

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED

(A Govt. of India Enterprise)

EASTERN ZONAL OFFICE

3A Dr.S.N.Roy Road, Kolkata – 700 029

Ph No:- 033-2466-7371

DETAILED NOTICE INVITING TENDERS

REF NO :-EZ/ BSF/NIT/12-13/515

Dated :-13/07/12

Sealed percentage rate open tender in two envelope system is invited by the Zonal Manager, Eastern Zone, NPCC LTD from reputed , resourceful contractors having competency & experience , for executing similar nature of jobs.

Sl N o.	Name of works	Time of completion	Approximate cost (Rs.)	E.M.D. (Rs.)	Cost of tender doc.(Rs)
1	Construction of balance works of 19 nos Type-II Qtrs along with site Development (Blockn 2 & 3) & additional items related with block 1,2 & 3 at Subhasnagar(Sonari), Coochbehar for BSF	Seven months	73.71 lacs	1,47,420/-	2000/- (Non Refundab le)

Date of sale of tender document:- 16/07/12 to 31/07/12 upto 12-00 Noon

Date of submission of tender documents:- on 31/07/12 upto 3-00 PM

Date of opening of Envelope-I of tenders:- on 31/07/12 at 4-30 PM.

Date of opening of Envelope-II of tenders:- Only Qualified bidders are to be intimated.

MINIMUM ELIGIBILITY CRITERIA (DOCUMENTARY EVIDENCE FOR WHICH TO BE SUBMITTED)

1. The tenderers must possess completion certificate for 3(three) similar nature of works of value not less than 40% or 2(two) similar nature of works of value not less than 50% or one similar nature of work of value not less than 80% of the approximate cost as

mentioned above with in last 7 years ending last day of month previous to the one in which tender is invited. Similar nature of work means RCC building works .

2. The tenderers must also possess VAT No , Service Tax registration No& PAN & EPF No.
- 3 Average annual financial turnover during the last 3 (three) years ending 31st March of the previous financial year should be at least 30% of the estimated cost. Balance sheet , Profit & Loss statement to be submitted.

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified at any stage of the tender process ,if they have:

- a) made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements;(NPCCL, in this regard always reserves the right to verify from any person, banker of the applicant or companies issuing credentials in favoyr of the applicant) and/or
- b) record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or
- c) participated in the previous bidding for the same work and had quoted unreasonably high/low bid prices and could not furnish rational justification to the employer. This is only applicable if the tender is being invited for other than first time.

However, tender inviting authority always reserves the right to verify the competency/eligibility of the bidders with regard to any other works being executed or completed by the bidder from previous or existing client of the bidder in writing & reserves the right not to qualify the bidder for opening of price envelope.

Application for purchase of tender document to be made in the letter head of the company at Eastern Zonal Office, 3A, Dr S N Roy Road, Kolkata-700029, mentioning therein telephone no, email address, etc for future correspondence & cost towards the same is payable in the form of cash, Bankers cheque/ Demand draft/pay order payable at Kolkata in favour National Projects Construction Corporation Limited only. In case due to any reason the offices remains closed on the last day of sale or submission of tender document, tenders will be sold & received on the next working day following times as mentioned above.

Tender available in the web site is only for viewing purpose & not for downloading & submission.

Applicants are advised to see the site of work well in advance and get themselves thoroughly acquainted with the local conditions at site, transport facilities, availability of water, facilities of access to the site, difficulties of work if any, and other matters

that may be required for submission of price. No excuses for ignorance of such situations/factors will not be entertained.

Value of work shown in the notice is only approximate & may be appreciably increased or reduced for which amendment will be issued and eligibility criteria as stated above will accordingly be applicable.

Canvassing in connection with the application submitted is strictly prohibited and tenderer who resorts to this will render his tender liable to rejection.

This corporation reserves the right to verify the documents submitted by the applicants with the originals, if desired or if desired may refer the same to the issuing authority for authenticity.

Further, any corrigendum/addendum/errata etc. in respect of above notice shall be made available in our official web site www.npcc.gov.in only . No further press publication shall be made in this regard. Hence applicants are advised to visit our website regularly for any amendment/ corrigendum/ addendums in this regard.

OIC, EZ

CC:

1.GM(PMC), NPCC LTD, Corporate Office, Faridabad for uploading in necessary web sites please . Soft copy of the same in this regard is being sent to [e mail IDs npcc1957@rediffmail.com](mailto:npcc1957@rediffmail.com) & pmc.npcc@nic.in

2 ZM, EZO, NPCC Ltd, Faridabad, for kind information & necessary suggestions if

Any please.

3The AM(F) /EZ, NPCC Ltd.,EZO ,Kolkata.

4. Notice Board.

INSTRUCTION TO TENDERERS

- 1) Tenderers should deposit the Earnest Money as mentioned above along with the tender by Demand Draft payable at Kolkata on nationalized/scheduled bank in favour of National Projects Construction Corporation Limited for an amount as mentioned above. Tender will be rejected outright, if submitted, without any earnest money. Term deposit will not be accepted in any case.
- 2) If the tender is accepted, tenderer should deposit an amount of 2.00% of the Contract Value including earnest money as submitted earlier towards Initial security deposit/performance guarantee within 7 days from the date of issue of Letter of acceptance. Failing which tender inviting authority reserves the right to cancel the tender & forfeit the earnest money already submitted. Subsequently, this ISD/performance guarantee will form part of security deposit, to be deducted from running account bills of the contractor which is to be deducted as per provision of the contract as undertaken by L1 in the Form of T in clause no(v) ie security deposit.
- 3) Submission of Tender:-
 - a. Tender to be submitted in two separate envelopes as detailed below containing the following:-

Envelope-I, :- a) *Earnest Money deposit as detailed.*

b) Unequivocal acceptance of all the Terms & Conditions & technical specifications of the bidding document in Format "ACCEPTANCE OF TENDER CONDITIONS"

c) The power of attorney of the person signing above documents

Envelope-II:-

The tender document issued to the bidder, with rates duly filled in, signed & stamped in all pages. There should be no condition in this envelope which will otherwise make the bid of the tenderer liable to be cancelled.

- 4) Delay in submission & receipt of tenders which are sent by post or Courier will not be any excuse & such tenders will not be accepted.*
- 5) All the envelopes to be marked on top as Envelope-I Envelope-II as applicable with name, address, phone no of the bidder submitting bid & addressed to the tender inviting authority. All the two envelopes to be put in a third outer envelope

marked as “Containing Envelope-I, & Envelope-II should also bear the name, address & phone no of the bidder & addressed to the tender inviting authority.

- 6) Tenderer should quote in figures as well as in words their rate separately in percentage below/the percentage above or at par at the bottom of summary sheet of priced schedule of works in the following manner :“I/We agree to carry out the work for which the tender has been invited at par/the percentage above/the percentage below the rates shown in the schedule attached with the tender and agree to abide by all the specifications, terms and conditions and stipulation of the tender documents”. In the event of after opening Envelope-II, lowest bidder’s offer is found to be not sufficiently responsive due to any reason as detailed elsewhere in the tender document, second lowest bidder will be considered to be the lowest bidder.
- 7) Intending tenderers are advised to see the site of work and consider other aspects that might bear an impact in the execution of work and get themselves thoroughly acquainted with the local & actual conditions at site, transport facilities, availability of water, facilities of access to the site, difficulties of work if any, law & order situation or any other matter that might have any direct or indirect impact on smooth execution of work before submitting the tender. The contractor shall be fully responsible for considering financial effect of any or all such factors in his quoted rates. No claim due to absence of knowledge of site condition etc, will be entertained in future.
- 8) The tender form and papers must be duly filled in and signed in all respects. All corrections and additions and alternations etc. must be duly signed. Each tender must be signed by the tenderer in all pages and addressed to the Zonal Manager, EZ, NPCC LTD in the letter head of the company.
- 9) A tender once submitted shall not be withdrawn within a period of 120 days from the day of receipt of the tenders. If a tenderer withdraws his tender, his earnest money deposit shall stand forfeited and he shall render himself liable to be debarred from submitting any tender for works under NPCC LTD for a minimum period of one year. His enlistment with the corporation, if any will also be cancelled on the occurrence of above.
- 10) Time is the essence of the contract. Time allowed for completion of the work is as mentioned in the above table to be considered from the date of letter of award.
- 11) The successful tenderer will have to sign an agreement after payment of cost(as mentioned above) of five copies of tender document and also Non

- Judicial stamp paper of appropriate value for signing formal agreement with NPCC within 15 (fifteen) days from the date of issue of letter of award, failing which the tender shall liable to be terminated and the Initial security/ performance guarantee deposited & earnest money shall stand forfeited to Corporation without any further reference to the contractor.
- 12) Obtaining Labour License from Statutory Authority is the responsibility of the contractor. The contractor during the course of execution of the job shall abide by all labour laws, Acts, Electricity Rules, statutory regulations etc. as will be enforced during the period of contract. The contractor shall also abide by the rules and regulations laid down by the purchaser regarding day-to-day works at the site, providing entry passes to his employees, labours etc. All tools and plants and implements required for the execution of work should have to be arranged for by the contractor at his own cost or expense.
 - 13) Bailing out water from site, shoring, dewatering of excavated pit for foundation or otherwise for the interest of work, site clearance before & after the work, making approach to site or borrow pit will be the contractor's responsibility & tenderer should include such costs while quoting his rates.
 - 14) Before submission of his offer, tenderer/ bidder may obtain clarification in writing or during pre bid discussions from the tender inviting authority regarding any ambiguity as might appear in his decision & such clarifications will form a part of the contract. However, during execution of work, misunderstanding about any clause of the contract will not be any excuse for any claim or otherwise & in such cases decision of the engineer of NPCC will be final & binding in this regard.
 - 15) Tender drawings provided with the tender is purely tentative & such drawings cannot be referred in discussion or claim in the future.
 - 16) All rates quoted shall be inclusive of all charges including transportation, loading unloading, safe delivery at site and all other taxes duties applicable and prevailing at the time of submission of tendering Octroi, Tools, Ferry Charges, Local Charges, Royalties, Sales Tax, Excise, EPF, Construction workers' welfare cess, all other taxes, duties & charges of other statutory authorities. Service tax, if any payable by the contractor is to be paid to statutory authority & to be reimbursed by NPCC separately, on production of documentary evidence in original of submitting the same with appropriate statutory authority. However, the amount is to be reimbursed only on reimbursement of the same by the owner.

- 17) Value of work shown in the tender notice is only approximate & may be appreciably increased or decreased at tender stage (for which necessary corrigendum will be issued) or during execution stage at the discretion of the Zonal Manager & who will be approving authority for the same and in that case. The contractor will be bound to abide by the specifications, terms, conditions and rates of the tender. No claim in his regard will be entertained.
- 18) Canvassing in connection with the tender submitted is prohibited and tenderer who resorts to this will render his tender liable to rejection.
- 19) The earnest money deposited by an unsuccessful tenderer will be refunded on application to the Corporation in due course as per rules as the case may be. Such earnest money will not accrue any interest.
- 20) The accepting authority of the tender does not bind himself to accept the lowest tender and reserves the right to accept/reject or tenders or to accept any tender without assigning any reason to anybody, whatsoever. The accepting authority also reserves the right to split any part of work between two or more tenderers.
- 21) Tenderers should be aware of all statutory provisions relating in the area and should abide by the same and any claim arising out of the same, if any, will not be entertained.
- 22) No extra payment of any kind e.g. increase in labour rates, material cost, transport cost, fuels, spare parts, tools tackles, machine, taxes etc or due to enactment of any new law or for any other reason will be entertained during execution of the work and till completion.
- 23) Under no circumstances, the participating bidders are entitled to alter their tender after acceptance of the tender.
- 24) The tenderer shall submit an analysis of rates if called upon to do so.
- 25) Conditional tender will not be accepted & will summarily be rejected.
- 26) Barricading the site as directed by site engineer, with MS/PGI/CGI sheets with proper support arrangement to make it intrusion free from persons not related to the construction activities & proper lighting of the area will be contractor's responsibility for which costs are to be inbuilt in his rate.

27)MOBILIZATION OF MEN, MATERIALS AND MACHINERY :

- 28)All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipments, clearing the site etc. shall be deemed to be included quoted and no separate payment on account of such expenses shall be entertained.
- 29)It shall be entirely the Contractor's responsibility to provide, operate and maintain all necessary construction equipments, scaffoldings and safety gadget, lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all jobs as per the specifications and within the schedule time of completion of work. Further, contractor shall also be responsible for obtaining temporary electric and water connection for all purposes. The contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.
- 30)The procurement and supply in sequence and at the appropriate time of all materials and consumable shall be entirely the contractor's responsibilities and his rates for execution of work shall be inclusive of supply of all these items.
- 31)All designs, drawings, bill of quantities, etc for all works shall be supplied to the contractor for all structures, services and development works by NPCC in phased manner as the works progress. However it shall be the duty and responsibility of the contractor to bring to the notice of the NPCC in writing as to any variation, discrepancy or any other changes required and to obtain revised drawings and designs and / or approval of the NPCC in writing for the same & such discrepancies shall never be the cause for extension of time or cost escalation.
- 32)One copy of contract documents including drawings furnished to the contractor shall be kept at the site and the same shall at all reasonable be available for inspection.
- 33)All materials construction plants and equipments etc. once brought by the contractor within the project area will not be allowed to be removed from the premises without the written permission of the NPCC. Similarly all enabling works built by the contractor for the main construction undertaken by him, shall not be dismantled and removed without the written authority of the NPCC.
- 34) Contractor shall have to prepare the shop drawings, bar bending schedule, free of cost if required for any of the items of work. Five copies of these shop drawings including revised drawings if any will be

submitted to NPCC for approval. Before executing the items shop drawings should be approved by NPCC.

35) TECHNICAL STAFF FOR WORK :- The contractor shall employ the adequate number of technical staff(ONE BE (ELECT) and ONE DIPLOMA (ELECT) for this work depending upon the requirement of work. For this purpose the requirement as decided by NPCC shall be final and binding on contractor.

36) Contract documents to consist of the following :

- 1) Notice Inviting Tender
- 2) Form of tender
- 3) Instruction to tenderers
- 4) General Conditions
- 5) Special Conditions
- 6) Technical Specifications
- 7) Acceptance of tender
- 8) Tender drawings
- 9) Priced Schedule of works/BOQ

Signature of Bidder

Signature of tender inviting authority

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED
(A Govt. of India Enterprise)

FORM OF TENDER

(To be submitted in bidder's letter head)

To,
Zonal Manager,
Eastern Zone
NPCC Ltd,
Kolkata

1. I / We hereby tender for execution of the work as per tender documents within the time schedule of completion of work and accepted rates in the bill of quantities quoted by me/us for the whole work in the accordance with the Notice Inviting Tenders, conditions of Contract. Specifications of materials and workmanship, bill of quantities. Drawing time schedule of complet of jobs and other documents and papers, all as in tender documents.
2. It has been explained to me/ us that the time stipulated for jobs and completion of works in all respects and in different stages mentioned in the "Time schedule for Completion of jobs and signed and accepted by me/us is the essence of the contract. I/We agree that in case of failure on my/our part to strictly observe the time of completion mentioned for jobs or any of them and the final completion of works in all respects according to the schedule set ou in the said "Time Schedule for completion of stipulations contained in t contract the recovery being made as specified therein. In exceptional circumstances extensions of time which shall always being in writing way, however be gran by the NPCC at its entire discretion for some items and I/we agree that such extension of time will not be counted for the final completion of work as stipulated in the said "Time Schedule of Completion of jobs."
3. I/we agree to pay the earnest Money, ISD/Performance Gurantee, Security Deposit and accept the terms and condition as laid dow in the memorandum below in this respect.

MEMORANDUM

- | | | |
|------|---|---|
| i) | General Description of work- | As mentioned in the NIT. |
| ii) | Earnest Money Deposit- | As mentioned in the NIT. |
| iii) | Initial Security Deposit/
performance gurantee | 2%(two) of contract value within 07 days
after issue of Letter of acceptance including
EMD. |

- | | | |
|-------|-----------------------------|---|
| iv) | Estimated Cost | As mentioned in the NIT. |
| v) | Security Deposit | To be de d @ 8% of each RA bill and will be restricted up to 10% of the contract value including 2% ISD. |
| vi) | Time allowed for starting | The date of start of contract shall be reckoned from the date of issue of letter of award . |
| vii) | Time for completion of work | Total work to be completed in accordance with the time schedule of completion of work in the tender documents. |
| viii) | Location of the work:- | As mentioned in the NIT. |

4. Should this tender be accepted, I/We agree to abide by and fulfill all terms and conditions referred to above and in default thereof, to forfeit, and pay NPCC or its successors or its authorized nominees such sums of money as are stipulated in the notice inviting tender documents.
5. If I/We fail to commence the work within 10 days of the date of issue of Letter of award or I/We fail to submit Initial security deposit within 7 days from the date of issue of letter of acceptance , I/We agree that NPCC shall, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money deposited with NPCC as specified above or Initial security deposit as applicable besides any other action as per terms of registration ith NPCC. The NPCC shall also be at liberty to cancel the letter of acceptance of tender if we fail to deposit the initial security deposit, as contained elsewhere in the tender documents.

Dated the _____ day of _____

SIGNATURE OF TENDERER

NAME IN CAPITAL LETTERS _____

ADDRESS _____

SEAL OF TENDERER

WITNESS

OCCUPATION. _____

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GENERAL CONDITIONS OF CONTRACT

DEFINITIONS

- I. EXECUTING AGENCY/Employer means M/s N P C C Ltd. (A Govt. of India Enterprise) referred as NPCC who has been retained by Owner for any type of construction.
- II.
- III. National Projects Construction Corporation Ltd. Herein after called NPCC propose to complete the construction of Type quarters in different parts of West Bengal
- IV. The work will be executed as per drawings "GOOD FOR CONSTRUCTION" to be released by NPCC
- V. ENGINEER –IN-CHARGE means the Engineer of NPCC who shall supervise and be in-charge of the work from time to time.
- VI. WORKS OR WORK The expression works or work shall unless there be something either in the subject or context repugnant to such construction be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original altered substituted or additional.
- VII. CONTRACTOR The contractor shall mean the individual or company undertaking the works and shall include the legal personal representative or such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual firm or company.
- VIII. DRAWINGS mean the drawings referred to in the specifications and any modifications of such drawings or such other drawings as may from time to time be furnished or approved by NPCC
- IX. SITE means the lands and other places on under, in or through which the works are to be executed or carried out and any other lands or places provided by NPCC or used for the purpose of the agreement.
- X. APPROVAL means approved in writing including subsequent written confirmation of previous verbal approval.
- XI. WRITING means any manuscript typed written or printed under or over signature and / or seal as the case may be.
- XII. MONTH means English Calendar month 'Day' means a Calendar day or 24 Hrs. each
- XIII. CONTRACT price means the sum for which the tender is accepted as per the letter of intent.
- XIV. LANGUAGE All documents and correspondence in respect of this contract shall be in English Language.
- XV. BILL OF QUANTITIES OR SCHEDULE OF QUANTITIES means the priced and completed Bill of Quantities or Schedule of Quantities forming part of the tender.
- XVI. TENDER price means the Contractor's priced offer to NPCC for the execution and completion of the work and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Intent or Award letter The word TENDER is synonymous with Bid and the word TENDER DOCUMENTS with "Bidding Documents" or "offer documents".

XVII. The headings in the clauses/ conditions of tender documents is for convenience only and shall not be used for interpretation of the clause / condition.

XVIII. Owner will mean BSF/CNCI/NIH/NIOH/FSEZ

XIX. Words imparting the singular only also include the plural and vice versa where the context requires.

Clause 1 – The person/persons whose tender may be accepted (hereinafter called the contractor) within seven days of the issue of letter of acceptance of his tender deposit with the corporation in cash or Demand Draft a sum sufficient with the amount of the earnest-money deposited by him with his tender to make up the initial security deposit as specified in the tender . Balance amount security deposit will be deducted from each R/A bill at rate as specified in the tender document to make for full amount of security deposit which is ten percent of the contract price. All compensation or other sums of money payable by the contractor to the corporation under the terms of his contract may be deducted from, paid by the sale of a sufficient part of his security deposit, or from any sums which may be due or may become due to the contractor by the corporation on any account whatsoever, and in the event of security deposit being reduced by reason any such deduction or sale as aforesaid the contractor shall within ten days thereafter make good in cash or demand draft in favour of NPCC Ltd any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof.

Security deposit

Clause 2 – The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date of issue of letter of award to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be of the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one per cent, or such smaller amount as the Zonal Manager (whose decision in writing shall be final) may decide on the amount of the tendered amount of the whole work as shown by the tender, for every day that the work remains uncommenced or unfinished after the proper dates. **The contractor shall commence execution of such part of the work as may be notified to him from the date of the order for commencement for work and diligently continue such work and further to ensure good progress and during the execution of the work, he shall be bound in all cases in which the time allowed for any work exceeds one month to complete one-fourth of the whole of the work before one-fourth of the whole time allowed under the contract has elapsed, one-half of the work, before one-half of such time has elapsed, and three-fourth of the work, before three-fourths of such time has elapsed. In the event of the contractor failing to comply with any of the conditions herein he shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Zonal Manager (whose decision in writing shall be final) may decide the said tendered amount of the whole work for every day that the due quantity of work remains incomplete provided always that the entire amount of compensation to be paid under the provisions of this clause shall not exceed ten per cent on this contract amount of the work .**

Compensation
for delay

Clause 3 – In any case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid on one sum or deducted by installments) the Zonal Manager, on behalf of the Corporation shall have power to adopt any of the following courses, as he may deem best suited to the interests of the Corporation.

Action when whole
of security deposit is
forfeited.

- I. To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Zonal Manager shall be conclusive evidence), and in which case the security deposit of the contractor shall stand forfeited, and be absolutely at the deposit of the Corporation.
- II. To employ labour paid by the Corporation and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certificate of the Executive Engineer shall be final and conclusive against the contractor) and crediting him with the value of the work done. In all respects in the same manner and at the same rates as it had been carried out by the contractor under the terms of his contract the certificate of the Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.
- III. To measure up the work of the contractor, and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificate in writing the Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the corporation under the contract or otherwise. or from his security deposit or the proceeds of sale thereof, or a sufficient part thereof.

In the event of any of the above courses being adopted by the Zonal Manager the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procure any materials, or entered into any engagements or made any advances on account of, or with a view to the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work theretofore actually performed under this contract, unless and until the Executive Engineer /Asstt. Engineer will have certified in writing the performance of such work and value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

Clause 4 – In any case in which any of the powers conferred upon the Zonal Manager by clause 3 hereof, shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waiver of any the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which by clause of clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor past and future compensation shall remain unaffected. In the event of the Zonal Manager putting in force either of the powers (a) or (c) vested in him under the preceding clause he may, if he so desire, take possession of all or any tools, plant, materials and stores, in or upon the works, or the site thereof of belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof paying or allowing for the same in account at the contract rates, or in case of these not being applicable, at current market rates to be certified by the Executive Engineer whose certificate thereof shall be final, otherwise the Zonal Manager may give notice in writing to the contractor or his clerk of the works, foreman or other authorized agent

Contractors remains liable to pay compensation if action not taken under clause 3.

Power to take possession of or require removal of contractor's plant. Contractor remains liable to pay compensation if action not taken under clause 3

require him to remove such tools, plants, materials or stores from the premises (within a time to be specified in such notice), and in the event of the contract failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause 5 – If the contractor shall desire an extension of the time for completion of the work on the grounds of his having been unavoidably hindered in the execution, the contractor shall give an immediate report of such hindrance to the Executive Engineer in writing and if he shall desire an extension of time for completion of the work on the ground thereof he shall apply in writing to the Executive Engineer within 7 days of the date of cessation of such hindrance on account of which he desires such extension as aforesaid and the Executive Engineer shall, if in his opinion (which shall be final) reasonable grounds be shown thereof authorize such extension of time, if any, as may, in his opinion, be necessary or proper provided always that such extension shall not entitle the said contractor to claim any escalation either towards the price of materials or towards the wage of labour or any account whatsoever.

Extension time

Clause 6 - On completion of the work, nor shall the work be considered to be completed until the contractor shall have removed from the premises on which the work shall be executed all scaffolding, surplus materials and rubbish, and cleaned off the dirt from all wood-work, doors, windows, walls, floors, or other parts of any building, in, upon or about which the work is to be executed, or of which he may have had possession for the purpose of the execution thereof not until the work shall have been measured by the Executive Engineer whose measurements shall be binding and conclusive against the contractor. If the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding, surplus materials and rubbish and cleaning off dirt on or before the date fixed for the completion of the work, the Executive Engineer may at the expense of the contractor remove such scaffolding, surplus materials and rubbish, and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid for any sum actually realized by the sale thereof.

Final certificate

Clause 7 – No payments shall be made for works estimated to cost less than rupees one thousand, till after the whole of the works shall have been completed and a certificate of completion given. But in the case of works estimated to be cost more than rupees one thousand, the contractor shall on submitting the bill therefore be entitled to receive a monthly payment. But all such intermediate payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskillful work to be removed and taken away and reconstructed, or-recreated, or be considered as an admission of the due performance of the contract, of any part thereof, in any respect or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of the Zonal Manager under these contract or any of them as to the settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work, otherwise the Executive Engineer's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on all parties.

Payment on intermediate certificates to be regarded as advances

Clause 8 – A bill shall be submitted by the contractor each month on or before the date fixed by the Executive Engineer for all work executed in the previous month, and

Submitted monthly

the Executive Engineer shall take of cause to be taken the requisite measurement for the purpose of having the same verified, and the claim as far as admissible adjusted if possible, before the expiry of ten days from the presentation of the bill, if the contractor does not submit the bill within the time as aforesaid the Executive Engineer may depute a subordinate to measure up the said work in the presence of the contractor, whose countersignature to the measurement will be sufficient warrant, and the Executive Engineer may prepare a bill from such list which shall be binding on the contractor in all respect.

Clause 9 – The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings, and instructions in writing relating to the work signed by the Executive Engineer and lodged in his office, and to which the contractor shall be entitled to have access at such office, or on the site of the work for the purpose of inspection during office hours, and the contractor shall, if he so requires, be entitled at his own expenses to make or cause to be made copies of the specifications, and of such designs, drawings and instructions as aforesaid.

Works to be executed in accordance with specifications drawings order etc.

Clause 10 – The Zonal Manager shall have power to make any alterations in, omissions from additions to or substitutions for, the specifications, drawings, designs and instruction, that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the Executive Engineer and such alteration, omissions, additions or substitutions shall not invalidate the contract but shall be deemed to have formed as work included in the original tender and any altered addition or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rates, if any, may be specified in the tender for the main work. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Executive Engineer shall be conclusive as to such proportion. And if the altered additional or substituted work includes any class of work, for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the prevailing Delhi Schedule of Rates which was in force at the time of the acceptance of the contract, minus/plus the percentage which the total tendered amount bears to the estimated cost of the entire work put to tender and if the altered, additional or substituted work is not entered in the said schedule of rates payment thereof shall be made by the Executive Engineer by determining the rates on analysis worked out from (a) the basic rates of materials and labour provided in current schedule of the rates or (b) the current market rates of materials and labour when even basic rates for the work are not available in the schedule. In cases when such rates are determined on analysis by the Executive Engineer under (a) above the stipulated percentage above or below schedule of rates as provided in the contract shall also apply and In case of rates worked out on analysis under (b) above the stipulated percentage above or below shall not apply. In the event of any dispute regarding rates determined on analysis for any altered, additional or substituted work under this clause the decision of Zonal Manager of the Corporation shall be final and binding.

Alterations in specifications and designs to be carried out in accordance with contracts.

Extension of time in consequence of alteration.

Rates for works not in estimated schedule.

Clause 11 – If at any time after the commencement of the work the corporation shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out, the Zonal Manager shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on

No compensation for alteration in, or restriction of work to be carried out.

account of any profit or in advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alterations having been made in the original specifications, drawings and instructions which shall involve any curtailment of the work as originally contemplated.

Clause 12 – If it shall appear to the Executive Engineer or his subordinate in charge of the work, that any work has been executed with unsound, imperfect, or unskillful workmanship, or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for, or otherwise not in accordance with the contract, the contractor shall on demand in writing from the Executive Engineer specifying the work, materials or articles complained of notwithstanding that the same may have been inadvertently passed certified and paid for, forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may require, or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his falling to do so within a period to be specified by the Executive Engineer, in his demand aforesaid, the Executive Engineer may rectify or remove, and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor.

Action and compensation payable in case of bad work

Clause 13 – All work under or in course of execution or executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Executive Engineer and his subordinates and the contractor shall at all time during the useful working hours, and at all other times at which reasonable notice of the intention of the Executive Engineer or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions, or have responsible agent duly accredited in writing present for that purpose. 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.

Works to be open to inspection

Clause 14 – The contractor shall give not less than five days notice in writing to the Zonal Manager or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the Executive Engineer or his subordinate in charge of the work, and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall remain uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

Contractor or responsible agent to be present

Notice to be given before work is covered up.

Clause 15 – If the contractor or his workman or servants shall break deface, injure or destroy any part of a building, in which they may be working or any building, road, road-curbs, fence enclosure, water pipes, cables, drain, electric or telephone posts or wires, trees, grass or grassland or cultivated ground adjacent 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, from any cause whatever or any imperfections become apparent in it within three months (six months in the case of a road work) after a certificate final or other of its completion shall have been given by the Executive Engineer as aforesaid, the contractor shall make the same good by other workmen and deduct the expense (of which the certificate of the Executive Engineer shall be

final) from any sums that may be than or any time thereafter may become due to contractor, or from his security deposit, or the proceeds of the sale thereof, or of a sufficient portion thereof.

The security deposit of the contractor made in the manner provided in clause-I hereof, shall be refundable on the expiry of 3 months (6 months in the caser of a road work) after the issue of the certificates final or otherwise of the completion of the work, subject to the condition that no such refund or security deposit shall be allowed till the final bill has been prepared and passed, provided, however, that in the caser of a road work. If in the opinion of the Executive his contract, half of the security deposit will be refundable after 3 months of the issue of the certificate of completion. Provided further that in the case of any work (whether road, Building, Bridge, Electrical, Sanitary and plumbing etc.) where the Executive Engineer is satisfied that the contractor after completion of the major portion o the contract is unable to execute remaining part of the work for reasons beyond control. the Executive Engineer in his discretion may make a proportionate refund of the security deposit to the Contractor.

The contractor shall be responsible for rectifying def s in asphaltic work noticed within a year from the date of completion of the work the portion of the security deposit relating to asphaltic work shall be refunded after the expiry of this period.

Clause 16 – The contractor shall supply at his own cost material (except such special materials, if any as may in accordance with the contract be supplied from the Executive Engineer's stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary work requisite or proper for the proper execution of the work, whether original, altered or substituted, and whether included in the specification or other documents forming part of the contract of referre to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the Executive Engineer as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore to and form the work. The contractor shall also supply without charge the requisite number of per with the means and materials necessary for the purpose of setting out works, and counting, weighing and assisting in the measurements or examination at any time and from time to time of the work or materials. Failing his so doing the same may be provided by the Executive Engineer at the expense of the contractor and the expenses may be deducted form any money due to contractor under the contract, or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident, and shall be bound to bear the expenses of defense of suit, action or other proceedings at law that may be brought by any person f injury sustained owing to neglect of the above precautions and to pay and damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the contractor be paid to compromi any claim by any such person.

