

NSIC

NSIC

THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISE)
Technical Services Centre, Balitikuri, Howrah-711 113.

Tel: 2653 0304, 4280
Telefax: 2653 1314

BID/TENDER DOCUMENT

Name of the work: Waterproofing of Store Building at NSIC Technical Services Centre, Howrah

Date of Issue of Tender Document: 23/07/2014 from 11:00 A.M.

Document Sale End Date: 31/07/2014 upto 11:30 A.M.

Bid Submission End Date: 31/07/2014 upto 3:00 P.M.

**THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISE)
Technical Services Centre, Balitikuri, Howrah-711 113**

Tender Notice No. : NTSC/H/store/07/14

Date: 21.07.2014

M/s. -----

Sub: Waterproofing of Store Building at NSIC Technical Services Centre, Howrah

Dear Sir,

Tender documents in respect of the above-mentioned work containing ___ pages are forwarded herewith. Please note that tender is to be delivered in the office of the General Manager (SG) at the NSIC-Technical Services Centre, Howrah, Up to 3.00 P.M. on 31.07.2014.

The Tender should be signed, dated and witnessed in all places provided for in the documents; all other papers should be initialed.

The person, signing the tender on behalf of another person or on behalf of firm shall attach with tender a certified copy of the power of attorney on a non-judicial stamp paper of requisite value duly executed in his favour by such person or all the partners of the firm and must state specifically that he has authority to sign such tenders for and on behalf of other person or firm as the case may be, and in all matters pertaining to the contract.

This letter shall form part of the **“CONTRACT”** and must be signed and returned along with the tender documents.

Yours faithfully,

Encl.: Pages _____

GENERAL MANAGER (SG), NSIC-TSC, Howrah

CONTRACTOR’S SIGNATURE

**TENDER NOTICE FOR WATERPROOFING OF STORE BUILDING AT NSIC
TECHNICAL SERVICES CENTRE, HOWRAH (W.B)**

Tender Notice No. : NTSC/H/store/07/14

Date: 21.07.2014

Sealed tenders are hereby invited on behalf of NSIC-TSC from the eligible contractors having experience in similar nature of work and team of Technical hand/Civil Engineers for waterproofing of Store Building at NSIC Technical Services Centre, Howrah (WB).

Description of Work	Estimated Cost	Application fee (In Rs.)	EMD (In Rs.)	Completion Time	Date of Issue of Tender	Last date of submission
WATERPROOFING OF STORE BUILDING AT NSIC TECHNICAL SERVICES CENTRE, HOWRAH (W.B)	Rs. 4.03 Lakh	500/-	4000/-	50 days	23.07.2014	31.07.2014 upto 3:00 PM

Sale of Tender Paper

from 23/07/2014 to 31/07/2014 (upto 11:30 A.M.)

Tender documents will be issued on all working days during working hours except on Sundays & holidays. In the event of the specified date for submission/opening of bids declared a holiday the bids will be received/ opened on the appointed time on the next working day. The tender document is also available on websites www.tenders.gov.in and can be downloaded.

Eligibility Criteria:

The intending tenderer must have in its name as a prime contractor experience of having successfully completed similar works during last 7 (seven) years should be either of the following:

Three similar completed works each costing not less than the amount equal to 40% of the estimated cost. OR
Two similar completed works each costing not less than the amount equal to 50% of the estimated cost. OR
One similar completed work costing not less than the amount equal to 80% of the estimated cost.

While applying for the tender document, the intending agencies shall furnish proof of work experience certificates and submit the documents in respect of PAN, Sales Tax /VAT, Service Tax, ESI and EPF registration etc. as per government rule.

Opening of Tender Paper:

The tenders received will be opened on 31/07/2014 at 4:00 PM in the conference room, Administrative building, NSIC Technical Services Centre, P.O.-Balitikuri (Japani Gate), Howrah.

For Tender document and other details please contact G.M.(SG), NSIC-Technical Services Centre, P.O.-Balitikuri, Howrah-711 113. Tel: 2653 0304, Fax: 2653 1314.

CONTRACTOR

**General Manager(SG)
NSIC-Technical Services Centre Howrah**

DETAILED TENDER CALL NOTICE

Tender Notice No. : NTSC/H/store/07/14

Date: 21.07.2014

1 INVITATION OF TENDERS:

1.1 Tenders in sealed envelopes for the works: “.....” Will be received from to at Tender Box, Admn section, Administrative building, NSIC Technical Services Centre, P.O.-Balitikuri (Japani Gate), Howrah-711 113.

1.2 Only those tenderers who are willing to accept all the terms & conditions of this detailed tender call notice need submit the tenders.

1.3 Application fee and EMD can be deposited in the form of Demand Draft (DD)/Banker’s Cheque (BC)/Banker’s Pay Order (BPO) from any scheduled/nationalized bank in favour of ‘National Small Industries Corporation Ltd.’ payable at Howrah or cash receipt from the account section of NTSC-Howrah. Cheques will not be accepted.

1.4 Tenders not accompanied with the earnest money deposit as specified in the tender call notice shall not be considered at all.

1.5 An affidavit to be submitted by the bidder on a non-judicial stamp paper of minimum Rs.10/- duly attested by notary, certifying that “Information/documents/experience certificate enclosed by(bidder) along with this bid/pre-qualification documents are genuine and also (bidder) shall not have any objection in case NSIC Ltd. Verifies them from the issuing authority. Original copy of the documents will also be produce to NSIC Ltd. for their verification on demand. In case, information/ documents/ experience certificate are not found genuine(bidder) shall be debarred for four years from participating in any tender in future. Further, (bidder) confirms that we have never been blacklisted by any of the government organization.

1.6 All certificates and documents in support of the qualification criteria should be signed, stamped and attested. Tender with incomplete information will be rejected.

1.7 The management of NSIC reserves the right to reject any or all tender or split the work among two or more tenderers without assigning any reasons whatsoever.

1.8 The bidder shall sign and affix seal on all the pages of the tender documents and the drawings. Any over writing shall be signed and stamped.

2.0 The tender issuing authority reserves the right to issue or refuse to issue the tender document to any party without assigning any reason thereof.

2.1 After opening the tenders if a tenderer withdraws himself from the competition during the validity of tender, the EMD received along with the tender shall be forfeited. The EMD of the unsuccessful tenderers who are not awarded with the work will be refunded on application after the tender is finalized.

CONTRACTOR

**General Manager SG)
NSIC-Technical Services Centre Howrah**

**THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISE)
Technical Services Centre, Balitikuri, Howrah-711 113**

Tender Notice No. : NTSC/H/store/07/14

Date: 21.07.2014

INSTRUCTIONS TO TENDERERS

1. Tenderers/Agencies are advised to acquaint themselves fully with the scope of work, time schedule and terms & conditions including all the provisions of the tender document before framing up their tender.
2. Tenderers are advised to inspect and examine the building and its surroundings and satisfy themselves before submitting their tenders as to nature of the ground and sub-soil (so far as practicable) the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain necessary information as to risks, contingencies and other circumstances which may influence or affect their tender. Non-familiarity with the site conditions will not be considered a reason either for extra claims or for not carrying out the work in strict conformity with the drawings and specifications. For site visit and any clarification / information, the intending tenderer may contact the site-in-charge, for any assistance.

3. Submission Tender :

The expression "Tender Notice" referred to in the tender Documents shall be deemed to include any Notice / Letter Inviting tender with respect to the work forming the subject matter of the documents and vice-versa.

The tender complete in all respects shall be submitted along with Earnest money as stipulated in the Notice / Letter Inviting Tender Only. Tenders without Earnest Money Deposit will be out rightly rejected.

Tenders shall be submitted in two separate sealed envelopes super scribing as following:

ENVELOPE –I

(TECHNICAL BID)

Name of work :

Tender No. :

Due date & time of opening :

Addressed to : General Manger(SG)
NSIC-TSC,
P.O. :Balitikuri, Howrah – 711 113.

From :
Name & Address of the tenderer :

This envelope shall contain the following:

Application fee and EMD in the form of Demand Draft drawn on a scheduled/nationalized bank in favour of ' National Small Industries Corporation Ltd. ' payable at Howrah or cash receipt from the account section of NTSC-Howrah. Cheques will not be accepted.

Details of the similar nature of works executed by the bidder, on the basis of which bidder wishes to get qualified and copies of supporting work orders and completion certificate/TDS in case of certificate issued by private institutes.

Details of present commitments giving details of work like name / type of the work, contract value, date of commencement of work, percentage completed as on date and schedule date of completion along with copies of letters of Intent / work orders and other documents etc. in evidence thereof.

List of equipment proposed to be committed for the work. Generally no equipment shall be loaned or supplied by the Corporation.

Documents in Valid registration with Sales Tax department for Work Contract Tax/VAT, Service Tax, PAN, ESI and EPF.

Partnership Deed in case of partnership firm and Articles of Association incase of limited Company or Private Ltd. Company.

Power of Attorney in favour of person who has signed the tender documents. In case of company the authority is to be given under Board resolution.

