

(1)

West Bengal Form No. 2911/2911(i)/2911(ii)

Price - Rupees 1 / 3 / 5 Only

ITEM RATE TENDER AND CONTRACT FOR WORKS

Tender No. of accepted by

GENERAL RULES AND DIRECTIONS FOR GUIDANCE OF CONTRACT

1. All work proposed for execution by contract will be notified in a form of invitation to tender posted in public places and signed by the Sub divisional Officer/Divisional Officer.

This form will state the work to be carried out, as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender, and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. Copies of the specification, designs and drawings and any other documents required in connection with the work, signed for the purpose of identification by the Sub-divisional Officer/ Divisional Officer shall also be open for inspection by the contractor at the office of the Sub-divisional Officer/Divisional Officer during office hours.

2. In the event of the tender being submitted by a firm, it must be signed separately by each member thereof, or in the event of the absence of any partner. It must be signed on his behalf by a person holding a power of attorney authorizing him to do so, such power-of-attorney to be produced with the tender, and same in the case of a firm carried on by one member of a joint family it must disclose that the firm is duly registered under the Indian Partnership Act.
3. Receipts for payments made on account of a work when executed by a firm, must also be signed by several partners, except where the contractors are described in their tender as a firm, in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for the firm.
4. Any person who submits a tender shall fill up the usual printed form, standing at what rate he is willing to undertake each item of the work, Tenders which proposed any alternation in the work specified in the said form on invitations to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort, will be liable to rejection. No single tender shall include more than one work, but contractors who wish to tender for two or more works shall submit a separate tender for each Tenders shall have the name and number of the work to which they refer written outside the envelop.
5. The Divisional Officer/Sub-divisional Officer, or his duly authorized assistant, will open tenders in the presence of any intending contractors who may be present at the time, and will enter the amounts of the several tender in a comparative Statement in a suitable form. In the event of a tender being accepted, receipts for the earnest money forwarded therewith shall thereupon be given to the contractor who shall there upon for the purpose of identification sign copies of specification and other documents in Rule 1. In the event of a tender being rejected, the earnest-money forwarded with such unaccepted tender shall be refunded within 10 days from the date on which the tender is decided provided the contractor present himself / themselves before the Executive Engineer to take the refund.
6. The accepting authority reserves the right to reject any or all the tenders without assigning any reasons and he will not be bound to accept either the lowest tender or any of the tenders.
7. The receipt of an accountant or clerk for any money paid by the contractor will not be considered as any acknowledgement of payment to the Sub divisional Officer/Divisional Officer and the contractor shall be responsible for seeing that the procures a receipts signed by the Sub divisional Officer/Divisional Officer, or a duly authorized cashier.
8. The memorandum of work tendered for and the schedule of materials to be supplied by the works and building Department and there issued rates, shall be field in and completed in the office of the Sub divisional officer/Divisional Officer, before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and completed, he shall request the office to have this done before the completes and delivers his tender.

(2)

TENDER FOR WORK

I/we hereby tender for the execution for the Governor of the work specified in the underwritten memorandum within the time specified in such memorandum at the rates specified therein & in accordance in all respects with the specifications, designs drawings, and institution in writing referred to in Rule 1 hereof and in clause II of the annexed conditions and with such materials as are provided for by, and in all other respects in accordance with such conditions so far as applicable.

MEMORANDUM

(a) If several Sub - works are included they should be detailed in a separate list.

a) General description

b) Estimated cost Rs.

c) Earnest Money Rs.

d) Security deposit (including earnest-money) Rs.

e) Percentage, if any to be deducted from bill – Rs.

(Rupees) percent

f) Time allowed for the work from date of written order..... months.
to commence.

Item No.	Item of work	Unit	Per	RATE TENDER		
				in words		

Note :- To be continued on additional sheets as found necessary.

(3)

Should this tender be accepted I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions of contract annexed hereto so far as applicable, or in default thereof to forfeit and pay to the Governor or his successors in office the sum of money mentioned in the said conditions.

** Give particulars and numbers.*

The sum of Rs. _____ *is here with forwarded in currency notes as earnest money [a) the full value of which is to be absolutely forfeited to the Governor or successors in office, without prejudice to any other rights or remedies of the said Governor or his successors in office, should I/We fail to commence the work specified in the above memorandum, or should I/We not deposit the full amount of security deposit specified in above memorandum in accordance with clause I (A) of the said conditions of contract, otherwise the said sum of Rs. _____ shall be retained by Government as on account of such security deposit as aforesaid or b) the full value of which shall be retained by Government on account of the security deposit specified in clause 1 (B) of the said conditions of contract.]

Strick out (a). if no cash security deposit is to be taken.

Strick out (b) if any cash security deposit is taken.

Dated Days of20

Signature of contractor before submission to tender.

Witness

Address

Occupation

Signature of witness to contractors signature.

The above tender is hereby accepted by me for and on behalf of the Governor.

Dated Days of20

signature of the office by whom accepted.

CONDITIONS OF CONTRACT

Clause - I. The person/persons whose tender may accepted (herein after called the contractor) shall (a) [within 7 days of the receipt by him of the notification of the acceptance of his tender) deposit with the Divisional Officer in Treaury Challan a sum sufficient with the account of the earnest-money deposited by him with his tender to make the full security deposit specified in the tender and (b) permitting Government at the time of making an payment to him for work done under the contract to deduct such part or sums as will (here with the security deposited by him) amount to 10% of all moneys so payable by such deductions to be held by Government by way of security deposit. Provided always that in the event of the contractor depositing a lump sum by way of security deposit as contemplated at (A) above then and in such case, if the sum so deposited shall not amount to ten per cent. of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment to the contractor for work done under the contractor to make up the full percentage o ten per cent. by deducting a sufficient sum from every such payment as last aforesaid. All compensation or other sums of money payable by the contractor to Government under the terms of contract may be deducted from, or paid by the sale of a sufficient part of his security deposit, or from the interest arising therefore, or from any sums which may be due or may become due to the contractor by Government on any account whatsoever, and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within ten days thereafter make good in case or Government securities endorsed as aforesaid any sum or sums which may have been deducted from, or raised by sale of his security deposit or any part thereof.

Security depositors.

1. (A). "In contravention of rules under clause - 1. (a) of conditions B of additional conditions when Road Rollers are supplied by Govt. as stipulated in Bengal Form No. 2911 the executive Engineer, may at his discretion allow exemption from payment of hire charges including pay Drivers, Cleaners etc. of Road Roller. Tap Boilers etc for the idle days over which the contractor shall have no control in any way but the contractor shall have to apply for the same in writing showing specific reasons in his favour on the basis of the log books maintained by the Department for the Tools and plants concerned.

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 on which the order to commencing work is given to the contractor. The work shall throughout the stipulated period of contract be proceeded 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 amout equal to one percent. or such smaller amount as the superintending Engineer (whose decision in writing shall be final may decided, on the amount of the tendered amount of the whole work as shown in the tender for very 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 within..... day from the date of the order for commencement

Compensation for delay.

(4)

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 case in which the time allowed for any work exceeds one month to complete one-fourth of 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-fourth of such time has elapsed. In the event of the contractor failing to comply with any of the condition here in he shall be liable to pay as compensation and amount equally to one percent or such small amount as the Superintending Engineer (whose decision in writing shall be final) may decide on the said tendered amount of whole work for everyday that the entire amount of compensation to be paid under the provision of this clause shall not exceed ten percent, on the tendered amount of the work as show in the tender.

Action when whole of security deposit is forfeited.

Clause - 3 In any case in which under any clause or classes of his contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) the Divisional Officer on behalf of the Governor, shall have power to adopt any of the following courses, as he may deem best suited to the interest of Government --

a) To rescind the contract of which rescission notice in writing to the contractor under the hand of the Divisional Office shall be conclusive evidence, and in which case the Security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.

b) To employ labour paid by the works and Building Department 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 for the amount of which cost & price a certificate of the Divisional Officer shall be final and conclusive against the contractor and crediting him with the value of the work done, in all respect in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract the certificate of Divisional Officer as to the value of the work done shall be final and conclusive against the contractor.

c) 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 of the Divisional Officer shall be final and conclusive) shall be borne and paid by original contractor and may be deducted from any money due to him by Government under the contract otherwise of from his security deposit or the proceeds of sale thereof or a sufficient part thereof. In the event of any of the above clause being adopted by the Divisional Officer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements or made any advances on account of. or with a view to the execution of the work of 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 therefore actually performed under this contract, unless and until the Sub divisional Officer / Divisional Officer will have certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

Contractor remains liable to pay compensation if action not taken under Clause 3

Clause - 4 In any case in which any of the powers, conferred upon the Divisional Officer 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 of 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 any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Divisional Officer 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 there of or 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 Divisional Officer whose certificate there of shall be final, otherwise the Divisional Officer may be notice in writing to the contractor or his clerk of the works, fore-man or other authorized agent require him to remove such tools, plant materials or stores from the premises (with in a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Divisional Officer may remove them at the contractor's expense or sell them by auction or private sale on account o the contractor and at his risk in

Power to take possession of or requird removal of all sell Contractor 's Plant.

(5)

all respects, and the certificate of the Divisional Officer as to the expenses of any such removal and the amount of proceeds and expense of any such sale 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 unavoidable hindered in its execution the contractor shall give an immediate report of such hindrance to the Divisional Officer 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 Divisional Officer within 7 days of the date of cessation of such hindrance on account of which he desire such extension as aforesaid and the Divisional Officer shall if in this 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.

Extension of time

Clause - 6 On completion of the work the contractor shall be furnished with a certificate by the Sub divisional Officer/Divisional Officer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate shall be given not shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall be executed all scaffolding surplus materials and rubbish, and cleaned of the dirt from all wood works, 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 Engineer-in-charge whose measurements shall be binding and conclusive against 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 engineer-in-charge may at the expense of the contractor remove such scaffolding surplus materials and rubbish and dispose of the same as the thinks fit and clean of such dirt as aforesaid and the contractor shall forthwith pay the amount of all expense so incurred, and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except 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 on 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 cost more than rupees one thousand, the contractor shall on submitting the bill therefore be entitled to receive a monthly payment proportionate to the part thereof then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. 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 taken away and reconstructed, or re-created, or be considered as an admission of the due performance of the contractor, or 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 Engineer-in-charge under these conditions or any of them as to the final settlement and adjustment of the accounts or any other way very or effect the contract. The final bill shall be submitted by contractor within one month of the date fixed for completion of the work, otherwise Engineer-in-charge'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 certificate 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 Engineer-in-charge for all work executed in the previous, month and the Engineer-in-charge for all work executed in the previous, month, and the Engineer-in-charge shall take or 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 contractor, does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor whose counter signature to the measurement list will be sufficient warrant, and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

Submitted monthly

Clause - 9 The contractor shall all bills on the printed forms to be had on application at the office of the Engineer-in-charge, and the charges, and the charges in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

Bills to be on printed forms.

Clause - 9 A. (1) payments due to the contractor may if so desired by him be made to his Bank instead of direct to him, provided that the contractor furnishes to the Engineer-in-charge.

(6)

Payments of contractor's bills to Banks.

i) an authorization in the form of a legally valid document, irrevocable power of attorney conferring authority on Bank of receive payment ; and

ii) His own accepted of the correctness of the account made out as being due to him by Government or his signature on the bill or other claim preferred against Government before settlement by the Engineer-in-charge of the account or claim by payment to the Bank.

While the received given by such Bank shall constitute a full sufficient discharges for the payment, the contractor should, wherever possible, present his bills duly receipted and discharged through his Bankers.

(2) In the case of bills, which the contractor presents for payment direct and which are not endorsed in favor of the Bank, while efforts will be made to secure payment to the financing Bank, payment made to the contractor should be accepted as full acquaintance so far as Government is concerned. As part of arrangement, the financing Bank should give Government a letter to this effect.

Note : (1) The procedure will not affect the usual rights of Government to deduct contractor's bill (whether endorsed in favor of a Bank or not) any sum due to Government on account of penalties, over - payments etc. on this or any other contract with the Governor of West Bengal.

Note : (2) Nothing herein contained shall operate to create in favors of the Bank any rights or equities vis-a-vis the Governor.

Clause 10 -- If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the engineer-in-charge's store, or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such materials and stores, and stores and the prices to be charged therefore of hereinafter mentioned being so far as practicable for the convenience of the contractor, but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as required from time to time to be used by him for the purpose of the contract only and the value of the full quantity of material, and stores so supplied at the rates specified in the said schedule or memorandum may be set off or deducted from any sums then due or thereafter to become due to the contractor under the contract, or otherwise, or against or from the security deposit or the proceeds of sale thereof , it same is held in Government securities, the same or a sufficient portion thereof being in this case sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government, and shall not on any account be removed from the site of the work and shall at all times be open to inspection by the Engineer-in-charge. Any such materials unused and the perfectly good condition at the time of the completion or determination of the contract shall be returned to the Engineer-in-charge's store, if by a notice in writing under his hand he shall so require but the contractor shall not be entitled to return any such materials unless with consent, and shall have no claim for compensation on account of any such materials so supplied to him as aforesaid being unused by him. or for any wastage in or damage to any such materials.

Clause - 11. The contractor shall execute the whole and every part of the work in the most substantial and work manlike manner, and both as regards materials and otherwise in every respect in strict accordance with the specification. The contractor shall also confirm exactly fully and faithfully to the designs, drawings, and instructions in writing relating to the work signed by the Engineer-in-charge 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 expense to make or cause to be made copies of the specification and of all such designs, drawings and instructions as aforesaid.

Clause -12A. In the case of any altered, additional or substituted work, which contractor is required. under the preceding clause 12 to do at the rates specified in the tender for the main work or on the basis of the rates in the district and which involves the employment of additional materials (not withstanding anything to the contrary in the preceding clause), the contractor may within seven days from the receipt of the order claim revision of the rates in respect of such additional materials and the Engineer-in-charge may revise such rates having regard to increase in the market price of such materials. In the event of a dispute the decision of the Superintendent Engineer of the circle shall be final and binding and this contract shall be construed as if the said revised rates for said additional materials had been incorporated in the contract a's being applicable to such work.

Clause -12A. The Engineer-in-charge shall have power to make any alteration in omissions from additions to or substitutions for the original specifications, drawings, designs and

Stores supplied by Government.