Contractor to
supply plant
ladders,
scaffolding etc.

And is liable for
damages arising
from non-provision of
light fencing etc.

Clause 16A – The contractor shall be responsible for and shall take proper care and caution in respect of all rollers, machinery, tools and implements as may be made over the Corporation to the contractor for use in the execution of the works under this contract and shall be liable for any loss of and damages caused to the said rollers, machinery tools and implements by any reason whatsoever during the period the same are in the possession of the contractor and shall on demand pay to the Corporation such amount as may be fixed by the Corporation for such loss and damages, the decision of the Corporation in that respe being final. Should the contractor fail or neglect to pay such amount on demand the Corporation shall have

the right and be entitled, in addition to the other rights and remedies available to it, to deduct such amount from the amount of security deposited by the contractor and/or any amount remaining payable to the contractor under this contract for any work done by the contractor.

Clause 16B – In every case in which by virtue of the provisions of Section 12. Sub-section (1) of the Workmen's Compensation Act, 1923. The Corporation is obliged to pay compensation to a workman employed by the contractor, in execution of the work. The corporation will recover from the contractor the amount of the compensation so paid, and, without prejudice to the rights of the Corporation under Section 12, Sub-section (2), of the said Act, the Corporation shall be at liberty to recover such amount or any part thereof by deduction it from the security deposit or from any sum due by the Corporation of the contractor whether this contract or otherwise.

The corporation shall not be bound to contest any claim made against it under section 12, sub-section (1) of the said Act, except on the written request of the contractor and upon his giving to the corporation full security for all costs which the Corporation might become liable in consequence of contesting such claim.

Clause 17 – No female labour shall be employed within the limits of a cantonment.

Labour

Clause 17A – No labourer below the age of twelve years shall be employed on the work.

Clause 17B – (a) The contractor shall pay to labour employed by him either directly or through sub-contractors, wages not less than fair wages as defined in the C.P.W.D. contractors' Labour Regulations in so as such regulations have application within the State of West Bengal or as per the provisions of the Contract Labour (Regulation and abolition) Act, 1970 and the contract (Regulation and abolition) and the contract Labour (Regulation and abolition) Central rules 1971 wherever applicable.

(b) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid fair wages to labour indirectly engaged on the work, including any engaged by his subcontractors in connection with the said work, as if labour had been immediately employed by him.

© In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of his agreement, the contractor shall comply with or cause to be complied with the Central Public works Department contractor's Labour Regulations as mentioned in Sub-para (a) above made from time to time in regard to payment to wages period deductions from wages, recovery of wages paid and deductions unauthorisely made, maintenance of wage books or wage slips, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of the like nature or as per provisions of the contract Labour (Regulation and Abolition) Act, 1970 and the Contract Labour (Regulation and Abolition) rules, 1971 whenever applicable.

(a) The Zonal Manager concerned shall have the right to de from the moneys due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reasons of non-fulfillment of the conditions of the contract for the benefit of the workers, non-payment of wages or of deductions made from his or their wages which are not justified by their terms of contract or non-observance of the Regulations as mentioned above.

(b) The contractor shall comply with the provisions of payment of wages Act, 1936. Minimum wages Act, 1948. Employees Liability Act, 1938, Industrial

Act, 1947. Maternity Benefits Act, 1961 and Contract Labour (Regulations and abolition) Act, 1970 or the modification thereof or any other laws relating thereto and Rules made there under from time to time.

- (c) The Contractor shall indemnify Corporation against payment to be made under and for the observance of the laws aforesaid and the C.P.W.D. Contractors Labour Regulations having application within the State of West Bengal without prejudice to his right of claim indemnity from his sub-contractors.
- (d) The regulations aforesaid shall be deemed to be a part of his contract and any breach thereof shall be deemed to be a breach of this contract.

Clause 18 – No work shall be done on Sundays without the sanction in writing of the Zonal Manager.

Works on Sundays

Clause 19 – The contract shall not assign or sublet without specific orders from the Corporation in respect of a specified sub-contractor. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent or commence any insolvency proceedings or made any composition with his creditors, or attempt so to do, or if any bribe, gratuity, gift, load, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given promised, or offered by the contractor, or any of his servants or agents to any public officer or person in the employment of the Corporation in any way relating to his office of employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Zonal Manager may thereupon by notice in writing rescind the contract, and the Security deposit of the contractor shall thereupon stand forfeited and be absolute at the disposal of the Corporation and the same consequences shall ensure as if the contract had been rescinded under clause 3 thereof, and in addition the contractor shall not be entitled to recover or be for any work therefore actually performed under the contract.

Works not to be sublet.

Contract may be rescinded and security deposit forfeited for subletting, bribing, or if contractor becomes insolvent.

Clause 20 – All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of the corporation without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

Sum payable by way of compensation to be considered as reasonable Compensation without reference to actual loss.

Clause 21 – In the case of a tender by partners any change in the constitution of the firm shall be forthwith notified by the contractor to Zonal Manager for his information.

Clause 22 – All work to be executed under the contract shall be executed under the direction and subject to the approval in all respect of the Zonal Manager of the corporation for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.

Work to be executed under direction of Superintending Engineer/Executive Engineer.

Clause 25 – Both the parties shall make efforts to settle the disputes or differences amicably. If amicable settlement is not possible, the e shall be referred to the sole arbitrator of Chairman & Managing Director of NPCC or the person appointed by CMD, NPCC and the decision of the arbitrator shall be and binding on both the parties. Arbitration shall be accorded in accordance with Indian Arbitration and Conciliation Act, 1996.

Settlement of disputes.

The jurisdiction of any dispute legal and otherwise will be within High Court of Kolkata.

Clause 26 – In the case of any class of work for which there is no such specification as is mentioned in rule 1. such work shall be carried in accordance with district specification and in the event of there being no district specification, then in such case the work shall be carried out in all respects in accordance with the instruction and requirement of Executive Engineer.

Action where no specification.

Clause 27 – The expression “works” or “work” where used in these conditions shall unless there be something either in the subject or context repugnant to such construction be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent and whether original, altered, substituted or additional. Definition of works.

Clause 28 – The contractor(s) shall at his/their own cost provide his/their labour with hutting on his arranged land, and shall make arrangements for conservancy and sanitation in the labour camp to the satisfaction of the local Public Health and Medical Authorities. He/They shall also at his/their own cost make arrangements for the laying of pipe lines for water supply to his/their labour camp from the existing mains where available and shall pay all fees, charges and expenses in connection therewith and incidental thereto.

Clause :-29 The contractor shall have to make his own arrangements for water, both for the work and use by his coolly etc. for steam road rollers and for all tools and plant, etc., required on the work.

Clause :-30 Contractors will be responsible for the payments of all water charges payable to the Corporation of Calcutta or any other water works authority including a government department concerned.

Clause :-31 If the contractor shall desire an extension of the time for completion of the work under clause 5 of the contract, no application for such extension will be entertained if it is not received in sufficient time to allow the Executive Engineer to consider it and the contractor will be responsible for the consequences arising out of his negligence in this respect.

Clause :-32 The contractor will have to leave ducts in walls and floors to run conduit or cables, where necessary, and he will not be entitled to any extra payment on this account.

Clause :-33 Contractors in the course of their work should understand that all materials e.g. store and other materials obtained in work of dismantling, excavation etc., will be considered the Corporation's property and will be disposed of to the best advantage of the Corporation.

Clause :-34 No compensation for any damage done by rain or traffic during the execution of the work will be made.

Clause :-35 Whenever a work is carried out in a municipal area, electric lights or electric danger signals wherever available shall be provided by the contractors on the barriers as well as part in lights. Facilities for the electric connection will be made by the Corporation but the contractor will bear all the expenses.

Clause :-36 The contractor should quote through rate, inclusive of cost of materials and carriage to place for working.

Clause :-37 It must be clearly understood by the contractor that no claim on account of enhanced rates on those already accepted, due to war fluctuations will be entertained during the currency of this contract for the work as per schedule attached to the agreement and the additional work, if any, under clause 12 of the contract, if such additional work shall consist of items which have already been quoted for, or items not quoted for but appearing in District Schedule.

Clause :-38 In the event of emergency the contractor will be required to pay his labour every day and if this not done, the corporation shall make the requisite payment as would have been paid by the contractor and the cost from the contractors.

Clause :-39 The contractor(s) shall not deposit materials on any _____ which will seriously inconvenience the public. The Executive Engineer may _____ the contractor(s) to remove any materials, which are considered by him to be a danger or inconvenience to the public or cause them to be remove _____ st.

Clause :-40 The contractor undertakes to have the site clean, free from rubbish to the satisfaction of the Executive Engineer. All surplus materials, rubbish, etc. will be removed to the place fixed by the Executive Engineer and nothing extra will be paid.

Clause :-41 The contractor shall not allow any rubbish or debris to remain _____ the premises during or after repairs, but shall remove the same and keep the place neat and tidy during the progress of the work. The Executive Engineer may get the site or premises cleared of debris, etc. and recover the cost from the bill of the contractor, if the latter shows slackness in observing the clause.

Clause :-42 Materials brought at site shall not be stacked at random. The contractor shall stack all these materials as directed by the Executive Engineer

Clause :-43 The contractor will have to make his own arrangements for the carriage of materials.

Clause :-44 For all items of contract works requiring unskilled _____ the contractor shall employ unskilled local labour as far as possible. The expression "Local" shall mean and deem to mean the Anchal, the Block, the Thana or District of the State of West Bengal where the work will be executed. In cases _____ non-availability of such unskilled local labour and of other difficulties experienced by the contractor in recruiting such local labour, the contractor may recruit and employ unskilled labour from neighbouring areas of that district. In case the _____ is in the border area of two districts and there is dearth of adequate number of local labour from the district where the work will be executed, labour will not be available even from other districts as mentioned and when the exigency of progress of works demands. the contractor may engage labours from the other Districts of State of West Bengal and in case the same be not available, then the contractor may, employ imported labour of other states.

In case where the contractor fails to secure unskilled local labor or to engaged imported labour, the contractor shall employ labour locally recruited by the Corporation or labour imported by the corporation at the rate to be decided by the Zonal Manager of the works concerned whose decision as to the circumstances in the which employment of such labour is of mutual advantage to Corporation and the contractor will be final and binding.

For all items of contract jobs requiring skilled labour, the contractor shall employ 70% (seventy percent) of skilled labour locally as far as possible. In case the contractor fails to recruit skilled local labour, the contractor shall employ skilled labour locally secured by Corporation in the manner indicated above. For bridge works, highly technical works of frame structural buildings, sanitary & plumbing works, electrical works etc. Involving skilled labour, the contractor may import & employ skilled labour upto 30% (thirty per cent) of the total requirement. In case the expression "imported labour" shall mean labour imported, primarily from other states and secondarily from the distant district of the State of West Bengal.

LABOUR SAFETY PROVISIONS

- 1.0 Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra earrying materials as well, suitable foot holds and hand holds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical)
- 2.0 Scaffolding or staging more than 3.6m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3 feet) high above the floor or platform or such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3.0 Working platforms, gangways, and stairways should be s constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more that 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width & should be suitable fastened as described in described in (2.0) above.
- 4.0 Every opening in the floor of a building or in a worki platform shall be provided with suitable fencing or railing whose minimum height shall be 90 cm (3 feet).
- 5.0 Safe means of access shall be provided to all working s and other working places. Every ladder shall be securely fixed. No portable single lad shall be over 9m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. ($11\frac{1}{2}$) for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least $\frac{1}{4}$ " for each additional 30 cm (1 ft.) or length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger m electrical equipment. No materials on any of the sites of the work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by an person for injury sustained owing to neglect of the above precautions and to pay any damages and cost may be awarded in any such suit, action or proceedings to any such person or which may, with the consent of the Contractor, be paid to compensate any claim by any such person.
- 6.0 **EXCAVATION AND TRENCHING**

All trenches, 1.2mts.(four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100 feet) in length or fraction f, Ladder shall be extended from bottom of the trench to at least 90 cm (3feet) above the surface of the ground. The side of the trenches, which are 1.5m (5feet) or more in depth shall be stepp back to give suitable slope or securely held by timber bracing, so as to avoid the danger or sides to collapsing. The excavated materials shall not be placed within 1.5m (5feet) of the edges o the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to b Under no circumstances undermining or undercutting shall be done.
- 7.0 Demolition – Before any demolition work is commenced and also during the progress of the work.
- 7.1 All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- 7.2 No electric cable or apparatus, which is likely to be source of danger or a cable or apparatus used by the operator shall remain electrically, charged.

- 7.3 All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.
- 8.0 All necessary personal safety equipments as considered adequate by the Engineer-in-charge should be kept available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate step to ensure proper use of equipment by those concerned. The following safety equipment shall be invariably provided.
- 8.1 Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with footwear and protective goggles.
- 8.2 Those engaged in white washing and mixing or stacking cement bags or any materials which is injurious to the eye shall be provided with protective goggles.
- 8.3 Those engaged in welding works shall be provided with welders protective eye s.
- 8.4 Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe interval.
- 8.5 When workers are employed in sewers and manholes, which are in active use, the Contractors shall ensure that the manhole covers are opened and ventilated at least for an hour before the workers are allowed to get into the manholes, and the holes so opened shall be cordoned off with suitable railing and provided with warning or boards to prevent accident the public. In addition, the contractor shall ensure that the following safety measures are adhered to:
- a. Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer.
 - b. At least 5 to 6 manholes upstream and down stream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manholes for working inside.
 - c. Before entry presence of Toxic gases should be tested inserting wet lead acetate paper which changes colour in the presence of such gases and gives indication of their presence.
 - d. Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
 - e. Safety belt with rope should be provided to the worker While working inside the manholes such rope should be handled by two men standing outside to him to be pulled out during emergency.
 - f. The area should be barricaded or cordoned off by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
 - g. No smoking or open flame shall be allowed near the block manhole being cleaned.
 - h. The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
 - i. Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer In-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.

- j. Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
 - k. Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air-blowers are recommended for ventilating the manholes. Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at-least 2 meters away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
 - l. The workers engaged for cleaning the manholes/sewers should be properly trained before allowing to work in the manhole.
 - m. The workers shall be provided with Gumboots or non sparking shoes, bump helmets and gloves non sparking tools, safety lights and gas masks and portable air blowers (when necessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
 - n. Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
 - o. If a man has received a physical injury, he should be taken out of the sewer immediately and adequate medical aid should be provided to him.
 - p. The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer In-charge regarding the steps to be taken in this regard is an individual case will be final.
- 8.6 The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions should be taken.
- 8.6.1 No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- 8.6.2 Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- 8.6.2 Overalls shall be supplied by the Contractor to the workmen and adequate facilities
- 8.6.4.1 a) White lead sulphate or lead work products containing those pigments shall not be used in painting operation except in the form of paste or of paints ready for use.
- b) Measures shall be taken whenever required in order to prevent danger arising from the application of paint in the form of spray.
- c) Measures shall be taken, whenever practicable to prevent danger arising out of dust caused by dry rubbing down and scrapping.
- 8.6.4.2 a) Adequate facilities shall be provided to enable working painter to wash during and on cessation of work.
- b) Suitable arrangements shall be made to prevent clothing put off during working hours being spoiled by painting materials.
- 8.6.4.3 a) Cases of lead poisoning and of suspected lead poisoning shall be notified and shall be subsequently verified by a medical man appointed by the competent authorities of the Consultant.

- b) The NPCC may require when necessary a medical examination of workers.
 - c) Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 9.0 When the work is done near any place where there is risk of drowning, all necessary equipment's should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
- 10.0 Use of hoisting machines and tackle including their attachment and supports shall conform to the following standard of conditions
- 10.1 a) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept required in good working order.
 - b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- 10.2 Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffolding, which or giving signals to operator.
- 10.3 In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- 10.4 In case of NPCC machines, the safe working load shall be notified by the Engineer-in-Charge. As regards Contractor's machines the Contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get verified by the Engineer-in-Charge.
- 11.0 Motors gearing, transmission electric wiring and other parts of hoisting appliances should be provided with efficient safeguard, hoisting should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce the minimum the of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary be provided. The worker should not wear any watches and carry keys or other materials, which are good conductors of electricity.
- 12.0 All scaffold, ladders, and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 13.0 These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety codes shall be named therein by the contractor.

- 14.0 To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the or their representatives.
- 15.0 Notwithstanding the above clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule on force in the Republic of India.

MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

1.0 APPLICATION

These rules shall apply to all building and construction works in which 20 (twenty) or more workers are ordinarily employed or are proposed to be employed in any day during which the contractor work is in progress.

2.0 DEFINITION

Work place means a place where twenty or more workers ordinarily employed or are proposed to be employed in connection with construction work on any day during the period the contract work is in progress.

3.0 FIRST-AID FACILITIES

3.1 At every work place first aid facilities shall be provide and maintained, so as to be easily accessible during working hours, First-Aid boxes at the rate of not less than one box per 150 contract labour or part thereof ordinarily employed.

3.2 The First-Aid box shall be distinctly marked with a red cross on white ground and shall contain the following equipments: -

3.2.1a) *For work places in which number of contract labour employed does not exceed 50, Each First-Aid box shall contain the following equipments:*

- i) 6 small sterilized dressings.
- ii) 3 medium size sterilized dressings.
- iii) 3 large size sterilized dressings.
- iv) 3 large sterilized burn dressings.
- v) 1 (30 ml) bottle containing a two percent alcoholic solution of iodine.
- vi) 1 (30 ml) bottle containing salvolatile having the does and mode of administration indicated on the label.
- vii) 1 snake-bite lancet.
- viii) 1 (30 gms) bottle of potassium permanganate crystals.
- ix) 1 pair of scissors.
- x) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advise Service & Labour Institutes, Government of India.
- xi) 1 bottle containing 100 tablets (each of 5 grams) of aspirin.
- xii) Ointment for burns

- xiii) A bottle of suitable surgical antiseptic solution.
- 3.2.2 For work places in which the number of contract labour exceed 50. Each First-Aid box shall contain the following equipments.
 - i) 12 small sterilized dressings.
 - ii) 6 medium size sterilized dressings.
 - iii) 6 large size sterilized burn dressings.
 - iv) 6 large size sterilized burn dressings.
 - v) 6 (15 gms) packet sterilized cotton wool.
 - vi) 1 (60 ml.) bottle containing a two percent iodine alcoholic solution.
 - vii) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administration indicated on the label.
 - viii) 1 roll of adhesive plaster.
 - ix) 1 snake-bite lancet.
 - x) 1 (30 gms.) bottle of potassium permanganate crystals.
 - xi) 1 pair of scissors.
 - xii) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
 - xiii) A bottle containing 100 tablets (each of 5 grams) of aspirin.
 - xiv) Ointment for burns.
 - xv) A bottle of suitable surgical antiseptic solution.
- 3.3 Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- 3.4 *Nothing except the prescribed contents shall be kept in the First Aid box.*
- 3.5 The First Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.
- 3.6 A person in charge of the First-Aid box shall be a person trained in First-Aid treatment, in work places where the number of labour employed is 150 or more.
- 3.7 In work places where the number of labour employed is 0 or more and hospital facilities are not available within easy distance of the works, first-Aid Posts shall be established and run by a trained Compounder. The Compounder shall be on duty and shall be available at all hours when the workers are at work.

- 3.8 *Where work places are situated in places which are not towns or cities a suitable motor transport shall be kept readily available to carry injured person or suddenly taken ill to the nearest hospital.*

4.0 DRINKING WATER

- 4.1 In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- 4.2 Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- 4.3 Every water supply or storage shall be at a distance of not less than 50 feet from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water-proof.
- 4.4 A reliable pump shall be fitted to each covered well, trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5.0 WASHING FACILITIES

- 5.1 In every work place adequate and suitable facilities shall be provided and maintained for the use of labour employed herein.
- 5.2 Separate and adequate screening facilities shall be provided for the use of male and female workers.
- 5.3 Such facilities shall be conveniently accessible and shall be kept clean and hygienic condition.

6.0 LATRINES AND URINALS

- 6.1 Latrines shall be provided in every work place on the following scale, namely:

- a) Where females are employed there shall be at least one latrine for every 25 females.
- b) Where males are employed, there shall be at least one latrine for every 25 males.

Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be up to the first 100, and one for every 50 thereafter.

- 6.2 Every latrine shall be under cover and so partitioned off as to secure privacy and shall have a proper door and fastenings.

- 6.3 Construction of Latrines: The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside outside at least once a year. Latrine shall not be a standard lower than bore-hole system.
- 6.4 (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the, language understood by the majority of the workers "For Men only" For Women only" as the case may be
- (b) The notice shall also bear the figure of man or of a women, as the case may be
- 6.5 There shall be at least one urinal for male workers up to 50 and one for female workers up to 50 employed at a time. Provided that where the number of male or female workmen, as case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereof, thereafter.
- 6.6 a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
- b) Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health authorities.
- 6.7 Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals

6.8 DISPOSAL OF EXCRETA

Unless otherwise arrange for by the local sanitary authority arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incineration. Alternatively excreta may be disposed off by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or for refuse and then covering it with a layer of earth for fortnight (when it will turn into manure).

- 6.9 The Contractor shall, at his own expense, carry out all instruction issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the contractor's workmen or employees on the site. The Contractor shall be responsible for payment Authority for execution of such work on his behalf.

7.0 PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost four suitable sheds, two for males and the other two for rest separately for the use of man and women labour The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof These shall be kept clean and the space provided shall be on the basis of 0.6 sqm. per head.

Provided that the Engineer-in-Charge may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be use for the purpose.

8.0 CRECHES

- 8.1 A every work place, at which 20 or more women workers are ordinarily employed, there shall be provided two rooms or reasonable dimensions for the use of their children under the age of six years. One room shall be used as a play room for the children and the other as their bedrooms.

The rooms shall be constructed on standard not lower than the following:

- i) thatched roof
 - ii) mud floor and walls
 - iii) planks spread over the mud floor and covered with matting
- 8.2 The rooms shall be provided with suitable and sufficient openings for light and ventilation there shall be adequate provision of sweepers to keep the places clean.
- 8.3 The Contractor shall supply adequate number of toys and games in the playroom and sufficient number of cots and beddings in the bed-room
- 8.4 The Contractor shall provide one Ayah to look after the children in the crèche when the number of women workers does not exceed 50 and two when the number of women workers exceed 50.
- 8.5 The use of the rooms/earmarked as crèches shall be restricted to children, their attendant and mother of the children,

9.0 CANTEENS

- 9.1 In every work place where the work regarding the employment of contract labour is likely to continue for six months and wherein contract labour numbering one hundred or more are ordinarily employed, and adequate canteen shall be provided by the Contractor for the use of such labour.
- 9.2 The canteen shall be maintained by the Contractor in an efficient manner.
- 9.3. The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- 9.4. The canteen shall be sufficiently lighted at all times when any person has access to it
- 9.5 The floor shall be made of smooth and impervious material and inside walls shall be lime washed or colour washed at least once in each year.

Provided that the inside walls of the kitchen shall be lime-washed every four months

- 9.6 The premises of the canteen shall be maintained in a clean and sanitary condition
- 9.7 Waste Water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.

- 9.8 Suitable arrangements shall be made for the collection and disposal of garbage
- 9.9 The dinning hall shall accommodate at a time 30 person f the labour working at time
- 9.10 The floor area of the dinning hall, excluding the area occupied by the service counter and any furniture except tables and chair shall not be less than one square meter per dinner to be accommodated.
- 9.11 A) A portion of the dinning hall, and service counter shall be partitioned off and reserved for women workers in proportion to their number.
- B) Washing places for women shall be separate and screened to secure privacy
- 9.12 Sufficient tables stool, chairs or benches shall be available for the number of dinners to be accommodated
- 9.13.1 a) There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment necessary for the efficient running of the canteen.
- b) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition
- 9.13.2 a) Suitable clean clothes or the employees serving in the canteen shall be provided and maintained.
- b) a service counter, if provided, shall have top of smooth and impervious material.
- c) Suitable facilities including and adequate supply of hot water shall be provided for the cleaning of utensils and equipment.
- 9.14 The food stuffs and other items to be served in the canteen shall be in conformity with the normal habits of the labour.
- 9.15 The charge for food stuffs, beverages and any other items served in the canteen shall be based on 'No profit' No loss' and shall be conspicuously displayed in the canteen
- 9.16 In arriving at price of Good stuffs, and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely :
- a) The rent of land building
- b) The depreciation and maintenance charges for the building and equipment provided for the canteen.

- c) the cost of purchase, repair and replacement of equipment including furniture, crockery, cutlery and utensils:
 - d) The water charges and other charges incurred for lighting and ventilation
 - e) The interest and amounts spent on the provision and maintenance and equipment provided for in the canteen.
- 9.17 The accounts pertaining to the canteen shall be audited once every 12 months by registered accountants and auditors.

10.0 **ANTIMALARIAL PRECAUTIONS**

The Contractor shall at his own expense conform to all anti-malarial instructions given to him by the engineer-in-charge including the filling up of any borrow pits which may have been dug by him.

11.0 **AMMENDMENTS**

NPCC may from time to time, add to or amend these rules and issue such directions as it may consider necessary for the purpose of removing any difficulty which may arise in the administration hereof.

CONTRACTOR'S LABOUR REGULATIONS

1.0 SHORT TITLE

These regulations may be called the Contractor "Labour Regulations"

2.0 Definitions

2.1 "Workman" means any person employed by the NPCC or its Contractor directly or indirectly through a sub-contractor, with or without the knowledge, of the NPCC to do any skilled, semi-skilled, un-skilled, manual, supervisory, technical or clerical work for hire or reward, whether, the terms of employment are expressed or implied but does not include any person-

a) Who is employed mainly in a managerial or administrative capacity; or

b) Who being employed in a supervisory capacity draws wages exceeding Rupees Two thousand Five hundred per person or exercises either by the nature of the duties attached to the office or by reason of powers vested to him, functions mainly of managerial nature.

c) Who is an out worker, that is to say, a person to whom any articles or materials are given out by or on behalf of the principal employer to be made up cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purpose of the trade or business of the principal employer and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principals employer.

2.2 "Fair Wages" means wages whether for time or piece work fixed and notified under the provisions of the minimum Wages Act from time to time.

2.3 "Contractor" shall include every person who undertake to produce a given result other than a mere supply of goods or articles of manufacture through labour or who supplies labour for any work and includes a sub-contractor.

2.4 "Wages" shall have the same meaning as defined in the Payment of Wages act.

2.4.1 Normally working hours of an adult employee should not exceed 9 hours a day, The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.

2.4.2 When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week he shall be paid overtime for the extra hours put in by him at double the ordinary rate of wages.

2.4.3.1 Every worker shall be given a weekly holiday on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time, irrespective of whether such worker is governed by the Minimum Wages Act or not.

2.4.3.2 Whether the Minimum Wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

- 2.4.3.3 here a contractor is permitted by the engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substitute holiday to him for the whole day on one of the five days immediately before or after the normal weekly holidays and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

3.0 **DISPLAY OF NOTICE REGARDING-WAGES, ETC.**

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the work., notices in English and in the local Indian languages spoken by the majority of the workers, giving the minimum rates of wages fixed under the Minimum Wages Act, the actual wage period, being paid, the hours of work for which such wages are earned, wage period, dates of payment of wages and other relevant information as per Appendix 'A'

4.0 **PAYMENT OF WAGES**

- 4.1 The contractor shall fix wage periods in respect of which wages shall be payable
- 4.2 No wage period shall exceed one month.
- 4.3 The wages of every person employed as labour in an establishment or by a contractor where less than one thousand, such persons are employed shall be before the expiry of the seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- 4.4 Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- 4.5 All payments of wages shall be made on a working. Day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- 4.6 Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- 4.7 All wages shall be paid in current coin or currency or in both.
- 4.8 Wages shall be paid without any deduction of any kind except those specified by the Central Government by general or special order in this behalf permissible under the payment of Wages Act 1956.
- 4.9 A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the to the engineer-in-Charge under acknowledgment.
- 4.10 It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Engineer or any other authorized representatives of the Engineer-in-Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.
- 4.11 The contractor shall obtain from the Engineer or any other authorized representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wages-cum-Muster Roll" as the case may be in the following form.

“Certified that the amount show in column No.....has been paid to the workmen concerned in my presence on.....at.....”

5.0 FINES AND DEDUCTIONS, WHICH MAY BE MADE FROM WAGES

5.1 The wages of a worker shall be paid to him without any deduction of any kind except the following -

FINES

- a) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent
- b) Deduction for damage to or loss of goods expressly entrusted to the employed persons for custody, or from loss of money or any other deduction he is required to account where such damage or loss is directly attributable to his neglect or default.
- c) Deduction for recovery of advances or for adjustment of over payment of wages, advances granted shall be entered in a register.
- d) Any other deduction, which the Central Government may from time to time allow.

5.2 No fines should be imposed on any worker save in respect of such acts and omissions on his part as have been approved by the Chief Labour Commissioner.

NOTE : An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-I

5.3 No fine shall be imposed on a worker and no deduction or damage or loss shall be made from his wages until the worker has been given an opportunity showing cause against such fines or deductions.

5.4 The total amount of fine which may be imposed in any wage period on a worker shall not exceed an amount equal to three paise in a Rupee of the total wages, payable to him in respect of that wage period.

5.5 No fine imposed on any worker shall be recovered from in installment, or after the expiry of sixty days from the date on which it was imposed,

5.6 Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.

6.0 LABOUR RECORDS

6.1 The contractor shall maintain a “Register of person employed” on work on contract in form XIII of the CL (R7A) Central Rules 1971 (Appendix-B).

6.2 The Contractor shall maintain a “Muster Roll” register in respect of all workmen employed by him on the work under contract in form XVI of the CL (R&A) Rules 1971 (Appendix-C).

6.3 The contractor shall maintain a “Wage Register” in respect of all workmen employment by him on the work in form (Appendix-D).