General Conditions of Contract, Tender Notice, Special Conditions of Contract, Technical Specifications & Drawings.

ENVELOPE - II

Name of work :
Tender No. :
Due date & time of opening :

Addressed to : General Manger (SG)
NSIC-TSC,
P.O. :Balitikuri, Howrah – 711 113.

From :
Name & Address of the tenderer :

This part shall contain the **Bill of Quantities i.e. Price Bid** (total price to be charged by the tenderers for executing the work), complete in all respect.

NOTE: It is to be noted that the sealed envelope containing this part shall contain only prices and no conditions (i.e. deviations / assumptions / stipulations / clarifications / comments / any other request) whatsoever and the conditional offers will be rejected.

4. Qualifying Criteria

Bidders having following valid documents will be qualified and considered for opening their price bid. Issuance of tender documents does not mean that the parties are considered qualified. Technically qualified party has not right to claim for award of the work. Corporation reserves the right to cancel or award the work to any party/bidders.

- i) Valid Registration in Sales Tax Department for Work Contract Tax/VAT as applicable & PAN card.
- ii) Work Orders/Completion Certificates of the three works of similar nature in their name.
- iii) Have a team of Technical hand/Civil Engineers.

5. Abnormal Rates

The Tenderer is expected to quote rate after careful analysis of costs involved considering all conditions of site/building and contract. If it is noticed that the unit rates quoted by the Tenderer are unusually high or unusually low, it will be sufficient cause for rejection of the tender unless the corporation is convinced about the reasonableness of the unit rates on scrutiny of the analysis for such unit rate to be furnished by the tenderer on demand. Notwithstanding anything there in stated, the rates once accepted by the corporation shall be final and shall not be subject to any change either on account of un-workability of unit rates or on any other ground whatsoever.

6. Deviations to Tender Clauses:

Tenderers are advised to submit the tender strictly based on the terms and conditions and specification contained in the Tender Documents and not to stipulate any deviations. Conditional tenders are liable to be rejected.

7. Validity of Offer

Tender submitted by tenderers shall remain valid for acceptance for minimum period of 120 days from the date of opening of the tenders. The tenderers shall not be entitled during the said period of 120 days, to revoke or cancel their Tender or to vary the Tender given or any term thereof, without the consent in writing of the corporation. In case of tenderers revoking or canceling their tenders or varying any terms in regard thereof without the consent of corporation in writing, owner shall forfeit Earnest money paid by them along with their tender.

8. Preference to Public Sector Enterprise.

Corporation reserves the right to allow preference to public sector enterprises as admissible under the existing Government policy.

9. Award of Work

The management of NSIC reserves right to reject any or all tender or split the work into two or more parts and award the work to separate agencies / contractors.

10. Acceptance/Rejection of Tender

- i) Corporation does not bind itself to accept the lowest tender.

- i) Corporation also reserves the right to accept or reject any tender without assigning any reason whatsoever.
- ii) Corporation also reserves the absolute right to reject any or all the tenders at any time solely based on the past unsatisfactory performance by the bidder(s) the opinion/decision of NSIC regarding the same shall be final and conclusive.

11. Corrections

No corrections or overwriting will be entertained in, schedule of rates by using correcting fluid.

12. Firm Rates

The rates quoted by bidder shall remain firm till completion of all works even during the extended period, if any, on any account what so ever. It may be noted that no deviation on this account will be acceptable and offer not containing firm price shall not be considered.

13. Bidder to quote the similar rate for identical items. In case of any difference the lowest rate shall be considered for award of work.

14. It will be obligatory on the part of the tenderer to sign the tender documents for all the component s & parts. After the work is awarded he will have to enter in to an agreement for work awarded on a non-judicial stamp paper of Rs. 100/- (Rupees One hundred only) at his own cost within ten days from date of receipt of acceptance order or before the work is undertaken.

15. All documents submitted with the tender shall be in English language.

16. Telegraphic quotations will not be considered.

FORM OF TENDER

To,
General Manager (SG)
THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.
(A GOVERNMENT OF INDIA ENTERPRISE)
Technical Services Centre, Balitikuri, Howrah-711 113.

Sir,
Tender for Store Building at NSIC Technical Services Centre, Howrah

Having visited the site and having also examined the drawings, conditions of Contract, specifications and all the constituents of the tender for the above named works, we, the undersigned, (hereafter referred to as the "Contractor") offer to renovate/ construct, complete and maintain the whole of the said works in conformity with the said drawings, conditions of contract and specifications for the same as mentioned in the offer.

1. In consideration of me/us being invited to tender, I/We agree to agree to keep the tender open for acceptance for 120 days from the due date of submission thereof and not to make any modifications in its terms and conditions, which are not acceptable to the Corporation.

2. Earnest Money Deposit

We hereby tender the E.M.D. of Rs.4, 000/- (Rupees Four Thousand) in the form as prescribed by you. We agree to abide by this tender for a period of 120 days from the date fixed for receiving the same. It shall remain binding upon us as may be accepted by you at any time before the expiration of this period.

2. We undertake, if our tender is accepted, to commence the works within 10 days of the letter of award. We also agree that the above named initial E.M.D. may be forfeited to you in the event of our failure to abide by any of the terms set out or failure to commence the work within 10 days from issue of letter of order to commence work.

3. We agree to complete and deliver the whole of the works comprised in the contract within 50 days (fifty five days) calculated from the 10th day after issue of letter of award by the office.

4. All fees, levies required to be paid for the execution of the formal contract deed shall be the responsibility of the contractor.

5. We acknowledge and accept that you are not responsible for and shall not defray any expenses incurred by us in visiting the site or in submitting this Tender. Further to the above we have visited the site of the proposed works and have acquired the requisite information relating thereto in so far as it affects the pricing of the tender invited by you and including existing services/ utilities, space available, all necessary logistics for executing the works.

6. We acknowledge and accept that you have unfettered right to reject any or all the tenders, or to accept any tender received by you at your sole discretion, without assigning any reason whatsoever therefore.

7. We also agree to dismantle all such temporary works, clear debris, clean the site and make over clear site to the client at the time of issue of completion certificate.

8. We promise to indemnify and keep the client indemnified in respect of all taxes, duties and excises and all other costs and expenses to be borne and paid by us under the contract as well as in respect of any third party claim, if any, against the client arising out of the performance of this contract or otherwise/ whatsoever.

9. Regarding specific Guarantees towards Water Proofing Treatment, the tenderer has to undertake full responsibility of the works.

10. Work may be split up in parts combined if so desired by the management of NSIC without assigning any reason whatsoever. No extra claim whatsoever shall be admissible on account of this. The NSIC reserves to themselves the right to alter the drawings and nature of work and of adding to or omitting any items of works or of having portions of the same carried out through other agencies without prejudice to this contract and the contractor shall not be entitled to any remuneration or compensation on such work.

Signature of contractor/agency.....

**Duly authorized to sign the tender on behalf
of the (in block capitals).....**

Dated.....

Witness.....

Date.....

Address.....

.....

DECLARATION

(FOR THOSE WHO HAVE DOWNLOADED THIS TENDER DOCUMENT FROM
WEBSITE ONLY)

This is to certify that I/We have downloaded this tender document from NSIC Website/Govt. Tenders and is being submitted without tampering at any page. Further, we understood that in the event of such tampering is detected at any stage or any time, management of NSIC have got right to terminate this work, forfeit the EMD/Security Deposit submitted by us and our firm can be black listed.

Signature of the Bidder and

Seal of the firm

GENERAL CONDITIONS OF CONTRACT

1. Where the context so requires, words importing the singular only also include the plural and vice versa.
2. Corporation shall mean “The National Small Industries Corporation Ltd. (A Government of India Enterprise) NSIC-Technical Services Centre (NSIC-TSC), P.O.Balitikuri, Howrah-711 113” and shall include their legal representatives, successors and permitted assigns.

3. Definition

The ‘Contract’ means and includes the documents forming the tender and acceptance thereof together with the documents referred to therein including the conditions, the specifications, designs, drawing and instructions issued from time to time by the ‘Engineer-in-charge’ the formal agreement executed between the Corporation and the Contractor, and all these documents taken together shall be complementary to one another.

The ‘Site’ shall mean the land and / or other places on, 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.

The ‘Contractor’ shall mean the individual or firm or company, whether corporate or not, undertaking the works and shall include the legal personal representative or such individual or the persons composing such firm or company and the permitted assignee of such individual or firm or company.

The ‘Competent Authority’ means the Chairman cum Managing Director of the Corporation and his successors.

The Engineer-in-charge means the Technical Officer of the Corporation, as the case may be who shall supervise and be the In-charge of the works.

The Chief General Manager means the officer who holds the charge of that post in the Corporation during the currency of this agreement, to act on behalf of the Chairman of the NSIC Ltd.

‘IS Specification’ means the Specification of latest edition with amendments, if any, up to time of receipt of tender by Corporation issued by the Bureau of Indian Standards as referred to in the specifications and / or work orders.

