R.M.	9.00
b)	32mm. to 50mm. dia.	R.M.	11.00
S-164	Cleaning S.W. pipe lines including manholes inspection pits, yard gully :-		
a)	100mm. to 150mm. dia.	R.M.	16.00
b)	200mm. to 250mm. dia.	R.M.	22.00
S-165	Cleaning of terrace/loft water storage tank (inside surface area) upto 2000 litre capacity at all heights with coconut brushes, duster etc., removal of silt, rubbish from the tank and cleaning the tank with fresh water disinfecting with bleaching powder @ 0.5gm per litre capacity of tank including marking the date of cleaning on the side of tank body with the help of stencil and paint and disposing of malba all complete as per direction of Engineer-in-Charge. (The old date already written on tank should be removed with paint remover or black paint and if date is not written with the stencil or old date is not removed deduction will be made @ Rs. 0.10 per litre) (if during cleaning any GI fittings or ball cock is damaged that is to be repaired by contractor at his own cost and nothing extra will be paid on this account)		
a)	Capacity upto 2000 litres.	Litre	0.35
b)	2001 litres to 5000 litres	Litre	0.30
c)	5001 litres to 10000 litres.	Litre	0.25
d)	For every 1000 litres or part thereof it, over 10000 litres.	Litre	0.20
S-166	Cleaning and polishing sanitary wares by acid or cleaning powder as required.	Each	28.00
S-167	Cleaning septic tank including taking out scum, water and sludge and removing the same to contractor's own dump outside the building compound as per direction including paying necessary charges to the local Municipal authorities for providing tankers, cartage etc. for which LIC have no objection.		
a)	Upto 10000 litres volume of the septic tank	No.	2500.00

T.I. No.	DESCRIP TION OF WORK	UNIT	RATES
A	B	C	D
b)	From 10001 litres to 25000 litres septic tank	No.	4000.00
c)	From 25001 litres to 50000 litres septic tank	No.	1000.00
S-168	Filling the tiles & joints in floor and dado with white cement including racking out the weakened joints, cleaning the same etc. complete..	Sq.M.	47.00
S-169	Cleaning surface drain of any sectional dimension and removing filled up materials to outside the building.	R.M.	10.00
S-170	Cleaning soak pit, pulling out soil water, taking out old brick bats, washing, drying and replacing the bats again into the pit including making good deficiencies with new brick bats, restoring the original surface condition of the soak pit complete irrespective of any size of capacity.	No.	1340.00
	PAINTING ITEMS :		
S-171	Painting G.I. pipes and fittings with synthetic enamel white paint with two coats over a ready mixed priming coat, both of approved quality for new work :		
a)	15 mm diameter pipe	R.M.	14.00
b)	20 mm diameter pipe	R.M.	17.00
c)	25 mm diameter pipe	R.M.	22.00
d)	32 mm diameter pipe	R.M.	27.00
e)	40 mm diameter pipe	R.M.	32.00
f)	50 mm diameter pipe	R.M.	38.00
S-172	Repainting G.I. pipes and fittings with synthetic enamel white paint with one coat		
a)	15 mm diameter pipe	R.M.	8.00
b)	20 mm diameter pipe	R.M.	9.00
c)	25 mm diameter pipe	R.M.	11.00
d)	32 mm diameter pipe	R.M.	13.00
e)	40 mm diameter pipe	R.M.	15.00
f)	50 mm diameter pipe	R.M.	18.00
S-173	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :		
a)	15 mm diameter pipe	R.M.	9.00
b)	20 mm diameter pipe	R.M.	11.00
c)	25 mm diameter pipe	R.M.	13.00
d)	32 mm diameter pipe	R.M.	16.00
e)	40 mm diameter pipe	R.M.	18.00
f)	50 mm diameter pipe	R.M.	22.00
g)	65 mm diameter pipe	R.M.	27.00
h)	80 mm diameter pipe	R.M.	32.00
S-174	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture, over and including a priming of ready mixed zinc chromate yellow primer on new work:		
a)	100 mm diameter pipes	R.M.	55.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
b)	150 mm diameter pipes	R.M.	83.00
S-175	Painting (two or more coats) on rain water, soil waste and vent pipes and fittings		
a)	100 mm diameter pipes	R.M.	61.00
b)	150 mm diameter pipes	R.M.	90.00
S-176	Painting (two or more coats) on rain water, soil, waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture over and including a priming coat of ready mixed zinc chromate yellow primer on new work :75 mm diameter pipes	R.M.	42.00
S-177	Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with black anticorrosive bitumastic paint of approved brand and manufacture on old work :		
a)	75 mm diameter pipes	R.M.	20.00
b)	100 mm diameter pipes	R.M.	26.00
c)	150 mm diameter pipes	R.M.	37.00
S-178	Painting (one or more coats) on rain water, soil waste and vent pipes and fittings with synthetic enamel paint of approved brand and manufacture and required colour on old work :		
a)	75 mm diameter pipes	R.M.	21.00
b)	100 mm diameter pipes	R.M.	26.00
c)	150 mm diameter pipes	R.M.	38.00
S-179	Painting G.I/M.S tank supporting RSJ with 2 coats of synthetic enamel paint over a coat of primer after scrapping and preparing the surface :-	Sq.M.	55.00
	MISCELLANEOUS ITEMS :		
S-180	Cleaning the vegetation in the form of trees, saplings etc at any height above ground level all among the outside periphery of the external wall / chajja / junction of rain/ soil pipes/ building joints/ expansion joints/ parapet etc including removal of roots, rubbish and applying acid, sealing the same with bitumen 95/15 grade, 85/25 grade and mending good with cement concrete/ cement plaster to match with the surrounding including scaffolding up tp 8.00 mtrs. wherever required.	No.	66.00
	REPAIRS WORKS :		
S-181	Supplying, fitting & fixing internal parts of low level P.V.C. Cistern :		
a)	Syphon of Reliance make	Each	306.00
b)	15mm dia ball cock	Each	208.00
c)	Cistern handle	Each	118.00