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

Payment on inter mediate certificate to be regarded as advances

(7)

Instructions. 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 instruction which may be given to him in writing signed by the Engineer-in-charge, and such alterations, omissions or substitution shall not invalidate the contractor may be directed to do in manner above specified as part of 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 as are 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 Engineer-in-charge shall be conclusive as to such proportion. And if the altered, additional or substituted work included any class of work, for which no rate is specified in this contract then class of work shall be carried out at the rates entered in the schedule of rates of the District which was in force at the time of the acceptance of the contract minus plus the percentage which the total tender amount bears to the estimated cost of the entire work put to tender and if the altered additional or substitute work not entered in the same schedule of rates payment there of shall be made by the Engineer-in-charge by determining the rates on analysis worked out from a) the basic rates of materials and labour provided in the current schedule of rates or b) above payment shall be made at the rates so determined without application of the said stipulated percentage. In the event of any dispute regarding rates determined on analysis for any altered, additional or substituted work under this clause, the decision of superintending Engineer or the circle shall be final and binding.

Do not invalidate contracts

Extension of time in consequence of alteration.

Rates for works not in estimated schedule.

Clause - 13. If at any time after the commencement of the work the Governor shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out the Engineer-in-charge shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on account or any profit or 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 alteration having been made in the original specifications and instructions which shall involve any curtailment of the work as originally contemplated.

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

Clause - 14. If it shall appear to the Engineer-in-charge or his subordinate in charge of the works, that any work has been executed with unsound, imperfect, or unskillful work-man ship, 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 contractor shall on demand in writing from the Engineer-in-charge specifying the work, materials or articles complained of notwithstanding that the same may have been inadvertently passed, certified and paid for forth with 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 failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the rate of one percent, on the amount of the estimate for every day not exceeding ten days, while his failure to do so shall continue and in the case of any such failure the Engineer-in-charge may rectify or remove, and re-execute the work of 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.

Auction and compensation payable in case of bad work.

Clause - 15. All work under or in course of execution or executed in pursuance of contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates and the contractor shall at all times during the usual working hours and at all other times at which reasonable notice of the intention of the Engineer-in-charge or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instruction or have a responsible agent duly accredited in writing present for that purpose. Order given to the contractor's against shall be considered to have the same force as if they had been given to the contractor himself.

Work to be open to inspection.

Clause - 16. The contractor shall give not less than five days notice in writing to the Engineer-in-charge 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 placed beyond the reach of measurement any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of work, and if any work shall be covered up or placed beyond the reach of measurement

Contractor or responsible agent to be present.

(8)

Notice to be given before work is covered up.

Without such notice having been given or consent obtained, the same shall be 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. Vide G.O No. 4142 A Dt. 26/ 08/1977.

Contractor liable for damage done and for imperfections for 3 months after certificate.

Clause - 17. If the contractor or his work people or servants shall break deface, injure or destroy any part of building, in which they may be working at any building road curbs fence, enclosure, water pipes cables drains electric or telephone post or wires, trees grass or grassland or cultivated ground continuous 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 3 month (six months in the cause of a road work) after a certificate final or other of its completion shall have been given by the Engineer-in-charge as aforesaid, the contractor shall make the same good at his own expense, or in default, the Engineer-in-charge may cause the same to be made good by other workmen and deduct the expense (of which the certificate of the Engineer-in-charge shall be final) from any sums that may be then, or at any time thereafter become, due to the contractor, or from his security deposit, or the proceeds of sale thereof or of a sufficient portion thereof.

Refund of Security deposit

The security deposit of the contractor made provided in clause thereof shall be refundable on the expiry of 3/6 months in case of a road work after the issue of the certificate, final or otherwise, of the completion of the work subject the condition that no such refund of security deposit shall be allowed till the final bill has been prepared and passed, provided however that in the case of road work if in the opinion of the Engineer-in-charge half of the security deposit is sufficient to meet all the liabilities of the contractor under this contract, half of the security deposit may be refundable after 3 months of the issue of the said certificate of completion provided further that in the case or any work (whether road, building, bridge, electrical, sanitary and plumbing etc) whether the Engineer-in-charge is satisfied that the contractor after completion of the major portion of the work is unable to execute remaining part of the work for reasons beyond his control the Engineer-in-charge in his discretion may make an appropriate refund of the security deposit to the contractor.

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

Contractor to supply plant , ladder , scaffolding etc.

Clause - 18. 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 Engineer-in-charge's stores) plant, tools appliance, implements, ladders, cordage, tackle, scaffolding and temporary works requisite or proper execution of the work, whether original , altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-charge 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 from the work, The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works, and counting, weighting and assisting in the measurement 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 Engineer-in-charge at the expense of the contractor and the expenses may be deducted from any money due the 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 fencing and lights require to protect the public from accident and shall be bound to bear the expense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect to the above precautions and to pay any damages and cost 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 compromise any claim by any such person.

And is liable for damages arising from nonprovision of light , fancing etc.

Clause - 18 A. The contractor shall be responsible for and shall take proper care and caution and in respect of all rollers machinery, tools and implements as may be made over by the Govt. to be contractor for use in the execution of the works under this contract and shall liable for any loss of and damages caused the said rollers, machinery, tools and implements by any reason whatever during the period the same are in the possession of the contractor and shall on demand pay to the Government such amount as may be fixed by the Government for such loss and damages, the decision of Government in the respect being final. Should the contractor's fail or neglect to pay such amount and demand the Government shall

have the right and to 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 for any work done by the contractor.

Clause - 18 B. In every case in which by virtue of the provisions of sections 12, sub section (1) of workmen's compensation Act, 1923 Government is obliged to pay compensation to a workman employed by the contractor, in execution of the works, Government will recover from the contractor, the amount of under section 12, sub-section (2) of the said Act, Government shall be liberty to recover such amount or any part thereof by deducting it, from the security deposit or from any sum due by the Government to the contractor whether under this contract or otherwise.

Government shall not bound to contest any claim made against in under section 12, Sub-section 1) of the said Act. Except on the written request of the contractor and upon his giving to Government full security for all cost for which Government might become liable in consequence of such claim.

Clause - 19. No female labour shall be employed within the limits of a cantonment.

Labour

Clause - 19 A. No labour below the age of twelve years shall be employed on the work.

Clause - 19 B. a) "The contractor shall pay to labour employed by him either directly to through Sub-contractors, wages not less than fair wages as defined in the C.P.W.D. contractor's Labour Regulation in so far such Regulations have application within the State of West Bengal or as per the provisions of the Contract Labour (Regulation and Abolition) Central Rules 1971, wherever applicable.

b) The contractor shall not withstanding the previous of any contract to the country, cause to be said fair wages to labour indirectly engaged on the work, including any engaged by his sub-contractors in connection with the said work as if the labour had been immediately employed by him.

c) In respect of all labour directly or indirectly employed in the work for performance of the contractors part of his agreement the contractor shall comply with or cause to be complied with the Central Works Department Contractor's Labour Regulations as mentioned in Sub para (a) above made from time in regard to payment of wages wage period deduction from wages recovery of wages not paid and deduction unauthorized made maintenance o wages and other terms of employment inspection and submission of periodical return and all other matters of the like nature or as per the provisions of the contract labour (Regulation & Abolition) Act 1970 and the Contract Labour (Regulation & Abolition) Rules 1971 wherever applicable.

d) The Divisional Officer/Sub-Divisional Officer concerned shall have the right to deduct the moneys due to the contractor any sum required for estimated to be required making good the loss suffered by a worker or workers by reasons of the conditions of the contract for the benefit of the workers nonpayment of wages or deduction made from his or their wages which are not justified by their terms of contract or not-observance of the Regulations as mentioned above.

e) The contractor shall comply with the provisions of payment wages Act. 1926 minimum wages Act 1948. Employees Liability Act 1933, Industrial Dispute Act 1947, Maternity Benefits act 1961 and the contract Laour (Regulation & Abolition) Act. 1970 or the modification thereof or any other laws relating thereto and the Rules made there under from time to time.

f) The contractor shall indemnity Govt. 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 with in State of West Bengal without prejudice to his right to claim indemnity from the Sub-contract.

g) The Regulation aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of his contract.

Clause - 20. No work shall be done on Sunday without the sanction is writing to the Engineer-in-charge.

Clause - 21. The contract shall not be assigned or sublet without specific orders from 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 make any composition with his creditors, or attempt so to do, or if any bribe gratuity gift, loan perquisite, reward or advantage, pecuniary or otherwise, shall either directly be given, promised or offered by the contractor, or any of his servants or agents to any public officer of person in the employ of

Work on sundays

Work not to be subject.

Contract may be rescinded a security deposit for forfeited for subletting bridging or if contractor becomes insolvent.

Government in any way relating to office or employment, or if any such officer or person shall become of any way directly or interested in the contract, the Divisional Officer may thereupon by notice in writing rescinded the contract and the security deposit of the contractor shall thereupon stand forfeited and the absolutely at the disposal of Government, and the same consequences shall ensure if be contract had been rescinded under clause 3 hereof and addition the contractor shall not be entitled to recover or be paid for any work therefore performed under the contractor.

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

Clause - 22. 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 government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

Changes if constitution of firm.

Clause - 23. In the case of a tender by partners any change in the constitution of the firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.,

Clause - 24. All works to executed under the contract shall be executed under the direction and subject to the approval in all respects to the Superintending Engineer of the Circle for the time being who shall be entitled to direct at what point and in what manner they are to be commenced and from time to time carried on.

Works to be under direction of super intending Engineer.

Clause - 25. Except where otherwise provided in the contract all question and disputes relating to the meaning of specification, designs, drawings and instruction herein before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right, matter of thing whatsoever, in any way arising out or relating to the contract, designs, drawings specification, estimates, instructions, order or these conditions or otherwise concerning the work, or the execution or failure to execute the same, whether arising during the progress of the work or after the completion or abandonment thereof shall be referred to the sole arbitration of the Chief Engineer of the Deptt. Should the chief Engineer be for any reason unwilling or unable to act as such arbitrator, such question and disputes shall be referred to an arbitrator to be appointed by the Chief Engineer. The award of the arbitrator shall be final conclusive and binding on all parties to this contract.

The award shall be a speaking one, that is the arbitrator, shall recite facts and assigning reasons in support of the award after discussing fully the claim and contention of the parties.

N.B. : -This clause shall not be applicable for contracts of estimated cost upto Rs. 50 (fifty) (Estimated amount put to tender). [2911@ vide G.O. No. 11235-A Dt. 1/10/86 & 2911 (ii) vide G.O. No. 1(7)-Adt/IM-10/81pt, 'S' Dt. 6/1/95 of Engineer-in-chief & Ex-officiom secretary P.W.D.

Stores of European of American manufactured to be obtained from Government

Clause - 26. The contractor shall obtain from the stores of the Engineer-in-charge all stores articles of European or American manufacture which may be required for the work, or any part thereof or in making up articles required thereof or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articlas else-where. The value such stores and articalas as may be supplied to the contractor by the Engineer-incharge will be debited to the contractor in his account at the rates shown in the schedule attached to the contract and if they are not entered in the schedule, they will be debited at cost price which for the purpose of this contract shall include the cost of carriage incidental charges and sortage charges, the last being recoverable in addition and all other expenses whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

Lump sums in estimates.

Clause - 27. When the estimate on which the tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items or if the part of the work in question is not in the opinion of the Engineer-in-charge. may his direction pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provisions of this clause.

Action where no specification.

Clause - 28. 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 out in accordance with the District specification and in the event if there being no district specification, then the such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

Clause - 29. The expression “work or “works” where used in these conditions shall unless there something either in the subject or context repugnant to such construction be construed and taken to mean the works by or virtue of the contract contracted to the executed whether temporary or permanent and whether original, altered substituted or additional *Definition of works*

Clause - 30. The contractor (s) shall at his their own cost provide his/their labour with hunting on an approved said and shall make arrangements for conservancy and sanction 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 pipeline for water supply to his/their labour camp from the existing man is wherever available, and shall pay all fees charges in connection therewith and incidental thereto.

INTERPRETATION CLAUSE -

The Governor means the Governor of West Bengal and his successors.

The Divisional Officer means the Divisional Officer for time being of the Division concerned.

The Sub divisional Officer means the Sub divisional Officer for the times being of the Subdivision concerned,

Words importing the singular no. only include the plural no and vice versa.

Schedule showing (approximately) materials to be supplied by the works and Buildings Department under clauses 10 & 26 for work contracted to be executed and the rates at which they are to be charged for.

Particulars	Rates at which the materials will be charged to the contractor.			Place of delivery
	Unit	Rs.	P.	

Note - 1) *The person of firm submitting the tender should see that the rates in the above schedule are filled up by the Engineer-in-charge on the issue of the form prior to the submission of the tender.*

Signature of contractor

Signature
Sub-Divisional officer / Divisional Officer

ADDITIONAL CONDITIONS

1. Cement found surplus after the completion of a work should be returned to the sub-divisional officer, the value of the cement returned to the Department will be credited to the contractor. If any contractor is found to have used the surplus cement for his own purpose or otherwise disposed of it without the written consent of the Executive Engineer or the Sub-divisional Officer (if nominated for the purpose by the Executive Engineer) he may be held guilty of theft. In this connection the provision of clause 10 may be referred to where it is clearly stated that all materials issued to the contractors shall remain the property of Government.
2. The contractor shall have to make his own arrangements for water both for the work and use by his coolly, etc. for steam road roller and for all tools and plants etc required on the work.
3. Contractor will be responsible for the payments of all water charges payable to the corporation Calcutta or any other works authority including a Government department concerned.
4. If the contractor shall desire an extension of the time for completion of the work under clause 5 of the contract, on application for such extension will be entertained if it is not received in sufficient time to allow the Divisional Officer to consider it and the contractor will be responsible for the consequence arising out of his negligence in this respect.
5. 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.
6. Contractors in the course of their work should understand that all materials (e.g. store and other materials) obtained in the work of dismantling, excavation, etc. will be considered Govt. property and will be disposed of to the best advantage of Government.
7. Owing to difficulty in obtaining certain materials in the open market due to war, the Government have undertaken to supply materials specified in the schedule on page of the Tender form at rates stated therein. There may be delay in obtaining the materials by the department and the contractor is therefore, required to keep himself in touch with day to day position regarding the supply of materials from the Engineer-in-charge and to so adjust the progress of the work that their labour may not remain idle nor may there be any other claim due to or arising from delay in obtaining the materials. It should be clearly understood that no claim whatsoever shall be entertained by the Government on account of delay in supplying materials.
8. The minimum period for which a road roller is required to be used by a contractor shall be determined by the Executive Engineer on the basis of the quantity of metal that can be consolidated by a roller per day and the Executive Engineer's decision shall be final. If the roller be required to work for a longer period due to bad arrangement of the contractor shortage of water etc. Additional hire charges shall be levied at the rates specified below under "A Hire Charges" for the additional period the roller works.
9. No compensation for any damage done by rain or traffic during the execution of the work will be made.
10. Whenever a work is carried out in a municipal area electric light or electric danger signals wherever available shall be provided by the contractors on the carriers as well as Paraffin lights facilities for the electric connection made by this department but the par contractor will bear all the expenses.
11. The contractor should quote through rate inclusive of cost of materials and carriage to place of working.
12. The contractors should give complete specifications showing the execution and the quantity and quality of material they intend to use per hundred sq. ft. area.
13. In case where water is issued by the contractor he will be required to deposit in advance with the Executive Engineer the charges for water which are to be calculated in accordance with the schedule of miscellaneous rates in the Canal Act.
14. 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 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.
15. In the event of emergency the contractor will be required to pay his labour everyday and if this is not done, Government shall make the requisite payment as would have been paid by the contractor and recover the cost from the contractor.