The ‘Contract Sum’ means the sum agreed or the sum calculated in accordance with the prices accepted by the NSIC-TSC in the tender and / or the contract / negotiated rates payable on completion of the works.

The ‘Final Sum’ means the amount payable under the Contract by the Corporation to the Contractor for the full and entire execution and completion of works, in time.

The ‘Date of Completion’ is the date / date(s) for completion of the whole works, set out in the tender documents, or any subsequently amended by the Corporation.

‘Excepted Risks’ are risks due to riots (otherwise than among contractor’s employees) and civil commotion (in so far as both these are uninsurable) war (whether declared or not), invasion act of foreign enemies, hostilities civil war, rebellion, revolution, insurrection military or usurped power, Acts of God, such as earthquake, lightning, unprecedented floods and other causes over which the contractor has no control and accepted as such by the Chief Competent Authority or causes solely due to use or occupation by the ‘Corporation’ of the part of works in respect of which a certificate of completion has been issued.

‘Urgent works’ shall mean any urgent measures, which in the opinion of the Engineer-in-charge, become necessary during the progress of the work to obviate any risk or accident or failure or which become necessary for security.

The ‘Works’ shall mean the works to be executed in accordance with the contract or part(s) thereof as the case may be and shall include all extra or additional, altered or instituted works or temporary and urgent works as required for performance of the contract.

SCOPE AND PERFORMANCE

4. Contract Documents:

The Contractor shall be provided, free of charge, one certified true copy of the Contract Documents and of all further drawings, which may be issued during the progress of the Works. He shall keep these Documents on the Site in good order, and the same shall at all reasonable times be available for inspection and use by the Engineer-in-Charge, his representative or by other inspecting Officers.

The Contractor shall use none of these documents for any purpose other than that of this Contract.

5. Works to be carried out:

The work to be carried out under the Contract shall, except as otherwise provided in these conditions, include all labour, materials, tools, plant, equipment and transport which may be required in preparation of and for and in the full and entire execution and completion of the works. The descriptions given in the Schedule of Quantities shall, unless otherwise stated, be held, to include wastage on materials, carriage and cartage, carrying in return of empties hoisting, setting, fitting and fixing in position and all other labour necessary in and for the full and entire execution and completion as aforesaid in accordance with good practice and recognized principles.

6. Sufficiency of Tender:

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices quoted in the Schedule of Quantities, which rates and prices shall except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and maintenance of the Works.

7. Discrepancies and Adjustment of Errors:

The several documents forming the contract are to be taken as mutually explanatory of one another, detailed drawing being followed in preference to small-scale drawing and figures, dimensions in preference to scale and Special Conditions in preference to General Conditions.

7.1(A) In the case of discrepancy between Schedule of quantities the Specifications and / or the Drawings, the following order of preference shall be observed.

Description in Schedule of Quantities.

Particular Specification and Special Conditions, if any.

Drawings.

General Specifications.

7.1(B) If there are varying or conflicting provisions made in any one documents forming part of the Contract, the Accepting Authority shall be the deciding authority with regard to the intention of the document.

7.2 Any error in description, quantity or rate in Schedule of Quantities or any omission there from shall not vitiate the Contract or release the Contractor from the execution of the whole or any part of the Works comprised therein according to drawings and specifications or from any of his obligations under the Contract.

If on check there are found to be differences between the rates given by the contractor in words and figures or in the amount worked out by him in the schedule of quantities and general summary, the same shall be adjusted in accordance with the following rules: -

In the event of a discrepancy between description in words and figures quoted by a tenderer, the description in words shall prevail.

In the event of an error occurring in the amount column of Schedule of Quantities as a result of wrong extension of the unit rate and quantity the unit rate shall be regarded as firm and extension shall be amended on the basis of the rate.

All errors in totaling in the amount column and in carrying forward totals shall be corrected.

8. Security Deposit:

Total security deposit shall be 10 % of the accepted tender cost and shall be deposited/deducted by/from the contractor as following: -

a). Initial Security Deposit:

Contractor will deposit initially a two and half percent (2.5%) of the accepted tender cost as an initial security deposit within ten (10) days of receipt of the letter of intent/notification of acceptance of the tender by him. The earnest money deposited shall be converted into initial security deposit.

b). Balance Security Deposit

Balance seven and half per cent (7.5%) will be recovered in installments through deductions at the rate of ten per cent (10%) of the value of each running account bill till total security Deposit amount is collected, after which no further deduction from Bills will be made on this account. However, if the value of Tender i.e. actual execution exceeds the accepted value of tender. Further recoveries towards Security Deposit shall effect at ten per cent (10%) of the value in excess of the accepted value of the Tender from running bills and final bill. Similarly, if the value as per actual execution is less than the excess deducted amount shall be refunded to the CONTRACTOR along with final bill. Alternatively,

the CONTRACTOR may, at his option, deposit the full amount of Ten per cent (10%) of the accepted value of the Tender towards the Security Deposit within Ten (10) days of receipt by him of the notification accepting his tender

- 8.1 All compensation or other sums of money payable by the contractor under the terms of this Contract or any other Contract or any other account whatsoever may be deducted from or paid by the sale of a sufficient part of his security deposit interest or from any sums which may be due or may become due to the Contractor by Corporation on any account whatsoever and in the event of his security deposit being reduced by reasons of such deduction or sale as aforesaid, the Contractor shall within fourteen days of receipt of notice of demand from the Engineer-in-Charge make good the deficit.
- 8.2 On expiry of the Defects Liability Period Engineer-In-Charge shall, on demand from the Contractor, refund to him the security deposit provided the Engineer-in-Charge is satisfied that there is no demand outstanding against the Contractor.
- 8.3 No interest shall be payable to the contractor against the Security Deposit furnished / recovered from the contractor, by the Corporation.

10 Deviations / Variations Extent & Pricing:

- 10.1 The Engineer-in-Charge shall have power (i) to make alteration in, omissions; from, additions to, or substitutions for the original specification, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and (ii) to omit a part of the works in case of non-availability of a portion of the Site or for any other reasons, and the Contractor shall be bound to carry out the Works in accordance with any instructions given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions or substitution shall form part of the Contract as if originally provided therein and any altered, additional or substituted work which the Contractor may be directed to do in the manner above specified as part of the Works, shall be carried out by the contractor on the same conditions in all respects including price on which he agreed to do the main work. Any alterations, Omissions additions or substitutions which radically change the original nature of the Contract shall be ordered by the Engineer-in-charge as a deviation and in the event of any deviation being ordered which in the opinion of the contractor changes the original nature of the Contract, he shall carry it out and the rates for such additional, altered or substituted work shall be determined by the Engineer-in-Charge as follows.
- 10.2 The time of completion of the Works shall, in the event of any deviations resulting in additional cost over the Contract Sum being ordered be extended as follows if requested by the Contractor.

In the proportion which the additional cost of the altered additional or substituted work, bears to the original Contract sum; plus.

25% of the time calculated in (a) above or such further additional time as may be considered reasonable by the Engineer-in-Charge.

11.0 Rates for Extra/ Additional Items

- i) If the rate for additional, altered or substituted item of work is specified in the Schedule of Quantities, the Contractor shall carry out the additional, altered or substituted item at the same rate.

ii) 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.

iii) If the rate for any altered, additional or substituted item of work cannot be determined in the manner specified in sub-para (i), and (ii) above, the contractor shall, within 7 days of the date of receipt of the order to carry out the said work, inform the Engineer-in-Charge under advice to the Accepting Authority of the rate which he proposes to claim for such item of work, supported by analysis of the rate claimed, and the Engineer-in-Charge shall, within One month thereafter, after give due consideration to the rate claimed by the Contractor determine the rate on the basis of market rate(s). In the event of the contractor failing to inform the Engineer-in-Charge within the stipulated period of time, the rate which he proposes to claim, the rate for such item shall be determined by the Engineer-in-Charge on the basis of market rate(s) and shall be final.

12.0 Suspension of Works:

a) The contractor shall, on receipt the order in writing of the Engineer-in-Charge, suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-charge may consider necessary for any of the following reasons:

On account of any default on part of the Contractor; or

For proper execution of the Works or part thereof for reasons other than the default of the Contractor; or

For safety of the works or part thereof. The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-Charge.

b) If the suspension is ordered for reasons (ii) and (iii) in sub-para (a) above. The Contractor shall be entitled to an extension of the time equal to the period of every such suspension plus 25%.

13. Time and Extension for Delay:

13.1 The time allowed for execution of the works as specified in the Appendix or the extended time in accordance with these conditions shall be the essence of the Contract. The execution of the works shall commence from the 5th day after the date on which the Corporation issues written orders to commence the work or from the date of handing over of the site, which ever is earlier. If the Contractor commits default in commencing the execution of the work as aforesaid, Corporation shall without prejudice to any other right or remedy be at liberty to forfeit the earnest money absolutely.

13.2 As soon as possible after the Contract is concluded the Engineer-in-Charge and the Contractor shall agree upon a Time and Progress Chart. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades or sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the Contract Documents.