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-182	<i>Making the opening in brick masonry including dismantling in floor or walls by cutting masonry and making good the damages to walls, flooring and jambs complete, to match existing surface i/c disposal of mulba/ rubbish to the nearest municipal dumping ground, all complete as per direction of Engineer-in-Charge.</i>		
	<i>For door/window/ clerestory window</i>	<i>Sqm</i>	<i>918.00</i>
S-183	<i>Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.</i>	<i>Each</i>	<i>314.00</i>
S-184	<i>Cutting holes of required size in brick masonry wall for fixing of exhaust fan including providing and fixing 300 mm dia PVC pipe conforming BIS-12818 and making good the same etc. complete as per direction of Engineer-in-charge.</i>	<i>Each</i>	<i>213.00</i>
S-185	<i>Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c mulba all complete as per directions of Engineer-in-Charge.</i>	<i>Each</i>	<i>97.00</i>
S-186	<i>Repair to plaster of thickness 12mm to 20 mm in patches of area 2.5 sqm and under, including cutting the patch in proper shape, raking out joints and preparing plastering the wall surface with white cement based polymer modified self curing mortar, including disposal of rubbish, all complete as per the direction of Engineer-In-Charge</i>	<i>Sqm</i>	<i>474.00</i>
S-187	<i>Cleaning and desilting of gully trap chamber, including removal of rubbish mixed with earth etc. and disposal of same, all as per the direction of Engineer-in-charge</i>	<i>Each</i>	<i>78.00</i>
S-188	<i>Cleaning of choked sewer line by diesel running vehicle mounting hydraulic operated high pressure suction cum jetting sewer cleaning machine fitted with pump having 4000 litres suction capacity and 6000 litres water jetting tank capacity including skilled operator, supervising engineer etc. for cleaning and partial desilting of manholes and dechocking of sewer lines. Dechocking and flushing of sewer line from one manhole to another by high pressure jetting system of 2200 PSI for sewer line from 150mm dia upto 300mm</i>	<i>R.M.</i>	<i>250.00</i>
S-189	<i>Cleaning of under ground sump, Over Head R.C.C. Tank (independent staging) including disposal of slit and rubbish, all as per direction of Engineer-in-Charge. The cleaning shall consist following operations:- (i) Tank shall be emptied of water by pumping & bottom shall be cleaned of silt and other deposits. (ii) Entire surface area of the sump shall then scrubbed thoroughly with wirebrush etc. and pressure washed with water. (iii) Chlorination of RCC internal surface by liquid chlorine. (iv) The treated surface shall be dried using air jetting and all loose particles shall be removed from the surface. (v) Finally the surface shall be treated with ultraviolet radiation etc. as per direction of Engineer-in-Charge.</i>	<i>Sqm</i>	<i>63.00</i>
S-190	<i>Hacking of CC flooring including cleaning for surface etc. complete as per direction of the Engineer-in-Charge.</i>	<i>Sqm</i>	<i>2.50</i>



भारतीय जीवन बीमा निगम
LIFE INSURANCE CORPORATION OF INDIA

DIVISIONAL Office, Dehradun.