INCONVENIENCE TO THE PUBLIC

16. The contractor's shall not deposit material on any site which will seriously inconvenience the public. The Engineer-in-charge may require 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 removed at the contractor's cost.
17. The contractor undertakes to have the site clean, free from rubbish to the satisfaction of a Engineer-in-charge. All surplus materials rubbish etc. will be removed to the places fixed by the Engineer-in-charge and nothing extra will be paid.
18. The contractor shall not allow any rubbish or debris to remain on 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 Engineer-in-charge 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 this clause.
19. Material brought at site shall not be stacked at random. The contractor shall stack all these materials as directed by the Engineer-in-charge.

ADDITIONAL CONDITIONS WHEN ROAD-ROLLERS ARE SUPPLIED BY GOVERNMENT

Road Rollers, if available shall be supplied by the Government on payment of hire charges at the rates and on the conditions specified below. The Contractor should give requisition for road Rollers at least two weeks before the date on which the same are required mentioning the date on which delivery is desired. In case Rollers cannot be made available to the contractor on that day, requisite extension time shall be granted to the contractor for completion of the work but the contractor shall not be entitled to claim any compensation for loss of labour or any other cause whatsoever.

A - HIRE CHARGES

1. Road Rollers, Petrol, Diesel or Steam - 8 Tons over Rs. 150/- (Rupees one Hundred Fifty only).

The Depth. Crew i.e (a Driver, A Fireman or Cleaner & Chowkidar) for a Roller will ordinarily be provided by the Deptt. and their pay will be recovered extra from the contractor at the following rate.

- | | | |
|------------------|---|-------------------------------------|
| 1. One Driver | : | @ Rs. 15/- (Rupees Fifteen) per day |
| 2. One Cleaner | : | @ Rs. 11/- (Rupees Eleven) per day |
| 3. One Chowkidar | : | @ Rs. 11/- (Rupees Eleven)per day |

B - CONDITIONS

1. The Road Roller will be made over and taken back at the site of the work. The Roller charges (which include the hire charges and the wages of the Deptt. crew) shall be recovered at the prescribed rates from the date, the road rollers is made over till the date it is taken back even though the rollers may not have been working. If however any rollers remains idle for two or more days at a stretch for any of the reason or reasons mentioned below and provided the contractor submit within a week of the date of occurrence of the contingency and application through the sub-divisional officer the Engineer-in-charge, praying for exemption from of payment of roller charges showing reasons and particulars for such claim for exemption. The Engineer-in-charge may at his discretion and if he is satisfied that there are sufficient reasons allow exemption for payment, of the said roller charges or such as he may consider reasons under the circumstances.

The reasons for which exemption may be allowed are -

- i) Continued unfavorable whether condition for carrying out the type of work on which the roller engaged
- ii) Lack of roller work for reasons beyond the control of the contractor,
- iii) Diversions of the roller by the Engineer-in-charge to other works.]
- v) Any other reasons precluding the work of the roller.

The contractor shall not in any event be entitled to claim any compensation for loss of labour or for any other loss whatsoever which may have been incurred him during the period for which exemption from payment of the charge is allowed.

- b) The roller and other equipments shall be fully utilized for the purpose for which the same are made over and shall not be allowed to remain idle when they are in working condition. The time limits for the working days for each type of rolling shall be fixed according to the limits of work output given in statement I & II below. If the actual number of days roller work exceeds the limits based on the specified floor limits for the number of days in excess of such limits the hire charges and the wages of the departmental crew shall be charged at double the prescribed rates. If actual number of days the roller working is less than that the number of days calculated on the specific ceiling limits the hire charges for the roller and wages of the Deptt crew shall be recovered for the number or days calculated on the specified ceiling limit. In all cases parts of a day shall be counted as a full day.
- 2) The Departmental crew shall be on operational charge of the roller.
 - 3) The roller issued to a contractor is to work for 6 days in the week be stoppage of work on the seventh day for general cleaning and petty repairs. Contractor will pay for hire charges as well as for the wages of the Depttl. crew for the whole work.
 - 4) Clean water for operating and washing the rollers shall be supplied by the contractor at his own cost.
 - 5) Fuel (Petrol, Diesel or steam coal) and ancillaries such as match boxes, Kerosene oil, fire wood and cotton waste for working lighting up cleaning etc. of Road Rollers shall have to be supplied by the contractor at his expense, Steam coal for steam road rollers and diesel oil for diesel road rollers may however by supplied by the Depttl. at the rates specified in the agreement & cost debit to the contractors account accordingly.
 - 6) The grease and lubricating oil required for operating and maintenance of the roller shall be supplied by the Deptt. free of cost.

SPECIFICATION COVERING ISSUE OF ROAD ROLLERS

The number of working days to be allowed for furnishing each individual item of the work shall be calculated on the basis of limits of work output specified in Statement-1, and 11 below.

(Extra allowance are to be considered by the Executive Engineer only on special circumstance depending on the particular nature of the work and his decision will be final)

STATEMENT 1

(a) For Petrol, Diesel of Steam Roller - 8 Tons or over

TABLE - 1

N.B. -- Each working day means each roller day, i.e.3 hours in a day with one roller

Sl. No.	Item of work	Work out put per working day of 8 hours.	
		Floor limit (minimum)	Celling limit (Maximum)
1	2	3	4
1.	Rolling sub-grade	1,486 Sq.m.	2,230 Sq.m.
2.	Roller boulder soling		
	a) Stone (except laterites) of slag boulders	557 Sq.m.	929 Sq. m.
	b) Laterite boulders	743 Sq.m.	1,115 Sq.m.
3.	Consolidation of ballast (size within the Range of 7.5 cm. to 12.7 cm.)		
	a) Broken stone (pakur or Rajmohal or Chandil or similarly hard stone)	23 Cu.m.	34 Cu.m.
	b) Broken stone varieties softer than (a) above	25 Cu.m.	40 Cu.m.
	c) Broken slag	25 Cu.m.	40 Cu.m.
	d) Laterite or Jhama	34 Cu.m.	51 Cu.m.
	e) Unbroken stone (e.g. single)	34 Cu.m.	51 Cu.m.
4.	Consolidation of metal (size within range of 3.75 cm. 7.5 cm.)		
	a) Broken stone metal Pakur or Rajmahal or Chandil or similarly hard stone	14 Cu.m.	23 Cu.m.
	b) Broken stone metal of varieties softer than (a) above	17 Cu.m.	28 Cu.m.
	c) Broken slag metal	17 Cu.m.	28 Cu.m.
	d) Laterite or Jhama metal	28 Cu.m.	45 Cu.m.
	e) Unbroken stone (e.g. single or gravel)	34 Cu.m.	51 Cu.m.
5.	Consolidation of morum	34 Cu.m.	52 Cu.m.
6.	Rolling pry chips / Bajri / Gravel of surface dressing work	300 Cu.m.	350 Cu.m.
	a) On water-bound surface	587 Sq.m.	1,115 Sq.m.
	b) On brick top surface	650 Sq.m.	1,300 Sq.m.
7.	Rolling premixed chips / Bajri / Gravel		
	a) In 19 mm (Normal) thick carpet	372 Sq.m.	743 Sq.m.
	b) In 25 mm (Normal) thick carpet	325 Sq.m.	650 Sq.m.
	c) In 32 mm (Normal) thick carpet	278 Sq.m.	557 Sq.m.
	d) In 38 mm (Normal) thick carpet	232 Sq.m.	465 Sq.m.

N.B. -- In case of items not covered by the above or by any stipulation of a particular contract, the limits will be as decided by the Engineer-in-charge.

STATEMENT - II

b) For Petrol , Diesel or steam Road Roller - 6 Tons or less.

The limits of work out put to be allowed for Petrol, Diesel of steam Rollers of 6 Tons or less shall be 25 percent less than the limits for the corresponding items in statement - 1 above

Time to be allowed in respect of each item of work is the same as per statement in case of roller of 8 tons or above plus 25 percent extra.

Extra allowance may be the same as per statement 1 in case of roller of 8 tons or above.

TAR AND BITUMEN

1. The contractor undertakes to make arrangement for the supervision of the work by the firm supplying the tar or bitumen used.
2. The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting is started and shall hypothecate it to the Engineer-in-charge against money advanced by Government. If any bitumen or tar remain unused on completion of the work on account of lesser use of material in actual execution for reasons other than authorized charges of specification and abandonment for portion of work a corresponding deduction equivalent to the cost of unused material as determined by the Engineer--in-charge shall be made and the materials returned to the Contractors. Although the materials are hypothecated to Government the contractor under taken the responsibility for their proper which safe custody and protection against all risks. The materials shall not be removed from the site of work without the consent of the Engineer-in-charge in writing.

ADDITIONAL CLAUSES

1. In cases where responsibility of dispatch of store rests with the suppliers but the freight is payable by the purchaser, the supplier should dispatch the stores by the most economical method, using the full wagon load whenever it is possible and economical to do, so failing which the supplier will render himself liable for the whole or part of any avoidable expenditure caused by such default. The supplier should get in touch with the purchase officer concerned and in cases of dispatch of stores which are the property of the Defense Department at the time of dispatch the supplier may obtain the advice of the "Movement control section" Station staff officer or the controller of suppliers of the station concerned.
2. The contractor will have to make his own arrangements for the carriage of materials.
3. For all items of contract works requiring unskilled labour the contractor shall be bound to employ unskilled local labour. The expression "Local" shall be in the Achill the Block the Thana of the District of the State of West Bengal where the work will be executed In case of non-availability of such unskilled local labor and of the other difficulties experience by the contractor in recruiting such local labour, the contractor may with the prior permission in writing of the Engineer-in-charge of the work, recruit and employ unskilled labour from neighboring area of that Dist. In case the work is in the border areas of two Districts and there is death of adequate number of local labour from the district where the work will be executed labour may be recruited by the contractors from contiguous areas of the other contiguous district. In case local labour will not be available even from other district as mentioned and when the exigency or progress of work so demands, the contractor may with the prior permission in writing of the said Engineer-in-charge, engage labors from the other districts of the state of West Bengal, and incase the same be not available then the contractor may with the prior permission of the said Engineer-in-charge employ imported labour of the states.

In case where the contractor falls to secure unskilled local or to engage imported labour the contractor shall employ labour locally recruited by Government of labour imported by Government at the rate to be decided by the Superintending Engineer of the concerned whose decision as to the circumstances in which employment of such labour is of mutual advantage to Government and the contractor, will be final and binding on the parties.

For all items of contract jobs requiring skilled labour the contractor shall have to employ 70% (seventy percent) of skilled labour locally. In case the contractor fails to recruit skilled local labour, the contractor shall employ skilled labour locally secured by Government in the manner indicated above for bridge works, highly technical works of farmed structural buildings, sanitary and plumbing works, electrical works etc involving skilled labour, the contractor may with the prior permission in writing of the Engineer-in-charge to whom full facts must be placed for such permission import and employ skilled labour upto 30% (thirty

percent) to total requirement, in this case the expression, imported labour, shall mean labour imported primarily from other States and secondarily, from the districts of the State of West Bengal.

4. Military Credit notes will only be issued at the dispatching station for materials which are the property of Government at the time of dispatch. Ordinary credit notes will be issued this department at the receiving station to help contractors in taking delivery and the cost will be recovered from the contractor's bills.

SPECIAL TERMS & CONDITION FOR BUILDING & ROAD WORKS & SANITARY & PLUMBING WORKS

1. Earnest Money is to be deposited into Government Treasury or Reserve Bank of India, Kolkata under the head Revenue 'Deposit' in favour of the Executive Engineer (P. W. D.) of concerned division and the original challan thereof must be submitted along with the tender (at the time of submission). Deposit made in other method as admissible under existing Rules of this Department will also be acceptable if found in order and fulfilled the condition as specified.

The successful tenderer will have to furnish a total security deposit of 10% (Ten) percent of the value of work to be actually executed. The earnest money already deposited will be converted into security deposit and the balance security money to make up 2% / 21/2% of the tendered amount will have to be deposited within 7 (seven) days from the date of receipt of intimation (in Registered Post) of acceptance of tender if and as asked for. The balance 8% / 71/2% security money shall be deducted from each progressive bill so that the total deduction together with security deposit already taken constitute 10% (Ten percent) of the total value of work as actually executed.

In respect of tenderer who has a fixed permanent security of 50,000/- with Govt. has been exempted in writing from payment of Earnest money with individual tender. No earnest money need be deposited in his case but security money amounting to a total of 10% (Ten percent) of the value of works to be actually done will be deducted from the progressive bills @ 10% (Ten percent) of each such bill.

2. The earnest money deposited by a unsuccessful tenderer will be refundable on application to the concerned Executive Engineer, P.W.D. Division as per rules in such cases or as notified.