13.3 If the work be delayed by

(a) Force majeure or

- (b) Abnormally bad weather or
- (c) Serious loss or damage by fire, or
- (d) Civil commotion, local combination of workmen strike or lockout, affecting any of the trades employed on the work, or
- (e) Delay on the part of other contractors or tradesmen engaged by Corporation in executing work not forming part of the contract, or
- (f) Any other cause, which, in the absolute discretion of the authority mentioned in Appendix, is beyond the Contractor's control.

13.4 Then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the Works.

13.5 Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing within fourteen days of the happening of the event causing delay. The Contractor may also if practicable, indicate in such as request the period for which extension is desired.

13.6 If any such case the competent authority may give a fair and reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor by the Engineer-in-Charge.

14 The Contractor shall arrange, at his own expense, all tools, plant and equipment hereafter referred to as (T & P) labour, P.O.L. & electricity required for execution of the work.

15. **FORCE MAJEURE**

Any delays in or failure of the performance of either party herein shall not constitute default hereunder or give rise to any claim for damages, if any, to the extent such delays or failure of performance is caused by occurrences such as Act of god or the public enemy; expropriation or confiscation of facilities by Government authorities, or in compliance with any order or request of any Governmental authorities or due acts of war, rebellion or sabotage or fires, floods, explosions, riots or illegal joint strikes of all the workers of all the contractors.

16. **MATERIALS**

1. All materials to be provided by the Contractor shall be in conformity with the specifications laid down in the contract and the Contractor shall, if requested by the Engineer-in-Charge, furnish proof to the satisfaction of Engineer-in-Charge in this regard.

2. The Engineer-in-Charge shall have full powers to require removal of any or all of the materials brought to site by the Contractor which are not in accordance with the specifications or do not conform in character or quality to sample approved by him. In case of default on the part of the contractor, in removing rejected materials, the Engineer-in Charge shall be at liberty to have them removed by other means. The Engineer-in-Charge shall have full powers to procure other proper materials to be substituted for rejected materials and in the event of the Contractor refusing to comply; he may cause

the same to be supplied by other means. All costs, which may be incurred in such removal and/or substitution, shall be borne by the Contractor.

3. The contractor shall indemnify the Corporation, its representatives or employees against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any article or material or part thereof included in the Contract. In the event of any claim being made or action being brought against the Corporation or any agent, servant or employee of the Corporation in respect of any such matters as aforesaid, the Contractor shall immediately be notified thereof.
4. All charges on account of octroi, terminal or sales tax and other duties on material obtained for the Works from any source shall be borne by the Contractor.
5. The Engineer-in-Charge shall be entitled to have tests carried out as specified as per relevant IS/CPWD specifications for any materials supplied by the Contractor even for those for which, as stated above, satisfactory proof has already been furnished, at the cost of the Contractor and the Contractor shall provide at his expense all facilities which the Engineer-in-Charge may require for the purpose. The cost of materials consumed in tests shall be borne by the Contractor.
6. Stores and Materials required for the works, brought by the Contractor, shall be stored by the Contractor only at places approved by the Engineer-in-Charge. Storage and safe custody of material shall be the responsibility of the contractor.
 - i) Corporation's officials concerned with the Contract shall be entitled at any time to inspect and examine any materials intended to be used in or on the works, either on the Site or at factory or workshop or other place(s) where such materials are assembled, fabricated or at any place(s) where these are lying or from where these are being procured and the contractor shall give such facilities as may be required for such inspection and examination.
 - ii) All materials brought to the Site shall become and remain the property of the Corporation and shall not be removed off the Site without the prior written approval of Engineer-in-Charge of the Corporation. But whenever the works are finally completed the Contractor shall, at his own expense forthwith, but with the prior approval from the Corporation, remove from the Site all surplus materials originally supplied by him and upon such removal the same shall revert in and become the property of the contractor. However before given any approval as aforesaid the corporation shall be entitled to recover or adjust any amount given as advance to the Contractor.

17. Labour:

- a. The Contractor shall employ labour in sufficient numbers to maintain the required rate of progress and of quality to ensure workmanship of the degree specified in the Contract and to the satisfaction of the Engineer-in-Charge. The Contractor shall not employ in connection with the Works any person who has not completed fifteen years of age. No female labour shall be employed within the limits of cantonment.
- b. The Contractor shall pay to labour employed by him directly wages not less than fair wages as per Minimum Wages Act. Fair Wage' means wages, which shall include wages for weekly day of rest and other allowances whether for time or piece work, after taking into consideration prevailing market rates for similar employment in the neighborhood but shall not be less than the minimum rates of wages fixed under the payment of Minimum Wages Act.

c. The Contractor shall in respect of labour employed by him or his sub-contractor comply with or cause to be complied with the Contractor Labour Regulation in regard to all matters provided therein.

d. The Contractor shall comply with the provisions of the payment of Wages Act, 1936, Minimum Wages Act, 1948, Employers' Liability Act, 1938. Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947, Maternity Benefit Act, 1970 or any modification thereof or any other law relating thereto and rules made there under from time to time.

18. Provident Fund

18.1 Under the provision of Employees Provident Funds and Misc. Provision Act, 1952, every employee is entitled to and required to become a member of PF from the beginning of the month. The Contractor is to fulfil statutory obligations regarding Employees Provident Fund. ***All the liabilities regarding EPF of the labours/workmen engaged at work shall be born by Contractor. Corporation shall not be responsible for any liability/claims what so ever in this regard.***

18.2 Safety Code: The Contractor shall at his own expense arrange for the safety provisions as appended to these conditions or as required by the Engineer-in-Charge, in respect of all labour directly or indirectly employed for performance of the works and shall provide all facilities in connection therewith. In case the Contractor fails to make arrangements and provide necessary facilities as aforesaid the Engineer-in-Charge shall be entitled to do so and recover cost thereof from the Contractor.

The contractor shall provide and maintain at his own expenses, guards, fencing and watching when and where necessary or required by the Engineer-in-Charge for the protection of the Works or for the safety and convenience of those employed on the works or the public.

The corporation shall not be liable for any accident, injury or for any other mishap caused to him/them/their employees/agents and labour employed by the contractor and for any kind of damage during the execution of the contract or work done. For any kind of such injury or loss caused to any person/persons mentioned herein above, the contractor shall be exclusively liable.

19. Contractor's Supervision:

The Contractor shall either himself supervise the execution of the Works or shall appoint a competent agent approved by the Engineer-in-Charge if the Contractor has himself not sufficient knowledge and experience to be capable of receiving instructions or cannot give his full attention to the Works, the contractor shall at his own expense, employ as his accredited agent an engineer approved by the Engineer-in-Charge. Orders given to the Contractor's agent shall consider having the same force if these had been given to the Contractor himself. If the Contractor fails to appoint a suitable agent as directed by the Engineer-in-Charge, the Engineer-in-Charge shall have full powers to suspend the execution of the Works until such date as suitable agent is appointed and the Contractor shall be held responsible for the delay so caused to the Works. The technical staff should be available at site whenever required by the Engineer-in-Charge for taking instructions.

20. Inspection and Approval:

All work embracing more than process shall be subject to examination and approval at each stage thereof and the Contractor shall give due notice to the Engineer-in-Charge or his authorised representative when each stage is ready. In default of such notice, the Engineer-in-Charge shall be entitled to appraise the quality and extent thereof.

No work shall be covered up or put out of view without the approval of the Engineer-in-Charge or his authorised representative and the Contractor shall afford full opportunity for examination and measurement of any work which is about to be covered up or put out of view and for examination of foundations before permanent work is place thereon. The Contractor shall give due notice to the

Engineer-in-Charge or his Authorised representative whenever any such work or foundation is ready for examination and the Engineer-in-Charge or his representative shall without unreasonable delay, unless he considers it unnecessary and advises the Contractor accordingly, attend for the purpose of examining and measuring such work or of examining such foundations. In the event of the failure of the Contractor to give such notice he shall, if required by the Engineer-in-Charge, uncover such work at the contractor's expense.

The Engineer-in-Charge or his representative shall have powers at any time to inspect and examine any part of the Works and the contractor shall give such facilities as may be required for such inspection and examination.

21. Duties and Powers of Engineer-in-Charge's Representative:

The duties of the representatives of the Engineer-in-Charge are to watch and supervise the Works and to test and examine any materials to be used or workmanship employed in connection with the works. He shall have no authority to order any work involving any extra payment by the Corporation or to make any variation in the works.

a) The Engineer-in-Charge may from time to time in writing delegate to his Representative any of the powers and authorities vested in the Engineer-in-Charge and shall furnish to the Contractor a copy of all such written delegation of powers and authorities. Any written instruction or written approval given by the Representative of the Engineer-in-Charge to the Contractor within the terms of such delegation shall bind the Contractor and the corporation as though it has been given by the Engineer-in-Charge.

Failure of the Representative of the Engineer-in-Charge to disapprove any work or materials shall not prejudice the power of the Engineer-in-Charge thereafter to disapprove such work or materials and to order the pulling down, removal or breaking up thereof.