6.4 Register of accidents – the contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars :

- a) Full particulars of the laborers who met with accident.
 - b) Rate of wages
 - c) Sex
 - d) Age
 - e) Nature of accident and cause of accident.
 - f) Time and date of accident.
 - g) Date and time when he/she admitted in Hospital
 - h) Date of discharge from the Hospital
 - i) Period of treatment and result of treatment
 - j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
 - k) Claim required to be paid under Workmen's Compensation Act.
 - l) Date of payment of compensation
 - m) Amount paid with details of the person to whom the same was paid
 - n) Authority by whom the compensation was assessed.
 - o) Remarks
- 6.5 Register of Fines-The contractor shall maintain a "Register of Fines" in the from(Appendix-H)
- The contractor shall display in a good condition and i a conspicuous place of work the approved list of Acts and Omission for which fines can be imposed (Appendix-I)
- 6.6 Register of Deductions-The contractor shall maintain a "Register of Deductions" for damage or loss in form (Appendix-J)
- 6.7 Register of Advances-The contractor shall maintain a "Register of Advances" in form (Appendix-K).
- 6.8 Register of Overtime-The contractor shall maintain a "Register of Overtime" in form (Appendix-L).
- 7.0 **ATTENDANCE CARD CUM WGE SLIP:**
- 7.1 The contractor should use a attendance card-cum-wage slip to each workman employed by him in the specimen form at (Appendix-E).
- 7.2 The card shall be valid for each wage period.
- 7.3 The contractor shall mark the attendance of each workman on the card which each day, once at the commencement of the day and again after the rest interval. Before he actually starts work.
- 7.4 The card shall remain in possession of the worker during the wage period under reference.
- 7.5 The contractor shall complete the wage slip potion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage perio fference.
- 7.6 The contractor shall obtain the signature or thump impression of the worker on the wage slip at the time of disbursement of wages and retain the card with him.
- 8.0 **EMPLOYMENT CARD**
- The contractor shall issue and Employment Card in form to each worker within three days of the employment if the worker (Appendix-F).
- 9.0 **SERVICE CERTIFICATE**

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a service certificate in from Appendix-G

10.0 PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulation Nos.6 and 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge, Labour Officer.

11.0 POWER OF LABOUR OFFICERS TO MAKE INVESTIGATIONS INQUIRY

The Labour Officer or any other person authorized by NPCC on its behalf shall have power to make inquiries with a view to ascertaining and enforcing due and proper observance of the Fair Wage Clauses and the Provisions of Regulations. He shall investigate into any complaint regarding the default made by the contractor or sub-contractor in regard to such provision.

12.0 Inspection of Book and slips

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to the labour officer or any other person, authorized by the Central Government on his behalf

13.0 SUBMISSION OF RETURNS

The contractor shall submit periodical returns as may be specified from time to time.

14.0 AMENDMENTS

The NPCC may from time to time, add or amend the regulations and on any question as to the application, interpretation or effect of these regulations the decision of the Zonal Chief concerned shall be final.

LABOUR BOARD

Name of work

Name of Contractor

Address of Contractor

Name and Address of Unit

Name of Labour enforcement Officer

Address of Labour Enforcement Officer

Date:

Sl.No.	Category	Minimum Fixed	Wage Actual paid	wage	Number present	Remarks
--------	----------	------------------	---------------------	------	----------------	---------

Weekly Holiday

Wage Period

Date of Payment of wages

Working hours

Rest interval

FORM 13

See rule 75

Appendix-'B'**REGISTER OF WORKMEN EMPLOYED BY CONTRACTOR**

Name and Address of Contractor

Name and Address of Establishment in
Under which contract is carried on

Nature and location of work

Name & Address of Principal Employer

Sl.No.	Name and Surname of workmen	Age & sex	Father's/Husbands Name	Nature of employment / designation	Permanent home address of the workman(village and Tehsil Taluk and District)	Local address
1.	2.	3.	4.	5.	6.	7.

Date of Commencement Of employment	Signature or thumb impression of the Workman	Date of termination employment	Reasons of termination	for
8.	9.	10.	11.	12.

FORM XVI

Appendix-'C'

(See Rule 78 (2) (193)

MUSTER ROLL

Name and address of contractor

Name and address of establishment in /number
Which contract is carried on

Nature and location of work

Name and Address of Principal Employer

For the month / fortnight

Sl. No	Name of the Workman	Sex	Father's/ Husband's Name	Dates	Remarks
1	2	3	4	5	
				1 2 3 4 5	

FROM XVII

Appendix – 'D'

(See Rule 78(2) (o3)

REGISTER OF WAGES

Name and address of contractor

Name and address of establishment in/under

Which contract is carried on

Nature and location of work

Name and Address of Principal Employer

Wage period per month/fortnightly

S. No.	Name of Basic Workman wages	Serial No. in the Register of workman	Designation nature of work done	Nos. of days worked	Units of work done	Daily rate of wages/ piece rate
--------	--	---	---	-------------------------------	------------------------------	---

1	2	3	4	5	6	7	8

Dearness Allowance	Overtime or	Other cash Payments (Nature of payments to be indicated)	Total	Deduction if any (indicate nature)	Net Amt paid	Signature thumb impression of the workman	Initial contractor his representative
-----------------------	----------------	---	-------	---	--------------------	---	--

9	10	11	12	13	14	15	16

WAGE CARD**Wage Card No.**

Name and address of Contractor

Date of Issue

Nature of work with location

Designation

Name of workman

Month/Fortnight

Rate of Wages

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

26 27 28 29 30 31

Morning

Rate

Evening

Amount

Initial

Received from

the sum of Rs.

on account
of my wagon

Signature

The wage card is valid for one month from the date of issue.

FORM XIV

Appendix-'F'

(See Rule 76)

EMPLOYMENT CARD

Name and address of contractor

Name and address of establishment under which

The contract is carried out

Nature and location of work

Name and address of Principal employer

1. Name of the workman
2. S. Name in the register of workman employed
3. Nature of Employment/Designation
4. Wage rate (with particulars of unit in case of piece work)
5. Wage Period
6. Tenure of employment
7. Remarks

Signature of Contractor

From XV

(See Rule 77)

(SERVICE CERTIFICATE)

Name and address of contractor

Nature and location of work

Name and address of workman

Age or date of birth

Identification Marks

Father's/Husband's name

Name and address of establishment in under which
Contract is carried on

Name and address of Principal Employer

Total period of which employed

Sl.No.	From	To	Nature of Work	Rate of wages (with remarks particulars of unit in case Of piece work)	
1.	2.	3.	4.	5.	6.

Signature

FROM XV

(See Rule 77)

REGISTER OF FINES

Name and address of contractor

Name and address of establishment in/under which
Contract is carried on-

Nature and location of work

Name and address of workman

Name and address of Principal Employer

Sl.No.	Name of Workman offence	Father's/Husband's Name	Designation/nature of employment	Act/Omission for which fine imposed	Date
1.	2.	3.	4.	5.	6.

Whether Workman Showed Cause Against fine	Name of person Remarks in whose fine presence employees explanation was heard	Wage and payable	period wages	Amount fine Imposed	of Date	on which realized
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LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule of Labour Regulation, to be displayed prominently at the site of work both in English and local language.

1. Willful insubordination or disobedience, whether alone or in combination with other.
2. Theft, fraud or dishonestly in connection with contractors beside a business of property of NPCC
3. Taking or giving bribes or any illegal gratifications
4. Habitual late attendance.
5. Drunk-ness fighting riotous or disorderly or indifferent behavior
6. Habitual negligence
7. Smoking near or around the area where combustible or other materials are locked
8. Habitual indiscipline
9. Causing damage to work in the progress or to property of the NPCC or of the contractor
10. Sleeping on duty.
11. Malingering or slowing down work
12. Giving the false information regarding name, age, fathers name etc.
13. Habitual loss or wage cards supplied by the employer.
14. Unauthorized use of employers property or manufacturing or making of unauthorized articles at the work place
15. Bad workmanship in construction and maintenance by skilled workers, which is not approved by the NPCC for which the contractors are compelled to undertake rectifications.

16. Making false complaints and/or misleading statements.
17. Engaging on trade within the premises of the establishment.
18. Any unauthorized divulgence of business affairs of the employees.
19. Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.
20. Holding meeting inside the premises with out previous sanction of the employers.
21. Threatening or intimidating any workman or employee during the working hours within the premises.

FORM XX

[See Rule 78 (2) (d)]

REGISTER OF DEDUCTION FOR DAMAGES OF LOSS

Name and address of contractor

Name and address of establishment in/ under which
Contract is carried on

Nature and location of work

Name and address of Principal Employer

Sl.No.	Name of Workman	Father's/Husband's Name	Designation/ nature of Employment	Particulars of damage of loss	Date of damage/loss
1	2	3	4	5	6

Whether Remarks	Name of person in whose presence employees explanation was heard	Amount of deduction Imposed	Date of recovery			
			No.	of	First	Last
Workman	in whose	deduction	installment		insta-	insta-
Showed	presence	Imposed			llment	llment
Cause	employees					
Against	explanation was					
Deductions	heard					
7.	8.	9.	10.	11.	12.	

FORM XXII

(See Rule 78(2))

REGISTER OF ADVANCES

Name and address of contractor

Name and Address of establishment in/ under which
Contract is carried on

Nature and location of work

Name and address of Principal employer

Sl.No. and of	Name Workman Name	of Father's/ Husbands employment	Designation/ nature of payable	Wages and advance given	period wage amount	Date
1.	2.	3.	4.	5.	6	

Purpose / Remarks	for No.	of Date	and Date	on which
Which advance Made	installment which advance is To be paid	by amount or each installment repaid	last installment was repaid	
7.	8.	9.	10.	11.

FORM XXIII

[See Rule 78(2) (e)]

REGISTER OF OVERTIME

Name and address of contractor

Name and address of establishment in/ under which
Contract is carried on

Nature and location of work

Name and address of Principal Employer

Sl.No.	Name of Date of which Workman	Father's/ Husband's	Sex	Designation/ nature of employment worked		
1.	2.	3	4.	5,	6.	
Total overtime Worked or Production in Case of piece Rated		Normal rate of wages	Overtime rate wages	Over time earning	Rate on which overtime paid	Remarks wages
7.	8.	9.	10.	11.	12	

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED
(A Govt. of India Enterprise)
3A Dr.S.N.Roy Road, Kolkata – 700 029

SPECIAL CONDITIONS OF CONTRACT

1. In case of delay in the execution of work due to reasons attributable to the contractor, liquidated damage shall be charged at the rate of 0.60% (Zero point six zero percent) on the contract value of the work per month subject to a maximum 6.00% (six point zero zero percent) of the total contract value of the work.
2. No escalation is payable on account of any increase in price index or in the price of materials, labours, fuels, imposition of sales tax or enactment of any new law or imposition of levies etc. No price escalation shall be applicable even during extended period for completing works.
3. If any extra / additional work is executed for which no rate is specified in this contract, then such work shall be carried out at the rates entered in the Delhi schedule of rates which was in force at the time acceptance of the contract minus plus the percentage which the total tender amount bears to the estimated cost of the work put to tender.
 - a. If any altered/additional work is required to be executed as per requirements for which there are no established rates in Delhi schedule of rates, the same shall be payable as per provisions stated here under:
 - i. As far as possible the rates for such items shall be derived from Delhi schedule of rates on pro-rata basis.
 - ii. If direct working out is not possible, the contractor shall be paid in the following manner
 - Reasonable cost of materials plus reasonable cost of labour inclusive of tools, plants and machinery with 10% (Ten percent) extra on total cost to cover contractor's profit, supervision, overheads, establishments etc. Engineer's decision regarding reasonable labour cost and reasonable material consumption and cost shall be final and binding on contractor.
4. In case of any litigation same to be dealt under the jurisdiction of Kolkata High Court only.
5. Quantities of all the items as mentioned in the priced schedule/B.O.Q. may vary up to any extent. No claim whatsoever in this regard will be entertained.

6) Performance Guarantee

Within 7 (seven) days of issue of the Letter of Acceptance, the successful tenderer shall deliver to the Employer a Performance Guarantee of 2.0%(two percent) of the Contract Price, (including earnest money as already submitted earlier) as defined in definitions clause XII of GCC, plus additional security for unbalanced Bids in accordance with Clauses as mentioned in clause 8 below & earnest money submitted with the tender will be released & Letter of award will then only be issued.

The performance security shall be in the form of Demand draft/Bankers cheque from any scheduled Bank drawn in favour of National Projects Construction Corporation Limited & payable at Kolkata or F.D.R duly pledged in favour of National Projects Construction Corporation Limited.

Failure of the successful Bidder to comply with the requirements shall constitute sufficient grounds for cancellation of the acceptance & forfeiture of the Earnest Money. He will also be debarred from participating in bids invited by NPCC Ltd for further period of one year. His enlistment will also be cancelled.

7)Security Deposit

Employer shall retain security deposit @ of 10%(ten percent) of the gross value of each R/A bill of the contractor until amount so retained together with performance security constitutes 10%(ten percent) of the contract price of the works.

50% of the accumulated security deposit(including performance guarantee) will be released to the contractor on successful handing over of the project to the owner & the balance to be released only after final certificate of rectification of all defects as pointed out by the Board of officers of BSF/owner. However, it is the responsibility of the contractor to bring to the notice of Engineer in writing, two months prior to expiry of defect liability period that such period is about to expire. No interest will accrue on the Security Deposit under any circumstances.

8)If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Employer may require that the amount of the performance security be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract. The amount of the increased performance security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder. Denial to deposit increased performance security shall constitute sufficient grounds for cancellation of the acceptance and forfeiture of the Earnest Money. He will also be debarred from participating in bids invited by NPCC Ltd for one year.

9) All risks of loss or damage to physical property and of personal injury or death which arise during & in consequence of the performance of the contract are the responsibility of the contractor.

10) INSURANCE OF WORK ETC.

Contractor is required to take contractor's all risk policy from an approved insurance company in the joint name with NPCC and bear all costs towards the same for the full amount of contract against all loss of damage from whatever cause arising for which he is responsible under the terms of the contract and such manner that the NPCC and the contractor are covered during the period of construction works and/ or also covered during the period of defect liability for loss or damage.

- a. The work and the temporary works to the full value of such works.
- b. The materials constructional plant, cetering, shuttering and scaffolding materials and other things brought to the site for their full value.
- c. Whenever required by NPCC the contractor shall produce the policy or the policies of insurance and the receipts for payment of the current premiums.

11)INSURANCE UNDER WORKMEN COMPENSATION ACT.

Contractor is required to take insurance cover under the Workmen Compensation Act, 1923 amended from time to time from an approved insurance company and pay premium charges thereof.

12)THIRD PARTY INSURANCE

Contractor is required to take third party insurance for an amount of 5% (five percent) of contract value from an approved insurance company for insurance against any damage ,Injury or loss which may occur to any person or property including that or NPCC arising out of the execution of the works or temporary works.

In case of failure of the contractor to obtain contractors all risk policy, insurance under workman compensation act and third party insurance as described above within fifteen days from the date of issue of letter of award , running account payments of the contractor shall be withheld till such time the aforesaid insurance covers are obtained by the contract & NPCC also reserves the right to obtain such insurance debiting the cost to the contractor.

If the contractor could not effect a comprehensive insurance cover against risks he may be required to effect under the terms of the contract, then he shall give his attention to get the best insurance cover available and even in case of effecting a wider insurance cover than the one which the subsidiary of the General Insurance Company could offer, such an insurance is ought to be done after the NPCC's approval , by or through the subsidiary of the General Insurance Company.

13)Bill of Quantities

The bill of quantities shall contain items for construction, installation, testing and commissioning work to be done by the contractor. Bill of quantities is used to

calculate the contract value with % above/below/at par as quoted by the successful bidder in his offer. Contractor is paid as per items of BOQ.

13)Submission of bill & Release of Payment:-

Contractor shall each month on or before the date fixed by the Engineer-in-charge, for all works executed in previous months shall submit the bill. Value of each bill in no case should be less than Rs 10.00 lacs. The contractor shall prepare computerized bills using the program as approved by Engineer-in-charge. The Contractor shall submit three numbers of hard copies and one soft copy of floppy/ CD for all bills.

All running payments shall be regarded as payments by of advance against the final payment only and not as payments for work actually done and completed and / or accepted by NPCC and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof in this respect, or the accruing of claim not shall it conclude, determine or affect in any way the powers of the NPCC under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect the contract. The final bill shall be submitted by the contractor within three months of the completion of work, otherwise NPCC's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on contractor.

The RA Bills should be accompanied by number of photographs of work site as desired by site engineer taken from various angles depicting status of work as on bill date for the concerned month.

The contractor shall submit running account bills with detail measurement against items of bill of quantities. Payment to contractor will only be released after receipt of the payment from BSF. Any delay on the part of BSF to release such payment will not make the contractor eligible for compensation in cost.

14) Cost towards soil testing & providing drawing design etc.

Contractor is to perform soil tests with one exploratory bore hole upto a depth of 10M & SPT at his own cost & submit the test reports prior to his taking up the work. For providing detail working drawings of the work to be executed by the contractor, 1.40% (one point four zero percent) of the contract value will be recovered from the contractor's 1st R/A bill .

15)ACCESS BY ROAD :-Contractor if necessary shall build temporary access roads to the actual site of construction for the works at his own cost. The contractor shall be required to permit the use of any roads so constructed by him for vehicles of NPCC or any other agencies/ contractors who may be engaged on the project site,

free of cost. Non-availability to access roads, for the use of the contractor shall in no case condone any delay in the execution of work not be the cause for any claim for compensation.

16)VALIDITY OF TENDER:-The tender for the works shall remain open for acceptance for a period of Ninety days from the date of opening of tenderers. The earnest money will be forfeited in case the contractor withdraws his tender during the validity period or in case he changes his offer to his benefits which are not acceptable to NPCC. The validity period may be extended on mutual consent.

17)TIME SCHEDULE & PROGRESS:-The contractor shall also furnish within 10 days of letter of award a CPM network / PERT chart / Bar Chart for completion of work within stipulated time showing details of man & machinery to be deployed. This will be duly got approved from NPCC. Achievement of mi as well as total completion has to be with in the time period allowed.

Contractor shall mobilize and employ sufficient resources for completion of all the works as indicated in the agreed BAR CHART/Network. NO additional payment will be made to the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even through time schedule is approved by the Engineer-in charge.

18)WATER AND ELECTRICITY:-The contractor shall make his own arrangement for Water & Electrical power for construction and other purposes at his own cost. The contractor shall also make standby arrangement for water & electricity to ensure uninterrupted supply.

19)TESTS AND INSPECTION:-The contractor shall carry out the various mandatory tests as per specifications .All the tests, either on the field or outside laboratories concerning the execution of the work and supply of materials shall be got carried out by the contractor or NPCC at the cost of the contractor . The contractors shall submit the test report of all the materials as per IS from any Government or Government approved laboratory. The agency should also maintain register showing daily receipt and daily consumption of materials being used for the of work. Regarding testing etc Quality control plan as laid down in IS code shall apply .

20) WORK IN MONSOON AND DEWATERING:-The execution of the work may entail working in the monsoon also. The contractor must maintain a minimum labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No special/extra rate will be considered for such work in monsoon. The contractor's shall be considered inclusive of cost of dewatering required if any and no extra rate shall be payable on this account.

21)SETTING OUT OF THE WORKS:-The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of the works. If y time during the progress of

works, shall any error appear or arise in the position, levels, dimensions or alignment of any part of the works, the contractor shall be at his own expenses rectify such error to the satisfaction of Engineer-in charge. The checking of any setting out of any line or level by the engineers of NPCC shall not in any way relieve the contractor of his responsibility for the correctness.

22)FORCE MAJURE:-Any delay in or failure of the performance of either party hereto shall not constitute default hereunder to give rise to any claims for damages, if any to the Extent such delay or failure or performance is caused by occurrences such as acts of God or the public enemy, expropriation or confiscation of facilities by Govt. authorities, compliance with any order or request of Govt. authorities, acts of war, rebellions, sabotage, fire, floods, illegal strikes, or riots (including those involving the contractors employees). Only extension of time shall be considered for Force Majure conditions as accepted by NPCC. No adjustment in contract price shall be allowed for reasons of force Majure except as provided in tender documents.

23) Maintenance during defect liability period:- Defect rectification of the project during defect liability period of 12 months after satisfactory completion of the work and handing over of the project completed in all respect including rectification of defects observed by the Handing over/taking over board . A final certificate of rectification of all defects pointed out by the board of officers will be rendered by the BSF authority for release of security deposit.

25)Withholding and lien in respect of sums claimed:-

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the NPCC LTD shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the NPCC LTD shall be entitled to withhold said cashes security deposit or the security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, NPCC LTD shall be entitled to withhold and have a lien to the extent of such claimed amount or amounts referred to supra, from any sum or sums found due or which at any time thereafter may become payable to the contract under the same contract or any other contract with this or any Department of the Central Government/State Govt. pending finalization or adjudication of any such claim.

26)Lien in respect of claims of other Contractors:

a) Any sum of money due and payable to the contractor the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the NPCC LTD, against any claim of this or any other Department of the Central Government/State Govt. in respect of payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of Central Government/State Govt.

b) It is an agreed term of the contract that the sum of _____ so withheld or retained under this clause by the NPCC LTD will be kept withheld or retained as such by the NPCC LTD till the Claim arising out of _____ under any other contract is either mutually settled or determined by arbitration, if the other; contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this clause and duly notified as such to the contractor.

27) Any matter pertaining to settlement rates for extra item, claim, arbitration or any other matter involving extra financial implication can only be settled by NPCC, if the same is accepted/approved by BSF.

28) ARBITRATION CLAUSE:-DELETED

29) JURISDICTION:-The agreement will be executed at Kolkata and the High Court/appropriate Courts in Calcutta alone will have jurisdiction to deal with matters arising there from.

30) ORDER OF PRECEDENCE OF DOCUMENTS

In case of difference contradiction, discrepancy, dispute with regard to conditions of contract, specifications, drawings, bill of quantities and rates quoted by the contractor, the following shall prevail in order of precedence.

- i) Bill of Quantity /Schedule of Quantities.
- ii) Special conditions of Contract.
- iii) General Condition of Contract.
- iv) Drawing
- v) CPWD specifications updated with correction slips issued up to date of submission.
- vi) Relevant I.S. Codes.

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ACCEPTANCE OF TENDER CONDITIONS

UNDERTAKING

(To be given on the Letter head)

I/We of M/s bidder for the work of.....with M/s NPCC Ltd., 3 A, Dr S N Roy Road, Kolkata, 700029, do hereby undertake that I/we agree to unconditionally accept all the terms and conditions mentioned in the tender documents.

Further we have noted that after unconditionally accepting the tender conditions in its entirety, it is not permissible to put any remarks/conditions in the Price Bid enclosed in Envelope and the same has been followed in the present case. In case this provision of the tender is found violated at any time after opening of Envelope, I/we agree that the tender shall be summarily rejected and NPCC shall, without prejudice to any other right or remedy, be at liberty to forfeit the full said earnest money absolutely.

Dated Signatures of the Bidder
Or Authorized Person

Name of Firm

Seal of Firm

LIST OF MASTERIALS OF APPROVED BRAND AND/ OR MANUFACTURER.

-1-

S.No.	Description	Approved Brand/Manufacturer.
01	A. Civil Work :- Ordinary Portland/ Blast Furnace slag cement	A.C.C./Century/Ambuja/Lafarge/Ultratac.
02	Antitermite	Pest Control (India) Pvt Ltd./Oreon
03	Water Proofing Compound	Pidilite/Sika/Impermo/Cico
04	Glazed Ceramic Wall Tiles/vitrified tiles	Somany/Kajaria/Thomson & Jhonson
05	Block Board/Ply Board	Kitply/Greenply/National Ply.
06	Glazing	Window Glass/ Hindusthan Pilkington or equivalent approved quality.
07	Synthetic Enamel Paint	Berger(Luxol)/Asian(Apcolite)/Shalimar(Superlac)
08	Cementy Base Paint	Snocem/Durocem
09	Oil Bound Distemper and Acrylic Exterior Paint	Berger/Shalimar/Asian/Jenson & Nicolson/ICI
10	P.V.C. Door Shutter and Frame	Sintex Plast/ Duro Plast
11.	P.V.C. Rain Water pipe and fittings	Supreme/Ori Plast/ Prince/Hasti
12	Colour coated galvanized sheet	Metco/CRIL
13	False ceiling	Daiken/Armstrong/

S.No.	Description	Approved Brand/Manufacturer.
	<u>Electrical Work :</u>	
01.	Ceiling Fan	Usha/Orient/Bajaj/Pollar/Crompton Graves
02	Exhaust Fan	Crompton/Usha
03	Bulk Head light fittings	GEC/Crompton/Bajaj
04	Fluorescent luminaries with all electrical accessories	Philips/Havels
05	M.C.B.	Havels/MDS/Standard
06	Call Bell	Bajaj/anchor/National
07	Switch and Regulator (Piano type)	Anchor(Roma)/Preetam

08	Power Plug, Socket	Anchor/Preetam
09	P.V.C. insulated copper conductor	Finolex/Havells

LIST OF MASTERIALS OF APPROVED BRAND AND/ OR MANUFACTURER.

-2-

S.No.	Description	Approved Brand/Manufacturer.
01.	<u>C. Sanitary & Plumbing Works.</u> Storage Tank	Sintex/ Patton/Raunaq
02	Kitchen Sink	M/s.Nirali / M/s.Anjali
03	P.V.C . Flushing Cistern	Hindware(Sluk)/Parryware
04	W.C.Pan and Wash Basin	Cera/Hindware
05	G.I.Pipes	Tata/Jindal/Bansal
06.	G.I.Fittings	'R' brand or other approved brand and quality having ISI market
07	C.P. brass stop cock/ Bib cock/Pillar cock/ trap etc. and all type of C. P. Fittings	ESSCO/ESS-ESS/Parryware
08	PTMT bibcock/gratings and other PTMT items/fittings	Prayag/Polytuf
09	PVC/UPVC pipes	Oriplast/supreme
09	Valves(Gun Metal)	Valves having ISI marks of Leader Brand.

TECHNICAL SPECIFICATIONS

1. Wherever reference is made in the contract to specific specifications or codes to be met by the goods and materials to be furnished and work performed or tested, the provisions of latest current CPWD specifications or revision of the relevant standards & codes shall apply respectively.
2. Wherever referred specifications are silent, the construction and completion of work shall conform to relevant I.S codes of practice and in case any dispute arising out of the interpretation of the above, the decision of engineer shall be final & binding.
3. Unless otherwise mentioned in the bill of quantities the measurements of works shall be done as per CPWD specifications and if the same is not given in the CPWD Specifications, the same shall be measured as per latest relevant ISI codes in force. The quantity of steel reinforcement and the structural steel sections Incorporated in the work shall be measured & paid on the basis of standard coefficients of sections as per IS Codes of practice. Before releasing any payments works are to be certified by representative of NPCC regarding quality of the works.

4. ANTI-TERMITE TREATMENT & WATER PROOF TREATMENT

Pre-construction soil treatment shall be carried out in co-ordination with the building work and shall be executed in such a manner that the civil works are not hampered or delayed by the anti-termite treatment. The treatment shall be carried out detailed in IS : 6313 (Part-II) latest revision. The water proof treatment shall be of type and specifications as given in the schedule of quantities. The anti-termite and waterproof treatment shall be got done through specialized agencies only. **A ten years bond(guarantee) for successful performance & rectification of any defect in this regard to be submitted from the engaged specialized agency, in format to be provided, both for anti-termite and waterproof treatment.**

The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be and remain fully effective for a period of not less than 10(Ten) years to be reckoned from the date of expiring of the maintenance period, prescribed in the contract. At any time during the said guarantee period if NPCC finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the contractor of the same, the contractor shall be liable to rectify the defect or give re-treatment and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If contractor fails to commence such work within the stipulated period the NPCC may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer-in-charge of NPCC for the cost payable by the contractor shall be final and binding upon him.

Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from Engineer-in-charge of NPCC.

The NPCC reserves the right to get the quality of treatment checked in accordance with recognized test methods and in case it is found that the chemicals with the required concentration and rate of application have not been applied, or the water proof treatment is not done as per specification, the contractor will be required to do the pretreatment in accordance with the required concentration & specifications at no extra cost failing which no payment for such work will be made. The extent of work thus rejected shall be determined by NPCC.

Water proofing and anti-termite treatment shall be got done through approved / specialized agencies only.

The contractor shall make such arrangement as may be necessary to safe guard the workers and residents of the building against any poisons effect of the chemicals used during the execution of the work.

During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of Engineer-in-charge by the contractor at his costs and risks.

The contractor shall make his own arrangement for all equipment's required for the execution of the job.

The contractor whose tender is accepted shall execute e Bond in the prescribed form as appended for guaranteeing the anti-termite treatment and water proof treatment.

5. PROPRIETARY MATERIALS

The following proprietary materials shall be brought to site after the approval of NPCC.

- Ø Cement
- Ø Steel
- Ø Primer/ Paints / Varnish etc.
- Ø Bitumen
- Ø Chemical for anti termite treatment
- Ø Glazed/ceramic/terracotta tiles
- Ø Sanitary & Plumbing materials
- Ø Electrical materials & fittings
- Ø Any other materials as per discretion of the NPCC.

6. The contractor shall submit documentary evidence e.g. challans, bills etc. against the proprietary materials brought to site as a check to ensure that the required quantities as required for execution of works as per specifications e been brought to site for incorporation in the work.

7. Proprietary materials brought at site shall be stored as directed by NPCC and those already recorded shall be suitably marked for identification.

8. RECORDS OF CONSUMPTION OF CEMENT , STEEL

For the purpose of keeping a record of cement and steel received at site and consumed in works, the contractor shall maintain a properly bound register in the form approved by the NPCC, showing columns like quantity received and used work and balance in hand etc. This register shall be signed duly by the contractor's representative and NPCC's representative.

9. Contractor is to arrange for "Total Station" for the purpose of survey, layout etc. whenever called upon by the site engineer of NPCC.