3. In the event of the tender being submitted by a firm not known to the P.W.D. it must be signed separately by each member of the firm. In the event of absence of any partner, it must be signed by another partner on behalf of the person authorizing him to do so, such power of attorney, will have to produced at the time of opening of tender. In case of a firm whose functions are carried out by one member of joint family, it must disclose that the firm is duly registered under the Indian Partnership Act.

4. The successful tenderer on receipt of intimation of acceptance of his tender must similarly deposit as in para 1 above a further sum to make-up security money of 2% / 21/2% of the tendered amount and execute the tender agreement in Quadruplicate (i.e. two in W.B.F. No. 2911, 2911 (i), 2911 (ii) and two in plain paper with relevant tender documents within 7 (seven) days from the date of receipt of intimation to that effect through Register post, failing which the contract will be liable to termination without further reference and the security money at hand stand forfeited to Govt. The tender form for above shall have to purchased by the successful tenderer in the manner and at the prices stipulated below:-

The tender form consists of—

a) W.B.F. No.-2911, 2911 (i), 2911(ii) at Re. 1/- (one) at Rs. 3/- (three) Rs. 5/- (five) each respectively/" and

b) Tender documents containing Notice Inviting Tender (Detailed) etc. at Rs. 8/- each. Both item (a) and (b) should be obtained from the concerned Executive Engineer, P.W.D. Division concern on Cash payment.

5. Intending tenderers are requested to see the site of work and get themselves thoroughly acquainted with the local conditions near about site of work. They shall have to endorse to the effect the contract documents in the space provided, for the purpose and no grumbling on account of bad site condition or difficult soil condition or dearth of water supply or approach road will be entertained.

The tender will not be deemed to be fit for consideration unless the contract documents are fully and completely filled in. All information asked for from the intending tenderers must be unequivocally furnished & tender which does not conform to the prescribed conditions as stated will be rejected at the time of the opening of tender are preparations of comparative statement at the direction of the accepting authority.

6. The intending tenderers must produce original or certified copies of clearance certificates of Income Tax & Sales Taxes of valid currency from the respective Department to the Engineer Officer concerned without which no tender form will be issued and true copies of the certificates referred above should be enclosed along with the tender. In the absence of the above the tender may not be considered at all.

(a) (i) Not-with-standing what has been stipulated in the abridge N.I.T. a bonafied outside contractor while participating in one tender under P.W.D. shall engage in this pay roll.

(ii) at least one Diploma Holder in Civil Engineering for each work costing Rs. 50,000/- and above upto Rs. 2 Lakhs irrespective of fact whether or not he himself is a degree or diploma Holder in Civil Engineering.

(iii) at least one Degree Holder in Civil Engineering for each work costing above Rs. 2 Lakhs and up to Rs. 10 Lakhs irrespective of the fact whether or not he himself is a Degree Holder in Civil Engineering.

(iv) at least one degree holder and one diploma holder in Civil Engineering for each work costing above 10 Lakhs up to any limit irrespective of the fact whether or not he himself is a Degree or Diploma Holder in Civil Engineering.

(b) The authorized agents or representatives as and when engaged by the enlisted as well as bonafied outside contractor for supervision of work and for receiving Departmental materials Hand Receipt shall also be either Diploma or Degree Holders in Civil Engineering as the case may be, depending on the value of work as indicated above and should hold appropriate power of attorney,

(c) The Engineering personal to be engaged by the contractors shall have to remain present at time of inspection of works by the Executive Engineer for receiving site instruction.

7. Tenderers are to note that as soon as the formalities as laid down in the letter of acceptance are observed and condition of contract documents are submitted by the contractor with challan for further security money as necessary, the work order will be issued and successful tenderer must take up the work in right earnest within a week from the date of issue of the work order.

8. The rates quoted by the tenderers must be inclusive of all incidental charges, Sales Tax, Royalties, octroi local rates tools ferry charges etc. as necessary,

9. All rates and amounts should be legibly written in English. When the contractor signs in an illdian language all rates and the amounts must be written in the same language as well as English. ill case of illiterate contractors the rates, units, amounts tendered must be attested by the witness of the tenderer known to the accounting authority. The standard unit of rates must not be spitted up, failing which the tender will be declared as informal.

10. All tools and plants necessary for the works, unless provided by this Directorate on rental basis, will have to be arranged for by the contractor at his own cost.

11. Cost of clearing of all varieties of jungles, shrubs and trees (of girth up to 30 to 48 cm.) or any undesirable vegetation from within the boundaries of alignment of works will not be paid for separately. The tenderer must satisfy themselves by actual visit to the site of works and must quote rates as per schedule inclusive of all those and similar charges both direct or incidental.

12. When Engineer-in-charge feels necessary service roads or temporary bridges will have to be made and properly maintained at contractor's cost to the entire satisfaction of the Engineer-in-charge. ill existing roads, where normal flow of traffic is likely to be impeded due to taking up of repair works of roads or bridges, the contractor have to provide will constructed road diversion and !hat must be properly maintained to the entire satisfaction of Engineer-in-charge.

13. A Bound Book with alternate perforation and detachable pages with provision of carbon should have to be provided as Work Order Book. All orders be recorded in this book and detachable copy handed over to the contractor. The book is to be under the charge of the S.D.O. or the sectional Officer as directed by the Engineer-in-charge. If contractor fails to supply work order book as indicated in this clause would be procured by this Directorate debiting the cost to contractor's Accounts.

14. Not-with-standing what has been laid down in clause 12 of W.B.F. No. 2911, 2911(i), 2911(ii) the rate of any item of work which does not appear in the schedule of probable items of works of quote by tenderers will be primarily determined from the similar or allied items appearing in aforesaid schedule of items by adding subtracting or proportioning as required and applying the same percentage as quoted by the Tenderer. Where it is not possible to determine the supplementary rate from tender schedule of items, the rates for such items of works will be determined from the Circle Schedule of rates concerned if available duly applying the same percentage. The rates for those items

which cannot be arrived at by any of the procedure stated above and have been brought to the notice of the Engineer-in-charge before execution of them will be determined from the then current market rates of labour and materials. For analysis of rates only lowest market cost of materials gathered from established business firms will be considered. For labour rates which do not appear in Circle Schedule similar or allied rates allowed in the Circle Schedule may be considered. In this case, 10% (Ten) percent profit shall be admissible cut contractual percentage shall not be applicable.

15. Prominent sign boards measuring 1.07M x 0.60M in block letters on cream rose yellow back ground e.g. ROAD CLOSED. "DRIVE AT YOUR OWN RISK", "WORK UNDERGOING" in one side with "CLEAR" on the other side etc. to be set up at convenient point at contractors cost in both up and down lane of the road where construction / repair works is undertaken roads or bridges. Separate road and work site barriers are also to be placed at contractor's cost whenever the existing road is not free for smooth passage of vehicular traffic or the bridge deck is constructed to single lane. At night, the banions are to be provided with Red light and night chowkidar must also be mentioned at the cost of the contractor.

16. All petty and sundry materials like pags, strings, jhandies etc. as well as labour requested for setting out the work would have to be providing for by the successful tenderer at his own cost as and where necessary. Arrangements for water both for work and workmen will have to be arranged by the contractor at his own cost.

17. Due to shortage of cement and/or to conserve cement it may be necessary to execute the work of brick work plastering etc. in line mortar or composite mortar instead of cement mortar in which case necessary payment for substitute items of work will be made on supplementary Tender basis following the Schedule of Rates for the South-Western Circle (P.W.D.) Midnapore as laid down in the Notice Inviting Tender.

18. Issue of materials: The materials which shall be supplied by this Department from the Departmental godown under Sub-division at cost quoted against each in the printed Schedule of Rates of South Western Circle (P.W.D.) in force with the relevant tender. The contractor shall carry the materials to the site of work as per requirements. Cost of their carriage to site including loading, unloading, stacking, handling and other incidental charges being included in rates of respective items.

18. (i) In case of the materials are issued from any other godown, the same are still to be carried in which case necessary adjustment for rate of work or otherwise due to carriage of materials from another godown will be made with consequent extra payment or less payment as the case may be.

(ii) The following materials will be supplied to the contractor by this Deptt. if and as necessary, from the Deptt. godowns & stacking yards at the rates noted against each. These materials shall have to be carried by the recipients by trucks, carts or by head load, as necessary from the points of delivery to the actual site of work at their own cost. The rates to be quoted by the Contractors must, therefore, be inclusive of cost carriage of materials.

(a) Cements @	per Tonne including cost of container.
(b) M.S. Rod (Rods of available sizes will be issued) channels flats, plates, angles, tees & joists @	per Tonne.
(c) Tor-steel @	per Tonne.
(d) G.C.L Sheets @	per Tonne
(e) Steel Fabrics @	per Tonne
(f) Asbestos Sheet	
(i) Corrugated or Trafford @	Sq. Metre
(ii) Plain @	Sq. Metre
(g) Empty Drum	
(i) Bitumen at the rate of	Only each
(ii) Tar Drum at the rate of	Only each
(h) Bitumen :	
(i) Packed at the rate of	only per tonne excluding container.
(ii) Bulk at the rate of	only per tonne excluding container.

N.B.-Cut pieces of steel materials will not be taken back by the department.

The cost of the materials supplied by this department to the contractor will be recovered from bills in one or more instalments, as may be decided by the Engineer -in-charge, according to the rules in force. Recovery of empty drums not returned will be made (i) at 80.00 (Eighty) only for packed bitumin container and (ii) at Rs. 400.00 (Rupees four hundred) only for bulk bitumin drum.

Basis of consumption of materials to be issued by the department shall be guided as per approved consumption chart of the Deptt. and / or practical observation at work site.

Issue rates of materials shall be governed by the corresponding rates as mentioned in the Circle Schedule in force.

19. Quantities shown in tender notice are approximate and are subject to variation as per actual requirement during execution. No. claim on account of excess work done will be entertained and this work will be deducted altogether and not be paid for. If, however these are ordered, claim is to be submitted to Engineer-in-charge within 7 (seven) days.

20. All items of not included in the specifications are to be as per specification in vogue of the South Western Circle, P.W.D. Midnapore.

21. In case ambiguity the sanctioned drawings would always take precedence over sanctioned estimate.

22. Departmental godown or store would be the godown or store which will be shown or indicated in writing prior to opening of the tender.

23. Power Road Rollers as required shall be supplied by this department on hire basis upon payment of the charges at the rates and on condition specified in the amended clause enclosed with the W.B.F.No. 2911 (ii), 2911 (i), 2911.

24. Any other departmental Tools and plant and stores if required to be issued for the interest or work, the same may be issued by the Engineer-in-charge at his discretion at rates of hire charges or of such rates which will not be less than the market rates. .

25. Quantities shown in the tender schedule are approximate and also subject to variation as per actual requirement during execution. No claim on account of variation of work for different items or non-execution of items will be entertained.

26. The contractor will have to clear the site after completion of the work as per direction of the Engineer-in-charge of the work for which nothing will be paid extra.

27. All items of work not included in the specification of the tender documents are to be as per specification in vogue of the South Western Circle of the Public Works Department.

28. The terms and conditions Rates for issue of Departmental materials, rates of recovery in cause of excess consumption, allowances etc. which are not included in the tender documents for the work will be as per printed South Western Circle Schedule of rates as mentioned in the Notice Inviting Tender.

29. In case of any discrepancies or ambiguity in stipulation anywhere in the tender forms decision of the Superintending Engineer, is final and binding on all concerned.

30. Time for completion shall be as indicated below.

[Months] from the date of issue of work order, Completion of work also included the final clearance of the site including necessary dressing and leveling after the construction work is completed.

31. All condition laid down here will be effective in addition to those of the W.B.F. No. 2911, 2911(i), 2911(ii), provided they do not mitigate against the condition laid down in the printed form of the specification.

32. The work may be entrusted to one or more contractors if so decided by the accepting authority. Tenderers being bound by the terms and conditions of contract documents as specified which will have to be abide by under all circumstances.

33. All tenderers in which any or the above prescribed conditions is not fulfilled or is not complete in all respects will be rejected summarily without any reasons whatsoever.

34. Canvassing in connections with the tender is strictly prohibited and the tender of the tenderers who report to canvassing will be rejected and such tenders would be 'Black listed' and debarred from the participation in future tender.

35. The acceptance of tender will rest with the Superintending Engineer South Western Circle (P.W.D.) of the concerned Executive Engineer (P.W.D) as the case may be who does not bind himself to accept the lowest tender but reserve to himself the authority to reject in part or in full any or all tenders received without assigning any reason thereof.

36. A tender once submitted shall not be withdrawn within a period of three months from the last day of receipt of tenders. If a tenderer withdraws his tender within this period of three months without giving justifiable reasons for

such withdrawal to the satisfaction of the accepting authority of the tender, he shall render himself liable to be debarred from submitting any tender for works under the Public Works Deptt. for a minimum period of one year. The successful tenderer shall have to start the work within a week from the date of issue of order to commence the work.

37. If the contractor fails to complete the work within the stipulated time as notified due to his negligence, lack of arrangement and control, shortage of labour force etc. makes himself liable to be penalized as per West Bengal Form No. 2911 (i), 2911 (ii), 2911 ; the penalty clause of the contract will be enforced.

38. Not-with-standing what was been laid down in terms and conditions and specification of the work in printed Tender Forms or in terms and conditions etc. attached to the tender papers, the undernoted conditions shall be also binding on the contractors.

(i) Generally for all items of contract work, unskilled laborers shall have to be taken from local source belonging to the district where the work is to be executed. Imported laborers may be engaged with the written prior permission of the Superintending Engineer only when the urgency of otherwise so demands.

(ii) For bridge works highly technical works of framed structure, building, sanitary & plumbing works; Electrical works etc. imported skilled labours up to 30% (thirty percent) of the total requirement may be engaged with prior written approval of the Superintending Engineer concern.

39. This department does not guarantee wagon priority for carriage of stone chips and other building hardware other than these supplied departmentally. The selected agency will have to make its own arrangement of procuring all building hardware required for the project at the sight of work at its cost.

40. This department does not guarantee supply of petrol, diesel and lubricants on priority basis for which the selected agency will have to make its own and prior arrangement at its cost.

41. Supply of water and electricity at the site of work is not ensured. The selected agency will have to make its own arrangement in respect of water and electricity at site at its cost for execution of the work.