If the Contractor shall be dissatisfied with any decision of the Representative of the Engineer-in-Charge he shall be entitled to refer the matter to the Engineer-in-Charge that shall there upon confirm, reverse or vary such decision.

22. Removal of Workman:

The Contractor shall employ in and about the Execution of the Works only such persons as are skilled and experienced in their several trades and the Engineer-in-Charge who shall be at liberty to object to and require the contractor to move from the Works any person employed by the Contractor in or about the execution of the Works, who in the opinion of the Engineer-in-Charge misconduct himself or is incompetent or negligent in the proper performance of his duties and such person shall not be again employed upon the works without permission of the Engineer-in-Charge.

23. Work during Night or on Sundays and Holidays:

Subject to any provisions to the contrary contained in the Contract, none of the permanent works shall be carried out during night or a Sundays or on authorised holidays without the permission in writing of the Engineer-in-Charge.

24. Completion Certificate:

24.1 As soon as the work is completed the contractor shall give notice of such completion to the Engineer-in-Charge and within thirty days of receipt of such notice the Engineer-in-Charge shall inspect the work and shall furnish the Contractor with a Certificate of completion indicating (a) date of

completion (b) defects to be rectified by the Contractor and / or (c) items for which payment shall be made at reduced rates. No certificate of completion shall be issued nor shall the work be considered to be complete till the Contractor shall have removed from the premises on which the work has been erected by the Contractor or the workmen and cleaned all dirt from the parts of building(s) in upon or about which the work has been executed or of which he may have had possession for the purpose of the execution thereof and cleaned floors, gutters and drains, eased doors and sashes, oiled locks and fastenings labeled keys clearly and handed them over to the Engineer-in-Charge and made the whole premises fit for immediate occupation or use to the satisfaction of the Engineer-in-Charge. If the Contractor shall fail to comply with any of the requirements of this conditions as aforesaid, on or before the date of completion of the works, the Engineer-in-Charge may at the expense of the Contractor fulfils such requirements and dispose of the scaffoldings, surplus materials and rubbish, etc. as he thinks fit materials except for any sum actually realized by the sale thereof less the cost of fulfilling the requirements and any other amount that may be due from the Contractor. If the expense of fulfilling such requirements is more than the amount realized on such disposal as aforesaid, the contractor shall forthwith on demand pay such excess.

24.2 If at any time before completion of the entire work, items or groups of items for which separate periods of completion have been specified, have been completed, the Engineer-in-Charge can take possession of any part of the same (any such part(s) being hereinafter in this Condition referred to as the relevant part') then notwithstanding anything expressed or implied else where in this Contract:

a. Within thirty days of the date of completion of such items or groups of items or of possession of the relevant part the Engineer-in-Charge shall issue completion certificate for the relevant part as in condition 24 above provided the Contractor fulfils his obligations under that Condition for the relevant part.

b. The Defects Liability Period in respect of such items and the relevant part shall be deemed to have commenced from the certified date of completion of such items or the relevant part as the case may be.

c. The Contractor may reduce the value insured under Condition 27 by the full value of the completed items or relevant part as estimated by the Engineer-in-Charge for this purpose. This estimate shall be applicable for this purpose only and for no other.

25. Liquidated Damages for Delay

25.1 Time is essence of the contract. In case the CONTRACTOR fails to complete the whole work within the stipulated period, and clear the site he shall be liable to pay liquidated damages @ 0.5% (One Half of one percent only) of the value of contract per week and or part thereof of the delay subject to a maximum of 10% (ten percent only) of the value of the contract. The parties agree that this is a genuine pre-estimate loss / damage which will be suffered on account of delay on the part of the Contractor and the said amount will be payable on demand without there being any proof of the actual loss of damages caused by such delay.

25.2 The amount of Compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with the Corporation.

26. Defects Liability Period:

The Contractor shall be responsible to make good and remedy at his own expense within defect liability period of two year from the date of completion of the work.

27. Contractor's Liability and Insurance

From commencement to completion of the works, the Contractor shall take full responsibility, care of and precautions to prevent loss or damage and to minimize loss or damage to the greatest extent possible and shall be liable for any damage or loss that may happen to the Works or any part thereof from any cause whatsoever (save and except the Excepted Risks) and shall at his own cost repair and make good the same so that, at completion, the works shall be in good order and conditions and in conformity in every respect with the requirements of the Contract and instructions of the Engineer-in-Charge.

- 27.1. In the event of any loss or damage to the Works or any part thereof or to any material or articles at the Site from any of the Excepted Risks the following provisions shall have effect:
- a. The Contractor shall, as may be directed in writing by the Engineer-in-Charge, remove from the site any debris and so much of the works as shall have been damaged.
 - b. The Contractor shall, as may be directed in writing by the Engineer-in-Charge, proceed with the completion of the works under and in accordance with the provisions and Conditions of the Contract, and
- 27.2 Provided always that the Contractor shall not be entitled to payment under the above provisions in respect of so much loss or damage as has been occasioned by any failure on his part to perform his obligations under the Contract or not taking precautions to prevent loss or damage or minimize the amount of such loss or damage.
- 27.3 Where Corporation's building or a part thereof is rented by the contractor he shall insure the entire building if the building or any part thereof is used by him for the purpose of storing or using materials of combustible nature, as to which the decision of the Engineer-in-Charge shall be final and binding.
- 27.4 The Contractor shall indemnify and keep indemnified the Corporation against all losses and claims for injuries or damage to any persons or any property whatsoever which may arise out of or in consequence of the construction and maintenance of works and against all claims, demands proceedings, damages costs, charges and expenses whatsoever in respect of or in relation thereto. Provided always that nothing herein contained shall be deemed to render the Contractor liable for or in respect of or to indemnify the Corporation against any compensation or damage caused by the Excepted Risks.
- 27.5 Before commencing execution of the work, the Contractor shall, without in any way limiting his obligations and responsibilities under this condition, obtain and deposit with the Corporation-Contractors "All Risk Policy" and "Third Party" Insurance policy.
- 27.6 The Contractor shall at all times indemnify the Corporation against all claims, damages or compensation under the provisions of Payment of Wages Act, 1936, Minimum Wages Act. 1948, Employer's Liability Act, 1938 the Workmen's Compensation Act, 1923, Industrial Disputes Act, 1947 and the Maternity Benefit Act. 1961 or any modifications thereof or any other law relating thereto and rules made thereunder from time to time or as a consequence of any accident or injury to any workman or other persons in or about the works, whether in the employment of the contractor or not, save and except where such accident or injury has resulted from any act of the Corporation, his agents or servants, and also against all costs, charges and expenses of suit, action or proceedings arising out of such accident or injury and against all sum or sums which may with the consent of the

Contractor be paid to compromise or compound any claim. Without limiting his obligations and liabilities as above provided, the Contractor shall insure against all claims, damages or compensation payable under the Workmen's Compensation Act, 1923 or any modification thereof any other law relating thereto.

The Contractor shall prove to the Engineer-in-Charge from time to time that he has taken out all the insurance policies referred to above and has paid the necessary premiums for keeping the policies alive till expiry of the Defects Liability Period.

28. Instruction and Notices:

- 28.1 Subject as otherwise provided in this contract, all notices to be given on behalf of the Corporation and all other actions to be taken on its behalf may be given or taken by the Engineer-in-Charge or any officer for the time being entrusted with the functions, duties and powers of the Engineer-in-Charge.
- 28.2 All instructions, notices and communications, etc., under the contract shall be given in writing and if sent by registered post to the last known place of abode or business of the Contractor shall be deemed to have been served on the date when in the ordinary course of post these would have been delivered to him.
- 28.3 The Contractor or his Agent shall be in attendance at the Site(s) during all working hours and shall superintended the execution of the works with such additional assistance in each trade as the Engineer-in-Charge may consider necessary. Orders given to the Contractor's Agent shall be considered to have the same force as if they had been given to the contractor himself.
- 28.4 The Engineer-in-Charge shall communicate or confirm the instructions to the contractor in respect of the execution of work in a Works Site Order Book maintained in the office of the Engineer-in-Charge and the Contractor or his authorised representative shall confirm receipt of such instructions by signing the relevant entries in this book. If required by the Contractor he shall be furnished a certified true copy of such instruction(s).

29. Foreclosure of Contract in Full or in Part due to Abandonment or Reduction in Scope of Work.

If at any time after acceptance of the tender the Corporation shall decide to abandon or reduce the scope of the works for any reason whatsoever and hence not require the whole or any part of the Works to be carried out the Engineer-in-Charge shall give notice in writing to that effect to the Contractor and Contractor 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 works in full but which he did not derive in consequence of the foreclosure of the whole or part of the works.

- 29.1 The Contractor shall be paid at Contract rates full amount for works executed at Site as certified by the Engineer-in-Charge.