OVERALL SUMMARY SHEET FOR SUBHASNAGAR(SONARI)

S INo	DESCRIPTION	AMT AS PER ESTIMATE	% above/below/at par the estimated amount(In Figure)	% above/below/at par the estimated amount(In Word)	Amount(in Figure)	Amount(in Words)
	TOTAL FOR BALANCE LEFT OUT WORKS OF BLOCK 2 & BLOCK 3-----					
1	--(A)	6284475				
2	TOTAL FOR ADDITIONAL ITEMS	1086612				
	A) As per DSR & SOR -2007					
	B) As Per Market Rate					
	GROSS TOTAL	7371086.97				

Summary of balance left out works for Block 2 & Block 3 with site development

NAME OF WORK:- 19 UNITS -
TYPE II , QTRS ALONG WITH
SITE DEVELOPMENT AT BN. HQ
SUBHASNAGAR (SONARI)
COOCHBEHAR

I	GROSS TOTAL FOR TYPE II -11 UNITS (BLOCK NO - 3)	3480849
2	GROSS TOTAL FOR TYPE II - 8 UNITS (BLOCK NO -2) ALONG WITH SITE DEVELOPMENT) TOTAL FOR BALANCE LEFT OUT WORKS OF BLOCK 2 & BLOCK 3 - ----(A)	2803626 6284475

SUMMARY SHEET		
	SONARI COOCHBIHAR TYPE II- 11 UNITS(BLOCK NO - 3)	
	DESCRIPTION OF WORK	ESTIMATED COST OF WORK
1	ANTITERMITE	0
2	CIVIL & FINISHING WORK.	2379890
3	ELECTRICAL WORK	303511
4	PH & WTR SPLY WORK	538963
	TOTAL	3222363
5	ADDITIONAL ITEMS FOR (BLOCK NO -3)	224022
	TOTAL	3446385
	ADD. 1% CONSTRUCTION WORKERS WELFARE CESS	34464
	GROSS TOTAL	3480849

BILL OF QUANTITIES FOR
SONARI COOCHBIHAR TYPE II - 11 UNITS (BLOCK NO -3)
ANTITERMITE TREATMENT

ITEMS AS PER DSR-2007 & DSR 1997

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
1	Supplying chemical emulsion in sealed containers including delivery as specified.a) Chlorpyriphos/ Lindane emulsifiable concentrate of 20%. As per manufacturing specification (DSR-2007 Item No.2.34.1)	Litre	174.30	0	0.00
					0.00
					0.00
2	Diluting and injecting chemical emulsion (to be supplied free of cost at site of work) for PRE-CONSTRUCTIONAL ANTI-termite treatement and creating a continuous chemical barrier under and around the column pits, wall trenches, basemen excavation, top surface of plinthFilling, junction of wall and floor, along the external perimeter of buliding, expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc. complete as per specifications (Plinth area of the building at ground floor only shall be measured for payment). (a) Chlorpyriphos/ Lindane Emulsifiable concentrate 20% with 1% concentration. (DSR-1997 Item No.2.36.1 & CF OF DSR 2007)	Sqm	76.74	0	0.00
					0.00

TOTAL COST OF ITEMS AS PER DSR - 2007	0.00
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BILL OF QUANTITIES FOR**SONARI COOCHBIHAR TYPE II - 11UNITS (BLOCK NO - 3)****CIVIL & FINISHING WORKS****ITEMS AS PER DSR-2007**

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
1. EARTH WORK					
1.1	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. For all kinds of soil (DSR-2007 Item No. 2.8.1)	Cum	103.40	80.00	8272.00 0.00
1.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead up to 50m and lift up to 1.5m. (DSR-2007 Item No. 2.25)	Cum	45.70	55.00	2513.50 0.00
1.3	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) over 75 mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smooth. (DSR-2007 Item No. 4.17)	Sqm	222.65	60.00	13359.00 0.00
1.4	Providing and laying damp-proof course 40mm thk. With cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) (DSR-2007 Item No. 4.10)	Sqm.	144.15	0.00	0.00 0.00
1.5	Extra for providing and mixing water proofing material in cement concrete work @ 1Kg. Per 50 Kg. Of cement (DSR-2007 Item No. 4.12)	per bag of 50 kg. of cement used in	27.45	0	0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
2. CONCRETE & RCC SHUTTERING WORK					0.00
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level.				0.00
	a) 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size). (DSR-2007 Item No.4.1.3)	Cum	3257.45	8.80	28665.56
	b) 1:3:6 (1cement: 3coarse sand: 6 graded stone aggregate 20mm nominal size). (DSR-2007 Item No.4.1.5)	Cum	2791.05	1.70	4744.79
2.2	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete improve workability without imparing strength and durability as per direction of Enginneer-in-Charge – M-25 grade reinforced cement concrete by using 410kg. of cement per cum of concrete. All work up to floor V level.				0.00
	(a) All work	Cum	4147.40	6.60	27372.84
2.3	Deduct for using less cement than the quantity as provided in the item of batch mix concrete as arrived as per mix design (DSR-2007 Item No.5.35)	quintal	522.70	0.00	0.00
2.4	Centering and shuttering including strutting, propping etc. and removal of form for:				0.00
	a) Foundation, footings, bases of column etc. for mass concrete (DSR-2007 Item No.5.9.1)	Sqm	119.25	34.00	4054.50
	b) Walls (any thickness) including attached pillars, buttersesses, plinth and string courses etc. (DSR-2007 Item No.5.9.2)	Sqm	180.40	0.00	0.00
	c) Suspended floor roofs, landings, balconies and access platform (DSR-2007 Item No.5.9.3)	Sqm	187.35	40.00	7494.00
	d) Shelves (Cast in situ) (DSR-2007 Item No.5.9.4)	Sqm	187.35	0.00	0.00
	e) Lintels, beams, plinth beams, girders, bressumers and cantilevers. (DSR-2007 Item No.5.9.5)	Sqm	162.65	0.00	0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
	f) Columns, Pillars, Piers, Abutments, Posts and Struts. (DSR-2007 Item No.5.9.6)	Sqm	238.40	0.00	0.00
	g) Stairs, (excluding landing) except spiral (DSR-2007 Item No.5.9.7)	Sqm	204.00	0.00	0.00
	h) Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like. (DSR-2002 Item No.5.9.15)	Sqm	119.25	0.00	0.00
	i) Weather shade, chajjas, Corbels, etc. including edges. (DSR-2007 Item No.5.9.19)	Sqm	258.60	0.00	0.00
2.5	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete. (a) Thermo-mechanically treated bars (DSR-2007 Item No.5.22.6)	Kg	42.70	300.0	12810.00
2.6	Add or deduct for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections. (DSR-2007 Item No.5.30)	Metre	11.95	249.77	2984.75
3. MASONRY WORK					
3.1	Brick work with FPS brick designation 75 in foundation and plinth in: (a) Cement mortar 1 : 6 (1cement : 6 Coarse sand) (DSR-2007 Item no. 6.1.2)	Cum	2121.75	3.90	8274.83
3.2	Brickwork with FPS bricks of class designation 75 in superstructure above plinth upto floor V level in all shapes and sizes in: Cement Mortar 1 : 6 (1 cement : 6 coarse sand) (DSR-2007 Item No. 6.4.2)	Cum	2357.40	10.00	23574.00
3.3	Half brick masonry with FPS bricks of class designation 75 in superstructure above plinth level upto floor V level. Cement Mortar 1 : 4 (1 cement : 4 coarse sand) (DSR-2007 Item No. 6.13.2)	Sqm	302.80	10.50	3179.40
3.4	Brickwork 7 cms thick with FPS bricks of class designation 75 in cement mortar 1:3 (1 cement : 3 course sand) in superstructure (DSR-2007 Item No. 6.8)	Sqm	214.85	0.55	118.17
					0.00
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
4. WOOD WORK					0.00
4.1	Providing woodwork in frames of doors, windows, celestory windows and other frames, wrought framed and fixed in position : Second class teakwood [for cupboard & undercounter storage] (DSR-2007 Item No. 9.1.1)	Cum	52090.00	0.80	41672.00
					0.00
					0.00
4.2	Providing and fixing panelled or panelled and glazed shutters for doors windows and celestory windows including ISI marked black enamelled M.S. butt hinges with necessary screws excluding panelling which will be paid seperately. Second class teakwood 35 mm thick shutters [for all doors excluding W.C & bathroom] (DSR-2007 Item No. 9.5.1.1)	Sqm	1373.65	53.00	72803.45
					0.00
					0.00
4.3	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and celestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured) Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick: Particle board 12 mm thick Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II IS 12823 marked. [for all doors excluding W.C & bathroom doors & partly for kitchen door] (DSR-2007 Item No. 9.7.5.3)	Sqm	985.70	54.00	53227.80
					0.00
					0.00
4.4	Extra for providing ISI marked Stainless Steel butt hinges instead of blacked enamelled M.S. butt hinges with necessary screws. (Shutter area to be measured). [for all doors except bath & WC doors] (DSR-2007 Item No.9.14)	Sqm	83.80	0.00	0.00
					0.00
					0.00
4.5	Providing and fixing special quality chromium plated brass cupboard or wardrobe locks with six levers including necessary screws etc. complete (best make of approved quality) of : a) 40 mm (DSR-2007 Item No.9.90.1)	each	78.30	22.00	1722.60
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
4.6	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete (best make of approve quality)	each	31.80	154.00	4897.20
	[for shutters of cupboards and under-counter storage in kitchen] (DSR-2007 Item No.9.91)				0.00
4.7	Providing and fixing magnetic catcher in cupboard / wardrobe shutters including fixing with necessary screws etc. complete (Best make a) Double strip (horizontal type)	each	14.65	110.00	1611.50
	(DSR-2007 Item No.9.114.2)				0.00
4.8	Providing and fixing factory made UPVC door frame made of UPVC extruded section having an overall dimension as below (tolerance+_1mm) with wall thickness 2.0mm +_0.2mm, corners of the door frame to be mitred and welded of plastic, galvanized brackets and stainless steel screws. The hinge side vertical of the frames reinforced by galvanishrd M.S tube of size 19x19 mm and 1mm +_0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification Extruded section profile size 48x40 mm.	Metre	141.00	118.50	16708.50
	(DSR-2007 Item No.9.117.1)				0.00
4.9	30 mm thick factory made polyvinyl chloride (PVC) door shutter made of stiles and rails of a UPVC hollow section of size 60 x 30mm and wall thickness 2 mm +_ 0.2 mm with inbuilt decorative moulding edging on one side. The styles and rails mitred and joined at the corners by means of M.S. galvanised / plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25 x 20 mm and 1 mm +_0.1 mm wall thickness . The lock rail made up of 'H' section, a UPVC hollow section of size 100 x 30mm and 2 mm +_0.2mm wall thickness fixed to the shutter styles by means of plastic/galvanised M.S. "U" cleats. the shutter frame filled with a UPVC multi-chambered single panel of size not less than 620mm, having over all thickness of 20 mm and 1 mm +_0.1 mm wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S rod and fastened with nuts and washers, complete as per manufacturer's specification and direction	Sqm	2271.80	34.00	77241.20
	(DSR-2007 Item No.9.118.2)				0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
4.1	Providing and fixing PTMT Butt hinges with necessary screws etc. complete				0.00
	75x60x10 mm fitted with 5.5 mm dia MS bright bar rod weighing not less than 34 gms. [for PVC shutters]				0.00
	(DSR-2007 Item No.9.107.1)	each	47.40	69.00	3270.60
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
4.11	Providing and fixing PTMT handles with necessary screws etc. complete 150x34x24 mm weighing not less than 26 gms [for PVC shutters] (DSR-2007 Item No.9.106.2)	each	36.85	46.00	0.00 0.00 1695.10 0.00
4.12	Providing and fixing PTMT towerbolts with 12 mm one piece rod inside and necessary screws etc. complete 152x42x18 mm weighing not less than 60 gms [for PVC shutters] (DSR-2007 Item No.9.108.1)	each	73.00	46.00	0.00 0.00 3358.00 0.00
4.13	Providing and fixing PTMT door catcher of length 72 mm and dia of 42 mm with suitable washers weighing not less than 33 gms [for PVC shutters] (DSR-2007 Item No.9.109)	each	29.05	0.00	0.00 0.00 0.00
4.14	Providing and fixing glass using 10 Kg/Sqm (4mm thick) glass pens in panelled or panelled and glazed shutters for doors, windows and clerestory window (Area of opening for glass inserts excluding portion inside grooves or rebates to be measured) (Panel not exceeding 0.1 Sqm.): (Rate derived as per DSR-2007 basic item rates and labour rate.)	Sqm	336.49	80.00	26919.20 0.00
4.15	Providing and fixing IS: 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete: a) 75 x 50 x 2.50mm [for wardrobe shutters] (DSR-2007 Item No.9.71.3) b) 50 x 37 x 1.50 mm [for under counter storage shutter] (DSR-2007 Item No.9.70.4)	Each Each	28.75 14.80	132.00 220.00	0.00 6325.00 0.00 0.00 1953.60 0.00
4.16	Providing and fixing chromium plated brass handles with necessary screws etc. complete: a) 125mm [for all doors without mortice locks] (DSR-2007 Item No.9.92.1) b) 100 mm [for all windows] (DSR-2007 Item No.9.92.2)	Each Each	125.00 96.45	134.00 356.00	0.00 16750.00 0.00 0.00 34336.20 0.00 0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
4.17	Providing and fixing chromium plated brass 100mm mortice latch and lock with 6-levers and a pair of lever handles with necessary screws etc. complete (Best make of approved quality) (DSR-2002 Item No.9.76)	Each	409.30	22.00	9004.60
					0.00
4.18	Providing and fixing chromium plated brass casement stays (straight peg type) with necessary screws etc. complete. 300 mm weighing not less than 330 gms. (DSR-2007 Item No.9.94.1)	Each	90.50	352.00	31856.00
					0.00
4.2	Providing and fixing curtain rods of 1.25 mm thick chromium plated brass plate and two chromium plated brass brackets fixed with CP brass screws and wooden plugs, etc., wherever a) 25 mm dia [for widows] (DSR-2007 Item No.9.46.3)	metre	299.30	150.00	44895.00
					0.00
					0.00
					0.00
					0.00
					0.00
5. STEEL WORK					
5.1	Providing and fixing pressed steel door frames confirming to IS: 4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25mm, or base ties of 1.25 mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surfaces as directed by the Engineer-in-charge:-				
	(a) Profile B (DSR-2007 Item No.10.14.1)	RM	251.90	179.10	45115.29
					0.00
	(b) Profile C (DSR-2007 Item No.10.14.2)	RM	271.65	116.60	31674.39
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
5.7	Providing and fixing fly proof galvanised M.S. wire gauge to windows and clerestory windows using galvanised M.S. wire gauge with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm. (a) With 12mm mild steel U beading [for all windows & main door] (DSR-2007 Item No.9.51.2)	Sqm	291.95	118.00	0.00 34450.10 0.00 0.00 0.00
5.9	Providing and fixing 1.0 mm th MS sheet door with frame of 40 x 40 x 6 mm angle iron and 3 mm MS gusset plates at the junction and corners, all necessary fittings complete, including applying a priming coat of approved steel primer a) Using flats 30 x 6 mm for diagonal braces and central cross piece (DSR-2007 Item No.10.5.2)	Sqm	1600.10	0.00	0.00 0.00 0.00 0.00
5.1	Extra for providing frosted glass panes 4 mm thick instead of ordinary 4 mm th. float glass panes in doors, windows and celestory window shutters. (Area of opening of glass panes excluding portion inside rebate shall be measured) [for W.C. & Bath windows] (DSR-2007 Item No.9.12)	Sqm	10.45	6.60	68.97 0.00 0.00 0.00 0.00
6. FLOORING					
6.1	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement including cement slurry, but excluding the cost of nosing of steps etc. complete. a) 40mm thick with 20mm nominal size stone aggregate. (DSR-2007, Item No.11.3.1)	Sqm	192.95	57.00	10998.15 0.00 0.00
6.2	Cement plaster skirting (up to 30 cm height) with cement motar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 18 mm thick. (DSR-2007, Item No.11.6.1)	Sqm	168.50	5.10	859.35 0.00

SL.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
6.3	40mm thick marble chips flooring rubbed and polished to granolithic finished, under layer 34 mm thick cement concrete 1:2:4 (1cement : 2coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1 mm to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in propotion of 4:7 (4 cement marble powdermix : 7 marble chips) by volume including cement slurry etc. complete				0.00
	a) Light shade pigment with ordinary cement.	Sqm	341.05	440.00	150062.00
	[for all rooms, toilets, kitchen & internal circulation] (DSR-2007, Item No.11.9.5)				0.00
	b) Ordinary cement without any pigment	Sqm	291.05	0.00	0.00
	[for flat roof and gutter] (DSR-2007, Item No.11.9.6)				0.00
6.4	Marble chips skirting (upto 30 cm height) rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 mable powder) by weight in proportion of 4 : 7 (4 cement marble powder mix : 7 marble chips) by volume :				0.00
	18 mm thick with under layer 12 mm thick cement plaster 1 : 3 (1 cement : 3 coarse sand)	Sqm	368.50	70.00	25795.00
	a) Light shade pigment with ordinary cement.				0.00
	[for all rooms, toilets, kitchen & internal circulation] (DSR-2007, Item No.11.12.1.5)				0.00
6.5	Providing and fixing glass strips in joints of terrazo / cement concrete floors. 40 mm wide and 4 mm thick (DSR-2007, Item No.11.13.1)	Metre	17.60	825.00	14520.00
6.6	Kota stone slab flooring over 20mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of 1:4(1cement: 4 coarse sand) :				0.00
	(a) 25mm thick (DSR-2007, Item No.11.26.1)	Sqm	694.40	67.00	46524.80
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
6.7	Kota stone slabs 25mm thick in risers of steps, skirting, dados and pillars laid on 12mm (average) thick cement mortar 1:3 (1cement: 3coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of slabs, including rubbing and polishing complete. (DSR-2007 Item No.11.27)	Sqm	676.75	38.00	25716.50
					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
6.8	Extra for Kota stone/ sand stone in steps and treads using single length up to 1.05 metre. (DSR-2007 Item No.11.32)	Sqm	6.45	21.00	135.45 0.00
6.9	Extra for pre finished nosing in steps and treads of Kota stone/sand stone slab. (DSR-2007 Item No.11.31)	Metre	26.40	350.00	9240.00 0.00
6.10	Mirror polishing on marble work/ stone work wherever required to give high gloss finish complete. (DSR-2007 Item No.8.6)	Sqm	94.20	0.00	0.00 0.00
6.11	Providing and fixing 1 st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by the Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per Sqm including pointing in white cement mixed with pigment of matching shade complete. (DSR-2007 Item No.11.36)	Sqm	556.60	184.75	102831.85 0.00
7. ROOFING /CEILING					0.00
7.1	Providing and fixing on wall unplasticised Rigid PVC rain water pipes coforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. (i) Single socketed pipes a) 110 mm diameter (DSR-2007 Item No.12.40.2)	Metre	163.40	183.60	30000.24 0.00
7.2	Providing and fixing on wall unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion a) Bend 87.5 degrees 110 mm bend (DSR-2007 Item No.12.42.5.2) b) Shoe (plain) 110 mm shoe (DSR-2007 Item No.12.42.6.2)	Each Each	134.20 263.10	8.00 14.00	0.00 1073.60 0.00 3683.40 0.00

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Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
7.3	Providing and fixing unplasticised - PVC clips of approved design to unplasticized - PVC rain water pipes by means of 50 x 50x 50mm hard wood plugs, screwed with MS screws of required length including cutting brickwork and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete. 110 mm (DSR-2007 Item No.12.43.2)	Each	96.90	204.00	0.00 19767.60 0.00
7.4	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 gms (DSR-2007 Item No.12.44)	Each	23.40	14.00	327.60 0.00 0.00 0.00
8. WATER PROOFING & FINISHING					0.00
8.1	12 mm cement plaster of mix: (a) 1:6 (1 cement : 6 fine sand) (DSR-2007 Item No.13.1.2)	Sqm	67.65	310.00	0.00 20971.50 0.00
8.2	20 mm cement plaster of mix: (a) 1:4 (1 cement : 4 fine sand) (DSR-2007 Item No.13.3.1)	Sqm	95.10	164.00	0.00 15596.40 0.00
8.3	6 mm cement plaster to ceiling of mix: (a) 1:3 (1 cement : 3 fine sand) (DSR-2007 Item No.13.16.1)	Sqm	62.15	28.00	0.00 1740.20 0.00
8.4	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers: (DSR-2007 Item No.13.21)	Per bag of 50 kg. of cement used in the mix.	28.85	334.62	0.00 9653.79 0.00
8.5	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof. (DSR-2007 Item No.13.22)	Sqm	16.80	100.00	1680.00 0.00
8.6	Providing and applying plaster of Paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete (DSR-2007 Item No.13.26)	Sqm	47.20	1910.00	0.00 90152.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
8.7	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade				0.00
	(a) New work (two or more coats) over and including priming coat with cement primer.	Sqm	41.55	2050.00	85177.50
	(DSR-2007 Item No.13.42.1)				0.00
8.8	White Washing with lime to give an even shade.				0.00
	New Work (three or more coats)	Sqm	6.75	600.00	4050.00
	(DSR-2007 Item No.13.37.1)				0.00
8.09	Applying priming coat:				0.00
	(a) With ready mixed pink or grey primer of approved brand and manufacture on woodwork	Sqm	16.55	115.50	1911.53
	(DSR-2007 Item No.13.50.1)				0.00
	(b) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron / steel works.	Sqm	12.65	275.00	3478.75
	(DSR-2007 Item No.13.50.3)				0.00
	(c) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work. (second coat)	Sqm	7.15	0.00	0.00
	(DSR-2007 Item No.13.50.4)				0.00
8.1	Finishing walls with Premium Acrylic Smooth exterior paint of required shade:				0.00
	New work (two or more coats applied @ 1.67 ltr / 10 sqm over and including base coat of waterproofing cement paint applied @ 2.20kg / 10 sqm)	Sqm	50.40	1600.00	80640.00
	(DSR-2007 Item No.13.46 .1)				0.00
8.11	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade.				0.00
	Two or more coats on new work	Sqm	33.25	400.00	13300.00
	(DSR-2007 Item No.13.61.1)				0.00
8.12	Varnishing with varnish of approved brand and manufacture				0.00
	Two or more coats of glue sizing with copal varnish over an undercoat of flatting varnish	Sqm	49.20	0.00	0.00
	[for exposed 2nd class teakwood surfaces]				0.00
	(DSR-2007 Item No.13.67.1)				0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
8.13	Forming groove of uniform size from 12 x 12 mm and up to 25 x 15 mm in plastered surface as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-charge. (DSR-2007 Item No.13.76)	Metre	13.30	700.00	9310.00
9. MISC. ITEMS					0.00
9.1	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:				0.00
	a) after surface preparation, first layer of slurry of cement @ 0.488 kg/Sqm mixed with water proofing cement compound @ 0.253 kg/ Sqm.				0.00
	b) Laying second layer of Fibre glass cloth manufactured by M/s The Structural water-proofing company Pvt. Ltd.when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10cm.				0.00
	c) third layer of 1.5mm thickness consisting of slurry of cement @ 1.289Kg. / Sqm mixed with Armoucrete or Tapecrete @ 0.670 kg / sqm and coarse sand @ 1.289 kg / Sqm. This will be allowed to air cure for 4 hours followed by water curing by 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around.				0.00
	d) fourth and final layer of tiling with cement mortar (which will be paid for separately)				0.00
	For the purpose of measurement the entire treated surface will be measured.	Sqm.	237.50	255.00	60562.50
	(DSR-2007 Item No.22.6)				0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
9.2	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:				0.00
	(a) 1 st course of applying cement slurry @4.4kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.				0.00
	(b) II nd course of 20mm cement plaster 1:3 (1cement: 3Coarse sand) mixed with water proofing compound in recommended proportions including rounding off junction of vertical and horizontal surface.				0.00
	(c) III rd course of applying blown or residual bitumen applied hot @ 1.7kg/ Sqm of area.				0.00
	(d) IV th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC should be 100mm wide and pasted to each other with bitumen @1.7kg/ Sqm.	Sqm	272.50	46.00	12535.00
	(DSR-2007 Item No.22.3)				2232993.75
TOTAL COST OF ITEMS AS PER DSR - 2007					

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
ITEMS AS PER MARKET RATE					0.00
1.1	Supplying and filling in plinth with locally available river bed sand, including gravel, but without silt, under floors including watering, ramming, consolidating and dressing complete. (Market Rate Item)	Cum	290.00	6.60	1914.00
2. CONCRETE & RCC SHUTTERING WORK					0.00
2.1	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) in column footing and in plinth, all complete. (Market Rate Item]	Sqm	11.50	0	0.00
4. WOOD WORK					0.00
4.1	Providing and fixing fly proof stainless steel wire mesh as panel inserts, with average width of aperture 1.0 mm in both directions. [Basic Cost of stainless steel wire mesh = Rs. 75. per sqm.] a) With 2nd class teakwood beading 65 x 20 [for kitchen door] (Market Rate Item]	Sqm	86.25	10.00	862.50
4.2	Providing and fixing in place shutters for storage with 20 mm th. phenol formaldehyde resin bonded Marine Plywood top BWP Grade, conforming to IS 710, with 1.5mm th. laminate on external surface, fixed with synthetic resin adhesive conforming to BWR Grade as specified in I.S. 848 as per approved sample, exposed cut edges of plywood on all 4 sides to be covered with good quality 2nd class Teakwood lipping, all lipping and inside surface of shutter finished with paint of approved shade after necessary surface preparation, all complete with material [for shutters of cupboards and under-counter storage in kitchen] (Market Rate Item)	Sqm	1027.00	66.00	67782.00
4.3	Providing and fixing chromium plated brass tower bolts (barrel type) with necessary screws etc. all complete (Best make of approved quality) a) 250 x 10 mm [for entrance door insides] (Market Rate Item)	each	170.67	11.00	1877.32
	b) 150 x 10 mm [for all other door insides] (Market Rate Item)	each	106.92	66.00	7056.72
	c) 100 x 10 mm	each	74.03	22.00	1628.66

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
	[for wardrobe shutters] (Market Rate Item)				0.00
					0.00
4.4	Providing and fixing chromium plated brass sliding door bolt with nuts and necessary screws etc. complete (Best make of approved quality)				0.00
	a) 250 x 16mm (Market Rate Item)	No.	87.56	34.00	2977.04
					0.00
4.5	Providing and fixing chromium plated brass hanging type floor door stopper with necessary screws etc. complete. (Best make of approved quality)	Each	61.66	56.00	3452.68
	(Market Rate Item)				0.00
4.6	Providing and fixing 100 mm long 42 mm dia rubber door buffer / catcher on all doors at skirting level, including necessary screws, etc. complete (Best make of approved quality)	Each	45.00	56.00	2520.00
	(Market Rate Item)				0.00
4.7	Providing and fixing in place chromium plated brass 'magic eye' eye piece of standard design and approved make, all complete including making good of all damages (Best make of approved quality)	Each	124.00	11.00	1364.00
	(Market Rate Item)				0.00
4.8	Providing and fixing in place chromium plated brass a set of 4 pegs of standard design and approved make, all complete. (Best make of approved quality)	Each	81.00	44.00	3564.00
	(Market Rate Item)				0.00
4.9	Providing and fixing chromium plated brass Safety chain with necessary fixtures for doors. (Best make of approved quality)	Each	87.00	11.00	957.00
	(Market Rate Item)				0.00
4.10	Providing and fixing 20 mm dia hangar rods of 1.5 mm thick chromium plated brass pipe, the inside of the pipe filled with cylindrical section of hollock wood of suitable dia so as to be of exact fit, fixed to wall of wardrobe with chromium plated brass inserts, fixed with CP brass screws and plugs etc. all complete (Best make of approved quality)				0.00
	b) 20 mm dia [for wardrobes] (Market Rate Item)	metre	215.97	22.00	4751.34
					0.00
					0.00
					0.00
6. FLOORING					0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
6.1	Providing and fixng 25 mm thick Kota stone slabs for kitchen counters, window sills of required size, without joints, laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including rubbing, curing, moulding and polishing to edge to give high gloss finish, etc. complete at all levels. (Market Rate Item)	Sqm	725.00	35.31	25599.75 0.00
6.2	Providing and fixng 25 mm thick Kota stone slabs as shelves of required size, without joints, fixed in place using 50 x 50 x 6 M.S. angles on 3 sides, including rubbing, curing, moulding and polishing to edge to give high gloss finish, etc. complete at all levels. [for shelves in kitchen and wardrobes] (Market Rate Item)	Sqm	712.00	27.00	19224.00 0.00 0.00 0.00
7. ROOFING /CEILING					
7.1	Providing and fixing Gundi on flat roof, made of 75 th brickwork with 125 projection on inside, finished with neat cement plaster, complete. (Market Rate Item)	Metre	74.09	0.00	0.00 0.00

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
7.2	Making khurras 30 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12 mm cement plaster 1:3 (1cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete. (Market Rate Item)	Each	105.00	13.00	1365.00
					146896.01

TOTAL COST OF ITEMS AS MARKET RATE	
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TOTAL COST FOR CIVIL AND FINISHING ITEMS

2379889.76

BILL OF QUANTITIES FOR					
SONARI COOCHBIHAR TYPE II - 11 UNITS(BLOCK NO - 3)					
ELECTRICAL WORKS					
	SCHEDULE	ITEMS			
Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
PVC INSULATED COPPER CONDUCTOR WIRING IN PVC CONDUIT					
Note: Rates only ISI marked conduits, cables, switches and socket outlets have been taken in the following items. Unless and otherwise specified, only such conduits, cables, switches and socket outlets shall be used in the work.					
1.COPPER WIRING IN PVC CONDUIT:					
1.1	Point Wiring in PVC conduit, with piano type switch Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5mm sq.mm PVC insulated copper conductor cable in surface/ recessed PVC conduits as required with piano type switch, phenolic laminated sheet, suitable size M.S box and earthing the point with 1.5 sq. mm FR PVC insulated copper conductor single core cable etc as required.				
	a) Group C	Point	397.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.8.3				0.00
1.2	Copper light plug wiring in PVC conduit:Wiring for light plug with 2 x 4sq.mm FR PVC insulated, copper conductor, single core cable in surface/ recessed PVC conduit along with 1No. 4 mm dia.FR PVC insulated copper conductor single core cable for loop earthing as required	Metre	97.00	540	52380.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.12 WGPVCP2)				0.00
1.3	Circuit / submain wiring in PVC conduit: Wiring for submain wiring along with earth wire with following sizes of PVC insulated, copper conductor, single core cable in surface/ recessed PVC conduit as required:				0.00
	a) 2 X 1.5 sq mm +1 X 1.5 sq mm earth wire	Metre	71.00	326	23146.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.14.1 WGPVCSB)				0.00
	b) 2x4 sqmm.+ 1x4 sq.mm earth wire	Metre	97.00	105	10185.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.14.3 WGPVCSB)				0.00

2. SUPPLYING AND FIXING STEEL CONDUITS					0.00
Notes: Rates of only ISI marked conduits have been taken in the following items. Unless and otherwise specified, only such conduits shall be used in the work.					0.00
2.1	S/F steel conduit:				0.00
	Supplying and fixing of following sizes of steel conduit along with the accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required:				0.00
	i) 40mm.	Metre	127.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.20.4 STLCON)				0.00
	ii) 50mm.	Metre	168.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.20.5 STLCON)				0.00
3. SUPPLYING AND FIXING PVC CONDUITS					0.00
Notes: Rates of only ISI marked conduits have been taken in the following items. Unless and otherwise specified, only such conduits shall be used in the work.					0.00
3.1	S/F PVC conduit:				0.00
	Supplying and fixing of following sizes of PVC conduit alongwith the accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required:				0.00
	20mm	Metre	41.00	516	21156.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.1 PVCCON)				0.00
	25mm	Metre	47.00	221	10387.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.2 PVCCON)				0.00
	iii) 40 mm	Metre	56.00	105	5880.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.4 PVCCON)				0.00
4. SUPPLYING & FIXING METAL BOXES					0.00
4.1	S/F metal boxes:				0.00
	Supplying and fixing metal boxes of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in the front including painting etc. as required:				0.00
	100mm x100mm x60mm deep	Each	64.00	76	4864.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.2 MB)				0.00
	150mm x75mm x60mm deep	Each	67.00	33	2211.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.3 MB)				0.00
	180mm x100mm x60mm deep	Each	80.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.5 MB)				0.00