42. No escalation of rate within the period of execution of the work is admissible.

43. The following certificates should also be signed by the intending Tenderers while submitting tenders:

I/ We have inspected the site of work and have made me / us full acquainted with the local conditions in and around the site of works. I/ We shall be bound by conditions laid down in the Notice inviting Tender. Special terms and conditions and specifications specific priced Schedule and also Bengal Form No. 2911 (ii) / 2911 (i) / 2911. I / We have gone through the current schedule of rates of the South Western Circle (P.W.D.) and general specification now in force in Public Works Department, Govt. of West Bengal and also the relevant I.S.I. Code of practices and uniformly maintain such progress with the work as may be directed by the Engineer-in-charge to ensure completion of the work within the target date.

Postal Address:

(Signature of Intending Tender)

Signature of the Officer by
whom accepted.

General Specifications and Special Condition (Including Modes of Measurements)

(A) MATERIALS :

All works are to be carried out in accordance with the General Conditions and General Specifications Including the modes of measurements covering the whole Circle Schedule either of Building works, Road works, carriage Materials and Labour or of Plumbing, Sanitary and Drainage in force.

General: All materials to be used in work shall be of approved quality bearing I.S.I. specification mark. When materials with such certificate marks are not available the same are to be got approved by the Engineer-in-charge before use. All materials will conform to I.R.C. specification if not stated otherwise in a particular tender specify.

A-1 BRICKS :- All bricks shall be of approved quality, of standard specifications made of good brick earth, uniform deep red, cherry or colour, thoroughly burnt in kiln without being verified, regular in shape and size, sound, hard homogeneous in texture, true to shape and of standard dimensions and shall be free from cracks, chips flaws, stones or humps of any kind and shall not show appreciable signs of efflorescence either dry or subsequent to soaking in water, the size of bricks shall be $9\frac{3}{4}'' \times 4\frac{3}{4}'' \times 2\frac{3}{4}''$ (conventional) 200x100x100 mm. (modular). The bricks shall emit a clear ringing sound on being struck and have a minimum crushing strength of 135 kg./sq. cm. All the bricks which absorb water more than 20% of their own dry weight after 24 hours immersion in cold water shall be rejected.

A-2 :- COARSE AGGREGATE :-

(i) Stone chips or stone ballast for cement concrete work (plain or re-inforced) shall be hard of uniform and fine texture free from flaws or planes of weakness and free from weathered faces. The ballast or chips must be free from loam, clay or any surface coating free from organic matter or other impurities and screened free of dust. Stone of black and hard variety as is generally available from Quarries in Pakur or Chandil areas will be normally used, stone aggregates from other sources may, also be used provided the same is found suitable in the opinion of the Engineer-in-charge. The ballast or chips shall be obtained by breaking from large blocks and must be more or less cubical in shape.

(ii) Gravel, for use as coarse aggregates in cement concrete work must be hard absolutely free from surface coating and on being broken the fractured surface must indicate a uniform and fine texture free from laminations of planes of weakness. It shall be thoroughly washed and free of all foreign materials.

(iii) Jhama chips for cement concrete work shall be obtained by breaking good quality Jhama bates & must not be spongy or with any coating of foreign materials and homogeneous in texture. The chips shall be of more or less cubical in shape.

(iv) All coarse aggregate for concrete works must be well graded and conform to the relevant I.S.I. specification. These shall be screened for removal of dust and if so necessary in the opinion of the E.I.C. shall be washed at the cost and expense of the contractor.

(v) Size coarse aggregates shall be followed as per Table No. I, II, III & IV under Head of General Specification and Sub-head (A) Materials of Circle Schedule.

(vi) For road works all stone materials should be of required sizes, shape and grading as per specification for such work as per I.R.C. Code, if not specifically stated otherwise. The other physical property of the aggregate such as A.I.V. / Abrasion value, Flakiness Index, Water absorption and soundness value must conform to I.R.C. Specification.

A-3 COARSE AGGREGATE FOR LIME CONCRETE WORKS :

(i) Brick aggregate for lime concrete in foundation or flooring shall consist of approved clean hard and well burnt jhama khoa. The khoa must be graded and unless otherwise specified shall pass through 32mm. ring.

(ii) Bricks aggregate for lime terracing on roof shall consist of khoa broken from 1st class bricks Bats and unless otherwise specified shall pass through 25mm. ring and suitable graded.

A-4 SAND :- All sand shall be clean, sharp and free from clay loam, organic or other any foreign matter and shall be obtained from the approved sources. The contractor shall get the sample of sand to be used in different kinds of work approved by the Engineer-in-charge or his representative before using the same in the work. Sand which in the opinion of the Engineer-in-charge or his representative is dirty must be washed to his satisfaction at the cost and expenses of the contractor.

(i) Sand for all cement concrete to work must be coarse. The sand shall pass through a mesh, 4.75mm. square measured in the clear. Sand shall not be used for concrete works if it contains more than 10% of fine grains passing through a 76 mesh sieve as used for cement test, nor should the fineness modulus be less than 2.00 unless specific permission is obtained from the Engineer-in-charge.

(ii) Medium sand may be used for cement mortar for masonry plaster etc. and also for bituminous works of road. Fineness modulus shall be between 2 to 1.8.

(iii) Sand filling in plinth or foundation where specified may be done with fine sand.

A-5 (i) SURKI : Surki shall be made from well-burnt 1st class brick bats, ground to pass through a mesh 1.5 mm. each way and shall be perfectly clean and free from any foreign matter.

(ii) **LIME :** All lime shall be freshly burnt and slaked and screened before use: Lime for works, including terracing shall be Bisra, Satna or other approved stone lime.

A-6 CEMENT : No cement excepting those supplied by the Deptt. shall be used in the work or brought to the site by the contractor. Cement bags must be stored in a water tight godown as approved by the E.I.C. Any cement damaged by water or otherwise defective must be removed from site immediately.

A-7 STEEL: Mild and Tor steel round bars will be issued departmentally. The contractor's rate shall include labour for cutting the bars to correct lengths, bending cold to correct shape, placing and fixing in position as shown in the drawing with 1.626 mm. wire securely tied at every inter-section. The contractor shall without extra charge, provided all other supports and fixing required and shall take precaution to see that all such temporary fixing are removed, before the concrete is brought up. The contractor's rate shall also include any initial straightening of the bars whenever necessary and removing loose rust or scales, if any and other incidental works in this connections. The contractor shall be paid on the calculated weight of steel reinforcement only actually placed in the structure i.e. The weight of tying wire or of cut-piece of rods not used shall not be considered.

If bars of exact required lengths be not available, these shall be cut from such lengths or available bars as will involve minimum in cut-pieces.

A-8 TIMBER : All timber shall be 1st Class quality well seasoned and free from sap, loose and hard knots, Shakes or other defects.

A-9 GLASS: All glass shall be of approved quality and shall not weight less than 7.4 kg./Sq. m. unless otherwise specified. Putty where used shall be of ready mixed and of approved quality.

A-10 TIMBER, DOORS, WINDOWS, ETC. & FITTINGS:

(i) Doors, windows etc. shall be as per design and direction of Engineer-in-charge.

(ii) All fitting shall be of best quality as stipulated in the circle schedule and must be to the prior approval of the Engineer-in-charge. In case of renewal works, the new fittings shall, as far as possible match with the existing.

A-11 PAINT ETC. : All Paints shall be brought to site in strong containers with the manufacturer's seal intact marked with the colour of the paint, brand, volume of paint content in litres. The paint shall be best quality of approved make and brand as approved by the Engineer-in-charge. Under no circumstances shall the paint be diluted with linseed oil or otherwise. Any paint or enamel although of approved brand, which so hardens in the container that it cannot be readily broken up with a stirrer to a smooth uniform painting consistency, shall be rejected. Any paint or enamel too thick for proper brush application shall be rejected.

The contractor shall produce before the Engineer-in-charge the original cash memo, receipted bill and / or challan for verification of his having purchased the requisite quantity of paint of approved brand and manufacturer. Such documents shall be returned after recording the name of the work on the same, under the dated initials of the Engineer-in-charge.

(B) EXECUTION

GENERAL: All work shall be carried out in proper manner as per I.S.I. or I.R.C. Specification if so directed even if required otherwise in a Tender. Items of works not covered by Circle schedule or tendered estimate shall be carried out as per best practice according to the direction of the Engineer-in-charge and to his satisfaction.

B-1. Excavation of foundation and filling up trenches:

(i) Foundation when excavated to the level indicated in the drawing will be shown to the Engineer-in-charge and if on account of bad Ground or for any reasons whatsoever he decided to go deeper with the foundations, the contractor shall excavate further to the depths required by the Engineer-in-charge. In no case shall the foundation soles or concrete be laid prior to receiving orders to that effect from the Engineer-in-charge or his authorized representative (ii) The excavated areas around the foundations of structures are to be filled up properly to the required level with the earth obtained from excavation or other materials as directed, well rammed with water and consolidated in layers not exceeding 15 cms. at a time. The quantity for this item of work will be measured on the basis of quantity of excavation paid for less the volume occupied by structure in the foundation.

B-2 Lime concrete & Lime Terracing:

(i) Lime concrete in foundation or in the flooring shall be thoroughly mixed in the specified proportion. It shall be thoroughly rammed and consolidated in position and during ramming lime water shall be freely sprinkled on the surface to keep the concrete wet, Lime concrete of considerable thickness shall be laid in layer properly bonded together.

(ii) Lime terracing to roof shall be laid to a fall as per direction of the Engineer-in-charge for proper roof drainage. Payment will be made on the basis of average finished thickness after consolidation.

Lime terracing on roof shall be composed of brick aggregate, surki and best quality approved slaked lime in the specified proportions. The ingredients shall be thoroughly mixed and matured in damp condition to remove all traces of unslaked lime. The mature mixture shall be turned and thoroughly mixed before being laid. During the operation of mixing "khunji" water is to be sprinkled freely and allowed to soak well in. It shall then be bested in the manner as approved by the Engineer-in-charge for at least a week with wooden mallets, till the roof emits a ringing sound.

Lime water must be continually sprinkled on the terracing to keep it wet whilst being beaten. The mortar which comes to the surface of the terracing during the beating shall be rendered smooth and finished off with lime rubbing and afterwards with oil and covered with straw kept wet for at least four weeks.

Ghoondies shall be provided at junctions with parapet etc. and the mouths of rain water pipes shall be properly finished rounded off as per direction.

B-3 CEMENT CONCRETE WORKS (Plain or reinforced)

(i) Shuttering and staging. Whenever necessary shuttering and staging must be provided. Unless otherwise stated, no payment will be made for such shuttering or staging and the cost thereof will be deemed to have been covered by the rate for relevant finished items of works. Where payment for shuttering has been specified the rate shall be deemed to cover the cost of necessary staging as well. Payment, if any, for shuttering will be on the basis of surface area of shuttering in actual contact with concrete.

Shuttering may be of approved dressed timber true to line normally not less than 55 mm. thick. Surface to be in contact with concrete are to be planed smooth except where otherwise stated. As an alternative, sufficiently rigid steel shuttering may be used. In every case the joints of the shuttering are to be such as to prevent the loss of liquid from the concrete. In timber shuttering the joints shall therefore be either tongued or grooved or the joints must be perfectly closed and lined with craft paper or other types of approved materials. In case of steel shuttering also the joints are to be similarly lined. All shuttering and framing must be adequately stayed and braced to the satisfaction of the Engineer-in-charge for properly supporting the concrete during the period of hardening. It shall be so constructed that it may be removed without shock or vibration to the concrete. Before the concrete is placed, the shuttering shall if considered necessary be coated with an approved preparation for preventing the adhesion of the concrete to the moulds and it is to be of such a nature and so applied that the surface of the finished concrete is not stained. Care shall also be taken that such approved preparation shall be kept out of contact with the reinforcement. .

Interior of all mould and boxes must be thoroughly washed out with a hush pipe or otherwise so as to be perfectly clean and free from all extraneous matter previous to the deposition of concrete.

All form work shall be removed without shock or vibration. Before the work is stripped the concrete surface shall be exposed where necessary in order to ascertain that concrete has hardened sufficiently. In normal weather and with ordinary cement, vertical or side shuttering may be removed after 3 days and the bottom shuttering of horizontal members after (14 days in case of slab and 21 days in case of beams, cantilever slab, bridge & culverts slab and other building slabs) from the date of placing the last portion of the concrete in the structure.

The period stated are the minimum and may be extended if felt necessary by the Engineer-in-charge or his representative. Before stripping the suffering of structural members the contractor shall take previous permission of the Engineer-in-charge or his representative.

No. plug, bolts ties hold facts or any other appliances whatsoever for the purpose of supporting the shuttering, are to be fixed in the structure or placed in such way that damage might result to the work in removing the same. when the shuttering is struck off.

ii) Mixing, Plating and Compacting: The proportion specified is by volume in dry condition of the different constituents.

For the purpose of such and every batch of concrete, gauging boxes corresponding to the proper quantities of sand and coarse aggregates must be used. All proportioning must be carried out in such a manner that proportion of one bag of 50 kg. cement being taken as 0.035m^3 and the materials may be easily and readily checked. The aggregates in each batch of concrete are to be so proportioned as to contain full bag of cement.

As the bulking of sand may vary from day to day and at different parts of the day on account of varying moisture content frequent tests bulking shall be carried out with the sand to be used and the amount of bulking allowed for in the field mix so as to keep the actual proportions constant throughout.

Only such quantities as are required for immediate use are to be mixed at any one time. Sufficient water is to be added to obtain proper workability so that the mixture may flow readily round all the reinforcement and into every part of the moulds. The workability shall be measured by the amount of slump. The total water content in each batch of concrete shall always be kept constant at the amount previously determined by experiments.

The quantity of water to be actually added may therefore, vary depending on moisture content in the aggregate. In actual job if the quantities of the ingredients remain constant the amount of slump may be taken as a good

guide indicating the total water contained in the mixture. The consistency and consequently the water contents of the concrete shall therefore be kept constant and checked from time to time as work proceeds by means of standard slump tests. The slump tests shall be carried out with concrete immediately after it has been mixed and before any initial set has commenced, the sample being taken preferably at the point where the concrete is being delivered for placing in the moulds.

The following slumps shall be adopted for different works.