T.I. No.	DESCRIPTION OF WORK	UNIT	RATES
A	B	C	D
S-191	<i>Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes(within 50 metres lead) as per direction of Engineerin-Charge.</i> (a) Internal Work- Exposed on wall	<i>R.M.</i>	<i>2.50</i>
S-192	<i>Taking out existing wooden door shutter, repair by cutting, painting etc. and refixing of repaired door shutters to existing door frames, including replacement of hinges with screws, etc. as required, all complete as per the direction of the Engineer-in-charge.</i>	<i>Each</i>	<i>286.00</i>
	Precious items(For Restricted use & to be used in special case with specific approval of Competent Authority)		
SP-193	<i>Providing and fixing white vitreous china extended wall mounting water closet of size 780x370x690 mm of approved shape including providing & fixing white vitreous china cistern with dual flush fitting, of flushing capacity 3 litre/6 litre (adjustable to 4 litre/8 litres), including seat cover, and cistern fittings, nuts, bolts and gasket etc complete.</i>	<i>Each</i>	<i>PC</i>
SP-194	<i>Providing & fixing Vit. China EWC Cat. No. FLS-WHT-5951 of Jaquar with Single piece Slim Concealed Cistern(Cat. no. JCS-WHT-2400 WS of Jaquar) with wall mounting frame, installation kit & S-type Drain pipe connection set for wall hung EWC with suitable Control plate of Jaquar i/c required dismantling/ chasing in walls and floors etc. complete in all respects. However excluding the cost of Ceramic tiles/ DADO & floor material which shall be paid separately in therelevant tender item</i>	<i>Each</i>	<i>PC</i>
SP-195	<i>Providing and fixing Vitreous China Table Top Wash basin of Jaquar (Cat. no. FLS-WHT-5931) or equivalent approved make & colour , size 515x365x120 mm with zinc coated MS/C.I.brackets, Single liver Basin Mixer without pop up waste system, with 450 mm long braided hoses(Jaquar Cat no. FLR-5025-B) or other equivalent approved make , 32 mm dia full threaded C.P. brass waste (Cat. no. ALD-705, Jaquar) , 32 mm Dia Heavy duty CP Brass Bottle Trap (Cat. no.ALD-CHR- 769) with suitable CP Caps , washers, nails screws etc complete. Counter cost for wash basin is not considered which will be paid separately</i>	<i>Each</i>	<i>PC</i>

Template to quote the offer/ rates

1. The Vendors are requested to quote %age rate and evaluation will be done on the basis of quoted percentage on basic rates of the above Schedule. Hence, contractors are requested to quote their lowest percentage offer in the following specified location otherwise the tender shall be rejected.

2. The percentage to be quoted in words and figure. The Contractor is advised to clearly mention offered in % age BELOW /AT PAR / ABOVE in the specified locations GROUPS.

3. The rates are to be quoted after ascertaining yourself with locations of various offices of LIC of India as follows:

Properties area wise in three groups' i.e. Group-A, Group- B & Group-C

Name of Group	Number of Branches under the Group.
GROUP-A	D.O.Building, CBO-I,CBO-II, CBO-III, CAB, P&GS, (Dehradun), LIC Colony, all S.Os(S.O.Doiwala, ISBT, Survey Chowk, Nehru colony etc.) & Guest Houses EDMS /RMF centre Kunwa Wala, and other property in local area of Dehradun
GROUP-B	B.O.-I, B.O-II (Haridwar), BO-I, BO-II (Roorkee), BO-I, BO-II (Saharnpur), B.O.Deoband, B.O.Gangoh. B.O.Vikasnagar, B.O. Kotdwar. B.O.Rishikesh. S.O Lakhsar, Bahadrabad , CLIA-Sahranpur, Saharanpur and all other properties in these areas.
GROUP-C	B.O.Srinagar, B.O.Gopeshwar, B.O.Uttarkashi, B.O.New Tehri & Staff qtrs at New Tehri, B.O.Mussoorie & Guest house with other property at Mussoorie , all S.Os. (Naugaon, Pauri, Rudraprayag etc.) and other properties in these area.

Location in the above areas (hills and mufasil / Plane / local) may increase of decrease. Rates will be unified for all branches on over all basis including transport /loading/ connections / removing old unserviceable material as per detailed out in tender.

We have carefully and fully studied this tender documents including **above Schedule** and our lowest percentage rates are as Follows:

I /We QUOTE OUR LOWSET OFFER FOR GROUPs

A. GROUP _____ BELOW (_____ AT PAR) . _____ ABOVE.
(Local area offices)

In words _____

B. GROUP _____ BELOW (_____ AT PAR) . _____ ABOVE.
(Plane area Offices)


In words _____

C. GROUP _____ BELOW (_____ AT PAR) . _____ ABOVE.
(Hill & Muffusil area offices)

In words _____

Contractor




Sr. Divisional Manager