30. Cancellation of Contract in Full or in Part:

If the Contractor:

- a. At any time makes defaults in proceeding with the Works with due negligence and continues to do so even after a notice in writing of 7 days from the Engineer-in-Charge; or

- b. Commits default in complying with any of the terms and conditions of Contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- c. Fails to complete the works or items of work on or before the date(s) of completion, and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or
- d. Enters into a contract with the Corporation in connection with which commission has been paid or agreed to be paid by him or to his knowledge, unless the particulars of any such commission and the term of payment there have previously been disclosed in writing to the Accepting Authority / Engineer-in-Charge ; or
- e. Offers or gives or agrees to give to any person in Corporation's service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or for bearing to do or having done any act in relation to the obtention or execution of this or any other Contract for the Corporation or
- f. Obtains a Contract with the Corporation as a result of ring tendering or other non-bonafide methods of competitive tendering; or
- g. Being an individual or any of its partner (in case the Contractor is a partnership firm) at any time is adjudged insolvent or have a receiving order or order for administration of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any insolvency Act for the time being in force or make any conveyance or assignment of his affective or composition or arrangement of the benefit of his creditors or purport so to do, or if any application be make under any insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- h. Being a company, passes a resolution or the Court makes an order for liquidation of its affairs, or a receiver or manager on behalf of the debenture holders is appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- i. Assigns, transfers, sublets (engagement of labour on a piece-work basis or of labour with materials not be incorporated in the work shall not be deemed to be subletting) or attempts to assign, transfer or sublet the entire works or any portion thereof without the prior written approval of the Accepting Authority.

The Competent Authority may, without prejudice to any other right or remedy, which shall have accrued or shall accrue thereafter to the Corporation by written notice cancel the contract as a whole or in part as it may deem appropriate.

The Competent Authority shall, on such cancellation, be entitled to:

- a. Take possession of the site and any materials, construction plant, implements, stores, etc., thereon; and / or
- b. Carry out the incomplete work by any means at the risk and cost of the Contractor.

On cancellation of the Contract, in full or in part, the Accepting Authority shall determine the quantum of amount, if any, recoverable from the Contractor for completion of Works or part of the works or in case the works or part of the works is not completed, the loss or damage suffered by the Corporation. In determining the amount credit shall be given to the Contractor for the value of the work, if any, executed by him up to the time of cancellation, the value of contractors material taken over and incorporated in the work and use of tackle and machinery belonging to the Contractor.

Any excess expenditure incurred or to be incurred by the Corporation in completing the Works or part of the Works or the excess loss or damages suffered or may be suffered by the Corporation as aforesaid after allowing such credit shall be recovered from any money due to the Contractor on any account, and if such money is not sufficient the Contractor shall be called upon in writing to pay the same within 30 days.

If the Contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the Contractor's unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the Contractor under the contract and if thereafter there be any balance outstanding from the Contractor, it shall be recovered in accordance with the provisions of the Contract.

Any sums in excess of the amounts due to the Corporation on unsold materials, constructional plant, etc, shall be returned to the Contractor, provided always that if cost or anticipated cost of completion by the Corporation of the works or part of the works is less than the amount which the Contractor would have been paid had he completed the works on part of the Works such benefit shall not accrue to the Contractor.

31 Liability for Damage, Defects or Imperfections and Rectification thereof:

If the Contractor or his workmen or employees shall injure or destroy any part of the building in which they may be working or any building, road, fence, etc. contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress the Contractor shall upon receipt of a notice in writing in that behalf make the same good at his own expense. If it shall appear to the Engineer-in-Charge or his Representative at any time during construction or re-construction or prior to the expiration of Defects Liability Period, that any work has been executed with unsound, imperfect or unskilled workmanship or that any materials or articles provided by the Contractor shall, upon receipt of a notice in writing in that behalf from the Engineer-in-Charge, forthwith rectify or remove and re-construct the work so specified in whole or in part, as the case may require or as the case may be, and / or remove the materials or articles at his own expense, notwithstanding that same may have been inadvertently passed, certified and paid for and in the event of his notice aforesaid, the Engineer-in-Charge may rectify or remove and re-execute the work and / or remove and replace with others the materials or articles complained of, as the case may be, by other means at the risk and expense of the Contractor.

In case of repairs and maintenance works, splashes and dropping from white washing, painting, etc. shall be removed and surfaces cleaned simultaneously with completion of these items of work in individual rooms, quarters or premises, etc. where the work is done, without waiting for completion of all other items of work in the contract. In case the Contractor fails to comply with the requirements of this condition, the Engineer-in-Charge shall have the right to get the work done by other means at the cost of the Contractor. Before taking such action, however, the Engineer-in-Charge shall give three days notice in writing to the Contractor.

32. Urgent Works:

If any Urgent work (in respect whereof the decision of the Engineer-in-Charge shall be final and binding) becomes necessary and Contractor is unable or unwilling at once to carry it out, the Engineer-in-Charge may by his own or other workpeople carry it out, as he may consider necessary. If the urgent work shall be such as the Contractor is liable under the contract to carry out at his expenses, the expenses incurred on it by the Corporation shall be recoverable from the Contractor and be adjusted or set off against any sum payable to him.

33. Supply of Unfiltered Water for Construction purposes:

Engineer-in-Charge may provide water, if available, required for construction work at one point as per requirement to be decided by the Engineer-in-Charge. Contractor shall provide and install all necessary pipes, fittings and other temporary equipment for further distribution and utilization of water and shall remove it on completion of the work. Recovery @ 1% of contract value will be made from the payable amount of the contractor if corporation has given water supply.

In case if water is not available or any disruption in water supply, the Contractor shall make his own arrangement for water requirement at no extra cost or claim.

34. Land for Contractor's Office, Store, and Workshop etc.

The Engineer-in-Charge shall at his discretion and for the duration of execution of the contract make available at site, free of charge land for construction of Contractor's field office, workshop, stores, etc. required for execution of the contract. Leveling and dressing of site, any construction of temporary roads, offices, workshop, etc. as per plan approved by the Engineer-in-Charge shall be done by the Contractor at his own cost.

On completion of work the Contractor shall hand over the land duly cleaned to the Engineer-in-Charge. Until and unless the Contractor has handed over the vacant possession of land allotted to him for the above purpose the payment of his final bill shall not be made. The Contractor shall be made liable to pay for the use and occupation at the rates to be determined by the Engineer-in-Charge if the Contractor overstays in the land after the contract is completed.

35. Power supply:

Engineer-in-Charge may provide electricity, if available, consumed at the job site at one point of the distribution system as per requirement as may be decided by the Engineer-in-Charge. Contractor shall provide and install all necessary switch-gear, energy meter, wiring, fixtures, bulbs and other temporary equipment for further distribution and utilization of energy for power and lighting and shall remove same on completion of the work. The power so consumed shall be charged at the prevailing tariff rate of SEB (State Electricity Board) as prevalent for that area at the time of award of work; power supply may be withdrawn if the power is used for purposes other than for the work of the project and the Contractor shall not be entitled to any claim whatsoever on account of any such action taken by the Engineer-in-Charge.

In case power is not available, the Contractor shall make his own arrangement for power supply at no extra cost or claim.

No claim for extension in the completion period on account of non-availability of water/power supply will be entertained.

36. VALUATION AND PAYMENT:

Records and Measurement:

The Engineer-in-Charge shall accept as otherwise stated ascertain and determine by measurement the value in accordance with the contract work done in accordance therewith.

All items having a financial value shall be entered in Measurement Book, level book, etc. prescribed by the Corporation so that a complete record is obtained of all work performed under the contract.

Measurements shall be taken jointly by the Engineer-in-Charge or his authorised representative and by the Contractor or his authorised representative.

Payment will be made on actual measurement as carried out at the site. The quantities given in the schedule of quantities are only approximate and contractor will have to carry out the work as per the increased/decreased quantity of work as per the directions of Engineer-in-Charge, for which no extra claim over and above the tender rate will be considered.

The Contractor shall, without extra charge, provide assistance with every appliance, labour and other things necessary for measurements.

No escalation will be paid even in extended period, if any.

- 36.6 Measurement shall be signed and dated by all parties each day on the Site on completion of the day work. If the Contractor objects to any of the measurements recorded on behalf of the Corporation a note to that effect shall be made in the Measurement Book against the item object to and such note shall be signed and dated by all the parties engaged in taking the measurement. The decision of the Competent Authority on any such dispute or difference or interpretation shall be final and binding on both the parties and shall be beyond the scope of the settlement of disputes of Arbitration in respect of all contract items, substituted items, extra items and deviations.
- 36.7. All statutory deductions as applicable like TDS, sales tax/VAT shall be made from the due payment of the contractor.

37. Methods of Measurement:

Except where any general or detailed description of the work in Quantities expressly shows to the contrary, Schedule of Quantities shall be deemed to have been prepared and measurements shall be taken in accordance with the procedure set forth in the Schedule of Rates / Specification notwithstanding any provision in the relevant Standard Method of Measurement or any general or local custom. In the case of items which are not covered by the schedule of Rates / Specification, measurements shall be taken in accordance with the relevant Standard Method of Measurement issued by the Indian Standard Institution.