Sl. No.	TYPE OF WORK	When vibrators are used	SLUMP	When vibrators are not used
1.	Mass concrete in foundation footings retaining wall and pavement.	10 to 25 mm.		50 to 75 mm.
2.	Mass concrete in R. C. C. foundation, footings and raining walls.	10 to 25 mm.		80mm.
3.	Beams, Slabs and Columns simply reinforced.	25 to 40 mm.		100 to 125 mm.
C.	Thin R. C. C. Section or Section with congested steel.	40 to 50 mm.		125 to 150 mm.

Strength Requirement of Concrete (in kg. / sq. cm.)

GRADE OF CONCRETE	Compressive Strength of 15 em. cube		
	Works Test at 7 days (Minimum)	Works Test at 28 days (Minimum)	Preliminary Test at 28 days (Minimum)
M100 (1 : 3 : 6)	70	100	135
M150 (1 : 2 : 4)	100	150	200
M 200 (1 : 11/2 : 3)	135	200	260

Concrete shall be handled from the place of mixing to the place of final deposit as rapidly as practicable by Methods which will prevent segregation or loss of the ingredients. It shall be deposited as nearly as practicable in the [mal position to avoid re-handing or flowing. Concrete shall not be dropped freely from any height; placing and dropping of concrete shall be done as per direction of the Engineer-in-charge.

Before placing the concrete, the mould shall be cleaned of shavings by pieces of wood or other rubbish. When placing the concrete finer material must be carefully worked against the mould so that the faces of concrete shall be left perfectly smooth and free from honey-combing upon withdrawal of the moulds. Any defect in this respect must be dealt with by contractor as directed by the Engineer-in-charge without any extra charges therefore.

Depositing concrete under water shall not be allowed without specific permission from the Engineer-in-charge. The methods of concreting to be adopted in such cases shall have to be previously approved by him.

During placing and also immediately after depositing, the concrete shall be thoroughly compacted by ramming, spearing etc. until it has been made to penetrate and fill all the spaces between and around the steel rods, around embedded fixtures and into the comers of form work in such a manner as to ensure a solid mass entirely free from voids. If so directed by the Engineer-in-charge in addition to usual ramming, spearing etc. sufficient number and suitable type of vibrators may have to be used on important job to enable working with a comparatively low water cement ratio and ensure the maximum possible degree of compacting and homogeneity.

It is imperative that the work should be done quickly as well as efficiently and adequate number of hands must therefore be employed to ensure this.

Concrete shall be placed and compacted in its final position before setting has commenced and shall not subsequently be disturbed. Concreting shall be carried out consciously up to construction joints the position and arrangement of which shall be pre-determine by the Engineer-in-charge or his representative. Any test, pauses such as for meals shall also be subject to his approval. All concreting work should so programmed as not to necessitate work at night. If for any reason this becomes imperative, the contractor shall obtain previous permission of the Engineer-in-charge or his representative and make proper lighting arrangements to his satisfaction.

(ii) **Protection and Curing:** The contractor shall adequately protect freshly laid concrete about 1 to 2 hours after its laying, from too rapid drying due to sunshine, drying winds etc. and also from running of surface water and

shocks. After 24 hours of laying of concrete, the surface shall be cured by flooding with water of minimum 25 mm. depth or by covering with wet absorbent materials. The curing shall be done for a minimum period of 10 days. Over the foundation concrete, the masonry work may started after 48 hours of its laying, but the curing of cement concrete shall be continued along with the masonry work for a minimum period of 10 days.

In case of cement concrete used as sub-grade for flooring, the flooring may be commenced within 48 hours of the laying of sub-grade. In case it is not possible to do so due to exigencies of work the top surface of the sub-grade shall be left roughened with still wire brushes without disturbing the concrete subsequently neat cement slurry at the rate of 2.75 kg. of cement per square metre shall be applied to the base before laying floor and this item of work will be paid separately under the express orders of the Engineer-in-charge. The curing is to be contained along with the top layer of flooring for a minimum period of 10 days.

(iv) **Construction Joints :** All joints in slab and other horizontal members are to be formed by inserting vertical boards against which the concrete deposited can be properly rammed. The positions where such joints may be made will be indicated by the Engineer-in-charge or his representative.

In the case of horizontal joint any excess mortar of laitance shall be removed from the surface the concrete is deposited and before it has set,

When the work has to be commenced on a surface which has hardened such surface shall be well roughened and all laitance removed. The surface shall than be swept clean, thoroughly wetted and covered with a thin layer of mortar composed of equal volumes of cement and sand. Such work shall be held to be covered by the rates for concrete.

(v) For major R.C.C. works, concrete specified by strength, should not be Leaner than 1 : 2 : 4 so as to given ultimate crushing strength, not less than M 200 or specified at 28 days cured under field condition. The mix for the concrete is to be adopted and the slump is to be so allowed as to give specified strength and proper workability at the existing site conditions. Contractor shall remain fully responsible for producing concrete of specific strength in the actual job. The contractor will produce at his own cost test specimen of 15 cm. dia and 30 cm. heigh Cylinder or 15 cm. cubes mould (minimum one set of 4 Nos. per day) during work and cure the same in the similar way as for laid concrete for being tested for strength. Each set of test specimen shall be taken to cover the quantity of concrete laid on the job on the specified date and for specified quantity of concrete work.

They must be distinctly and suitable marked so that each can be distinguished separately when test will be conducted on later dates.

After curing the test specimens properly those shall be handed over to the Engineer-in-charge or his representative in properly wrapped up and wet condition. It will than be arranged to have tested at 28 days from the date of casting. If there be any delay for any reason whatsoever the result ofthat test after interpolation from standard curve will be applicable as per rules in each case.

If requested by the contractor, the Engineer-in-charge at his discretion, may be permit the use of 15 cm. cube specimens instead of cylindrical specimen but in that case the ultimate crushing strength indicated by these cube specimens shall always be multiplied by the factor 0.8 to convert the strength into ultimate crushing strength of cylindrical specimens. The strength converted as above shall be taken as the criterion for comparison with the specified strength.

Out of the fours specimens in each set the Engineer-in-charge will arrange to have any two tested departmentally at the Deptt. Test house in wet condition & in case of deficiency in strength and the remaining two for test by the Govt. Test House at Alipur in wet condition. Whose report on reduction by interpolation from standard strength Vs time curve shall be binding on all parties concerned. The test result obtained from the Govt. Test House at Alipur shall be considered. Satisfactory, if (a) the strength of each individual specimen is at least ninety percent of the specified strength and (b) the average of the results of the two specimen is not below the specified strength, both condition being fulfilled, for the purpose of operating this clause the results of the two specimens shall be taken as strength of concrete and the percentage of deficiency calculated accordingly. If however, the test results be unsatisfactory from the point of view of conditions as above but the average of the results of the two specimens be not less than the specified strength then the deficiency in strength shall be taken as "Not exceeding five percent."

In the case of concrete showing on the results the test strength less than those specified, the quantity in cubic metre certified by the Engineer-in-charge as so deficient may be allowed to remain to the case that a deduction for such sums as are or may become due under the contract, not exceeding Rs. 24/- per Cum of the quantity so certified where deficiency does not exceed five percent and Rs. 48/- per Cum of the save quantity where the deficiency

exceed five percent. The Engineer-in-charge shall have full power in his absolute discretion to fix the actual rate of deduction subject only to that rate so fix shall not exceed the maximum as provided above. If the deficiency exceeds ten percent the Engineer-in-charge may at his discretion direct the portion of concrete certified by him as deficient in strength to be removed from the structure and replaced by concrete of specified strength and the contractor shall in that case have to array out that direction at his own cost irrespective of the loss of amount inconvenience/difficulties involved. The contractors shall remain liable under the provision of this clause notwithstanding the signing by the Engineer-in-charge of any certificate of the passing of any bills or accounts. Where testing of concrete is necessary or stipulated necessary extra provision not exceeding 10% should be made for such concretes work over the rates shown in the schedule for arriving at the priced schedule.

B-2. Brick Masonry : Brick work shall consist of first class klin burnt bricks laid in English bond with mortar as specified in the items. Costs involved for cutting brick as required are covered in the rates for relevant items of brick work. No extra will be paid for brick work in projection, offset batter, camphor cut water and band moulding (both horizontal and vertical) and also vertical and tapering lowers generally done near door and window opening.

Sand lime and surki for mortar shall be measured by volume in properly made boxes and cement by bags 0.0335 Cu. m. per 50 kg. bag. The materials shall be thoroughly mixed dry to a even colour and requisite quantity of water added to form a workable mix of proper consistency. Cement mortar shall be mixed in small batches at a rate consistent with the rate of consumption so that no mortar which has been mixed before half an hour is used.

Brick well shall always be carried up regularly in plumb and true to plan and line and level as far as possible along their entire length. The set bricks projections etc. shall be in strict conformity with the drawings. The mortar joints shall be of uniform thickness of 10 mm. with such tolerance as may be considered reasonable by the Engineer-in-charge. All brick work shall be kept thoroughly wet. Bricks are to be well soaked in water before being used and each brick must be thoroughly wet when it is laid. Brick work will be cured by sprinkling water for 7 days after it is laid.

No brick work shall be carried up more than one scaffolding height of about 1.2 m. to 1.5 m. above adjoining walls. The surface of the walls shall be kept clean and joints raked out about 12 mm. deep for pointing or plastering while the mortar is fresh.

B-5. Damp Proof Course : This shall be laid to specified thickness over plinth walls for the full thickness of the superstructure walls. It shall be similar to grey artificial stone. The damp proof course shall be laid continuous and the surface shall be double chequered. The rate of damp proof course includes the cost of supply and labour for mixing of waterproofing compound of approved make @ 5% of the weight of the cement used in damp proof course if not specified otherwise in the manufactures specification or in the corresponding rates of this schedule.

B-6. Cement Plaster : The proportion for mortar for exterior or interior plaster shall be as specified in the item of work.

The plaster shall be of thickness as specified and the surface shall be similarly cured as for cement concrete. The mouldings shall be carried out as shown in the drawings and shall be separately measured in overall lengths unless otherwise specified in the items.

Interior comers and edges of openings if so directed by the Engineer-in-charge shall be rounded off or chamfered with the same mortar, for which no extra payment will be allowed in any case. All cement concrete surface should chiped off properly before taking up the plastering work.

B-7. Artificial Stone Flooring : The artificial stone flooring shall be laid in panels of shape and size as directed. The casting of the panels will be so programmed as to be preventing bonding on the freshly laid panel with adjacent panels.

Unless otherwise specified, the underlay shall be with graded stone chips 12 mm, down. The thickness of topping shall be of 10 mm. thick and coloring pigment as may be required shall only be added with topping.

The topping and the underlay shall not be laid in one operator. After laying the underlay the surface shall be left out to dry. The topping shall be laid only after the underlay has sufficiently dried and initially set and after thoroughly brusing with hard wire brush and sweeping and clean after application of slurry. The topping shall be finished with an English trowel and a piece of clean dry linen. During all the stages, the required level shall be carefully observed and maintained. Suitable girding, where required shall be provided in the flooring for water drainage as directed by the Engineer-in-charge.

The corner between floor and wall shall be rounded off as directed by the Engineer-in-charge for which no separate payment shall be made. All cement concrete surfaces should be chipped off properly before taking up the flooring work.

The surface shall be properly cured as required and directed by the Engineer-in-charge.

B-8 TERRAZZO Flooring (Cast in Situ)- I. S. 2114-1962.

If not otherwise stated in the description of item, the specification followed shall be as below:

- a) (i) The aggregates used in terrazzo topping shall be marble aggregates of required colour. Marble, Powder used in terrazzo topping shall pass through I. S. Sieve No. 30.
- (ii) Aggregates for terrazzo under layer as well as the base concrete shall conform to the requirements of ordinary cement concrete.
- b) Cement used for floor finish work shall be ordinary cement or white cement of approved quality.
- c) Pigments incorporated in terrazzo shall be of approved make & brand and of permanent colour.
- d) The dividing strips may be of copper, brass, aluminum, plastic glass or similar materials metallic dividing strips shall have a protective coating of bitumen. The thickness of strip shall not be less than 1.50 mm. and the width shall not be less than 20 mm.
- e) (i) The base concrete shall be lean cement concrete of mix 1 :5:10 or lime concrete and thickness shall not less than 100 mm.
- (ii) The cushioning layer shall preferable be offline concrete and thickness shall not be less than 75 mm.
- (iii) The under-layer shall be of cement concrete of 1 : 2 : 4 size of coarse aggregate not exceeding 10 mm. The thickness of terrazzo topping shall be not less than the following depending upon the grades and size of chips used.

Grade No.	Size of Chips	Minimum Thickness of Topping
00	1 to 2 mm.	6 mm.
0	2 to 4 mm.	
1	4 to 7 mm.	9 mm.
2	7 to 10 mm.	12 mm.

f) The mix or terrazzo topping shall consist of cement with or without pigment, marble powder, marble aggregates and water. The proportion of cement and marble powder shall be 3 parts of cement and 1 part of powder by WEIGHT. For every part of cement marble powder mix, the proportion of aggregates by VOLUME shall be as follows depending upon the size and grade of marble aggregates :-

Size of Aggregate	Proportion of Aggregates to Binder Mix
For Grades 00.0 and 1	1 ³ / ₄ Parts
2	1 ³ / ₄ Parts

g) The proportion of cement shall be inclusive of any pigments added to cement. The proportion in which pigments are mixed with ordinary cement to white cement or obtain different colour to the binder shall be as specified in the following table :-

Colour	Pigment to be used	Proportion of Pigment	Proportion of Ordinary Portland Cement	Proportion of White Cement
Red	Red Oxide of Iron	1	15 to 20	Nil
Black	Carbon Black	1	25 to 40	—
Pink	Red Oxide	1	Nil	100 to 400
Cream	Yellow Oxide of Iron	1	Nil	100 to 400
Yellow	Yellow Oxide of Iron	1	Nil	25 to 75
Light Green	Green Chromium Oxide	1	Nil	50 to 150
French Gray	—	Nil	1 to 2	1

h) (i) Terrazzo topping shall be laid while the under layer is still plastic but it has hardened sufficiently, normally between 18 to 24 hours. After the laying of the under-layer terrazzo topping may be laid. Before laying cement slurry,

the top of the under bed shall be roughened with wire brush and the loose materials shall be all cleared of the surface. A cement slurry, preferably of the same colour as the topping shall be brushed on the surface immediately before laying is commenced. The terrazzo topping shall be compacted thoroughly by taping or rolling and trowel led smooth, Excessive trawling or rolling in early stages shall be avoided. The compaction shall ensure that air is cleared from the mix.