5. ERECTION OF FITTINGS & ACCESSORIES					0.00
Notes: Rates of only ISI marked conduits, cables, switches and socket outlets have been taken in the following relevant items. Unless and otherwise specified, only such conduits, cables, switches and socket outlets shall be used in the work.					0.00
5.1	S/F piano type switch / socket				0.00
	Supplying and fixing following piano type switch on the existing switch box/ cover including connections etc. as required.				0.00
	15/16 amp switch	Each	38.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.3 PTSWEB)				0.00
	3 pin 5/6 amps Socket outlet:	Each	21.00	78	1638.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.4 PTSWEB)				0.00
	6 pin 15/16 amps Socket outlet:	Each	43.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.5 PTSWEB)				0.00
	TV Antenna Socket outlet	Each	27.00	11	297.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.7 PTSWEB)				0.00
5.2	S/F Power plug point piano type accessories:				0.00
	Supplying and fixing metal box 180mm x 100mm x 60mm deep (nominal size) on surface or in recess with suitable size phenolic laminated sheet cover in the front including providing and fixing 6-pin 5/6 & 15/16 amps socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.	Each	161.00	44	7084.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.30 PPACCPT)				0.00
5.3	S/F ceiling rose:				0.00
	Supplying and fixing, 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connections, etc. as required.	Each	19.00	204	3876.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.33 CREB)				0.00
5.4	Erection of incandescent light fittings:				0.00

	Erection of wall bracket/ ceiling fittings of all sizes and shapes containing upto two GLS Lamps per fitting, complete with all accessories including connections etc. as required.	Each	19.00	13	247.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.35 ERINCFIT)				0.00
5.5	S/F call bell buzzer:				0.00
	Supplying and fixing call bell buzzer and Piano type bell push, suitable for DC/AC single phase 230volts, complete as required	Each	26.00	11	286.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.38 CALLBELL)				0.00
5.6	ITC fluorescent fitting directly on surface with copper wiring :				0.00
	Installation, testing and commissioning of prewired, fluorescent fittings, of all types complete with all accessories and tubes etc. directly on ceiling/ wall, including connections with 1.5sqmm FR PVC insulated, copper conductor, single core cable etc. as required.	Each	43.00	38	1634.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.41 ITCFESUR)				0.00
5.7	ITC ceiling fan with cover on fan box:				0.00
	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30cm) with 1.5 sqmm FR PVC insulated, copper conductor, single core cable including providing and fixing laminated sheet cover on the fan box etc. as required.	Each	68.00	33	2244.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.45 ITCCFFC)				0.00
5.8	S/F resistance type ceiling fan regulator				0.00
	Installation, testing and commissioning of ceiling fan and regulator including wiring the down rod of standard length (upto 30cm) with 1.5sqmm FR PVC insulated, copper conductor, single core cable etc. as required.	Each	27.00	11	297.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.46 ITCFR)				0.00

5.90	ITC exhaust fan upto 450mm sweep:				0.00
	Installation of exhaust fan upto 450mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connections, testing, commissioning etc. as required. (CPWD SOR-Elec-Part-1, 2007 Item no. 1.52 ITCEF450)	Each	223.00	11	2453.00
					0.00
5.1	Fixing louvers/ shutters for exhaust fan:				0.00
	Extra for fixing the louvers/ shutters complete with frame from exhaust fans of all sizes. (CPWD SOR-Elec-Part-1, 2007 Item no. 1.54 LOUSHEF)	Each	65.00	11	715.00
					0.00
6. MCB DISTRIBUTION BOARD					0.00
6.1	S/F MCB DB consumer unit:				0.00
	Supplying and fixing of following way, Single pole and nutral sheet steel, MCB distribution board consumer unit, 240 Volts, on surface / recess, complete with tinned copper busbar, neutral busbar, earth bar, din bar, hinged front acrylic cover for the MCB knobs, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc.as required: (but without MCB/ RCCB Isolator)				0.00
	2+4 way	Each	559.00	3	1677.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.32.1 LOUSHEF)				0.00
7. MCB'S/ RCCB'S					0.00
Notes: rates of only ISI marked MCB's have been taken in the following items. Unless and otherwise specified, only such MCB's shall be used in the work.					0.00
7.1	S/F DP MCB Isolator				0.00
	Supplying and fixing following rating, double pole 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required				0.00
	40 amps	Each	166.00	12	1992.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.54.1 MCBDPIS)				0.00

7.2	S/F C Series SP MCB				0.00
	Supplying and fixing 5 amps to 32 amps rating, 240 volts, C series, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				0.00
	Single pole with neutral	Each	243.00	68	16524.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.52.2 MCBC)				0.00
8. MCB DISTRIBUTION BOARD					0.00
8.1	S/F Pre-wired SP MCB DB				0.00
	Supplying and fixing following way, single pole and neutral, prewired, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with loose wire box, terminal blocks, tinned copper bus-bar, neutral link, earth bar, din bar, detachable gland plate, interconnections, including powdercoat painting, earthing etc. as required.				0.00
	12 way single door	Each	2863.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.34.3 PWSPMCBDB)				0.00
8.2	S/F 20A SPN MCB industrial socket outlet:				0.00
	Supplying and fixing 20 amps, 240 volts, SPN industrial type socket outlet with 2 pole and earth, metal enclosed plug top along with 20 amps "C" series, SP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	Each	520.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.62 MCB DPSOC20)				0.00
8.3	P/F M.V. danger notice plate:			0	0.00
	Providing and fixing M.V. danger notice plate of 200 mm x 150 mm made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	Each	68.00	1	68.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.71 DANPLMV)				0.00

9. EARTHING AND LOOP EARTHING					0.00
9.1	Copper earth plate electrode:				0.00
	Earthing with copper earth plate 600mm x 600mm x 3mm thick including accessories, and providing a masonry enclosure with cover plate having locking arrangement and watering pipe etc.(but without charcoal or coke and salt) as required	Set	3263.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.6 EARCUPL)				0.00
9.2	Salt/ coke for plate earth electrode:				0.00
	Extra for using salt and coke for G.I. or copper plate earth electrode as required.	Set	1484.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.8 EARCOKPL)				0.00
9.3	P/F 25 mm X 5 mm copper earth strip in pipe :				0.00
	Providing and fixing 25 mm x 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, as required.	Metre	494.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.13 EARCUSTPIP)				0.00
9.4	P/F 4 mm copper earth wire in pipe:				0.00
	Providing and laying earth connections from earth electrode with 4.00mm dia. copper wire in 15mm dia. GI pipe from earth electrode as required.	Metre	111.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.16 EARCUWRPIP)				0.00
9.5	P/F 25 mm X 5 mm copper earth strip in surface/ recess :				0.00
	Providing and fixing 25 mm x 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	358.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.17 EARCUSTSUR)				0.00
9.6	P/F 50 mm x 5 mm earth bus on surface :				0.00
	Providing and fixing earth bus of 50 mm x 5 mm copper strip on surface for connections	Metre	665.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.23 EARBUS)				0.00
9.7	P/F 4mm copper earth wire with conduit/ cable:				0.00
	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with the existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	36.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.22 EARCUWRLO)				0.00

9.8	Providing and fixing circular / hexagonal Cast Iron or M.S. sheet box for ceiling fan clamp of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bonding, top lid shall be screwed into the CI / M.S. sheet box by means of 3.3 mm dia. round headed screws, one lock at the corners. Clamps shall be made of 12 mm dia. M.S. bar bent to shape as per standard drawing.	Each	81.20		2679.60
	(DSR-2007 Item no.10.18)			33	0.00
					0.00
Total cost of Schedule Items					173921
10. SUPPLY OF FITTINGS / FIXTURES					0.00
10.10	Supply of surface mounted fluorescent luminaire, with channel of galvanised pre-coated sheet complete with all electrical accessories like starter holder withstarter, lampholders, all prewired upto terminal block, using single TLD-36W / TL-40 W of standard design and approved make	Each	800.00	38	30400.00
	(Market rate item)				0.00
10.20	Supply of 48" ceiling fan with regulator of standard design and approved make	Each	1750.00	33	57750.00
	(Market rate item)				0.00
10.30	Supply of exhaust fan upto 450mm sweep along with louvers/ shutters of standard design and approved make	Each	1500.00	11	16500.00
	(Market rate item)				0.00
10.4	Supply of surface mounted bulkhead , weather resistant luminaires with PL-S 9 W compact fluroscent lamp, of standard design and approved make.	Each	910.00	16	14560.00
	(Market rate item)				0.00
10.5	S/F Electrical Meters of rating 5-20 Amps single				0.00
	(Market Rate Item)	Each	865.00	12	10380.00
Total cost of Non-Schedule Items					129590.00
TOTAL COST OF ELECTRICAL ITEMS					303511

B

BILL OF QUANTITIES FOR

SONARI COOCHBEHAR TYPE -II - 11 UNITS (BLOCK NO - 3)

PUBLIC HEALTH WORK

ITEMS AS PER DSR-2007

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
I. PLUMBING & SANITARY					
1.1	Providing and fixing following plumbing and sanitary fixtures for each Type II unit: a) White Vitreous China Orissa pattern W.C. pan b) White Vitreous China Flat back wash basin c) Stainless Steel kitchen sink d) Bevelled edge mirror e) PTMT towel rail f) PTMT soap dish Holder g) PTMT shelf (Rate derived from DSR 2007 items Refer Annexure 'A')	No. No. No. No. No. No. No.	8080.50	11	88885.50
				1	0.00
				1	0.00
				1	0.00
				1	0.00
				1	0.00
				1	0.00
				1	0.00
1.2	Providing and fixing the following plumbing fixtures [for wash basin and sink] for each type II unit: h) P.V.C. waste pipe i) PTMT waste coupling (Rate derived from DSR 2007 items Refer Annexure 'A')	Nos. Nos.	235.90	11	2594.90
				2	0.00
				2	0.00
					0.00
1.3	Providing and fixing PTMT grating of approved quality & colour circular type 100 mm dia (DSR-2007 Item No. 18.58.1.1)	Each	39.70	33	1310.10
					0.00
1.4	Providing and fixing soil, waste and vent pipe: a) 100 mm dia Sand cast iron S&S pipe as per IS 1729 (DSR-2007 Item No. 17.35.1.1) b) 75 mm dia Sand cast iron S&S pipe as per IS 1729 (DSR-2007 Item No. 17.35.2.1)	Metre metre	451.00 395.45	180.00 0	81180.00
					0.00
					0.00
					0.00
					0.00
1.5	Providing lead caulked joints to sand cast iron/centrifugal cast (spun) iron pipes and fittings of diameter. (a) 100mm (DSR-2007 Item No. 17.58.1)	Each	126.50	240	30360.00
					0.00
1.6	Providing and fixing plain bend of required degree. (a) 100 mm sand cast iron S&S as per IS -1729 (DSR-2007 Item No. 17.39.1.1.)	Each	222.45	33	7340.85
					0.00
1.7	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. (a) 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.38.1.1)	Each	255.00	33	8415.00
					0.00
1.8	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.				0.00

	(a) 100 x 100 x 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.43.1.1)	Each	374.60	55	20603.00
					0.00
1.9	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1:2:4 mix (1 cement: 2 course sand: 4 graded stone aggregate 20 mm nominal size) including the cost of cutting holes and making good the walls etc.				0.00
	(a) For 100mm dia. pipe (DSR-2007 Item No. 17.37.1)	Each	65.35	136	8858.56
					0.00
	(b) For 75mm dia. pipe (DSR-2007 Item No. 17.37.2)	Each	63.00	0	0.00
					0.00

1.10	Providing and fixing heel rest sanitary-bend. (a) 100 mm dia sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.40.1.1)	Each	244.50	11	0.00 2689.50 0.00
1.11	Providing and fixing terminal guard: (a) 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.56.1.1) (b) 75mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.56.2.1)	Each Each	192.25 139.15	12 0	0.00 2307.00 0.00 0.00 0.00
1.12	Painting sand cast iron / centrifugally cast (spun) iron soil, waste, vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approved quality) for new work: (a) 100mm dia. pipe (DSR-2007 Item No. 17.65.1) (b) 75 mm dia. pipe (DSR-2007 Item No. 17.65.2)	Metre Metre	17.85 13.70	180.00 0.00	0.00 3213.00 0.00 0.00 0.00
2. SEWERAGE					0.00
2.1	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposal of surplus excavated soil as directed, within a lead of 50m. (a) Pipes, cables etc. exceeding 80mm dia but not ex (DSR-2007 Item No.2.10.1.2)	Metre	115.05	130	0.00 14956.50 0.00
2.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead upto 1.5m (DSR-2007 Item No.2.25)	Cum	45.70	40	1828.00 0.00
2.3	Providing and fixing soil, waste and vent pipe: (a) Sand cast iron S&S pipe 75mm dia, as per IS 1729 (DSR-2007 Item No. 17.35.2.1)	Metre	395.45	1.8	0.00 711.81 0.00
2.4	Providing and fixing square mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design. (a) 100 x 100 mm size P type with FPS bricks class designation 75 (DSR-2007 Item No. 19.4.1.1)	Each	935.15	0	0.00 0.00

2.5	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard (a) Inside size 90 x 80cm and 45cm deep including C.I. cover with frame (light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)- with F.P.S. bricks with class designation 75 (DSR-2007 Item No. 19.7.1.1)	Each	5383.70	7	0.00
					37685.90
					0.00
2.6	Extra for depth for manholes (a) Size 90 x 80cm with F.P.S bricks class designation 75 (DSR-2007 Item No.19.8.1.1)	Metre	2654.00	3.5	0.00
					9289.00
					0.00
2.7	Providing M.S. foot rests including fixing in manholes with 20 x 20 x 10 cm cement concrete blocks 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) as per standard (a) With 20 x 20mm square bar (DSR-2007 Item No.19.15.1)	Each	149.85	0	0.00
					0.00
					0.00
3. DRAIN/CHANNEL					
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level. a) 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size). (DSR-2007 Item No.4.1.3)	Cum	3257.45	10.00	0.00
					32574.50
					0.00
3.2	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:6 (1 cement: 6 coarse sand) (DSR-2007 Item no. 6.1.2)	Cum	2121.75	18.00	0.00
					38191.50
					0.00
3.3	20 mm cement plaster of mix: (a) 1:4 (1 cement : 4 coarse sand) (DSR-2007 Item No.13.6.1)	Sqm	118.25	0.00	0.00
					0.00
					0.00
3.4	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix: 1:4 (1 cement : 4 fine sand) (DSR-2007 Item No.13.8.2)	Sqm	110.70	178.00	0.00
					19704.60
					0.00

4. WATER SUPPLY					0.00
4.1	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (internal work)— Exposed on wall a) 25mm dia. nominal bore. (DSR-2007 Item No.18.10.3) b) 32mm dia. nominal bore. (DSR-2007 Item No.18.10.4) b) 40mm dia. nominal bore. (DSR-2007 Item No.18.10.5)	Metre	179.65	110	0.00
					19761.50
					0.00
		Metre	226.10	33	7461.30
					0.00
		Metre	264.05	41	10826.05
					0.00
4.2	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.(internal work)- concealed pipes including painting with anti-corrosive bitumastic paint, cutting chases and making good the wall. (a) 15mm dia. nominal bore. (DSR-2007 Item No.18.11.1) (b) 20mm dia nominal bore (DSR-2007 Item No.18.11.2)	Metre	144.75	48	0.00
					6948.00
					0.00
		Metre	170.15	84	14292.60
					0.00
4.3	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete. (a) 25 to 40mm nominal bore. (DSR-2007 Item No.18.13.1)	Each	166.05	0.00	0.00
					0.00
4.5	Providing and fixing gun-metal gate valve with CI wheel of approved quality (screwed end). (a) 32mm nominal bore (DSR-2007 Item No.18.17.2)	Each	358.00	0	0.00
					0.00
4.6	Providing and fixing following water supply fittings and fixtures for each type II unit: a) PTMT bib cocks b) Long body PTMT bib cocks c) Gun metal valve d) PVC connection pipe e) PTMT shower f) CP Brass Stop cock g) 500 lit storage tank (Rate derived from DSR 2007 items Refer Annexure 'A')	Nos. No. Nos. Nos. No. Nos. Nos.	4745.65	11	52202.15
				3	0.00
				1	0.00
				2	0.00
				2	0.00
				1	0.00
				2	0.00
				0	0.00
					0.00
TOTAL COST OF ITEMS AS PER DSR - 2007					524191

5.0 ITEMS AS PER MARKET RATE					
5.1	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				
	a) with A.S. horn.				
	(i) 75 mm	Each	380.65	0	0.00
	(Market Rate item)				0.00
5.2	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				0.00
	a) without A.S. horn.				
	(i) 100 mm	Each	419.75	33	13851.75
	(Market Rate item)				0.00
					0.00
5.3	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) below drain bed, all complete.	Sqm	11.50	80.00	920.00
	(Market Rate Item]				
TOTAL COST OF ITEMS AS MARKET RATE					14772
TOTAL COST OF PHE ITEMS					538963

B

BILL OF QUANTITIES FOR

SONARI COOCHBEHAR TYPE -II - 11 UNITS (BLOCK NO - 3)

PUBLIC HEALTH WORK

ITEMS AS PER DSR-2007

Sl.No.	DESCRIPTION	UNIT	RATE	QTY	AMOUNT
I. PLUMBING & SANITARY					
1.1	Providing and fixing following plumbing and sanitary fixtures for each Type II unit: a) White Vitreous China Orissa pattern W.C. pan b) White Vitreous China Flat back wash basin c) Stainless Steel kitchen sink d) Bevelled edge mirror e) PTMT towel rail f) PTMT soap dish Holder g) PTMT shelf (Rate derived from DSR 2007 items Refer Annexure 'A')	No. No. No. No. No. No. No.	8080.50	11 1 1 1 1 1 1	88885.50 0.00 0.00 0.00 0.00 0.00 0.00 0.00
1.2	Providing and fixing the following plumbing fixtures [for wash basin and sink] for each type II unit: h) P.V.C. waste pipe i) PTMT waste coupling (Rate derived from DSR 2007 items Refer Annexure 'A')	Nos. Nos.	235.90	11 2 2	2594.90 0.00 0.00 0.00
1.3	Providing and fixing PTMT grating of approved quality & colour circular type 100 mm dia (DSR-2007 Item No. 18.58.1.1)	Each	39.70	33	1310.10 0.00 0.00 0.00
1.4	Providing and fixing soil, waste and vent pipe: a) 100 mm dia Sand cast iron S&S pipe as per IS 1729 (DSR-2007 Item No. 17.35.1.1) b) 75 mm dia Sand cast iron S&S pipe as per IS 1729 (DSR-2007 Item No. 17.35.2.1)	Metre metre	451.00 395.45	180.00 0	81180.00 0.00 0.00 0.00 0.00
1.5	Providing lead caulked joints to sand cast iron/centrifugal cast (spun) iron pipes and fittings of diameter. (a) 100mm (DSR-2007 Item No. 17.58.1)	Each	126.50	240	0.00 30360.00 0.00
1.6	Providing and fixing plain bend of required degree. (a) 100 mm sand cast iron S&S as per IS -1729 (DSR-2007 Item No. 17.39.1.1.)	Each	222.45	33	0.00 7340.85 0.00
1.7	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. (a) 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.38.1.1)	Each	255.00	33	0.00 8415.00 0.00
1.8	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete.				0.00

	(a) 100 x 100 x 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.43.1.1)	Each	374.60	55	20603.00
					0.00
1.9	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1:2:4 mix (1 cement: 2 course sand: 4 graded stone aggregate 20 mm nominal size) including the cost of cutting holes and making good the walls etc.				0.00
	(a) For 100mm dia. pipe (DSR-2007 Item No. 17.37.1)	Each	65.35	136	8858.56
					0.00
	(b) For 75mm dia. pipe (DSR-2007 Item No. 17.37.2)	Each	63.00	0	0.00
					0.00

1.10	Providing and fixing heel rest sanitary-bend. (a) 100 mm dia sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.40.1.1)	Each	244.50	11	0.00 2689.50 0.00
1.11	Providing and fixing terminal guard: (a) 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.56.1.1) (b) 75mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.56.2.1)	Each Each	192.25 139.15	12 0	0.00 2307.00 0.00 0.00 0.00
1.12	Painting sand cast iron / centrifugally cast (spun) iron soil, waste, vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approved quality) for new work: (a) 100mm dia. pipe (DSR-2007 Item No. 17.65.1) (b) 75 mm dia. pipe (DSR-2007 Item No. 17.65.2)	Metre Metre	17.85 13.70	180.00 0.00	0.00 3213.00 0.00 0.00 0.00
2. SEWERAGE					0.00
2.1	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposal of surplus excavated soil as directed, within a lead of 50m. (a) Pipes, cables etc. exceeding 80mm dia but not ex (DSR-2007 Item No.2.10.1.2)	Metre	115.05	130	0.00 14956.50 0.00
2.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead upto 1.5m (DSR-2007 Item No.2.25)	Cum	45.70	40	1828.00 0.00
2.3	Providing and fixing soil, waste and vent pipe: (a) Sand cast iron S&S pipe 75mm dia, as per IS 1729 (DSR-2007 Item No. 17.35.2.1)	Metre	395.45	1.8	0.00 711.81 0.00
2.4	Providing and fixing square mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design. (a) 100 x 100 mm size P type with FPS bricks class designation 75 (DSR-2007 Item No. 19.4.1.1)	Each	935.15	0	0.00 0.00

2.5	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) RCC top slab with 1:2:4 mix (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard (a) Inside size 90 x 80cm and 45cm deep including C.I. cover with frame (light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)- with F.P.S. bricks with class designation 75 (DSR-2007 Item No. 19.7.1.1)	Each	5383.70	7	0.00
					37685.90
					0.00
2.6	Extra for depth for manholes (a) Size 90 x 80cm with F.P.S bricks class designation 75 (DSR-2007 Item No.19.8.1.1)	Metre	2654.00	3.5	0.00
					9289.00
					0.00
2.7	Providing M.S. foot rests including fixing in manholes with 20 x 20 x 10 cm cement concrete blocks 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) as per standard (a) With 20 x 20mm square bar (DSR-2007 Item No.19.15.1)	Each	149.85	0	0.00
					0.00
					0.00
3. DRAIN/CHANNEL					
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level. a) 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size). (DSR-2007 Item No.4.1.3)	Cum	3257.45	10.00	0.00
					32574.50
					0.00
3.2	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in: Cement mortar 1:6 (1 cement: 6 coarse sand) (DSR-2007 Item no. 6.1.2)	Cum	2121.75	18.00	0.00
					38191.50
					0.00
3.3	20 mm cement plaster of mix: (a) 1:4 (1 cement : 4 coarse sand) (DSR-2007 Item No.13.6.1)	Sqm	118.25	0.00	0.00
					0.00
					0.00
3.4	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix: 1:4 (1 cement : 4 fine sand) (DSR-2007 Item No.13.8.2)	Sqm	110.70	178.00	0.00
					19704.60
					0.00

4. WATER SUPPLY					0.00
4.1	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (internal work)— Exposed on wall a) 25mm dia. nominal bore. (DSR-2007 Item No.18.10.3) b) 32mm dia. nominal bore. (DSR-2007 Item No.18.10.4) b) 40mm dia. nominal bore. (DSR-2007 Item No.18.10.5)	Metre	179.65	110	0.00
					19761.50
					0.00
		Metre	226.10	33	7461.30
					0.00
		Metre	264.05	41	10826.05
					0.00
4.2	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.(internal work)- concealed pipes including painting with anti-corrosive bitumastic paint, cutting chases and making good the wall. (a) 15mm dia. nominal bore. (DSR-2007 Item No.18.11.1) (b) 20mm dia nominal bore (DSR-2007 Item No.18.11.2)	Metre	144.75	48	0.00
					6948.00
					0.00
		Metre	170.15	84	14292.60
					0.00
4.3	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete. (a) 25 to 40mm nominal bore. (DSR-2007 Item No.18.13.1)	Each	166.05	0.00	0.00
					0.00
4.5	Providing and fixing gun-metal gate valve with CI wheel of approved quality (screwed end). (a) 32mm nominal bore (DSR-2007 Item No.18.17.2)	Each	358.00	0	0.00
					0.00
4.6	Providing and fixing following water supply fittings and fixtures for each type II unit: a) PTMT bib cocks b) Long body PTMT bib cocks c) Gun metal valve d) PVC connection pipe e) PTMT shower f) CP Brass Stop cock g) 500 lit storage tank (Rate derived from DSR 2007 items Refer Annexure 'A')	Nos. No. Nos. Nos. No. Nos. Nos.	4745.65	11	52202.15
				3	0.00
				1	0.00
				2	0.00
				2	0.00
				1	0.00
				2	0.00
				0	0.00
					0.00
TOTAL COST OF ITEMS AS PER DSR - 2007					524191

5.0 ITEMS AS PER MARKET RATE					
5.1	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				
	a) with A.S. horn.				
	(i) 75 mm	Each	380.65	0	0.00
	(Market Rate item)				0.00
5.2	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				0.00
	a) without A.S. horn.				
	(i) 100 mm	Each	419.75	33	13851.75
	(Market Rate item)				0.00
					0.00
5.3	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) below drain bed, all complete.	Sqm	11.50	80.00	920.00
	(Market Rate Item]				
TOTAL COST OF ITEMS AS MARKET RATE					14772
TOTAL COST OF PHE ITEMS					538963

SPECIFICATIONS

ITEMS AS PER DSR-2007

Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOU
1. PLUMBING & SANITARY					
	<p>a) Water closet squatting pan (Indian type WC Pan) with 100mm sand cast iron P or S trap, 10 litres low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS:7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required.</p> <p>White Vitreous china Orissa pattern W.C. pan of size 580 x 440 mm with integral type foot rests.</p> <p>(DSR-2007 Item No. 17.1.1)</p>		Each	2304.65	
	<p>b) Wash basins with C.I brackets, 15 mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required:</p> <p>White Vitreous China Flat back wash basin size 550 x 400 mm with a single 15mm C.P. brass pillar tap.</p> <p>(DSR-2007 Item No. 17.7.4)</p>		Each	1044.90	
	<p>c) Stainless Steel A ISI 304 (18/8) kitchen sink as per I.S. 13983 with C.I. Brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required:</p> <p>Kitchen Sink without drain board 610 x 510 mm bowl depth 200 mm.</p> <p>(DSR-2007 Item no. 17.10.2.1)</p>		Each	3439.20	
	<p>d) 600 x 450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thk. hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.</p> <p>(DSR-2007 Item No. 17.31)</p>		Each	493.65	
	<p>e) PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour.</p>				

	450 mm long towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gms. (DSR-2007 Item No. 17.73.1)		Each	294.65	
	f) PTMT soap dish Holder having length of 138 mm, breadth 102 mm, height of 75 mm with concealed fitting arrangements. Weighing not less than 106 gms. (DSR-2007 Item No. 18.65)		Each	133.30	
	g) PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour. Weighing not less than 300 gms (DSR-2007 Item No. 17.74)		Each	370.15	
	h) P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Semi rigid pipe 32 mm dia (DSR-2007 Item No. 17.28.1.1)	2	Each	42.15	84.30
	i) PTMT waste coupling for wash basin and sink of approved quality, colour and make Waste coupling 31mm of 79mm length and 62 mm breadth weighing not less than 45 gms. (DSR-2007 Item No. 17.69.1)	2	Each	75.80	151.60

3. WATER SUPPLY

	a) PTMT bib cock of approved quality and colour 15mm nominal bore, 122 mm long. Weighing not less than 99 gms. [for ablution tap, bathing area, under sink in kitchen] (DSR-2007 Item No.18.54.2)	3	Each	189.40	568.20
	b) 15mm nominal bore, 165 mm long. Weighing not less than 110 gms. [for sink in kitchen] (DSR-2007 Item No.18.54.3)		Each	264.90	
	c) Gun-metal gate valve with CI wheel of approved quality (screwed end). 25mm nominal bore [for toilets and kitchen] (DSR-2007 Item No.18.17.1)	2	Each	285.50	571.00
	d) Unplasticised PVC connection pipe with brass unions 45cms length with 15mm nominal bore. [for wash basin and cistern] (DSR2007 Item No.18.21.2.1)	2	Each	44.75	89.50

e)	PTMT swivelling shower, 15 mm nominal bore. Weighing not less than 40 gms. 100mm dia (DSR2007 Item No.18.22.2)		Each	101.95	
f)	C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931 15 mm nominal bore [for wash basin and cistern] (DSR-2007 Item No.18.52.1)	2	Each	262.55	525.10

BILL OF QUANTITIES FOR					
ADDITIONAL ITEMS OF BLOCK NO 2					
CIVIL & FINISHING WORKS					
ITEMS AS PER DSR-2007					
Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	Sloped Roof Finish above waterproofing&upto plinth around the				
1	Neat Cement punning				0.00
	(DSR 2007, 13.18)	350	sqm	21.40	7490.00
	Sewerage				
1	Providing, laying and jointing glazed stoneware pipes grade 'A' with stiff mixture of cement mortar in the proportion of 1:1 (1 cement : 1 fine sand) including testing of joints etc. complete:				
	a) 150 mm diameter	55	metre	151.65	8340.75
	(DSR-2007 Item No. 19.1.2)				
2	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all round S.W. pipes including bed concrete as per standard design:				
	a) 150 mm diameter	55	metre	405.05	22277.75
	(DSR-2007 Item No. 19.2.2)				0.00
3	Cast iron soil pipe only conforming to I.S. 3989 / 1970 and I.S. 1729/1964 with bobbins, nails etc. including making holes in the wall, floor etc. and cutting trenches etc. in any floor through masonry concrete, if necessary, and mending good damages with necessary jointing materials and				0.00
	(b) With lead caulked joints.				0.00
	(iv) 50 mm dia. (internal)	35	metre	289	10115.00
4	Approved patent vent cowl I.C.I. conforming to I.S. (PWD 2007, S&P B/II/5)				0.00
	(iii) 50 mm dia.	2	Each	86	172.00
5	H.C.I. bend without door conforming to I.S.S. including jointing complete(PWD 2007 , S&P B/II/5).				0.00
	(b) With lead caulked joints				0.00
	(iv) 50 mm dia.	18	Each	156	2808.00
6	Cast iron single branch equal with door conforming to I.S.				
	(b) With lead caulked joints				0.00
	(iv) 50 mm dia.	6	Each	248	1488.00
	Water Supply				0.00
1	Providing and fixing gun-metal gate valve with CI wheel of				0.00
	(a) 40 mm nominal bore	1	Each	399.00	399.00
	b) 25 no nominal bore	8	Each	285.50	2284.00
	(DSR-2007 Item No.18.17.3 & 2)				0.00