38. Payment on Account:

The Contractor may submit interim bill on or before the date fixed by the Engineer-in-Charge for the work executed and the value of such interim/running bill should not be less than Rs. 0.35lacs. The Engineer-in-Charge shall then arrange to have the bill verified by taking or causing to be taken, where necessary, the requisite measurements of the work.

Payment on account for amount admissible shall be made on the Engineer-in-Charge certifying the sum to which the Contractor is considered entitled by way of interim payment for:

All work executed, after deducting there from the amounts already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the Contract;

The Corporation shall make payment of the Contractor's bills within 30 days for the date of certification by the Engineer-in-Charge.

Any interim certificate given relating to work done or materials delivered, may be modified or corrected by any subsequent interim certificate or by the final certificate. No certificate of the Engineer-in-Charge supporting an interim payment shall itself be conclusive evidence that any work or materials to which it relates is / are in accordance with the contract.

Pending consideration of extension of date of completion interim payments shall continue to be made as herein provided.

If for any reason, except a default of the Contractor, the work under the Contract is suspended or is to be suspended for more than 15 days, the Contractor shall be at liberty to remove the plant and equipment or any part thereof to any other works, for carrying on his other works, and with an undertaking to bring back to the site, the plant equipment as may be necessary for completion of the works.

39. Income Tax/WCT

39.1 Income tax including surcharge if any, at the prevailing rate shall be deducted from the Contractor's bills as per the provision of Income Tax Act.

39.2 The Contractor shall ascertain from the concerned commercial tax department regarding the applicability of Works Contract Tax / VAT. Necessary deductions will be made from the contractor's bill as applicable.

39.3 All the rates & prices in the tender shall cover all taxes viz central or state sales tax, any other local taxes and any other charges.

40. Overpayments and Underpayments:

Wherever any claim for the payment of a sum of money to the Corporation arises out of or under this contract against the Contractor the same may be deducted by the Corporation from any sum then due or which at any time thereafter may become due to the Contractor under this contract and failing that under any other contract with the Corporation or from any other sum due to the Contractor from the Corporation which may be available with the Corporation or from his security deposit; or he shall pay the claim on demand.

The Corporation reserve the right to carry out post payment audit and technical examination of the final bill including all supporting vouchers, abstracts, etc., the Corporation further reserve the right to enforce recovery of any overpayment when deducted, notwithstanding the fact that the amount of the final bill may be included by one of the parties as an item of dispute before an arbitrator appointed under Condition of the Contract and notwithstanding the fact that the amount of the final bill figures in the arbitration award.

If as a result of such audit and technical examination by CTE any overpayment is discovered in respect of any work done by the Contractor or alleged to have been done by him under the Contract, it shall be

recovered by the Corporation from the Contractor by any or all of the methods prescribed above if any underpayment is discovered, the amount shall be duly paid to the Contractor by the Corporation.

Provided that the aforesaid right of the Corporation to adjust overpayments against amounts due to the Contract under any other Contractor with the Corporation shall not extend beyond the period of two years from the date of payment of the final bill or in case the final bill is a minus bill, from the date the amount payable by the Contractor under the Minus final bill is communicated to the Contractor.

Any amount due to the Contractor under this contract for underpayment may be adjusted against any amount than due or which may at any time thereafter become due before payment is made to the Contractor, from him to the Corporation on any other contract or account whatsoever.

41. ARBITRATION AND LAWS

Arbitration:

Except where otherwise provided for in the contract all questions and disputes relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as to the quality of workmanship or materials used onto work or as to any other question, claim right matter or thing whatsoever in any way arising out of or relating to the contract, designs drawings, specifications, estimates, instructions, orders and these conditions or otherwise concerning the works, or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Chairman-cum-Managing Director of the National Small Industries Corporation Ltd. and if the Chairman-cum-Managing Director is unable or unwilling to act, to the sole arbitration of some other person appointed by the Chairman cum Managing Director, National Small Industries Corporation Ltd. willing to act as such arbitrator. There will be no objection if the arbitrator so appointed is an employee of the National Small Industries Corporation Ltd. and that he had to deal with the matters to which the contract relates and that in the course of his duties as such he had expressed views on all or any of the matters in dispute or difference. The arbitrator to whom the matter is originally referred being transferred or vacating his office or being unable to act for any reason as aforesaid at the time of such transfer, vacation of office or inability to act. Chairman and Managing Director, National Small Industries Corporation Ltd. shall appoint another person to act, as arbitrator in accordance with the terms of the Contract. It is also a term of this contract that no person other than a person appointed by C.M.D, National Small Industries Corporation LTD., as aforesaid should act as arbitrator and if for any reason, that is not possible, the matter is not to be refereed to arbitration at all:

Subject as aforesaid the provision of the Indian Arbitration and Reconciliation Act, 1996, or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the arbitration proceeding under this clause.

It is a term of the contract that the party invoking arbitration shall specify the dispute or disputes to be referred to arbitration under this clause together with the amount or amounts claimed in respect of each such dispute.

The arbitrators may from time to time with consent of this parties enlarge the time, for making and publishing the award.

The work under the contract shall, if reasonably possible continue during the arbitration proceedings and so payment due to payable to the Contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice to both parties fixing the date of the first hearing. The Arbitrator shall give a separate award in respect of each dispute of difference referred to him.

The venue of arbitration shall be such place as may be fixed by the Arbitrator in sole discretion.

The award of the arbitrator shall be final, conclusive and binding on all parties to this contract.

The cost of arbitration shall be borne by the parties to the dispute, as may be decided by the arbitrator(s).

The Indian Laws shall govern this contract for the time being in force. The courts at New Delhi / Delhi only shall have the jurisdiction.

**General Manager (SG)
NSIC-TSC (Howrah)**

CONTRACTOR'S SIGNATURE

APPENDIX

- | | | |
|----|--|---|
| 1. | Competent Authority | G.M(SG), NSIC-TSC (Howrah) or his authorized executives |
| 2. | Earnest money/Security deposit | |
| | a) Estimated cost of the Works | Rs. 4.03 Lac |
| | b) Earnest money | Rs 4,000/- in the form of DD /Pay order. |
| | c) Security Deposit | 10% of the contract value. |
| 3. | DEVIATION LIMIT FOR ITEMS OF WORK | |
| | (a) Permissible deviation limit for any contract items and substituted items in excess of the original value of item | No limit |
| | (b) Permissible deviation limit for items of work not already included in the contract | No limit |
| 4. | Time allowed for execution of work | 50 days |
| 5. | Authority competent to decide if “any other cause” contractors control | CMD, NSIC or his of delay is beyond authorised representative |
| 6. | Liquidated Damaged | 0.5% (one half of one percent) per week subject

to a Maximum 10% value of the contract |
| 7. | Defect Liability Period | 24 months from the date of completion of work. |
| 8. | Authority competent to reduce compensation | GM (SG), NTSC or his authorized executive. |
| 9. | Minimum value of running bill | Rs.1.75lacs |

PROFORMA
PERFORMANCE GAURANTEE
(On a non- judicial stamp paper of Rs.100/-)

Guarantee: Besides guarantee required elsewhere, the contractor shall guarantee the work in general for **FIVE YEARS** for WATERPROOFING OF STORE BUILDING AT NSIC TECHNICAL SERVICES CENTRE, HOWRAH (W.B) from the date of completion of work as certified by the Engineer-in-Charge. All required guarantee shall be submitted to the Engineer-in Charge by the Contractor when requesting certification of account for payment by the Owner in the prescribed proforma, given below as pre-requisite in acceptance and payment.

We M/S..... registered under the Companies Act, 1956 having Registered Office athereinafter called the “Contractor” which expression unless it be repugnant to the subject or context or meaning there of shall include its successors-in-interest and assigns, as per the terms and conditions of the letter of award no..... dated.....issued by M/S The National Small Industries Corporation-Technical Services Centre (Howrah) a Company registered under the Companies Act, 1956 having its Registered Office at the NSIC Bhawan, Okhla Industrial Estate, New Delhi-110020. Hereinafter called the “Owner” which expression unless it be repugnant to the subject or context or meaning there of shall include its successors-in-interest and assigns, hereby execute of WATERPROOFING OF STORE BUILDING AT NSIC TECHNICAL SERVICES CENTRE, HOWRAH (W.B) for **FIVE YEARS** from the date of completion which is.....

We do hereby agreed to repair/rectify/replace, to the satisfaction of Engineer-in-Charge, all leakage/dampness, any or all such work that may prove defective in workmanship or materials which may arise at any point of time during the period of this Guarantee for any reasons and ordinary wear and tear and unusual abuse or neglect expected together with any other work, which may be damaged or displaced in doing so, free of cost within one week from the date of intimation to us in writing and we shall be unconditionally responsible for the water tightness of the Water Proofing Treatment works fully.

In the event of failure to complete work within the above mentioned condition, we collectively and separately, do hereby authorize the Corporation to proceed to have the defects repaired and made good at our expenses, and we will pay the cost and charges therefore immediately upon demand.