(ii) The surface shall be left dry for air curing for a duration of 12 to 18 hours and then be cured by allowing water to stand in pools over in for a period of not less than 4 days.

I. Grinding and polishing may be done either by hand or by machine. The first and second grinding shall be done with carborundum stone of Grit size 60 and 80 respectively. After each grinding, the surface shall be washed clean & grouted with net cement grout of the same colour (without marble powder) of clean like consistency and then shall be allowed dry for 24 hours and wet cured for 4 days. The third grinding shall be done with carborundum stone of Grit size 120 to 150 and the surface shall than be washed clean and allowed to dry for 12 hours and wet cured for 4 days. The fourth grinding shall be done with carborundum stone of Grit size 320 to 400 and the surface shall then be washed clean and rubbed hard with left and slightly moistened oxalic acid powder (5 grams of oxalic acid powder) per Sq. m. of floor area shall be adequately and finally the surface shall be washed clean with dilute oxalic acid solution and dried.

B-9. Rain Water Pipes : The rain water pipes shall be of the materials and of the size as specified. All rain water pipes shall have suitable grating as directed at the inlet opening at roof and shall be fitted and fixed in proper position with necessary off sets, clamps, shoes, Y-junctions & other accessories as required and as directed by the Engineer-in-charge. The pipes are to be fixed to wall with necessary clamps and nails, suitable teak wood blocks. being fixed to walls to received the nails, Y-junction shall be used at top of the pipe and the vertical leg thereof shall be provided with a cowl. All joints are to be properly packed. The pipes with fittings etc. are to be painted with 2 coats of anticorrosive paints.

B-10. White Washing, Colour Washing Painting : All surface for white washing, colour washing or painting shall be cleaned and prepared to the satisfaction of the Engineer-in-charge before application of the treatment.

a) White washing : The white washing is to be done with five parts of stone lime and one part of shell lime with necessary gum (2.00 kg. per Cu. m. of lime) and indigo and to be mixed as per standard practice.

b) Colour Washing : Colour Washing shall have a primer of white wash, and shall of shade as approved by the Engineer-in-charge. Sufficient quantity of colour was enough for consumption of the job shall be prepared in one operation to avoid any difference in shades. Procedure and preparation of the surface shall be same as in case of white wash.

Protective measures : Surface of doors, windows, floor, articles of furniture, beams, burghas etc. and such others parts of the building not to be white washed shall be protected from being splashed upon. Such surface shall be cleaned of white or colour was splashes if any.

c) Painting : All surface for painting shall have properly and papered and cleaned where necessary good quality putty shall be used to hide all the wholes cracks, open joints etc. The rate for painting includes such works. Paint shall be applied with approved brushes and surface shall be sand papered after very coat. All work when complete shall present a smooth clean solid and uniform surface, to the satisfaction of the Engineer-in-charge.

The contractor shall produce before the Engineer-in-charge the original cash memo / receipted bill and / or challan for verification of his having purchased the requisite quantity of paint of approved brand and manufacturer, such documents shall be returned after recording the name of the work on the same under the dated initials of the Engineer-in-charge.

B- 11. Earth Work : All earth work in excavation for road embankment are to be executed making the borrow pits well defined and as directed and the witness of these borrow pits shall invariably diagonal unless otherwise directed and should be such that their average height are representative of average depths of the borrow pits. Payment will be made on the basis of volume measurements of the pits after with holding the amount corresponding to 15% of the volume of earth work on account of initial non-removal of witness. The contractor shall have to remove the witness and utilised the spoils in the road embankment as per direction of the concerned Sub-divisional Officer or his representative within 30 (thirty) days from the date of checking of the measurement by the Executive Engineer or a Actual payment of the bill, whichever is earlier and apply for refund of the withheld amount, to the Executive Engineer through the Sub-divisional Officer concerned. On receipt of the certificate from the Sub-divisional Officer concerned to the effect that witness have been removed and spoils utilised by the contractor in the embankments as per his direction, the Executive Engineer will refund the withheld amount to the contractor.

In the contractor fails to remove, partly, or fully, the witness in the manner and within the period as aforesaid double the withheld amount corresponding to the pits involved will be removed from the withheld amount 01 from the security or from any other dues payable to the contractor.

For original work & special repairs however removal of such witness and utilization thereof must not be delayed beyond 15 June of the same year, time for removal being taken to be curtailed accordingly. In cases where under unavoidable circumstances (as may be decided by the Executive Engineer) there is time for such removal of witness without affecting the site condition and witness themselves, no removal will be required to be made to avoid improper utilization of earth retained in the witness. In such cases, no refund of the corresponding withheld amount included in the last bill will be made.

(C) MODE OF MEASUREMENTS

General : Unless specifically mentioned otherwise the following modes of measurements shall be adopted.

C-1. Brick Walls :

a) The thickness of brick wall made one brick laid on edge (with the long side parallel) to the length of the wall shall be measured as 7 cm.) Similarly, a wall made with one brick laid flat (with the long side parallel to the length of the walls) shall be measured as 12.5 cm. One brick thick walls (with the length of brick parallel to the thickness of the walls) shall be measured as 25 cm. One and half brick walls (i.e. one brick along the length and one brick along the width) shall be measured as 37.5 cm. two brick walls measured as 50 cm. and so on. The width of lintels etc. covering the thickness of brick walls shall have to be measured as equal to the corresponding wall thickness.

b) Net measurement of walls be taken after deduction of all opening etc. This applies to 12.5 cm. thick and 7.5 cm. thick wall also. Parapets (upto 1.05 meter height) will be measured along with the brickwork of the floor just below the roof and will be paid for at the same rate.

c) No extra will be paid for curved or chamfered work even though it may necessitate cutting of bricks.

For small curves or chamfers the Engineer-in-charge may at his discretion allow measurement on the square (i.e. without deduction for the quantity removed for forming the small curve or chamfer.)

N.R : Till merit size bricks are available, detailed measurement may be taken until for the further order in I.S.S. system and the quantity converted in the metric unit before application on rate.

C-2. Concrete plain or reinforced : Finished net measurement will be taken after deduction of large holes, rebates etc. but without deduction for the volume of reinforcement if any in the concrete.

C-3 Reinforcement : The measurement will be on the basis of calculated weight of reinforcement only (i. c. without considering the weight of tying wires) actually consumed in the finished work as per drawing and design or as per direction of the Engineer-in-charge. If the length of any rod be more than that shown in the drawing (but has been allowed to be used) the length will be taken on the length shown in the drawing. Hooks and laps, as per standard practice, will be measured and paid for.

C-4 Plaster : For measurement of plaster (exterior or interior) deduction is to be made for door, window or openings of similar dimensions and or allowances is to be made for jambs, sills and soffits. Payment will be made on the basis of surface measurement or wall deduction one third the measurement of such opening and without any separate measurement for jambs sills and soffits. In case of large opening, however, as in the case of verandah with columns payment will be made on actual measurement.

C-5 For cement paint work (such as snowcem, plastic emulsion etc.) to be applied internally or externally or to concrete, the payment will be made on the basis of measurement as indicated in the plaster work.

C-6 White Washing and Colour Washing : Payment will be made on the basis of surface measurement without any deduction for door, window or opening of similar dimensions and without any separate measurement for jambs, sills and soffits of such openings.

C-7 Painting :

a) Measurement for painting work in doors, and windows, grill gratings collapsible gates, corrugated roofing etc. shall be on the flat "Area [and hot girthed].

For grills, grating etc. the "Area represents the area of the opening covered by other frames.

b) The 'Area' measured as above shall be multiplied by the factors as specified in the circle schedule. The work of painting shall be paid on the quantities thus arrived at.

C-8. Metal chips, Boulders, Bats, Sand, Surki Lime, Coal, Carried earth etc. :

a) Unless specifically mentioned otherwise in the description of the item itself measurements for supply and/or carriage shall be taken in stacks as soon as possible after the stacks are made. The height shape and size of the stacks shall be as per direction of the Engineer-in-charge but in no case shall the height of the stacks be less than the minimum as indicated in the circle schedule.

Allowance for sinkage and / or shrinkage shall be made as indicated in the circle schedule. The net quantity shall be arrived at after deducting the allowance from the measurements of fresh stack and payment for supply and / or carriage shall be made on the net quantity thus derived. Quantity of any material shall always indicate such net quantity unless specifically mentioned otherwise. If for any special reason, as per provisions in any particular contract, final measurements have to be taken in wagons before unloading at destination, on deduction, for shrinkage and / or shrinkage shall be made.

b) For carried earth supplied by the contractor the earth is to be first stacked at site for measurement and the earth utilized in work after stacks have been measured up. The items of earth work with such carried earth included the cost of such operations. The net quantity, for the purpose of payments shall be derived after deducting allowance for shrinkage and / or shrinkage as specified in the circle schedule. In special circumstances the Engineer-in-charge may at his sole discretion, taken borrow pit measurements at source for such carried earth in which case no allowance for shrinkage and / o.r shrinkage is to be deducted.

c) For conversion 314 Nos. of full bricks will be taken to produce 1.00 cum. of bats and nets 1.10 cum. of bats of produced net 1.00 cum ofkhoa or metal. Unless specifically mentioned otherwise in any particular contract 1025 kg. of steam coal shall be taken as equivalent to 1.00 cum (when measured in very old and settled stacks or in wagon at destination or after deducting shrinkage and / or shrinkage allowances when measured in fresh stacks). Similarly 1170 kg. of stack coal shall be taken as equivalent to 1.00 cum.

d) For consolidation of stone or jhama metal and similar works involving utilization of materials already measured in stacks the quantity of materials actually consumed in such works will be taken to be same as the recorded quantities (after due allowance for shrinkage and / or shrinkage where applicable of the stack or stacks actually utilized in such works.

e) Serviceable departmental materials obtained by taking out or dismantling existing structure (connected with road / Building or Sanitary and Plumbing works during execution of work shall have to be until sed in course of work for which payment will be made on the equivalent quantity corresponding to the materials so utilized at the labour rate for similar work.

C-9. Carriage : No allowance shall be made for wastage of materials in transit and in re staking at different places, except, when such loss is due to special circumstances which in the opinion of the Engineer-in-charge, are beyond the control of the contractor. For road transport this schedule of rates included item for transport over pucca road where any kutchra road is involved, either in, part or in the full the length of the kutchra portion will be taken as equivalent to pucca portion of length one and halftimes the actual length and the total equivalent distance (of pucca road) calculated accordingly. Payment shall then be made on the basis of rate for transport, corresponding to this equivalent pucca road distance. This method will apply whether the road is fully kutchra or partly pucca and partly kutchra (irrespective of the kutchra portion on the route).

For loading, unloading and stacking payment for carriage by head load involving a lead of more than 30 m. be made only when the Engineer-in-charge is satisfied that the trucks cannot approach nearer.

When in the opinion of the Engineer-in-charge, there are more than one possible route for the road transport (payment shall be made on the basis of cheapest) (not necessarily the shortest) of all possible routes irrespective of the route actually followed.

The quantities on which carriage items shall be paid, will be the net quantities after due allowance for sinkage and / or shrinkage as stipulated under C-8 above.

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Signature of the Officer by whom accepted.

FOR ROAD WORK

All road works are to be carried out in accordance with the conditions, specification, clauses modes of measurement etc. as laid down in the Circle Schedule in force.

1. During execution of the works, contractors will remain responsible for providing facilities or traffic on the road providing diversion road as necessary and lighting and guarding the same during night or its safety while their work is in progress and no extra rate will be paid on this account. Before taking the work in any section, the following arrangements are to be made at the cost of Contractor for the road traffic:

i) One flank of the road shall be kept clear of all obstructions and the surface shall be properly dressed. Where this is not possible, suitable diversion shall be provided for the period at Contractor's own cost unless otherwise provided in the priced Schedule.

ii) Prominent road signs measuring 90 cm. x 67.5 cm. indicating in red letter on a white back ground or black letter on yellow back ground i.e. 'Road up' drive at your risk on one side 'clear' on the other shall be fixed up 90 meter ahead of the site of work. There shall also be notice indicating the diversion if there be any. Other road signs such as "Road Closed" etc. if necessary shall also be provided by the contractor at his own cost for which no extra payment shall be made.

iii) Road barriers shall be placed wherever the existing road surface is disturbed with proper road signs. During night these should be provided with red lights.

iv) Nights guards e.g., Chowkider for watching the barriers etc. shall also be maintained by the contractor to give due warning to persons using the road specifically at nights.

2. Before starting earth-work following preliminaries should be completed for which no extra shall be paid,

i) Letting out centre line, other acquisition line.

ii) Dug belling the centre line, outer acquisition line and inner edge of borrow pits line. Dug belling should be 15 cm. deep 'V shaped out. I

iii) Fixing centre line posts at every 150 meters and at every stangent point and apex of each curve. Every intermediate chainage, the centre line should be marked with strong bamboo post. All chainage should be written on the peg with approved quality paint.

iv) Profile with three Nos. strong bamboo posts in each set and strings should be fixed at every chainage and the actual height of finished formation and also shrinkage allowed should be boldly marked with circulating painted with approved quality paints. In case of height of embankments of more than 2.40 strong sal posts should be used instead of bamboo posts.

The borrow pits should starts from 30 cm. of outer acquisition line and be uniform in depth. All earth should be utilized in making the formation. The side slopes of the pits should be (1 : 1).

The earth for embankment should be thrown in 30 cm. layer to the full width at that particular section and all clods must be broken with wooden rammer. There should be at list one rammer with one labour for every 10 Nos. Kodalies. The earth work is to be done in successive layer of 30 cm. height, till the height including the allowance for shrinkage is reached. The top should be dressed and sides which will be 2 : 1 slopes should also be dressed. After dressing rain bunds at two edges 30 cm. wide and 20 cm. high 1 : 1 slopes should be made and similar cross bunds at every 30 metre should be constructed. In bridge approaches or in stiff grades in the cross bunds should be at every 15 metre instead of 30 metre.

No borrow pits should be dug within 30 m. from the abutment of any road bridge.

The work should started in one section and completed in all respects before any other section is taken up. No measurement of half finished work will be taken and department shall not be responsible if the pits are filled up during the intervening period by rain or other reasons.