2	Supply, fitting, fixing in position of CI tank cover of size 450X450x16Kg	2	each	1383.00	2766.00
Electrical Work & Earthing					
1	Point Wiring in PVC conduit, with piano type switch Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5mm sq.mm PVC insulated copper conductor cable in surface/ recessed PVC conduits as required with piano type switch, phenolic laminated sheet, suitable size M.S box and earthing the point with 1.5 sq. mm FR PVC insulated copper conductor single core cable etc as required.				0.00
	a) Group A				0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.8.3 WGPVCPT)	217	Point	264.00	57288.00
2	S/F piano type switch / socket				0.00
	Supplying and fixing following piano type switch on the existing switch box/ cover including connections etc. as required.				0.00
	5/6 amp switch	56	Each	17.00	952.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.1 PTSWEB)				0.00
5	S/F SP MCB DB				0.00
	Supplying and fixing of following way, Single pole and nutral sheet steel, MCB distribution board, 240 Volts, on surface / recess, complete with tinned copper busbar, neutral busbar, earth bar, din bar, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required: (but without MCB/ RCCB Isolator)				0.00
	8 way single door	8	Each	372.00	2976.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.31.2 SPMCBDB)				0.00
	4 way single door	1	Each	301.00	301.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.31.1 SPMCBDB)				0.00
6	S/F Prewired TP MCB DB				
	4 Way (4+12), Double door	1	Each	5395.00	5395.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.42.5 PWTPMCBDB)				
7	S/F TP MCB isolator				0.00
	63 Amps	1	Each	362.00	362.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.55.2 MCBTPIS)				
15	G.I. earth pipe electrode with salt and charcoal:				0.00

	Earthing with G.I. earth pipe 4.5 metres long 40mm dia, including accessories, and providing a masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal and salt as required.	3	Set	1971.00	5913.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.2				0.00
16	P/F 25mm x 5 mm G.I. earth strip in pipe :				0.00
	Providing and fixing 25 mm x 5 mm G.I. strip in 40 mm dia G.I. pipe from earth electrode, as required.	18	Metre	218.00	3924.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.14 EARGISTPIP)				0.00
17	P/F 6 SWG G.I. earth wire in pipe:				0.00
	Providing and laying earth connections from earth electrode with 6 SWG G.I. wire in 15mm dia. GI pipe from earth electrode as required.	48	Metre	86.00	4128.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.15 EARGIWRPIP)				0.00
18	P/F 25 mm X 5 mm G.I. earth strip in surface/ recess :				0.00
	Providing and fixing 25 mm x 5 mm G.I. strip on surface or in recess for connections etc. as required.	4.25	Metre	66.00	280.50
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.18 EARGISTSUR)				0.00
19	P/F 50 mm x 5 mm earth bus on surface :				0.00
	Providing and fixing earth bus of 50 mm x 5 mm copper strip on surface for connections	3.5	Metre	665.00	2327.50
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.23 EARBUS)				0.00
20	P/F 6 SWG G.I. earth wire with conduit/ cable:				0.00
	Providing and fixing 6 SWG G.I. wire on surface or in recess for loop earthing along with the existing surface/ recessed conduit/ submain wiring/ cable as required.	396	Metre	11.00	4356.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.21 EARGIWRLO)				0.00

	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.21 EARGIWRLO)				
	Lightening Arrestor				
1	P/F G.I. lightening conductor finial:				
	Providing and fixing of lightening conductor finial made of 25mm dia, 300mm long, G.I. tube having single prong at top, with 85 mm dia, 6 mm thick G.I. base plate including holes etc. complete as required				243.00
		1	Each	243.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.2 (LCFGI))				
2	Reverting, sweating and soldering lightening conductor tape:				
	Reverting, sweating and soldering of copper/ G.I. tape (with another copper/G.I. tape, base of the finial or any other metallic object) as required.				56.00
		1	Each	56.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.4 (LCRSS))				
3	P/F G.I. lightening conductor tape in horizontal run:				
	Providing and fixing of G.I. tape 20 mm x 3 mm thick on parapet or surface of wall for lightening conductor complete as required. (For horizontal run)				434.00
		14	Metre	31.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.7 (LCGITSURH))				
4	P/F G.I. lightening conductor tape in vertical run:				
	Providing and fixing of G.I. tape 20 mm x 3 mm thick on parapet or surface of wall for lightening conductor complete as required. (For vertical run)				688.00
		16	Metre	43.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.8 (LCGITSURV))				
5	P/F Testing joint for G.I. lightening conductor:				
	Providing and fixing testing joint, made of 20mm x 3mm thick GI strip, 125 mm long, with 4 nos of G.I. bolts, nuts, check nuts and spring washers etc complete as required.				37.00
		1	Each	37.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.12 (LCTJGI))				
6	P/L G.I. earth tape for lightening conductor:				
	Providing and laying G.I. tape 32 mm x 6 mm from earth electrode directly in ground as required.				243.75
		3.75	Metre	65.00	
	(CPWD SOR-Elec-Part-1, 2007 Item no. 4.14 (LCEARGIT))				
7	G.I. earth pipe electrode:				
	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc with charcoal and salt as required.				65.00
		1	Set	65.00	

	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.2 (EARGIPIP)				
TOTAL COST OF ITEMS AS PER DSR - 2007 & SOR (ELECTRICAL) 2007					135251.50

BILL OF QUANTITIES FOR					
ADDITIONAL ITEMS [1.2 METRES WIDE INTERNAL PATHWAY]					
ITEMS AS PER DSR-2007					
Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Dry brick on edge flooring in required pattern with bricks of class designation 75 on a bed of 12 mm mud mortar including filling joints with jamuna sand (with F.P.S bricks) complete.	108	Sqm.	208.90	22561.2
	(DSR-2007 item no. 11.2)				
2	75mm thick back filling for pitching including supplying of required materials and consolidation etc. complete with:				
	Moorum	108	Sqm	34.45	3720.60
	(DSR-2007 item no. 16.74.1)				
TOTAL COST OF ITEMS AS PER DSR - 2007					26281.80

[illegible]

	SUMMARY SHEET	
	SONARI COOCHBEHAR TYPE II- 8UNITS (BLOCK NO - 2)	
SL NO	DESCRIPTION OF WORK	ESTIMATED COST OF WORK
1	ANTITERMITE	0.00
2	CIVIL & FINISHING WORK.	1468634
3	ELECTRICAL WORK	219932
4	PH & WTR SPLY WORK	360973
5	SITE DEVELOPMENT	564795
	TOTAL	2614334
6	ADDITIONAL ITEM FOR BLOCK NO -2	135252
7	INTERNAL PATHWAY FOR BLOCK NO 1, 2 & 3	26282
	TOTAL	2775868
	ADDED 1% CONSTRUCTION WORKERS WELFARE CESS	27759
	GROSS TOTAL	2803626

BILL OF QUANTITIES FOR					
SONARI COOCHBEHAR TYPE II - 8 UNITS (BLOCK NO - 2)					
ANTITERMITE TREATMENT					
ITEMS AS PER DSR-2007 & DSR 1997					
Sl.No.	DESCRIPTION	UNIT	RATE	ESTIMATED	
				QTY	AMOUNT
1	Supplying chemical emulsion in sealed containers including delivery as specified.a) Chlorpyriphos/ Lindane emulsifiable concentrate of 20%.	Litre	174.30	0	0.00
	As per manufacturing specification				0.00
	(DSR-2007 Item No.2.34.1)				0.00
2	Diluting and injecting chemical emulsion (to be supplied free of cost at site of work) for PRE-CONSTRUCTIONAL ANTI-termite treatement and creating a continuous chemical barrier under and around the column pits, wall trenches, basement excavation, top surface of plinthFilling,junction of wall and floor, along the external perimeter of buliding,expansion joints, over the top surface of consolidated earth on which apron is to be laid, surroundings of pipes and conduits etc. complete as per specifications (Plinth area of the buildingat ground floor only shall be measured for payment).				0.00
	(a) Chlorpyriphos/ Lindane Emulsifiable concentrate 20% with 1% concentration.	Sqm	76.74	0	0.00
	(DSR-1997 Item No.2.36.1 & CF OF DSR 2007)				
TOTAL COST OF ITEMS AS PER DSR - 2007					0

BILL OF QUANTITIES FOR					
SONARI COOCHBEHEAR TYPE II - 8 UNITS (BLOCK NO - 2)					
CIVIL & FINISHING WORKS					
ITEMS AS PER DSR-2007					
Sl.No.	DESCRIPTION	UNIT	RATE	ESTIMATED	
				QTY	AMOUNT
1. EARTH WORK					
1.1	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan) including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
	For all kinds of soil	Cum	103.40	102.00	10546.80
	(DSR-2007 Item No. 2.8.1)				0.00
1.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead up to50m and lift upto1.5m.	Cum	45.70	55.00	2513.50
	(DSR-2007 Item No.2.25)				0.00
1.3	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) over 75 mm bed by dry brick ballast 40mm nominal size well rammed and consolidated and grouted with fine sand including finishing the top smootg.				0.00
	(DSR-2007 Item No.4.17)	Sqm	222.65	50.56	11257.18
1.4	Providing and laying damp-proof course 40mm thk. With cement concrete 1:2:4 (1 cement: 2 coarse sand : 4 graded stone aggregate 12.5mm nominal size)	Sqm.	144.15	0.00	0.00
	(DSR-2007 Item No.4.10)				0.00
1.5	Extra for providing and mixing water proofing material in cement concrete work @ 1Kg. Per 50 Kg. Of cement	per bag of 50 kg. of cement used in the mix	27.45	0	0.00
	(DSR-2007 Item No.4.12)				0.00
2. CONCRETE & RCC SHUTTERING WORK					0.00
2.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level.				0.00
	a) 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size).	Cum	3257	8.650	28176.94
	(DSR-2007 Item No.4.1.3)				0.00
	b) 1:3:6 (1cement: 3coarse sand: 6 graded stone aggregate 20mm nominal size).	Cum	2791.05	2.85	7965.66
	(DSR-2007 Item No.4.1.5)				0.00
2.2	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centring, shuttering, finishing and reinforcement including admixtures in recommended proportions (as per IS:9103) to accelerate, retard setting of concrete improve workability without impairing strength and durability as per direction of Engineer-in-Charge – M-25 grade reinforced cement concrete by using 410kg. of cement per cum of concrete. All work up to floor V level.				0.00
	(a) All work	Cum	4147.40	3.50	14515.90
	(DSR-2007 Item No.5.33)				0.00
2.3	Deduct for using less cement than the quantity as provided in the item of batch mix concrete as arrived as per mix design	quintal	522.70	0.00	0.00
	(DSR-2007 Item No.5.35)				0.00
2.4	Centering and shuttering including strutting, propping etc. and removal of form for:				0.00

				QTY	AMOUNT
	a) Foundation, footings, bases of column etc. for mass concrete	Sqm	119.25	30.00	3577.50
	(DSR-2007 Item No.5.9.1)				0.00
					0.00
	b) Walls (any thickness) including attached pillars, buttresses, plinth and string courses etc.	Sqm	180.40	0.00	0.00
	(DSR-2007 Item No.5.9.2)				0.00
					0.00
	c) Suspended floor roofs, landings, balconies and access platform	Sqm	187.35	0.90	168.62
	(DSR-2007 Item No.5.9.3)				0.00
					0.00
	d) Shelves (Cast in situ)	Sqm	187.35	0	0.00
	(DSR-2007 Item No.5.9.4)				0.00
					0.00
	e) Lintels, beams, plinth beams, girders, bressumers and cantilevers.	Sqm	162.65	0.00	0.00
	(DSR-2007 Item No.5.9.5)				0.00
					0.00
	f) Columns, Pillars, Piers, Abutments, Posts and Struts.	Sqm	238.40	0.00	0.00
	(DSR-2007 Item No.5.9.6)				0.00
					0.00
	g) Stairs, (excluding landing) except spiral staircase.	Sqm	204.00	0.00	0.00
	(DSR-2007 Item No.5.9.7)				0.00
					0.00
	h) Small lintels not exceeding 1.5m clear span, moulding as in cornices, window sills, string courses, bands, copings, bed plates, anchor blocks and the like.	Sqm	119.25	0	0.00
	(DSR-2002 Item No.5.9.15)				0.00
					0.00
	i) Weather shade, chajjas, Corbels, etc. including edges.	Sqm	258.60	0.00	0.00
	(DSR-2007 Item No.5.9.19)				0.00
2.5	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.			0	0.00
	(a) Thermo-mechanically treated bars	Kg	42.70	780.00	33306.00
	(DSR-2007 Item No.5.22.6)				0.00
2.6	Add or deduct for plaster drip course/ groove in plastered surface or moulding to R.C.C. projections.	Metre	11.95	179.75	2148.01
	(DSR-2007 Item No.5.30)				0.00
					0.00
3. MASONRY WORK					0.00
3.1	Brick work with FPS brick designation 75 in foundation and plinth in:				0.00
	(a) Cement mortar 1 : 6 (1 cement : 6 Coarse sand)	Cum	2121.75	4.65	9866.14
	(DSR-2007 Item no. 6.1.2)				0.00
3.2	Brickwork with FPS bricks of class designation 75 in superstructure above plinth upto floor V level in all shapes and sizes in:			0	0.00
	Cement Mortar 1 : 6 (1 cement : 6 coarse sand)	Cum	2357.40	2.20	5186.28
	(DSR-2007 Item No. 6.4.2)				0.00
3.3	Half brick masonry with FPS bricks of class designation 75 in superstructure above plinth level upto floor V level.				0.00
	Cement Mortar 1 : 4 (1 cement : 4 coarse sand)	Sqm	302.80	26.50	8024.20
	(DSR-2007 Item No. 6.13.2)				0.00
3.4	Brickwork 7 cms thick with FPS bricks of class designation 75 in cement mortar 1:3 (1 cement : 3 coarse sand) in superstructure	Sqm	214.85	3.25	698.26
	(DSR-2007 Item No. 6.8)				
4. WOOD WORK					
4.1	Providing woodwork in frames of doors, windows, celestory windows and other frames, wrought framed and fixed in position :				
	Second class teakwood	Cum	52090.00	0.55	28649.50
	[for cupboard & undercounter storage]				
	(DSR-2007 Item No. 9.1.1)				
4.2	Providing and fixing panelled or panelled and glazed shutters for doors windows and celestory windows including ISI marked black enamelled M.S. butt hinges with necessary screws excluding panelling which will be paid seperately.				

				QTY	AMOUNT
	Second class teakwood				0.00
	35 mm thick shutters	Sqm	1373.65	40.00	54946.00
	[for all doors excluding W.C & bathroom doors]				0.00
	(DSR-2007 Item No. 9.5.1.1)				0.00
4.3	Providing and fixing panelling or panelling and glazing in panelled or panelled and glazed shutters for doors, windows and celestory windows (Area of opening for panel inserts excluding portion inside grooves or rebates to be measured) Panelling for panelled or panelled and glazed shutters 25 mm to 40 mm thick:				0.00
	Particle board 12 mm thick				0.00
	Pre-laminated particle board with decorative lamination on one side and balancing lamination on other side, Grade I, Type II IS 12823 marked.	Sqm	985.70	39.34	38773.50
	[for all doors excluding W.C & bathroom doors & partly for kitchen door]				0.00
	(DSR-2007 Item No. 9.7.5.3)				0.00
4.4	Extra for providing ISI marked Stainless Steel butt hinges instead of blacked enamelled M.S. butt hinges with necessary screws.				0.00
	(Shutter area to be measured).	Sqm	83.80	0	0.00
	[for all doors except bath & WC doors]				0.00
	(DSR-2007 Item No.9.14)				0.00
4.5	Providing and fixing special quality chromium plated brass cupboard or wardrobe locks with six levers including necessary screws etc. complete (best make of approved quality) of :				0.00
	a) 40 mm	each	78.30	16	1252.80
	(DSR-2007 Item No.9.90.1)				0.00
4.6	Providing and fixing chromium plated brass 50 mm cupboard or wardrobe knobs with nuts complete (best make of approve quality)	each	31.80	112	3561.60
	[for shutters of cupboards and under-counter storage in kitchen]				0.00
	(DSR-2007 Item No.9.91)				0.00
4.7	Providing and fixing magnetic catcher in cupboard / wardrobe shutters including fixing with necessary screws etc. complete (Best make of approved quality)				0.00
	a) Double strip (horizontal type)	each	14.65	80	1172.00
	(DSR-2007 Item No.9.114.2)				0.00
4.8	Providing and fixing factory made UPVC door frame made of UPVC extruded section having an overall dimension as below (tolerance+1mm) with wall thickness 2.0mm +_0.2mm, corners of the door frame to be mitred and welded of plastic, galvanized brackets and stainless steel screws. The hinge side vertical of the frames reinforced by galvanishrd M.S tube of size 19x19 mm and 1mm +_0.1mm wall thickness and 3 nos. stainless steel hinges fixed to the frame complete as per manufacturers specification and direction of Engineer-in-charge.				0.00
	Extruded section profile size 48x40 mm.	Metre	141.00	88.00	12408.00
	(DSR-2007 Item No.9.117.1)				0.00

				QTY	AMOUNT
4.9	30 mm thick factory made polyvinyl chloride (PVC) door shutter made of stiles and rails of a UPVC hollow section of size 60 x 30mm and wall thickness 2 mm +_ 0.2 mm with inbuilt decorative moulding edging on one side. The styles and rails mitred and joined at the corners by means of M.S. galvanised / plastic brackets of size 75x220 mm having wall thickness 1.0 mm and stainless steel screws. The styles of the shutter reinforced by inserting galvanised M.S. tube of size 25 x 20 mm and 1 mm +_ 0.1 mm wall thickness. The lock rail made up of 'H' section, a UPVC hollow section of size 100 x 30mm and 2 mm +_ 0.2mm wall thickness fixed to the shutter styles by means of plastic/galvanised M.S. "U" cleats. the shutter frame filled with a UPVC multi-chambered single panel of size not less than 620mm, having over all thickness of 20 mm and 1 mm +_ 0.1 mm wall thickness. The panels filled vertically and tie bar at two places by inserting horizontally 6mm galvanised M.S rod and fastened with nuts and washers, complete as per manufacturer's specification and direction of Engineer-in -charge.	Sqm	2271.80	25.00	56795.00
	(DSR-2007 Item No.9.118.2)				0.00
4.10	Providing and fixing PTMT Butt hinges with necessary screws etc. complete				0.00
	75x60x10 mm fitted with 5.5 mm dia MS bright bar rod weighing not less than 34 gms.				0.00
	[for PVC shutters]	each	47.40	51.00	2417.40
	(DSR-2007 Item No.9.107.1)				0.00
4.11	Providing and fixing PTMT handles with necessary screws etc. complete				0.00
	150x34x24 mm weighing not less than 26 gms				0.00
	[for PVC shutters]	each	36.85	34.00	1252.90
	(DSR-2007 Item No.9.106.2)				0.00
4.12	Providing and fixing PTMT towerbolts with 12 mm one piece rod inside and necessary screws etc. complete				0.00
	152x42x18 mm weighing not less than 60 gms				0.00
	[for PVC shutters]	each	73.00	34.00	2482.00
	(DSR-2007 Item No.9.108.1)				0.00
4.13	Providing and fixing PTMT door catcher of length 72 mm and dia of 42 mm with suitable washers weighing not less than 33 gms				0.00
	[for PVC shutters]	each	29.05	0.00	0.00
	(DSR-2007 Item No.9.109)				0.00
4.14	Providing and fixing glass using 10 Kg/Sqm (4mm thick) glass pens in panelled or panelled and glazed shutters for doors, windows and clerestory window (Area of opening for glass inserts excluding portion inside grooves or rebates to be measured) (Panel not exceeding 0.1 Sqm.):	Sqm	336.49	60.00	20189.40
	(Rate derived as per DSR-2007 basic item rates and labour rate.)				0.00
4.15	Providing and fixing IS: 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete:				0.00
	a) 75 x 50 x 2.50mm	Each	28.75	160	4600.00
	[for wardrobe shutters]				0.00
	(DSR-2007 Item No.9.71.3)				0.00
	b) 50 x 37 x 1.50 mm	Each	14.80	96	1420.80
	[for under counter storage shutter]				0.00
	(DSR-2007 Item No.9.70.4)				0.00
4.16	Providing and fixing chromium plated brass handles with necessary screws etc. complete:				0.00
	a) 125mm	Each	125.00	98	12250.00
	[for all doors without mortice locks]				0.00
	(DSR-2007 Item No.9.92.1)				0.00
	b) 100 mm	Each	96.45	252	24305.40
	[for all windows]				0.00
	(DSR-2007 Item No.9.92.2)				0.00

				QTY	AMOUNT
4.17	Providing and fixing chromium plated brass 100mm mortice latch and lock with 6-levers and a pair of lever handles with necessary screws etc. complete (Best make of approved quality)	Each	409.30	16	6548.80
	(DSR-2002 Item No.9.76)				0.00
4.18	Providing and fixing chromium plated brass casement stays (straight peg type) with necessary screws etc. complete.				0.00
	300 mm weighing not less than 330 gms.	Each	90.50	252	22806.00
	(DSR-2007 Item No.9.94.1)				0.00
4.19	Providing and fixing curtain rods of 1.25 mm th chromium plated brass plate and two chromium plated brass brackets fixed with CP brass screws and wooden plugs, etc., wherever necessary complete:				0.00
	a) 25 mm dia	metre	299.30	105	31426.50
	[for widows]				0.00
	(DSR-2007 Item No.9.46.3)				0.00
5. STEEL WORK					0.00
5.1	Providing and fixing pressed steel door frames confirming to IS: 4351 manufactured from commercial mild steel sheet of 1.25mm thickness including hinges jamb, lock jamb, bead and if required angle threshold of mild steel angle of section 50 x 25mm, or base ties of 1.25 mm pressed mild steel welded or rigidly fixed together by mechanical means, adjustable lugs with split end tail to each jamb including steel butt hinges 2.5mm thick with mortar guards, lock strike plate and shock absorbers as specified and applying a coat of approved steel primer after pre-treatment of the surfaces as directed by the Engineer-in-charge:-				0.00
	(a) Profile B	RM	251.90	0.00	0.00
	(DSR-2007 Item No.10.14.1)				0.00
	(b) Profile C	RM	271.65	0.00	0.00
	(DSR-2007 Item No.10.14.2)				0.00
5.2	Providing and fixing M.S. Tubular frames for doors windows, ventilators and cupboard with L-Type section made of 4.60mm thick M.S. sheet, joints mitred and welded and grinded finish profiles required size with 15x3mm lugs 10cm long embeded in cement concrete blocks 15x10x10cm of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20mm nominal size) or with wooden plugs and screws or rawl plugs and screws or with fixing clips or with bolts and nuts as required including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primers.	Kg	121.55	2100.00	255255.00
	(DSR-2007 Item No.10.15)				0.00
5.3	Providing and fixing in position collapsible steel shutters with vertical channels 20x10x2mm and braced with flat iron diagonals 20x5mm size with top and bottom rail of T-iron 40x40x6 with 40mm dia. steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles, including applying a priming coat of approved steel primer.	Sqm	2592.70	6.60	17111.82
	(DSR-2007 Item No.10.3)				0.00
5.4	Steel work welded in built up sections/framed work including cutting hoisting, fixing in position applying priming coat of approved steel primer using structural steel etc. as required.				0.00
	In gratings, frames, guard bar, ladders, railings, brackets, gates & similar works.	Kg	51.20	178	9113.60
	(DSR-2007 Item No.10.25.2)				0.00
5.5	Providing and fixing M.S. Grills of required pattern in frames of windows etc with M.S. flats, square or round bars etc. all complete.				0.00
	(a) Fixed to steel windows by welding	Kg	59.25	450.00	26662.50
	(DSR-2007 Item No.9.48.1)				0.00

				QTY	AMOUNT
5.6	Providing and fixing fly proof galvanised M.S. wire gauge to windows and clerestory windows using galvanised M.S. wire guage with average width of aperture 1.4 mm in both directions with wire of dia 0.63 mm.				0.00
	(a) With 12mm mild steel U beading	Sqm	291.95	75.00	21896.25
	[for all windows & main door]				0.00
	(DSR-2007 Item No.9.51.2)				0.00

				QTY	AMOUNT
5.7	Providing and fixing 1.0 mm th MS sheet door with frame of 40 x 40 x 6 mm angle iron and 3 mm MS gusset plates at the junction and corners, all necessary fittings complete, including applying a priming coat of approved steel primer				0.00
	a) Using flats 30 x 6 mm for diagonal braces and central cross piece	Sqm	1600.10	0.00	0.00
	(DSR-2007 Item No.10.5.2)				0.00
5.80	Extra for providing frosted glass panes 4 mm thick instead of ordinary 4 mm th. float glass panes in doors, windows and celestory window shutters. (Area of opening of glass panes excluding portion inside rebate shall be measured)	Sqm	10.45	4.80	50.16
	[for W.C. & Bath windows]				0.00
	(DSR-2007 Item No.9.12)				0.00
6. FLOORING					0.00
6.1	40mm thick marble chips flooring rubbed and polished to granolithic finished, under layer 34 mm thick cement concrete 1:2:4 (1cement : 2coarse sand : 4 graded stone aggregate 12.5 mm nominal size) and top layer 6mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from 1 mm to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 marble powder) by weight in propotion of 4:7 (4 cement marble powdermix : 7 marble chips) by volume including cement slurry etc. complete				0.00
	a) Light shade pigment with ordinary cement.	Sqm	341.05	130.00	44336.50
	[for all rooms, toilets, kitchen & internal circulation]				0.00
	(DSR-2007, Item No.11.9.5)				0.00
	b) Ordinary cement without any pigment	Sqm	291.05	0.00	0.00
	[for flat roof and gutter]				0.00
	(DSR-2007, Item No.11.9.6)				0.00
6.2	Marble chips skirting (upto 30 cm height) rubbed and polished to granolithic finish, top layer 6 mm thick with white, black, chocolate, grey, yellow or green marble chips of sizes from smallest to 4 mm nominal size laid in cement marble powder mix 3:1 (3 cement : 1 mable powder) by weight in proportion of 4 : 7 (4 cement marble powder mix : 7 marble chips) by volume				0.00
	18 mm thick with under layer 12 mm thick cement plaster 1 : 3 (1 cement : 3 coarse sand)	Sqm	368.50	60.00	22110.00
	a) Light shade pigment with ordinary cement.				0.00
	[for all rooms, toilets, kitchen & internal circulation]				0.00
	(DSR-2007, Item No.11.12.1.5)				0.00
6.3	Providing and fixing glass strips in joints of terrazo / cement concrete floors.				0.00
	40 mm wide and 4 mm thick	Metre	17.60	200.00	3520.00
	(DSR-2007, Item No.11.13.1)				0.00
6.4	Kota stone slab flooring over 20mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab including rubbing and polishing complete with base of 1:4(1cement: 4 coarse sand) :				0.00
	(a) 25mm thick	Sqm	694.40	54.00	37497.60
	(DSR-2007, Item No.11.26.1)				0.00
6.5	Kota stone slabs 25mm thick in risers of steps, skirting, dados and pillars laid on 12mm (average) thick cement mortar 1:3 (1cement: 3coarse sand) and jointed with grey cement slurry mixed with pigment to match the shade of slabs, including rubbing and polishing complete.	Sqm	676.75	34.00	23009.50

				QTY	AMOUNT
	(DSR-2007 Item No.11.27)				0.00
6.6	Extra for Kota stone/ sand stone in steps and treads using single length up to 1.05 metre.	Sqm	6.45	18.00	116.10
	(DSR-2007 Item No.11.32)				0.00
6.7	Extra for pre finished nosing in steps and treads of Kota stone/sand stone slab.	Metre	26.40	300.00	7920.00
	(DSR-2007 Item No.11.31)				0.00
6.8	Mirror polishing on marble work/ stone work wherever required to give high gloss finish complete.	Sqm	94.20	0.00	0.00
	(DSR-2007 Item No.8.6)				0.00
6.8	Providing and fixing 1 st quality ceramic glazed wall tiles conforming to IS:15622 (thickness to be specified by the manufacturer) of approved make in all colours, shades except burgundy, bottle green, black of any size as approved by the Engineer-in-Charge in skirting, risers of steps and dados over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per Sqm including pointing in white cement mixed with pigment of matching shade complete.	Sqm	556.60	134.36	74787.45
	(DSR-2007 Item No.11.36)				0.00
					0.00
7. ROOFING /CEILING					0.00
					0.00
7.1	Providing and fixing on wall unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS: 5382 leaving 10 mm gap for thermal expansion. (i) Single socketed pipes				0.00
	a) 110 mm diameter	Metre	163.40	140.00	22876.00
	(DSR-2007 Item No.12.40.2)				0.00
7.2	Providing and fixing on wall unplasticised - PVC moulded fittings/ accessories for unplasticised Rigid PVC rain water pipes conforming to IS: 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion				0.00
	a) Bend 87.5 degrees				0.00
	110 mm bend	Each	134.20	6.00	805.20
	(DSR-2007 Item No.12.42.5.2)				0.00
	b) Shoe (plain)				0.00
	110 mm shoe	Each	263.10	10.00	2631.00
	(DSR-2007 Item No.12.42.6.2)				0.00
7.3	Providing and fixing unplasticised - PVC clips of approved design to unplasticized - PVC rain water pipes by means of 50 x 50x 50mm hard wood plugs, screwed with MS screws of required length including cutting brickwork and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				0.00
	110 mm	Each	96.90	155.00	15019.50
	(DSR-2007 Item No.12.43.2)				0.00
7.4	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 gms	Each	23.40	10.00	234.00
	(DSR-2007 Item No.12.44)				0.00
8. WATER PROOFING & FINISHING					0.00
8.1	12 mm cement plaster of mix:				0.00
	(a) 1:6 (1 cement : 6 fine sand)	Sqm	67.65	190.00	12853.50
	(DSR-2007 Item No.13.1.2)				0.00
8.2	20 mm cement plaster of mix:				0.00
	(a) 1:4 (1 cement : 4 fine sand)	Sqm	95.10	360.00	34236.00
	(DSR-2007 Item No.13.3.1)				0.00
8.3	6 mm cement plaster to ceiling of mix:				0.00
	(a) 1:3 (1 cement : 3 fine sand)	Sqm	62.15	29.00	1802.35
	(DSR-2007 Item No.13.16.1)				0.00
8.4	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers:	Per bag of 50 kg. of cement used in the mix.	28.85	232.70	6713.40
	(DSR-2007 Item No.13.21)				0.00