Executing for and on Behalf of-----

(Authorised Signatory)

SPECIAL CONDITIONS

1. General

1.1. Work under this contract shall be carried out strictly in accordance with specifications attached with the tender.

Works not covered under above clauses shall be carried out as per relevant Indian standards specifications or codes of practice or and if not available as per British Standards Specifications or Codes of Practice.

The specifications form part of the general rules and conditions. The Contractor shall carefully acquaint himself with these specifications to determine his contractual obligations for the work. The specifications will be binding on the Contractor. No deviation shall be permissible unless specifically approved by the Engineer-in-Charge in writing.

1.2. Drawings / Dimensions

Figure dimensions in drawings to a large scale shall take precedence over those to a smaller scale. Special dimensions or directions in the specifications shall supersede all else. All dimensions shall be checked on site. The dimensions were stated do not allow for wastage. The levels, measurements and other information concerning the existing site as shown on the drawings are believed to be correct, but the Contractor shall verify them for himself and also examine the nature of the ground as no claim or allowance whatsoever shall be entertained hereafter on account of any error or omissions in the levels or the descriptions of the ground turning out to be different from what was expected or shown on the drawings.

2.0 Co-ordination of Drawings

Before commencement of work, the Contractor shall correlate all relevant Structural, Architectural and Services drawings and satisfy himself that whatever information available to him there from is complete and any error/difficulty in execution/damage incurred owing to any discrepancy in the drawings which has been overlooked by him and has not been brought to the notice of the Engineer-in-Charge.

2.1. The General specifications shall be those known as specifications 77 published by CPWD New Delhi. Where they are silent relevant publications of B.I.S. shall be followed. All corrections issued to specification 77 and to B.I.S. codes/ standard, as upto date shall be binding.

Nevertheless the following are detailed out for few major items. Description given in the BOQ shall supersede the general specifications above.

In case of ambiguity or conflicts, the Engineer-in-charge's decision shall be binding.

3. Inspection and Testing of Materials

- 3.1. Contractor shall be required to produce manufacturers test certificate for the particular batch of materials supplied to him. The tests carried out shall be as per the relevant Indian standards.
- 3.2 For examination and testing of materials and works at the site contractor shall provide all testing and gauging equipment necessary.

4.0 Metric Conversion

- 4.1 All dimensions given in the tender documents are commercial metric sizes.
- 4.2 Any weights or sizes given in the tender having changed due to metric conversion, the nearest equivalent sizes accepted by Indian Standards shall be acceptable without any additional cost.

5.00 Reference Drawings & Catalogues

- 5.1 The contractor shall maintain one set of all drawings issued to him as reference drawings. These shall not be used on site.

All corrections, deviations and changes made on the site shall be shown on these reference drawings for final incorporation in the completion drawings. All changes to be made shall be initialed by the Engineer-in-Charge.

6.00 Testing

- 6.1. Tests shall be performed in the presence of the Engineer-in-Charge.
- 6.2. All materials and equipment found defective shall be replaced and whole work tested to meet the requirements of the specifications.
- 6.3 The Contractor will get the sample, picked by the Engineer-in-charge randomly out of the lot of the materials brought at site for execution, tested at any approved laboratory specified by the Engineer-in-charge.
- 6.4. Contractor shall provide all labour, equipment and materials for the performance of the tests at his own cost.

7.00 Site Clearance and Cleanup

- 7.1 The Contractor shall, from time to time clear away all debris and excess materials accumulated at the site.

7.2 On completion of all works, Contractor shall demolish all stores, remove all surplus materials and leave the site in a broom clean condition, failing which the same shall be done at Contractors risk and cost.

8.0 Cutting & Making Good

No structural member shall be chased or cut without the written permission of the Engineer-in-Charge.

9.0 Materials

9.1 All materials used in the works shall conform to the tender specifications.

9.2 As far as possible materials bearing I.S. certification marks shall be used with the approval of the Engineer-in-Charge.

9.3 Unless otherwise specified and expressly approved in writing by the Engineer-in-Charge, materials of makes and specifications mentioned with tender shall be used.

10.0 Make Up

Any tiles or finished surfaces or floors damaged by the Contractor while doing his work shall be made good with new tiles or other finishing materials. No payment shall be admissible for such repairs. The Engineer-in-Charge, at his discretion get the damaged work repaired by other agencies and debit the cost of such repairs to the Contractor.

11.0 Preamble to Schedule of Quantities

11.1 The Schedule of quantities should be read with all the other sectioned of this tender. All the items of work mentioned in the schedule of quantities and covered by this contract shall be carried as per the drawings, specifications and directions of the engineer-in-charge and include all labour, materials, tools and plants, tackles, testing, if any, all insurance liability, all octroi, taxes and Contractor's profit & overheads etc. required in completing the job and all obligations set out or implied in the contract.

11.2 The Contractor shall be deemed to have studied the drawings, specifications and details of work to be done, within the time schedule and to acquaint him of the conditions prevailing at site.

11.3 The quantities shown against the various items are only approximate. Any increase or decrease in the quantities shall not form the basis for alteration of the rates quoted and accepted.

11.4 All works, item wise, shall be measured upon completion and paid for at the rates quoted and accepted. The rates quoted shall be for execution of works at all heights and depths and leads without any extra charges unless specified otherwise in the items in schedule of quantities.

12.0 Drawings and Specifications

- a) Such further drawings and instructions, including revisions as the owner may furnish to the contractor shall form part of this Contract.
- b) Figured dimensions shall be followed in to general layout drawings. The Contractor shall verify all dimensions in the field before any works is commenced and obtain instruction of the owner in case of any discrepancy.
- c) A copy of tender documents and all relevant drawings and specifications viz. Indian Standards latest CPWD Specifications etc. shall be obtained by the Contractor and kept at site for reference.

The consultant may check the measurements and the quality of the work, if any, appointed for this work. The Contractor will provide all the assistance for checking the measurements and quality of the work to the consultant. However the decision of the Engineer-in-charge will be final in regard to measurements and the quality of the work.

TECHNICAL SPECIFICATIONS

I. GENERAL

1. Wherever reference has been made to Indian Standard or any other specifications the same shall mean to refer to the latest specifications irrespective of any particular edition of such specifications being mentioned in the specifications below or Schedule of quantities.

II. WORKMANSHIP:

1. The workmanship shall be the best of its kind and shall conform to the specifications as below of Indian Standard specifications in every respect of latest trade practices and shall be subject to the approval of the Engineer-in-Charge. All materials/or workmanship, which in the opinion of the Engineer-in-Charge/Consultant is defective or unsuitable, shall be removed immediately from the site and shall be substituted with proper materials and /or workmanship forthwith.

III. MATERIALS:

1. All materials shall be of the best quality and shall conform to the latest Indian Standard.
2. All materials shall be of approved quality as per samples and from origins/sources approved by the Engineer-in-Charge.
3. A set of specimen samples of all approved materials shall be kept in bottle or otherwise at site as well as in the office of Engineer-in-Charge, cost of which to be borne by the Contractor.

IV. CONSTRUCTION SPECIFICATIONS FOR DIFFERENT REPAIR METHOD

After providing necessary working platform, loose and weak concrete in the affected portion shall be removed by scrapping or chipping off with hammer and chisel. The structural members from which the concrete is to be cut shall be unloaded and loaded gradually through transfer of load over supporting members with adequate safety. The surface shall then be cleaned by wire brush to remove small loose particles.

The Contractor shall carry out all repair works under strict supervision of NSIC officials deputed for this purpose and all the operations shall be proceeded with approval of the Engineer-in-Charge.

VIII. MEASUREMENTS:

The length and breadth shall be measured correct to a cm. The area shall be calculated in sq.m correct to two places of decimal.

All the intending bidders should visit the site before quoting their rates to assess the site conditions. Any claim what so ever regarding the site conditions shall not be entertained at later stage.

All the works shall be executed as per the specifications mentioned above OR as per CPWD specifications.

Signature of contractor:

Date:

(Suresh Karmali)

General Manager(SG)

TENDER DOCUMENT

PART – II (PRICE-BID)

WATERPROOFING OF STORE BUILDING

AT

NSIC Technical Services Centre - HOWRAH (W.B)

**NSIC- TECHNICAL SERVICES CENTRE
BALITIKURI, HOWRAH**

Waterproofing of Roof of Store Building

S.No.	Description of Work	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1	Dismantling/Removing of Existing Bitumen Felt & disposal beyond 50 M initial lead and as per direction.	sqm	510		
2	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 and as per direction – 30 mm thick (avg).	sqm	510		
3	Grading roof for water proofing treatment with Cement mortar 1:3 (1 cement : 3 coarse sand).	cum	15.25		
4	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 : 3 mm thick	sqm	510		
5	Extra for covering top of membrane with Geotextile, 120 gsm non woven, 100% polyester of thickness 1 to 1.25 mm bonded to the membrane with intermittent touch by heating the membrane by Butane Torch as per manufactures recommendation.	sqm	510		

TOTAL	
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CONTRACTOR'S SIGNATURE

**General Manager (SG)
NSIC TSC, Howrah**