Unless otherwise specifically mentioned in the priced schedule or anywhere in contract an item will mean complete item including necessary carriage of materials from roadside dumps covering any distances & cost of all labour and materials.

Land for borrowing earth for supplying 'good earth' should be arranged by the contractor and cost thereof included in his rate for the relevant item.

Works not covered by the specification enumerated above should be done as per specification now in vogue of the Superintending Engineer, Presidency/Eastern Circle Public Works Department as the case may be. If required current Circle Schedule of rates of P. W. (Roads Deptt. may also be followed.)

3. i) Engineer-in-charge or his representative will give alignment and finished levels for the sub grade pegs, String, Jhandies Labour etc. required for laying the alignment and profile will have to be supplied by the contractor free of any charges. The contractor must also supply at their own cost labour and camber board, templates etc. boning rods and spirit levels for setting out and examining from time to tome the gradient and camber for their correctness.

ii) The surface of the existing embankment shall first of all be properly dressed to proper grade by removing any wheel nuts and undulations and picking up existing metal soiling etc. if there be any. After dressing is completed the embankment must be thoroughly rolled with Power or Hand Roller to the satisfaction of the Engineer-in-charge.

4. Box cutting shall be done in any type of soil to proper grade and level and the surface rolled with a Proper roller. If during cutting hair surface of the existing road or other structures are met these should be removed upto desired thickness and no extra shall be paid for this. All depressions found after rolling must be filled up with sandy soil which should be arranged by the contractor for which no extra shall be paid. The surplus earth from box cutting must be evenly spread on the flanks and dressed as directed.

5. Brick soiling shall be laid on the prepared surface as per direction. The bottom layer will be placed longitudinally and the top layer either transversely or diagonally. The top layer should not be laid unless the bottom layer is inspected and passed by the Engineer-in-charge or his representative. Simultaneous laying or double layer shall not be permitted in any case. All interstices in between the joints and top and bottom layer should be filled up with sandy soil after the top layer is passed by the Engineer-in-charge and whole surface will be covered with 12mm. thick sandy soil. If sandy soil is not available locally, the contractor must arrange for the same at his own cost for which no extra payment shall be made.

6. Brick edging should be either brick-on-edge or brick-on-end as specifically mentioned in the appropriate item. In all cases trenches must be properly cut to required depth. If for widening or straightening the existing roads the existing metalled surface is to be cut down no extra payment shall be made in the case. The back sides of edging must be properly packed with earth and rammed at least 60 cm. wide. The level of edging must be made as per finished road surface. Edging should not be laid in advance, and work of laying edging must proceed just ahead of consolidation work. If the lines and level of edging are disturbed by traffic this must be rectified immediately for which no extra shall be paid. If old edging are taken out and relaid then this works should be done as per above specification. Earth necessary for packing should be taken from borrow pits after digging neat shallow drain, if necessary earth should be dugged and stacked before monsoon.

7. No consolidation should be started unless materials for consolidation are finally measured, Loose Jhama or stone metal as the case may be will have to be speared uniformly over the surface to a desired thickness and properly hand packed and then rolled dry with a Power Roller. After initial rolling all low and high spots should be checked with camber board. Straight edge and silk thread and all depressions should be filled up with the new metal and surface rolled to compaction. No binding should be used at this stage. When dry rolling is complete and passed by the representative of Engineer- in-charge wet rolling with copious supply of water should be started and continued until full compaction is made. Consolidation in case of stone metal will be considered as correct if a loaded bullock cart fails to make any impression on the consolidated surface. During the process of consolidation constant check of line and level by camber board straight edge, and silk cord must be done all defects rectified forthwith. Blinding materials if not stated elsewhere @ 12 mm. thick of superficial area previously supplied in regular stacks should by spread uniformly after the metals have been thoroughly interlocked and when it is found that bullock carts moving on the water bound surface do not produce any cracking sound Blinding should only be done after inspection of the water bound surface by the Engineer-in-charge. No blinding should be used without his specific permission to that effect. The surface should then be rolled with sufficient water till all the interstices are filled up. After consolidation is completed the surface should be watered for seven days and rolled. In no case clay soil for adjoining land should be used for blinding.

Water for consolidation will have to be arrange by the Contractor and all cost there of shall be borne by the contractor.

Where edging will not be done before consolidation the edge must be guarded with earthen bunds 60 cm. wide and up to required depth and properly rolled. The earth necessary for making bunds should be borrowed from borrowpits. The cost on account of earthen bunds should be included in the rate for consolidation work and on separate payment shall be made for this purpose.

The item for consolidation always include picking up the old existing surface as required and no extra shall be paid in case of removing the painted slum or worn out painted surface. The old metal from the existing surface should be picked up to the thickness as required and directed by the Engineer-in-charge and used after screening with metal. Payment for handling e.g. picking up screenings & rolling of old material shall not be made separately unless there is separate provisions for such work in the schedule of items of the tender. After completion of work all scattered materials should be collected and stocked as directed by the Engineer-in-charge and the flanks should be dressed for which no extra shall be paid.

All bituminous works and its allied works are to be carried out as per Circle Schedule in force and in accordance with the conditions, specifications procedures etc. laid down therein. The works shall and governed by LS.L/I.R.C. code of practice and as per sound Engineering Practice according to the direction of Engineer-in-charge.

Signature of the Officer by whom accepted

**SPECIAL TERMS & CONDITIONS
FOR
Sanitary & Plumbing Works**

SANITARY & PLUMBING:

1. Inspection Pits-As per specified size 10 em. thick cement concrete (6:3: 1) over one brick flat soiling base in cement brick work (6 : 1) 25 em. thickness with necessary corbelling 12.5 mm. cement plaster (6 : 1) inside and on the outside upto a depth of 15 em. below G. L. including rounding junctions and comers and funning inverts for connection with sewers properly bunched at the inverts to prent lodgment of sewage and provided with heavy cast iron (not less than I Cwt.) sealed manhole cover or R.C. manhole cover. The seal shall have to be filled with grease before the top cover placed in position. The cement to be used in plastering shall be admixture with 5% water proofing compound like Cico or Pudio if necessary and as directed C. I. footsteps will be provided 30 em. apart vertically where necessary.

2. Flushing Cistern of I.P.W. and E.P.W.C. will be shanks patent 12.50 litre pull and let go or low down Cristian type. The flush pipes for W.Cs will be 45 mm.132 mm. dia. internally telescope type with union and clamps, flush pipes for urinal shall be made of G.I. pipes and fittings or lead pipes as may be directed by the Engineer-in-charge.

Flushing cistern of urinals shall be shanks patent up to flushing cistern of specified capacity with prompt valve. All flush pipes and cisterns in hardware shall have to be painted 2 coats of paint of any, shade and brand over a coat of approved primer. The inlets of sanitary fittings and equipment shall have to be connected with the adjacent distribution line (water supply with requisite length and size of P. V. C. connection pipe provided with necessary unions at both ends complete with plumbers wiped out joints within the quoted rates of respective items. Cost of this connection pipe will be paid for separately.

3. Painting-All pipes and fittings shall have to be painted outside with to coats of paint of approved brand and shade.

4. Rectification of damages Holes through walls floors chajia, sunshades etc. should be made just sufficient and not more than larger than outside dia. of pipes. These should be filled up with (4:2: 1) cement concrete with trap stone chips after laying the concrete the same should be properly cured. After curing the damaged parts should then be fully restored to the original condition and fully matched with surface in contact. Cost of such works are to be included in the rates quoted for relevant item~ '

5. All G. I. Fittings must be I. S. S. make.

6. Brass and G. M. Fittings. All brass or G. M. Cast iron fitting must be I. S. S. make.

7. G. I. Fitting-All G. I. Fittings shall be of wrought Iron must be I. S. S. make.

8. Samples-Samples of all goods to be supplied by the contractors and used in the work shall have to be got approved by the Engineer-in-charge of work prior to being fitted and fixed.

9. The successful tenderers shall have to arrange for their own source of energy for running the pumping set at all stages of execution of work. No facilities of any sort will be provided for utilization of the departmental sources of energy at site of work. Arrangement for obtaining water for the work should also be made by the contractor at his own cost.

10. The contractor will have to arrange for tasting the water (finally obtained) as to whether the water is fit for human use from an authorized concern and submit the original test report to the Engineer-in-charge. No Extra payment on this account will be made to the contractor.

11. Soil pipe and fittings- All soil pipe and vent pipes from W. Cs. will be make conforming to I.S.S. The soil fittings will be 6 mm. thick metal of same make. All the pipes will be fitted against walls or floors with 25 mm. cast iron bobbins and nail driven into papered teak wood blocks fitted in cement mortar (2 : 1). The joints will be made with Molten lead fitting in half of the depth of the sockets and finished with chalking. The remaining half of the depth of sockets between the lead and bottoms of lunge will be filled up with spun yarn packed as hard as possible.

12. Anti-syphonage pipes and fitting- When two or more W. Cs are concerned with the same soil stack, anti-sponge pipes are to be provided. These shall be H. C. I. pipes of 7 cm. internal dia. The joints of anti sponge pipes will be lead caulked upto half of the depth of the sockets of all H.C.I. pipes. Plumbers wiped out joints are to be made in case of lead pipes. H.C.I. pipes and fittings shall be of metal of slandered thickness

and make conforming to L.S.S. having respective metal thickness as specified.

13. Waste pipe and fittings-The waste pipes will be made of either H. C. or G. L pipes or lead pipes as specified. The H. C. L pipes shall be of slanted thickness and make conforming of L.S.S. the fittings shall be of the same and not less than 6 mm. in thickness. And outlets from floor will be provided with floor traps having extension pipes with best quality and type of gratings as may be necessary. The joints will be lead caulked type of joints as mentioned in case of soil and anti-syphonage pipes.

14. Underground sewers-The stone ware pipes in sewers will be glazed both-inside and outside of conforming to I. S. S. The sewers will be 10 cm. dia as may be necessary laid over a base of 15 cm. thick cement concrete (1: 3 :6) with jhama chiefs (as directed) and embedded in concrete as hunch back type and joined in tarred gasket and cement mortar (3 : 1). The sewers will have to be laid to proper gradient as may be necessary and directed by the Engineer-in-charge of the works. The rates should be inclusive of excavation of sewers trenches, shoring and bailing out water as may be necessary, cement concrete and filling up the trenches in layers of 15 cm. well rammed after the sewers are laid for restoration of surface to original condition. Sewers forming the foundation of the building will be of standard thickness (specified by the Engineer-in-charge) H. C. L pipe of E. 1. C. make as necessary and laid as per specification with lead caulked joints and cement concrete as specified above in the case of stone ware pipes but will have a minimum cover of 7.5 cm. of cement concrete.

SPECIAL SPECIFICATION FOR SINKING OF A TUBEWELL

1. Site-The tube well shall be sunk at the site selected by the Engineer-in-charge. The site should be cleared of all removal materials that may obstruct the execution of work and the site should get cleared after the work is completed in all respects.

2. Casing pipes-Steel pipes shall be provided by the contractor at his own cost. No separate payment shall be allowed for sinking the casing pipes and withdrawing them at the completion of the work.

3. Pipes for the tube well-All pipes that will be used in the tube well excluding the strainers shall be galvanized. They shall be of the specified dia. approved make and quality. Pipes at each of their ends shall be threaded properly. No separate payments shall be allowed for cutting pipes to required length and cutting threads.

4. Strainers-Strainers shall be of the specified dia, and of approved make the quality required number of strainers shall be fitted to the tube wells pipes with necessary fittings and placed at the position as a directed.

5. Joint-Galvanized sockets shall be used at all joints. They shall fit well and tightly with the threaded portion of the pipes, before making any joint the threaded portion of the pipe and the inside of the socket shall be made dry and given a through coat of red lead paint.

No separate payment shall allowed for the cost of sockets and making the joint except for the reducing sockets which will be paid extra as per item in the bill of quantities.

6. Boring — (i) Boring shall be done by the system specified and shall continue to such a depth as may be directed.

Boring tube well shall always have to be done by the contractor's pipes. Care should be taken to ensure that the boring is being done vertically and the casing pipes are perfect in plumb.

(ii) Sample of sand shall be collected for each type of stratum that will be met during boring. They shall be kept in approved type of containers. This container shall be leveled showing the position and depth of the stratum from which the sample of sand is obtained. They shall then be submitted to the Engineer-in-charge for his reference and decision as regard depth to which the tube well is to be sunk. No separate payment shall be allowed for the collection of sample of sand.

(iii) Contractor shall obtain samples of water for chemical analysis at the depth as required by the Engineer-in-charge. In order to obtain the sample, he shall sink pipes and strainers inside the boring and provide pumping arrangements, sufficient pumping not less than 8 hours, shall be done before obtaining samples so that representative samples obtained in every case. Samples shall be collected in approved containers.

Collection of samples of water shall be paid as per tender. Pipes, pump, strainer, necessary fitting and containers required for this purpose shall be provided by contractor at his own expense.

7. Lowering of tube well pipes including strainers. Tube well pipes etc. shall be lowered after boring to the required

depth is completed. When casing pipes are used lowering of the pipes shall be awaited till the samples of water are tested and final decision is made as regard to the position of the strainers inside the casing pipe. Tube well shall be made of such depth as required by the Engineer-in-charge irrespective of the depth of borrowing.

8. Pumping to so yield. After the operation as stated in the foregoing articles is completed pumping shall be done for the period as directed and yield shall be determined from time to time. The rate of pumping shall however be controlled so that the critical velocity of the inflow of the water is not reached.

9. Pumping for making the water bacteriological satisfactory. After the tube well is sunk in position pumping shall be carried out and continued till the yield becomes bacteriological satisfactory. In order to determine that the yield has been bacteriological satisfactory, samples of water shall be obtained and tested as directed by the Engineer-in-charge. Charge of testing will have to be borne by the contractor.

10. Rate — The contract rates of all items shall include cost of labour and providing necessary tools and appliances.

11. Method of Measurement — For boring, the actual depth done below ground level shall be allowed. For items of pipes, the total depth of the tube well minus the total length of the strainer pieces shall be measured.

12. The tube well should be truly vertical-Necessary testing should be done by the contractor at his own cost.

13. Sand Trap for tube well shall be of same dia, of the tube well pipe and length to be provided shall be as per direction.

*Signature of the Officer
by whom accepted.*