				QTY	AMOUNT
8.5	Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof.	Sqm	16.80	150	2520.00
	(DSR-2007 Item No.13.22)				0.00
8.6	Providing and applying plaster of Paris putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete				0.00
	(DSR-2007 Item No.13.26)	Sqm	47.20	700.00	33040.00
8.7	Distempering with oil bound washable distemper of approved brand and manufacture to give an even shade				0.00
	(a) New work (two or more coats) over and including priming coat with cement primer.	Sqm	41.55	1575.00	65441.25
	(DSR-2007 Item No.13.42.1)				0.00
8.8	White Washing with lime to give an even shade.				0.00
	New Work (three or more coats)	Sqm	6.75	700.33	4727.23
	(DSR-2007 Item No.13.37.1)				0.00
8.90	Applying priming coat:				0.00
	(a) With ready mixed pink or grey primer of approved brand and manufacture on woodwork	Sqm	16.55	84.00	1390.20
	(DSR-2007 Item No.13.50.1)				0.00
	(b) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanized iron / steel works.	Sqm	12.65	200.00	2530.00
	(DSR-2007 Item No.13.50.3)				0.00
	(c) With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work. (second coat)	Sqm	7.15	0.00	0.00
	(DSR-2007 Item No.13.50.4)				0.00
8.1	Finishing walls with Premium Acrylic Smooth exterior paint of required shade:				0.00
	New work (two or more coats applied @ 1.67 ltr / 10 sqm over and including base coat of waterproofing cement paint applied @ 2.20kg / 10 sqm)	Sqm	50.40	1350.00	68040.00
	(DSR-2007 Item No.13.46 .1)				0.00
8.11	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade.				0.00
	Two or more coats on new work	Sqm	33.25	300.00	9975.00
	(DSR-2007 Item No.13.61.1)				0.00
8.12	Varnishing with varnish of approved brand and manufacture				0.00
	Two or more coats of glue sizing with copal varnish over an undercoat of flattening varnish	Sqm	49.20	188.00	9249.60
	[for exposed 2nd class teakwood surfaces]				0.00
	(DSR-2007 Item No.13.67.1)				0.00
8.13	Forming groove of uniform size from 12 x 12 mm and up to 25 x 15 mm in plastered surface as per approved pattern using wooden battens, nailed to the under layer including removal of wooden battens, repair to edges of plaster panel and finishing the groove complete as per specifications and direction of the Engineer-in-charge.	Metre	13.30	600	7980.00
	(DSR-2007 Item No.13.76)				0.00
9. MISC. ITEMS					0.00
9.1	Providing and laying water proofing treatment on roofs of slabs by applying cement slurry mixed with water proofing cement compound consisting of applying:				0.00
	a) after surface preparation, first layer of slurry of cement @ 0.488 kg/Sqm mixed with water proofing cement compound @ 0.253 kg/ Sqm.				0.00
	b) Laying second layer of Fibre glass cloth manufactured by M/s The Structural water-proofing company Pvt. Ltd.when the first layer is still green. Overlaps of joints of fibre cloth should not be less than 10cm.				0.00

				QTY	AMOUNT
	c) third layer of 1.5mm thickness consisting of slurry of cement @ 1.289Kg. / Sqm mixed with Armourcrete or Tapecrete @ 0.670 kg / sqm and coarse sand @ 1.289 kg / Sqm. This will be allowed to air cure for 4 hours followed by water curing by 48 hours. The entire treatment will be taken upto 30cm on parapet wall and tucked into groove in parapet all around.				0.00
	d) fourth and final layer of tiling with cement mortar (which will be paid for separately)				0.00
	For the purpose of measurement the entire treated surface will be measured.	Sqm.	237.50	170.00	40375.00
	(DSR-2007 Item No.22.6)				0.00
9.2	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:				0.00
	(a) 1 st course of applying cement slurry @4.4kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.				0.00
	(b) II nd course of 20mm cement plaster 1:3 (1cement: 3Coarse sand) mixed with water proofing compound in recommended proportions including rounding off junction of vertical and horizontal surface.				0.00
	(c) III rd course of applying blown or residual bitumen applied hot @ 1.7kg/ Sqm of area.				0.00
	(d) IV th course of 400 micron thick PVC sheet. (Overlaps at joints of PVC should be 100mm wide and pasted to each other with bitumen @ 1.7kg/ Sqm.	Sqm	272.50	35	9537.50
	(DSR-2007 Item No.22.3)				0.00
	TOTAL COST OF ITEMS AS PER DSR - 2007				1360571.79
					-3065343.93
	ITEMS AS PER MARKET RATE				0.00
	1. EARTH WORK			0	0.00
1.1	Supplying and filling in plinth with locally available river bed sand, including gravel, but without silt, under floors including watering, ramming, consolidating and dressing complete.	Cum	290.00	12.00	3480.00
	(Market Rate Item)				0.00
	2. CONCRETE & RCC SHUTTERING WORK				0.00
2.1	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) in column footing and in plinth, all complete.	Sqm	11.50	0	0.00
	(Market Rate Item)				0.00
	4. WOOD WORK				0.00
4.1	Providing and fixing fly proof stainless steel wire mesh as panel inserts, with average width of aperture 1.0 mm in both directions. [Basic Cost of stainless steel wire mesh = Rs. 75.00 per sqm.]				0.00
	a) With 2nd class teakwood beading 65 x 20 mm	Sqm	86.25	8.00	690.00
	[for kitchen door]				0.00
	(Market Rate Item)				0.00
4.2	Providing and fixing in place shutters for storage with 20 mm th. phenol formaldehyde resin bonded Marine Plywood top BWP Grade, conforming to IS 710, with 1.5mm th. laminate on external surface, fixed with synthetic resin adhesive conforming to BWR Grade as specified in I.S. 848 as per approved sample, exposed cut edges of plywood on all 4 sides to be covered with good quality 2nd class Teakwood lipping, all lipping and inside surface of shutter finished with paint of approved shade after necessary surface preparation, all complete with material, wastage and labour.				0.00
	[for shutters of cupboards and under-counter storage in kitchen]	Sqm	1027.00	46	47242.00
	(Market Rate Item)				0.00
4.3	Providing and fixing chromium plated brass tower bolts				0.00

				QTY	AMOUNT
	a) 250 x 10 mm	each	170.67	8	1365.32
	[for entrance door insides]				0.00
	(Market Rate Item)				0.00
	b) 150 x 10 mm	each	106.92	48	5132.16
	[for all other door insides]				0.00
	(Market Rate Item)				0.00
	c) 100 x 10 mm	each	74.03	16	1184.48
	[for wardrobe shutters]				0.00
	(Market Rate Item)				0.00
4.4	Providing and fixing chromium plated brass sliding door bolt with nuts and necessary screws etc. complete (Best make of approved quality)				0.00
	a) 250 x 16mm	No.	87.56	24	2101.44
	(Market Rate Item)				0.00
4.5	Providing and fixing chromium plated brass hanging type floor door stopper with necessary screws etc. complete. (Best make of approved quality)	Each	61.66	40	2466.20
	(Market Rate Item)				0.00
4.6	Providing and fixing 100 mm long 42 mm dia rubber door buffer / catcher on all doors at skirting level, including necessary screws, etc. complete (Best make of approved quality)	Each	45.00	40	1800.00
	(Market Rate Item)				0.00
4.7	Providing and fixing in place chromium plated brass 'magic eye' eye piece of standard design and approved make, all complete including making good of all damages (Best make of approved quality)	Each	124.00	8	992.00
	(Market Rate Item)				0.00
4.8	Providing and fixing in place chromium plated brass a set of 4 pegs of standard design and approved make, all complete. (Best make of approved quality)	Each	81.00	32	2592.00
	(Market Rate Item)				0.00
4.9	Providing and fixing chromium plated brass Safety chain with necessary fixtures for doors. (Best make of approved quality)	Each	87.00	8	696.00
	(Market Rate Item)				0.00
4.10	Providing and fixing 20 mm dia hangar rods of 1.5 mm thick chromium plated brass pipe, the inside of the pipe filled with cylindrical section of hollock wood of suitable dia so as to be of exact fit, fixed to wall of wardrobe with chromium plated brass inserts, fixed with CP brass screws and plugs etc. all complete (Best make of approved quality)				0.00
	a) 20 mm dia	metre	215.97	16	3455.52
	[for wardrobes]				0.00
	(Market Rate Item)				0.00
6. FLOORING					0.00
6.1	Providing and fixing 25 mm thick Kota stone slabs for kitchen counters, window sills of required size, without joints, laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) including rubbing, curing, moulding and polishing to edge to give high gloss finish, etc. complete at all levels.	Sqm	725.00	27	19575.00
	(Market Rate Item)				0.00
6.2	Providing and fixing 25 mm thick Kota stone slabs as shelves of required size, without joints, fixed in place using 50 x 50 x 6 M.S. angles on 3 sides, including rubbing, curing, moulding and polishing to edge to give high gloss finish, etc. complete at all levels.	Sqm	712.00	20	14240.00
	[for shelves in kitchen and wardrobes]				0.00
	(Market Rate Item)				0.00
7. ROOFING /CEILING					0.00
7.1	Providing and fixing Gundi on flat roof, made of 75 th brickwork with 125 projection on inside, finished with neat cement plaster, complete.	metre	74.09	0	0.00
	(Market Rate Item)				0.00
7.2	Making khurras 30 x 45 cm with average minimum thickness of 5 cm cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate of 20 mm nominal size) over P.V.C. sheet 1m x 1m x 400 micron, finished with 12 mm cement plaster 1:3 (1 cement : 3 coarse sand) and a coat of neat cement, rounding the edges and making and finishing the outlet complete.	Each	105.00	10	1050.00

				QTY	AMOUNT
	(Market Rate Item)				0.00
	TOTAL COST OF ITEMS AS MARKET RATE				108,062
	TOTAL COST OF CIVIL ITEMS				1468634

BILL OF QUANTITIES FOR					
SONARI COOCHBIHAR TYPE II - 8 UNITS (BLOCK NO -2)					
ELECTRICAL WORKS					
	SCHEDULE ITEMS				
Sl.No.	DESCRIPTION	UNIT	RATE	ESTIMATED	
				QTY	AMOUNT
PVC INSULATED COPPER CONDUCTOR WIRING IN PVC CONDUIT					
Note: Rates only ISI marked conduits, cables, switches and socket outlets have been taken in the following items. Unless and otherwise specified, only such conduits, cables, switches and socket outlets shall be used in the work.					
1.COPPER WIRING IN PVC CONDUIT:					
1.1	Point Wiring in PVC conduit, with piano type switch Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5mm sq.mm PVC insulated copper conductor cable in surface/ recessed PVC conduits as required with piano type switch, phenolic laminated sheet, suitable size M.S box and earthing the point with 1.5 sq. mm FR PVC insulated copper conductor single core cable etc as required.				
	a) Group C	Point	397.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.8.3				0.00
1.2	Copper light plug wiring in PVC conduit:Wiring for light plug with 2 x 4sq.mm FR PVC insulated, copper conductor, single core cable in surface/ recessed PVC conduit along with 1No. 4 mm dia.FR PVC insulated copper conductor single core cable for loop earthing as required	Metre	97.00	385	37345.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.12 WGPVCP2)				0.00
1.3	Circuit / submain wiring in PVC conduit:				0.00
	Wiring for submain wiring alongwith earth wire with following sizes of PVC insulated, copper conductor, single core cable in surface/ recessed PVC conduit as required:				0.00
	a) 2 X 1.5 sq mm +1 X 1.5 sq mm earth wire	Metre	71.00	230	16330.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.14.1 WGPVCSB)				0.00
	b) 2x4 sqmm.+ 1x4 sq.mm earth wire	Metre	97.00	73	7081.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.14.3 WGPVCSB)				0.00
2. SUPPLYING AND FIXING STEEL CONDUITS					0.00
Notes: Rates of only ISI marked conduits have been taken in the following items. Unless and otherwise specified, only such conduits shall be used in the work.					0.00
2.1	S/F steel conduit:				0.00
	Supplying and fixing of following sizes of steel conduit along with the accessories in surface/ recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required:				0.00
	i) 40mm.	Metre	127.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.20.4 STLCON)				0.00
	ii) 50mm.	Metre	168.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.20.5 STLCON)				0.00
3. .SUPPLYING AND FIXING PVC CONDUITS					0.00
Notes: Rates of only ISI marked conduits have been taken in the following items. Unless and otherwise specified, only such conduits shall be used in the work.					0.00
3.1	S/F PVC conduit:				0.00
	Supplying and fixing of following sizes of PVC conduit alongwith the accessories in surface/ recess including cutting the wall and making good the same in case of recessed conduit as required:				0.00
	20mm	Metre	41.00	378	15498.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.1 PVCCON)				0.00
	25mm	Metre	47.00	162	7614.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.2 PVCCON)				0.00
	iii) 40 mm	Metre	56.00	73	4088.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.21.4 PVCCON)				0.00
4. SUPPLYING & FIXING METAL BOXES					0.00
4.1	S/F metal boxes:				0.00

	Supplying and fixing metal boxes of following sizes (nominal size) on surface or in recess with suitable size of phenolic laminated sheet cover in the front including painting etc. as required:				0.00
	100mm x100mm x60mm deep	Each	64.00	55	3520.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.2 MB)				0.00
	150mm x75mm x60mm deep	Each	67.00	24	1608.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.3 MB)				0.00
	180mm x100mm x60mm deep	Each	80.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.22.5 MB)				0.00
5. ERECTION OF FITTINGS & ACCESSORIES					0.00
Notes: Rates of only ISI marked conduits, cables, switches and socket outlets have been taken in the following relevant items. Unless and otherwise specified, only such conduits, cables, switches and socket outlets shall be used in the work.					0.00
5.1	S/F piano type switch / socket				0.00
	Supplying and fixing following piano type switch on the existing switch box/ cover including connections etc. as required.				0.00
	15/16 amp switch	Each	38.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.3 PTSWEB)				0.00
	3 pin 5/6 amps Socket outlet:	Each	21.00	56	1176.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.4 PTSWEB)				0.00
	6 pin 15/16 amps Socket outlet:	Each	43.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.5 PTSWEB)				0.00
	TV Antenna Socket outlet	Each	27.00	8	216.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.23.7 PTSWEB)				0.00
5.2	S/F Power plug point piano type accessories:				0.00
	Supplying and fixing metal box 180mm x 100mm x 60mm deep (nominal size) on surface or in recess with suitable size phenolic laminated sheet cover in the front including providing and fixing 6-pin 5/6 & 15/16 amps socket outlet and 15/16 amps piano type switch, connection, painting etc. as required.	Each	161.00	32	5152.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.30 PPACCPT)				0.00
5.3	S/F ceiling rose:				0.00
	Supplying and fixing, 3 pin, 5 amp ceiling rose on the existing junction box/ wooden block including connections, etc. as required.	Each	19.00	144	2736.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.33 CREB)				0.00
5.4	Erection of incandescent light fittings:				0.00
	Erection of wall bracket/ ceiling fittings of all sizes and shapes containing upto two GLS Lamps per fitting, complete with all accessories including connections etc. as required.	Each	19.00	9	171.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.35 ERINCFIT)				0.00
5.5	S/F call bell buzzer:				0.00
	Supplying and fixing call bell buzzer and Piano type bell push, suitable for DC/AC single phase 230volts, complete as required	Each	26.00	8	208.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.38 CALLBELL)				0.00
5.6	ITC fluorescent fitting directly on surface with copper wiring :				0.00
	Installation, testing and commissioning of prewired, fluorescent fittings, of all types complete with all accessories and tubes etc. directly on ceiling/ wall, including connections with 1.5sqmm FR PVC insulated, copper conductor, single core cable etc. as required.	Each	43.00	24	1032.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.41 ITCFFSUR)				0.00
5.7	ITC ceiling fan with cover on fan box:				0.00
	Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (upto 30cm) with 1.5 sqmm FR PVC insulated, copper conductor, single core cable including providing and fixing laminated sheet cover on the fan box etc. as required.	Each	68.00	24	1632.00

	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.45 ITCCFFC)				0.00
5.8	S/F resistance type ceiling fan regulator				0.00
	Installation, testing and commissioning of ceiling fan and regulator including wiring the down rod of standard length (upto 30cm) with 1.5sqmm FR PVC insulated, copper conductor, single core cable etc. as required.	Each	27.00	24	648.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.46 ITCFR)				0.00
5.13	ITC exhaust fan upto 450mm sweep:				0.00
	Installation of exhaust fan upto 450mm sweep in the existing opening, including making the hole to suit the size of the above fan, making good the damage, connections, testing, commissioning etc. as required.	Each	223.00	8	1784.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.52 ITCEF450)				0.00
5.14	Fixing louvers/ shutters for exhaust fan:				0.00
	Extra for fixing the louvers/ shutters complete with frame from exhaust fans of all sizes.	Each	65.00	8	520.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 1.54 LOUSHEF)				0.00
6. MCB DISTRIBUTION BOARD					0.00
6.1	S/F MCB DB consumer unit:				0.00
	Supplying and fixing of following way, Single pole and nutral sheet steel, MCB distribution board consumer unit, 240 Volts, on surface / recess, complete with tinned copper busbar, neutral busbar, earth bar, din bar, hinged front acrylic cover for the MCB knobs, detachable gland plate, interconnections, phosphatized and powder painted including earthing etc.as required: (but without MCB/ RCCB Isolator)				0.00
	2+4 way	Each	559.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.32.1 LOUSHEF)				0.00
7. MCB'S/ RCCB'S					0.00
Notes: rates of only ISI marked MCB's have been taken in the following items. Unless and otherwise specified, only such MCB's shall be used in the work.					0.00
7.1	S/F DP MCB Isolator				0.00
	Supplying and fixing following rating, double pole 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required				0.00
	40 amps	Each	166.00	9	1494.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.54.1 MCBDPIS)				0.00
7.2	S/F C Series SP MCB				0.00
	Supplying and fixing 5 amps to 32 amps rating, 240 volts, C series, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and				0.00
	Single pole with neutral	Each	243.00	59	14337.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.52.2 MCBC)				0.00
8. MCB DISTRIBUTION BOARD					0.00
8.1	S/F Pre-wired SP MCB DB				0.00
	Supplying and fixing following way, single pole and neutral, prewired, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with loose wire box, terminal blocks, tinned copper busbar, neutral link, earth bar, din bar, detachable gland plate, interconnections, including powdercoat painting, earthing etc. as required.				0.00
	12 way single door	Each	2863.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.34.3 PWSPMCBDB)				0.00
8.2	S/F 20A SPN MCB industrial socket outlet:				0.00
	Supplying and fixing 20 amps, 240 volts, SPN industrial type socket outlet with 2 pole and earth, metal enclosed plug top along with 20 amps "C" series, SP MCB, in sheet steel enclosure, on surface or in recess with chained metal cover for the socket outlet and complete with connections, testing and commissioning etc. as required.	Each	520.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.62 MCBDPSOC20)				0.00
8.3	P/F M.V. danger notice plate:				0.00

	Providing and fixing M.V. danger notice plate of 200 mm x 150 mm made of mild steel, at least 2 mm thick, and vitreous enamelled white on both sides, and with inscription in single red colour on front side as required.	Each	68.00	1	68.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.71 DANPLMV)				0.00
9. EARTHING AND LOOP EARTHING					0.00
9.1	Copper earth plate electrode:				0.00
	Earthing with copper earth plate 600mm x 600mm x 3mm thick including accessories, and providing a masonry enclosure with cover plate having locking arrangement and watering pipe etc.(but without charcoal or coke and salt) as required	Set	3263.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.6 EARCUPL)				0.00
9.2	Salt/ coke for plate earth electrode:				0.00
	Extra for using salt and coke for G.I. or copper plate earth electrode as required.	Set	1484.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.8 EARCOKPL)				0.00
9.3	P/F 25 mm X 5 mm copper earth strip in pipe :				0.00
	Providing and fixing 25 mm x 5 mm copper strip in 40 mm dia G.I. pipe from earth electrode, as required.	Metre	494.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.13 EARCUSTPIP)				0.00
9.4	P/F 4 mm copper earth wire in pipe:				0.00
	Providing and laying earth connections from earth electrode with 4.00mm dia. copper wire in 15mm dia. GI pipe from earth electrode as required.	Metre	111.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.16 EARCWWRPIP)				0.00
9.5	P/F 25 mm X 5 mm copper earth strip in surface/ recess :				0.00
	Providing and fixing 25 mm x 5 mm copper strip on surface or in recess for connections etc. as required.	Metre	358.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.17 EARCUSTSUR)				0.00
9.6	P/F 50 mm x 5 mm earth bus on surface :				0.00
	Providing and fixing earth bus of 50 mm x 5 mm copper strip on surface for connections	Metre	665.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.23 EARBUS)				0.00
9.7	P/F 4mm copper earth wire with conduit/ cable:				0.00
	Providing and fixing 4.00 mm dia copper wire on surface or in recess for loop earthing along with the existing surface/ recessed conduit/ submain wiring/ cable as required.	Metre	36.00	0	0.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 3.22 EARCWRL0)				0.00
9.8	Providing and fixing circular / hexagonal Cast Iron or M.S. sheet box for ceiling fan clamp of internal dia 140 mm, 73 mm height, top lid of 1.5 mm thick M.S. sheet with its top surface hacked for proper bolading, top lid shall be screwed into the CI / M.S. sheet box by means of 3.3 mm dia. round headed screws, one lock at the corners. Clamps shall be made of 12 mm dia. M.S. bar bent to shape as per standard drawing.	Each	81.20	24	1948.80
	(DSR-2007 Item no.10.18)				
Total cost of Schedule Items					126,207
10. SUPPLY OF FITTINGS / FIXTURES					
10.01	Supply of surface mounted fluorescent luminaire, with channel of galvanised pre-coated sheet complete with all electrical accessories like starter holder withstarter, lampholders, all prewired upto terminal block, using single TLD-36W / TL-40 W of standard design and approved make (Market rate item)	Each	800.00	24	19200.00
					0.00
10.02	Supply of 48" ceiling fan with regulator of standard design and approved make (Market rate item)	Each	1750.00	24	42000.00
					0.00

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BILL OF QUANTITIES FOR						
SONARI COOCHBIHAR TYPE II - 8 UNITS(BLOCK NO -2)						
PUBLIC HEALTH WORKS						
ITEMS AS PER DSR-2007						
Sl.No.	DESCRIPTION	UNIT	RATE	ESTIMATED		
				QTY	AMOUNT	
I. PLUMBING & SANITARY						
1.1	Providing and fixing following plumbing and sanitary fixtures for each Type II unit:		8080.50	8	64644.00	
	a) White Vitreous China Orissa pattern W.C. pan	No.		1	0.00	
	b) White Vitreous China Flat back wash basin	No.		1	0.00	
	c) Stainless Steel kitchen sink	No.		1	0.00	
	d) Bevelled edge mirror	No.		1	0.00	
	e) PTMT towel rail	No.		1	0.00	
	f) PTMT soap dish Holder	No.		1	0.00	
	g) PTMT shelf	No.		1	0.00	
	(Rate derived from DSR 2007 items Refer Annexure 'A')				0.00	
1.2	Providing and fixing the following plumbing fixtures [for wash basin and sink] for each type II unit:		235.90	8	1887.20	
	h) P.V.C. waste pipe	Nos.		2	0.00	
	i) PTMT waste coupling	Nos.		2	0.00	
	(Rate derived from DSR 2007 items Refer Annexure 'A')				0.00	
1.3	Providing and fixing 100 mm sand cast iron grating for gully trap. (DSR-2007 Item No. 17.29)	Each	39.70	24	952.80	
					0.00	
1.4	Providing and fixing soil, waste and vent pipe:				0.00	
	a) 100 mm dia				0.00	
	Sand cast iron S&S pipe as per IS 1729	Metre	451.00	120.00	54120.00	
	(DSR-2007 Item No. 17.35.1.1)				0.00	
	b) 75 mm dia				0.00	
	Sand cast iron S&S pipe as per IS 1729	metre	395.45	0	0.00	
	(DSR-2007 Item No. 17.35.2.1)				0.00	
1.5	Providing lead caulked joints to sand cast iron/ centrifugal cast (spun) iron pipes and fittings of diameter. (a) 100mm (DSR-2007 Item No. 17.58.1)	Each	126.50	160	20240.00	
					0.00	
1.6	Providing and fixing plain bend of required degree. (a) 100 mm sand cast iron S&S as per IS - (DSR-2007 Item No. 17.39.1.1.)	Each	222.45	24	5338.80	
					0.00	
1.7	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. (a) 100mm sand cast iron S&S as per IS - (DSR-2007 Item No. 17.38.1.1)	Each	255.00	24	6120.00	
					0.00	
1.8	Providing and fixing single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete. (a) 100 x 100 x 100mm sand cast iron S&S as per IS - 1729 (DSR-2007 Item No. 17.43.1.1)	Each	374.60	40	14984.00	
					0.00	
1.9	Providing and fixing M.S. holder-bat clamps of approved design to Sand Cast iron/ cast iron (spun) pipe embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1:2:4 mix (1 cement: 2 course sand: 4 graded stone aggregate 20 mm nominal size) including the cost of cutting holes and making good the walls etc. (a) For 100mm dia. pipe (DSR-2007 Item No. 17.37.1)	Each	65.35	90	5881.50	
					0.00	
	(b) For 75mm dia. pipe (DSR-2007 Item No. 17.37.2)	Each	63.00	0	0.00	
					0.00	
1.10	Providing and fixing heel rest sanitary-bend.				0.00	

	(a) 100 mm dia sand cast iron S&S as per IS - 1729	Each	244.50	8	1956.00		
	(DSR-2007 Item No. 17.40.1.1)				0.00		
1.11	Providing and fixing terminal guard:				0.00		
	(a) 100mm sand cast iron S&S as per IS - 1729	Each	192.25	8	1538.00		
	(DSR-2007 Item No. 17.56.1.1)				0.00		
	(b) 75mm sand cast iron S&S as per IS - 1729	Each	139.15	0	0.00		
	(DSR-2007 Item No. 17.56.2.1)				0.00		
1.12	Painting sand cast iron / centrifugally cast (spun) iron soil, waste, vent pipes and fittings with paint of any colour such as chocolate, grey or buff etc. over a coat of primer (of approved quality) for new work:				0.00		
	(a) 100mm dia. pipe	Metre	17.85	120.00	2142.00		
	(DSR-2007 Item No. 17.65.1)				0.00		
	(b) 75 mm dia. pipe	metre	13.70	0.00	0.00		
	(DSR-2007 Item No. 17.65.2)				0.00		
2. SEWERAGE					0.00		
2.1	Excavating trenches of required width for pipes, cables, etc. including excavation for sockets, and dressing of sides, ramming of bottoms, depth upto 1.5m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth including consolidating each deposited layer by ramming, watering, etc. and disposal of surplus excavated soil as directed, within a lead of 50m				0.00		
	(a) Pipes, cables etc. exceeding 80mm dia but not exceeding 300mm dia.	Metre	115.05	100	11505.00		
	(DSR-2007 Item No.2.10.1.2)				0.00		
2.2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead upto 1.5m	Cum	45.70	25	1142.50		
	(DSR-2007 Item No.2.25)				0.00		
2.3	Providing and fixing soil, waste and vent pipe:				0.00		
	(a) Sand cast iron S&S pipe 75mm dia, as per IS 1729	Metre	395.45	1.8	711.81		
	(DSR-2007 Item No. 17.35.2.1)				0.00		
2.4	Constructing in place 75-user Septic Tank, all complete.	No.	155717.85	0	0.00		
	(Derived from DSR -2007 items)				0.00		
2.5	Providing and fixing square mouth S.W. gully trap grade 'A' complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x 300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design.				0.00		
	(a) 100 x 100 mm size P type with FPS bricks class designation 75	Each	935.15	0	0.00		
	(DSR-2007 Item No. 19.4.1.1)				0.00		
2.6	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 course sand) RCC top slab with 1:2:4 mix (1 cement: 2 course sand: 4 graded stone aggregate 20mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand : 8 graded stone aggregate 40 mm nominal size) inside plastering 12 mm thick with cement mortar 1:3 (1 cement : 3 course sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 course sand : 4 graded stone aggregate 20 mm nominal size) finished with a				0.00		
	(a) Inside size 90 x 80cm and 45cm deep including C.I. cover with frame (light duty) 455 x 610 mm internal dimensions total weight of cover and frame to be not less than 38kg (weight of cover 23kg and weight of frame 15kg)- with F.P.S. bricks with class designation 75	Each	5383.70	6	32302.20		
	(DSR-2007 Item No. 19.7.1.1)				0.00		
2.7	Extra for depth for manholes				0.00		

	(a) Size 90 x 80cm with F.P.S bricks class designation 75.	Metre	2654.00	3	7962.00		
	(DSR-2007 Item No.19.8.1.1)				0.00		
2.8	Providing M.S. foot rests including fixing in manholes with 20 x 20 x 10 cm cement concrete blocks 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20 mm nominal size) as per standard design:				0.00		
	(a) With 20 x 20mm square bar	Each	149.85	0	0.00		
	(DSR-2007 Item No.19.15.1)				0.00		
2.9	Making soak pit 2.5 m dia. 3.0 m deep with 45 x 45 cm dry brick honeycomb shaft with bricks of class designation 75 and S.W. drain pipe 100 mm diameter, 1.8m long complete as per standard design.				0.00		
	(a) With F.P.S. bricks	Each	9938.65	0	0.00		
	(DSR-2007 Item No. 19.32.1)				0.00		
3. DRAIN/CHANNEL					0.00		
3.1	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level.				0.00		
	a) 1:2:4 (1cement: 2coarse sand: 4graded stone aggregate 20mm nominal size).	Cum	3257.45	4.00	13029.80		
	(DSR-2007 Item No.4.1.3)				0.00		
3.2	Brick work with F.P.S. bricks of class designation 75 in foundation and plinth in:				0.00		
	Cement mortar 1:6 (1 cement: 6 coarse sand)	Cum	2121.75	11.00	23339.25		
	(DSR-2007 Item no. 6.1.2)				0.00		
3.3	20 mm cement plaster of mix:				0.00		
	(a) 1:4 (1 cement : 4 coarse sand)	Sqm	118.25	0.00	0.00		
	(DSR-2007 Item No.13.6.1)				0.00		
3.4	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix:				0.00		
	1:4 (1 cement : 4 fine sand)	Sqm	110.70	120.30	13317.21		
	(DSR-2007 Item No.13.8.2)				0.00		
4. WATER SUPPLY					0.00		
4.1	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. (internal work)— Exposed on wall				0.00		
	a) 25mm dia. nominal bore.	Metre	179.65	130	23354.50		
	(DSR-2007 Item No.18.10.3)				0.00		
	b) 32mm dia. nominal bore.	Metre	226.10	22	4974.20		
	(DSR-2007 Item No.18.10.4)				0.00		
	b) 40mm dia. nominal bore.	Metre	264.05	27	7129.35		
	(DSR-2007 Item No.18.10.5)				0.00		
4.2	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc.(internal work)- concealed pipes including painting with anti-corrosive bitumastic paint, cutting chases and making good the wall.				0.00		
	(a) 15mm dia. nominal bore.	Metre	144.75	36	5211.00		
	(DSR-2007 Item No.18.11.1)				0.00		
	(b) 20mm dia nominal bore	Metre	170.15	56	9528.40		
	(DSR-2007 Item No.18.11.2)				0.00		
4.3	Making connection of G.I. distribution branch with G.I. main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete.				0.00		
	(a) 25 to 40mm nominal bore.	Each	166.05	0	0.00		
	(DSR-2007 Item No.18.13.1)				0.00		
4.4	Providing and fixing gun-metal gate valve with CI wheel of approved quality (screwed end).				0.00		
	(a) 32mm nominal bore	Each	358.00	0	0.00		
	(DSR-2007 Item No.18.17.2)				0.00		

4.5	Providing and fixing following water supply					In revised rate amt for PVC tank has been omitted. 5.25*500=2625(474 5.65-2625=2120.65) 2120.65*8=16965.20	
	fittings and fixtures for each type II unit:		4745.65	8	16965.20		
	a) PTMT bib cocks	Nos.		3	0.00		
	b) Long body PTMT bib cocks	No.		1	0.00		
	c) Gun metal valve	Nos.		2	0.00		
	d) PVC connection pipe	Nos.		2	0.00		
	e) PTMT shower	No.		1	0.00		
	f) CP Brass Stop cock	Nos.		2	0.00		
	g) 500 litres storage tank	Nos.			0.00		
	(Rate derived from DSR 2007 items Refer Annexure 'A')				0.00		
	TOTAL COST OF ITEMS AS PER DSR - 2007				350276.72		
	5.0 ITEMS AS PER MARKET RATE						
5.1	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				0.00		
	a) with A.S. horn.				0.00		
	(i) 75 mm	Each	380.65	0	0.00		
	(Market Rate item)				0.00		
5.2	Supplying fitting and fixing cast iron 'P' or 'S' trap including lead caulked joints and painting two coats to the exposed the surface				0.00		
	a) without A.S. horn.	Each	419.75	24	10074.00		
	(i) 100 mm				0.00		
	(Market Rate item)				0.00		
5.3	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) below drain bed, all complete.	Sqm	11.50	54.14			
					622.61		
	(Market Rate Item]						
	TOTAL COST OF ITEMS AS MARKET RATE				10696.61		
	TOTAL FOR PHE WORKS				360973.33		

SPECIFICATIONS

ITEMS AS PER DSR-2007

Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1. PLUMBING & SANITARY					
	<p>a) Water closet squatting pan (Indian type WC Pan) with 100mm sand cast iron P or S trap, 10 litres low level white PVC flushing cistern with manually controlled device (handle lever) conforming to IS:7231, with all fittings and fixtures complete including cutting and making good the walls and floors wherever required.</p> <p>White Vitreous china Orissa pattern W.C. pan of size 580 x 440 mm with integral type foot rests.</p> <p>(DSR-2007 Item No. 17.1.1)</p>		Each	2304.65	
	<p>b) Wash basins with C.I brackets, 15 mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required:</p> <p>White Vitreous China Flat back wash basin size 550 x 400 mm with a single 15mm C.P. brass pillar tap.</p> <p>(DSR-2007 Item No. 17.7.4)</p>		Each	1044.90	
	<p>c) Stainless Steel A ISI 304 (18/8) kitchen sink as per I.S. 13983 with C.I. Brackets and stainless steel plug 40 mm including painting of fittings and brackets, cutting and making good the walls wherever required:</p> <p>Kitchen Sink without drain board 610 x 510 mm bowl depth 200 mm.</p> <p>(DSR-2007 Item no. 17.10.2.1)</p>		Each	3439.20	
	<p>d) 600 x 450 mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thk. hard board ground fixed to wooden cleats with C.P. brass screws and washers complete.</p> <p>(DSR-2007 Item No. 17.31)</p>		Each	493.65	
	<p>e) PTMT towel rail complete with brackets fixed to wooden cleats with CP brass screws with concealed fitting arrangement of approved quality and colour.</p>				

	450 mm long towel rail with total length of 495mm, 78mm wide and effective height of 88mm, weighing not less than 170gms. (DSR-2007 Item No. 17.73.1)		Each	294.65	
	f) PTMT soap dish Holder having length of 138 mm, breadth 102 mm, height of 75 mm with concealed fitting arrangements. Weighing not less than 106 gms. (DSR-2007 Item No. 18.65)		Each	133.30	
	g) PTMT shelf 440 mm long, 124 mm width and 36 mm height of approved quality and colour. Weighing not less than 300 gms (DSR-2007 Item No. 17.74)		Each	370.15	
	h) P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete. Semi rigid pipe 32 mm dia (DSR-2007 Item No. 17.28.1.1)	2	Each	42.15	84.30
	i) PTMT waste coupling for wash basin and sink of approved quality, colour and make Waste coupling 31mm of 79mm length and 62 mm breadth weighing not less than 45 gms. (DSR-2007 Item No. 17.69.1)	2	Each	75.80	151.60

3. WATER SUPPLY

	a) PTMT bib cock of approved quality and colour 15mm nominal bore, 122 mm long. Weighing not less than 99 gms. [for ablution tap, bathing area, under sink in kitchen] (DSR-2007 Item No.18.54.2)	3	Each	189.40	568.20
	b) 15mm nominal bore, 165 mm long. Weighing not less than 110 gms. [for sink in kitchen] (DSR-2007 Item No.18.54.3)		Each	264.90	
	c) Gun-metal gate valve with CI wheel of approved quality (screwed end). 25mm nominal bore [for toilets and kitchen] (DSR-2007 Item No.18.17.1)	2	Each	285.50	571.00
	d) Unplasticised PVC connection pipe with brass unions 45cms length with 15mm nominal bore. [for wash basin and cistern] (DSR2007 Item No.18.21.2.1)	2	Each	44.75	89.50

e)	PTMT swivelling shower, 15 mm nominal bore. Weighing not less than 40 gms. 100mm dia (DSR2007 Item No.18.22.2)		Each	101.95	
f)	C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931 15 mm nominal bore [for wash basin and cistern] (DSR-2007 Item No.18.52.1)	2	Each	262.55	525.10

BILL OF QUANTITIES FOR					
SONARI COOCHBEHAR TYPE II -8 UNIT (BLOCK NO -2)					
SUMMARY FOR SITE DEVELOPMENT WORK					
SL. NO.	ITEM DESCRIPTION	UNIT	RATE	QTY	AMOUNT
a	Carriage of material by mechanical transport including loading, unloading and stacking. Earth (3 Km)	Cum.	63.32	1000.00	63320
	(DSR 2007 Item No. 1.1.2)				0
b	Supplying and filling available excavated earth (excluding rock)	Cum.	45.7	1000.00	45700
	(DSR 2007 Item No. 2.25)				0
c	Cost of 105 m long 3.5 m wide road with 0.75m shoulder on both side	L.S.	455775.29	1	455775.3
	(Rate derived from BOQ of road based on DSR 2007)				564,795.3
	TOTAL:				564,795

BILL OF QUANTITIES FOR ROAD					
LENGTH OF PROPOSED ROAD = 105 M					
3.5M WIDE ROAD WITH 0.75M WIDE SHOULDER IN BOTH SIDE. FILLING					
Sl.No.	DESCRIPTION	UNIT	RATE	ESTIMATED	
	EARTH WORK			QTY	AMOUNT
1	Extra for compaction of earth work in embankments under optimum moisture conditions to give at least 95% of the maximum dry density (proctor density) (DSR-2007 item No. 16.2)	CUM	2.90	1102.50	3197.25
	CONSOLIDATION OF SUBGRADE				0.00
2	Preparation and Consolidation of subgrade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm. depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the subgrade and disposal of surplus earth lead upto 50 metres. (DSR-2007 item no. 16.1)	Sqm	33.90	840.00	28476.00
	SUB BASE PREPARATION WITH STONE AGGREGATE 90 MM TO 40 MM (for SUB-BASE of road, shoulder and passover)				0.00
3	Supplying and stacking of graded stone aggregate of size range 90 mm to 45 mm at site: (DSR-2007 item no. 16.3.1)	Cum	742.30	94.50	70147.35
4	Supplying & stacking of screening / chipping at site 13.2mm nominal size for WBM work (for sub base coarse) (DSR-2007 item no. 16.3.6)	Cum	470.95	18.90	8900.96
5	Supplying & stacking of red bajri at site for WBM work (for sub base coarse) (DSR-2007 item no. 16.3.8)	Cum	654.15	18.90	12363.44
6	Laying water bounded macadam sub-base with brick aggregate and blinding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete. (payment for brick aggregate and moorum etc. to be made separately) Over brunt (jhama) brick aggregate 90mm to 45mm (DSR-2002 item no. 16.5.1)	Cum	136.20	94.50	12870.90
	BASE PREPARATION WITH STONE AGGREGATE (for BASE of road)				0.00
7	Supplying and stacking of graded stone aggregate of size range 63 mm to 45mm at site: (DSR-2002 item no. 16.3.2)	Cum	768.45	94.50	72618.53
8	Supplying and stacking of graded stone aggregate of size range 53 mm to 22.4mm at site: (DSR-2002 item no. 16.3.3)	Cum	810.55	94.50	76596.98
9	Supplying & stacking of screening / chipping at site 11.2mm nominal size for WBM work (for sub base coarse) (DSR-2007 item no. 16.3.7)	Cum	979.40	18.90	18510.66
10	Supplying & stacking of red bajri at site for WBM work (for sub base coarse) (DSR-2007 item no. 16.3.8)	Cum	654.15	18.90	12363.44
11	Laying water bounded macadam sub-base with brick aggregate and blinding material, earth etc. including screening, sorting and spreading to template and consolidation with light power road-roller etc. complete. (payment for brick aggregate and moorum etc. to be made separately) Over brunt (jhama) brick aggregate 90mm to 45mm (DSR-2002 item no. 16.5.1)	Cum	136.20	189.00	25741.80

	PREMIX CARPET & SEAL COAT TOPPING OF ROAD				0.00
12	2.5cm premix carpet surfaceing with 2.25cum and 1.12 Cum of stone chippings 13.2mm and 11.2mm 1 size respectively per 100sqm and 52Kg & 56Kg hot bitumen per Sqm of stone chipings13.2mm and 11.2mm size respectively including a tack coat with hot straight run bitumin including consolidation with 6 to 9 tonne capacity road roller etc.complete.(tack coat to be for separately)				0.00
	With paving asphalt 80/100 heated and then mixed with solvent at the rate of 70gms. per Kg. of asphalt.(DSR-2007 Item No. 16.33.1)	Sqm	100.35	420.00	42147.00
13	Providing and applying tack coat using hot straight bitumen of grade 80 / 100 including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the road surface as per specifications.				0.00
	a) On W.B.M. @ 0.75 Kg. Per Sqm. (DSR-2007 Item No. 16.30.1)	Sqm	11.50	420.00	4830.00
	b) On bituminous surface @ 0.50 Kg. Per Sqm.(DSR-2002 Item No. 16.30.2)	Sqm	17.15	420.00	7203.00
14	Providing and laying seal coat of premixed fine aggregate (passing 2.36mm and retained on 180mm micron sieve) with bitumen using 128Kg of bitumen of grade 80/ 100 bitumen per cum of fine aggregate and 0.60cum of fine aggregate per 100sqm of road surface including rolling and finishing with road roller all complete. (DSR-2007 item no. 16.40)	Sqm	36.85	420.00	15477.00
	DRY STONE PITCHING (for 1000mm road SHOULDER on both side of the road, pavement and drain)				0.00
15	Dry stone pitching 22.5 cm thick including supply of stone and preparing surface complete. (DSR 2007 Item No.16.11)	Sqm	211.10	210.00	44331.00
TOTAL COST OF 105m LONG ROAD AS PER DSR - 2007 RATES					455,775

SUMMARY SHEET FOR ADDITIONAL ITEMS

CONSTRUCTION OF EXTERNAL WATER SUPPLY PIPE LINE
WORK,EXTERNAL ELECTRICAL WORK & UNDER GROUND
WATER RESERVOIR AT BN. HQ. AT SUBHASNAGAR (SONARI)
COOCHBEHAR

SL. NO	ITEM DESCRIPTION	TOTAL COST OF ITEMS AS PER DSR - 2007	TOTAL COST OF MARKET RATE ITEMS	AMOUNT IN RS.
1	TOTAL ESTIMATED COST OF UNDER-GROUND WATER RESERVOIR	247174.76	483.00	247,657.76
2	TOTAL ESTIMATED COST OF EXTERNAL WATER SUPPLY PIPELINE WORK & PUMP	121536.30	123784.50	245,320.80
3	TOTAL ESTIMATED COST OF EXTERNAL ELECTRICAL WORK	66940.00	526693.60	593,633.60
	TOTAL ESTIMATED COST FOR CONSTRUCTION OF ADDITIONAL ITEMS	435651.06	650961.10	1,086,612.16

BILL OF QUANTITIES FOR					
UNDER-GROUND WATER RESERVOIR					
Sl.No	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
1	Earth work in surface excavation over areas (exceeding 30cm in depth. 1.5m in width as well as 10sqm on plan) including disposal of excavated earth, lead up to 50m and lift up to 1.5m; disposed earth to be levelled and neatly dressed.				
	For all kinds of soil (DSR-2007 Item No. 2.6.1)	70.00	Cum	101.85	7129.50
2	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth: consolidating each deposited layer by ramming and watering, lead upto 1.5m (DSR-2007 Item No.2.25)	14.00	Cum	45.70	639.80
3	Providing and laying in position cement concrete of specified grade excluding the cost of centring and shuttering –all work up to plinth level.				
	b) 1:3:6 (1cement: 3coarse sand: 6 graded stone aggregate 20mm nominal size). (DSR-2007 Item No.4.1.5)	2.75	Cum	2791.05	7662.13
4	Centering and shuttering including strutting, propping etc. and removal of form for:				
	Foundations, footings, bases for columns (DSR-2007 Item No.4.3.1)	2.18	Sqm	119.25	259.97
5	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete work including pumping of concrete to site of laying but excluding the cost of centering,shuttering, finishing and reinforcement including admixtures in recommended portions (as per IS:9103) to accelerate, retard setting of concrete improve workability without imparing strength and durability as per direction of Enginneer-in-Charge – M-25 grade (DSR-2007 Item No.5.33)	17.77	Cum	4147.40	73681.15

6	Deduct for using less cement than the quantity as provided in the item of batch mix concrete as arrived as per mix design (DSR-2007 Item No.5.35)	1.78	quintal	-522.70	-928.61
7	Centering and shuttering including strutting, propping etc. and removal of form for:				
	a) Walls (any thickness) including attached pillars, buttresses, plinth and string courses etc. (DSR-2007 Item No.5.9.2)	66.5	Sqm	180.40	11996.60
	b) Suspended floor roofs, landings, balconies and access platform (DSR-2007 Item No.5.9.3)	29.4625	Sqm	187.35	5519.80
8	Reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete.				
	(a) Thermo-mechanically treated bars (DSR-2007 Item No.5.22.6)	3020.16	Kg	42.70	128960.67
9	12 mm cement plaster finished with a floating coat of neat cement of mix:				
	(a) 1:4 (1 cement : 4 fine sand) (DSR-2007 Item No.13.7.2)	45.00	Sqm	97.90	4405.50
10	20mm cement plaster of mix				
	a) 1:6 (1 cement : 6 fine sand): (DSR-2007 Item No.13.8.1)	57.75	Sqm	95.10	5492.03
11	Extra for providing and mixing water proofing material in cement plaster work in proportion recommended by the manufacturers: (DSR-2007 Item No.13.21)	26.715	Per bag of 50 kg. of cement used in 1 m ²	28.85	770.73
12	Providing and fixing in position precast R.C.C. manhole cover and frame of required shape and approved quality. Circular shape 500 mm internal diameter. (DSR-2007 Item No.19.19.2.2)	2.00	each	792.75	1585.50
13	Supplying and laying in place polythene sheet as backing material, weighing not less than 150 gms per sqm, below all PCC, (for 1:2:4 as well as 1:3:6 mix) in column footing and lining all complete. (Market Rate Item]	28	Sqm	17.25	483.00
TOTAL COST OF ITEMS AS PER DSR - 2007					247174.76
TOTAL COST OF MARKET RATE ITEMS					483.00
TOTAL COST OF UNDERGROUND WATER RESERVOIR					247657.76

[illegible]

[illegible]

BILL OF QUANTITIES FOR					
EXTERNAL WATER SUPPLY PIPE LINE WORKS INCLUDING WATER PUMP					
Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
PIPELINES, PUMPS ETC. FOR EXTERNAL WATER SUPPLY					
1	Excavating trenches of required width for pipes, cables etc. including excavation for sockets and dressing of sides ramming of bottoms, depth up to 1.5 m including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20 cm in depth including consolidating each deposited layer by ramming, watering etc. and disposing of surplus excavated soil as directed within a lead of 50 m:				
	For all kinds of soil				
	Pipes, cables etc. not exceeding 80 mm dia.	205	metre	70.45	14442.25
	(DSR-2007 Item No. 2.10.1.1)				
2	Providing and fixing G.I pipes complete with G.I fittings including trenching and refilling etc.				
	a) 65 mm dia nominal bore	169	Metre	356.15	60189.35
	Supply from main grid, from strainer to submersible pump & Ring Main				
	(DSR 2007 Item No. 18.12.7)				
	b) 50 mm dia nominal bore	60	Metre	280.10	21369.00
	from Ring Main to Overhead water reservoir in each building				
	(DSR 2007 Item No. 18.12.6)				
	d) 15 mm dia nominal bore	9	Metre	94.05	846.45
	to Pressure Gauge				
	(DSR 2007 Item No. 18.12.1)				
3	Making connection of GI distribution branch with G.I main of following sizes by providing and fixing tee, including cutting and threading the pipe etc. complete				
	a) 50 to 80 mm dia nominal bore	3	Each	423.20	1269.60
	(DSR 2007 Item No. 18.13.2)				
	b) 25 to 40 mm nominal bore	6	Each	166.05	996.30
	(DSR 2007 Item No. 18.13.1)				
4	Providing and fixing gun metal non-return valve of approved quality and screwed end				
	50 mm nominal bore				
	Horizontal	3	Each	738.20	2214.60
	(DSR 2007 Item No. 18.19.4.1)				
5	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end):				
	a) 50 mm nominal bore	3	Each	578.20	1734.60
	b) 65 mm nominal bore	2	Each	831.75	1663.50
	(DSR 2007 Item No. 18.17.1 to 18.17.3)				
6	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete.				
	a) 15 mm nominal bore	2	Each	228.35	456.70
	(DSR 2007 Item No. 18.18.1)				
7	Providing and fixing G.I. union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work)				

Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
	50 mm nominal bore (DSR 2007 Item No. 18.46.6)	3	Each	235.60	706.80
8	Providing and fixing G.I. pipes complete with G.I. fittings and clamps, including cutting and making good the walls etc. Internal work - Exposed on wall				
	15 mm dia nominal bore [for pressure guage] (DSR 2007 Item No. 18.10.1)	9	metre	105.85	952.65
9	Supplying and fixing in position Pressure Guage (Market Rate Item)	1	Nos	4740.00	4740.00
10	Hydrotest of Pipeline (Market Rate Item)	1	LS	27000.00	27000.00
11	Supplying & Fixing Strainer, 65 mm - 150# Class, A-216 Gr. WCB (from U/G reservoir to Submersible pump) (Market Rate Item)	1	Each	6750.00	6750.00
12	Constructing masonry chamber 30x30x50 cm, inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for stop cock, with C.I. surface box 100x100x75(inside) with hinged cover fixed in cement concrete slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) necessary excavation foundation concrete 1 : 5 : 10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1: 3(1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design: With F.P.S. bricks [for gate valve, non return valves] (DSR 2007 Item No. 18.32.1)	8	Each	599.80	4798.40
	Constructing masonry Chamber 60 x 60 x 75 cm inside with 75 class designation brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep (inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : coarse sand : 4 graded stone aggregate 20 mm nominal size) necessary excavation foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick finished with a floating coat of neat cement complete as per standard design: With F.P.S. bricks [for pressure guage & ball valves] (DSR 2007 Item No. 18.33.1)	1	Each	3595.30	3595.30

Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
13	Supplying, lowering, installation, testing & commissioning the submersible pump set of required capacity to deliver water at furthest point with delivery out let fitted on spring loaded non return valve directly coupled with submersible motor, suitable for operation at 440volts +/- 8%, 3 phase 50c/s AC supply, the material of the pump, bronze impeller, stainless steel shaft, CI pump body self aligning thrust plate of heavy bronze with necessary accessories of submersible pumping set of approved model. (before procurement, manufacturer's test report / performance curve chart etc. to be submitted for approval).	1	Each	64400.00	64400.00
	Head range:- 21 metres to 68 metres				
	Discharge range:- 20 to 60 cubic metre per hour				
	Duty parameters:- 25 cubic metre per hour at 40 metres head				
	(Market Rate Item)				
14	Supplying, laying and fixing 3 core 2.5sq.mm. PVC. Cu flat submersible sheathed XLPE power cable of 1.1 KV. grade including connection to electrical main-switch panel from submersible pump/ motor within underground water reservoir, laying the said cable in ground including excavation, sand cushioning protective covering and refilling the trench etc. as required.	36	Metre	97.20	3499.20
	(Market Rate Item)				
15	Painting of G.I. Pipe and fittings with 2 coats of anti-corrosive bitumastic paint of approved quality				
	a) 15 mm diameter pipe	9	Metre	2.60	23.40
	(DSR 2007 Item No. 18.40.1)				
	b) 50 mm diameter pipe	60	Metre	6.10	366.00
	(DSR 2007 Item No. 18.40.6)				
	c) 65 mm diameter pipe	169	Metre	7.50	1267.50
	(DSR 2007 Item No. 18.40.7)				
16	Providing and filling sand of grading zone V or coarser grade all around the GI pipes in external work				
	a) 15 mm diameter pipe	9	Metre	21.95	197.55
	(DSR 2007 Item No. 18.41.1)				
	b) 50 mm diameter pipe	60	Metre	24.60	1476.00
	(DSR 2007 Item No. 18.41.6)				
	c) 65 mm diameter pipe	169	Metre	38.85	6565.65
	(DSR 2007 Item No. 18.41.7)				
17	Providing, fixing and installing electrical panel with main switch for submersible motor with high/low water level switch, floatless with water-proof sensing electrodes with controllers, switching circuitries, high/low level alarms and manual over ride to enable manual operation.	1	Each	13800.00	13800.00
	(Market Rate Item)				
TOTAL COST OF ITEMS AS PER DSR - 2007					121536.30
TOTAL COST OF MARKET RATE ITEMS					123784.50
TOTAL COST OF EXTERNAL WATER SUPPLY PIPELINE WORK INCLUDING WATER PUMP					245320.80

Sl.No.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT

<p align="center">BILL OF QUANTITIES FOR</p> <p align="center">EXTERNAL ELECTRICAL WORKS</p> <p align="center">FOR SUPPLY OF EXTERNAL ELECTRICAL ITEMS</p> <p align="center">ITEMS AS PER CPWD SOR - ELECTRICAL 2007 & MARKET RATE</p>					
Sl.No.	DESCRIPTION	QTY	UNIT	RATE in Rs.	AMOUNT in Rs.
1	CONNECTING BLOCK				
1.1	Providing and fixing following capacity TP&N disconnecter fuse switch unit, outdoor type, with IRC marked HRC fuses, making connections etc. as required.	1	No.	3520.00	3,520.00
	(CPWD SOR-Elec-Part-1, 2007 Item no. 2.21.6 CUBTPN)				
2	MAIN LT PANEL [ONE TAPPING FROM 440 VOLTS EXISTING OVERHEAD ELEC LINE]				
2.1	Design, fabrication, shop testing and supply of sheet metal enclosed, wall mounted 415V, TPN, [MLTP] having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have Digital Ammeter and ON/OFF indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with one no. 200 amp 4P MCCB, Outgoing 5nos. 63A [three for 3 blocks and one for submersible pump and one spare], 2 nos. 16A, TPN MCB [one for street light and the other spare]	1	No.	73000.00	73,000.00
	(Market Rate Item)				
3	MAIN PANEL FOR BLOCK 1 [TYPE II- 11 TENEMENTS]				
3.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with 63A, TPN MCB and Outgoing 14nos. 16A, SP MCB with 12 nos energy meter(to be paid separately)	1	No.	9700.00	9,700.00
	(Market Rate Item)				
4	MAIN PANEL FOR BLOCK 2 [TYPE II- 8 TENEMENTS]				
4.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with 63A, TPN MCB and Outgoing 10nos. 16A, SP MCB with 9 nos energy meter	1	No.	9700.00	9,700.00
	(Market Rate Item)				

5	MAIN PANEL FOR BLOCK 3 [TYPE II- 11 TENEMENTS]				
5.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with 63A, TPN MCB and Outgoing 14nos. 16A, SP MCB with 12 nos energy meter	1	No.	9700.00	9,700.00
	(Market Rate Item)				
6	CABLES				
	Supply of PVC insulated, Overall PVC sheathed, Al conductor, armoured cables of following sizes:				
6.1	3.5C, 185 Sq.mm	48	metres	1315.00	63,120.00
	200 amps from tapping point to main panel				
	(Market Rate Item)				
6.2	3.5C, 50 Sq.mm	105	metres	422.00	44,310.00
	100 amps from main LT panel to 3 nos individual building panels				
	(Market Rate Item)				
6.3	4C, 10 Sq.mm	285	metres	201.00	57,285.00
	16 amps from main LT panel to 12 nos. street lights				
	(Market Rate Item)				
FOR INSTALLATION OF EXTERNAL ELECTRICAL ITEMS					
ITEMS AS PER CPWD SOR - ELECTRICAL 2007 & MARKET RATE					
1	MAIN LT PANEL [ONE TAPPING FROM 440 VOLTS EXISTING OVERHEAD ELEC LINE]				
1.1	Design, fabrication, shop testing and supply of sheet metal enclosed, wall mounted 415V, TPN, [MLTP] having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have Digital Ammeter and ON/OFF indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with one no. 200 amp 4P MCCB, Outgoing 5nos. 63A [three for 3 blocks and one for submersible pump and one spare], 2 nos. 16A, TPN MCB [one for street light and the other spare]	1	No.	10950.00	10,950.00
	(Market Rate Item)				
2	MAIN PANEL FOR BLOCK 1 [TYPE II- 11 TENEMENTS]				
2.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with 63A, TPN MCB and Outgoing 14nos. 16A, SP MCB with 12 nos energy meter	1	No.	1455.00	1,455.00
	(Market Rate Item)				
3	MAIN PANEL FOR BLOCK 2 [TYPE II- 8 TENEMENTS]				
3.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				

	Incomer with 63A, TPN MCB and Outgoing 10nos. 16A, SP MCB with 9 nos energy meter	1	No.	1455.00	1,455.00
	(Market Rate Item)				
4	MAIN PANEL FOR BLOCK 3 [TYPE II- 11 TENEMENTS]				
4.1	Design, fabrication, shop testing and supply of Sheet metal enclosed, floor/wall mounted 415V, TPN , having TPN Al busbars. The constructional features of the panel shall be as specified. The incomer to have ON/OFF & phase indication lamps. All cabling from top/bottom. The feeders are as follows:				
	Incomer with 63A, TPN MCB and Outgoing 14nos. 16A, SP MCB with 12 nos energy meter	1	No.	1455.00	1,455.00
	(Market Rate Item)				
FOR INSTALLATION & LAYING OF CABLE					
ITEMS AS PER CPWD SOR - ELECTRICAL 2007 & MARKET RATE					
1	CABLES				
	WITH SAND AND PROTECTIVE COVERING				
	MV cable laying upto 25 / 120 / 400 sq.mm in ground				
1.1	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of size exceeding 120 sq. mm but not exceeding 400 sq. mm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required				
	3.5C, 185 Sq.mm	48	metres	97.00	4,656.00
	[200 amps from tapping point to main panel]				
	(SOR 2007 [Part II] EXTERNAL 1.3 MVCBGR400)				
1.2	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of size exceeding 25 sq. mm but not exceeding 120 sq. mm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required				
	3.5C, 50 Sq.mm	105	metres	91.00	9,555.00
	100 amps from main LT panel to 3 nos individual building panels				
	(SOR 2007 [Part II] EXTERNAL 1.2 MVCBGR120)				
1.3	Laying of one number PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of size not exceeding 25 sq. mm direct in ground including excavation, sand cushioning, protective covering and refilling the trench etc. as required				
	4C, 10 Sq.mm	285	metres	85.00	24,225.00
	16 amps from main LT panel to 12 nos. street lights				
	(SOR 2007 [Part II] EXTERNAL 1.1 MVCBGR25)				

2	CABLE JOINTING				
2.1	S/M LV/MV cable end termination				
	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	a) 31/2 X 185 sq. mm	2	Each	319.00	638.00
	(SOR 2007 [Part II] EXTERNAL 4.1.27 MVET)				
	b) 31/2 X 50 sq. mm	6	Each	146.00	876.00
	(SOR 2007 [Part II] EXTERNAL 4.1.22 MVET)				
	c) 4 X 10 sq. mm	12	Each	104.00	1,248.00
	(SOR 2007 [Part II] EXTERNAL 4.1.27 MVET)				
2.2	S/M LV/MV straight through cable jointing				
	Supplying and making staight through joint with cast resin compound including ferrules and other jointing materials for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
	a) 31/2 X 185 sq. mm	1	Each	1,420.00	1,420.00
	(SOR 2007 [Part II] EXTERNAL 4.3.24 MVSJ)				
	b) 31/2 X 50 sq. mm	2	Each	773.00	1,546.00
	(SOR 2007 [Part II] EXTERNAL 4.3.19 MVSJ)				
	c) 4 X 10 sq. mm	6	Each	597.00	3,582.00
	(Market Rate Item)				
FOR SUPPLY & INSTALLATION OF SUNDRY ITEMS					
ITEMS AS PER CPWD SOR - ELECTRICAL 2007 & MARKET RATE					
1	SUPPLY AND INSTALLATION OF LIGHTING POLES				
1.1	Supply of 10 Mtr. Swaged steel tubular poles for road				
	lighting as per code 410-SP-32 OF I.S.2713, Part II-1980.	12	Nos.	8,337.50	100,050.00
	(Market Rate Items)				
1.2	Erection of steel pole upto 10 m in C.C				
	Erection of steel tubular pole of length exceeding 8 metres but not exceeding 10 metres in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.	12	Nos.	1,343.00	16,116.00
	(SOR 2007 [Part II] EXTERNAL 6.6 ERSPCC10)				
1.3	Supply and Installation of Loop-in and Loop-out box and outreach arm, all complete as required.	12	Nos	2,300.00	27,600.00
	(Market Rate Items)				
2	SUPPLY OF LUMINAIRE & FIXTURES				
	Providing, installing, testing & commissioning in place Road lighting Luminarire with HPSV 250 Watts of single piece diecast Powder Coated Aluminium Housing cum reflector, Hinged clear acrylic cover including Copper Ballast, Electronic ignitor power factor improvement capacitor, all prewired to a terminal block mounted on detachable gear plate, along with suitable PVC insulated stranded copper conductor and Earthing epoxy bi-junction box at bottom to light fixture complete as req.	12	Nos.	9,294.30	111,531.60
	(Market Rate Item)				
3	Supplying and erection cable route marker for HT / LT cable including the cost of PCC base as required	20	Nos	157.00	3,140.00

	(SOR2007[Part II] EXTERNAL 3.3 CBRMGI)				
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4	Supplying and fixing of shock treatment / restoration charts written in Hindi, English and Vernacular duly framed and covered with 2.8 mm glass as required	3	Nos	100.00	300.00
	(Market Rate Items)				
5	Supplying of fire buckets of approved quality painted red conforming to IS : 2546 (latest revision) duly as required including fixing on MS pedestal stand	6	Nos	250.00	1,500.00
	(Market Rate Items)				
TOTAL COST OF ITEMS AS PER CPWD SOR 2007					66940.00
TOTAL COST OF MARKET RATE ITEMS					526693.60
TOTAL COST OF EXTERNAL ELECTRICAL WORK					593633.60

[illegible]

[illegible]