



# **EASTERN COALFIELDS LIMITED**

(A Subsidiary of Coal India Limited )

SANCTORIA, PO: DISHERGARH,

DIST: BURDWAN(W.B.) - 713333

TENDER DOCUMENT NO \_\_\_\_\_73+06 Pages

Name of Work: **Making Manhole side wall with Joist support at 368.57 m parallel drift of Main Incline.**

NIT No : **GM/JNR/Civil/11-12/ 1376**\_\_\_\_\_

Dt. **07.02.2012** (SI.No.1)

Place of Work : **MIC,Jhanjra Project Colliery of JHNAJRA AREA**

Date & Time of Submission of Tender : UP TO 12.30 PM On **27.02.2012**\_\_\_\_\_

Date & Time of Opening of Tender : AT **3.30 PM** On **27.02.2012** **(only Part-I)**\_\_\_\_\_

Date of Issue of Tender Document : **17.02.2012 to 24.02.2012**\_\_\_\_\_

Cost of Tender Document : (1) Rs. **568/-** (Non-Refundable)\_\_\_\_\_

Remitted vide C. R. / D. D. No. : \_\_\_\_\_, Dt.: \_\_\_\_\_

Issued To (NAME & address of the tenderer) : \_\_\_\_\_

\_\_\_\_\_

Area Engineer (Civil)  
Jhanjra Area

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**Office of the General Manager**  
**JHANJRA PROJECT**  
P. O. : JHANJRA (B. O. ) – 713363  
DIST : BURDWAN ( W. B. )  
**EASTERN COALFIELDS LIMITED.**  
Office of the CGM / GM, JHANJRA PROJECT

TO BE FILLED UP BY THE TENDERER.

TENDER NOTICE NO: \_\_\_\_\_, Dt: \_\_\_\_\_, SI No.: \_\_\_\_\_

1. Name of the Tenderer : \_\_\_\_\_  
\_\_\_\_\_
2. Whether individual proprietorship/ partnership  
or Limited Company. : \_\_\_\_\_
3. Postal address of the Company/ proprietors  
together with Telephone No. etc.: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. In respect of proprietorship/ partnership/ limited  
Company, the name of the proprietor/ partner/  
Directors together with their address. :
5. List of other Firms/ partnership doing business  
in ECL whether in the above firm partners/  
Directors. :
6. Whether proprietors/ partners/ Directors are  
connected with any employee working in ECL,  
if so, the details of the employee designation  
and place of working etc. :
7. Any contract being carried on in ECL by the  
above firm/ proprietor/ partnership/ limited com-  
pany in this own name and if so, the details  
of the contract being executed. :
8. Details of sales tax registration number / VAT if any :
9. Whether the tenderer is an Income Tax assesses & if so,  
the year up to which the last assessment

year been Made : \_\_\_\_\_

**PAN NO.** : \_\_\_\_\_

**10. FINANCIAL STATUS :**

Latest assessment order of Contractor's  
account from Income Tax department. :

Latest Balance sheet audited by a chartered  
Accountant. :

**11. PAST EXPERIENCE :** (With special reference to work done in CIL & its  
subsidiaries)

**SPL. Attention:** Tenderers are to strictly fill up the full and complete  
information as asked for here under directly on this sheet along with  
specific documentary evidence.

(a) **Details of similar nature of works executed in the last 07 years (Ending on  
31-01-2012 \_\_\_\_\_) : [ Ref. Clause \_\_\_\_\_ of the NIT ]**

Sl No	Name of work with work order No. & Amount with brief description	Organizati on for which work executed	Work Execution		Phot ocop y of work order	Photo copy of Certificate from the authority who issued the work order showing the amount of work executed with its period of execution
			Period	Amount of work done		
1	2	3	4	5	6	7

**11 (b). Details of all CIVIL works executed & payments received during last  
3(three) financial years (ending on 31/ 03/ 2011\_\_\_\_) :**

**SPL. Attention:** Tenderers are to strictly fill up the full and complete information as  
asked for here under directly on this sheet along with specific documentary  
evidence.

**[ Refer Clause \_\_\_\_\_ of the NIT ]**

Sl No	Name of work with work order reference & brief	Organisat ion for	Amount / Payment received during the	Photocopy of certificate issued
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1	2	3	year.		6
			Year	Amount	

**11 (c ). Year-wise details quantity of work done during past 07 (seven) years (ending on \_31-01-2012\_\_\_\_\_ ) :**

**SPL. Attention:** Tenderers are to strictly fill up the full and complete information as asked for here under directly on this sheet along with specific documentary evidence.

**[ Refer Clause \_\_\_\_\_ of the NIT ]**

SI No	Name of work with work order reference & brief description & value of work	Organisation for which work executed / being	Quantity of the work executed in a year (Item Wise)	Photocopy of certificate issued by W. O. issuing authority

		executed			indicating the details of colmn. 2 to 5.
			Year	Quantity	
1	2	3	4	5	6

**11 (d). Details of deployment of key equipment for the work :**

[ Ref: Clause No. \_\_\_\_\_ of the NIT.]

Tenderer shall fill up the following format according to his/ their programme of deployment of key equipment.

Sl No	Description of key equipment	Capacity	Year of manufacture & make	Present working condition / Output	Nos to be deployed	STATUS	
						Owned	Hired / Leased
1	2	3	4	5	6	7 (a)	7 (b)

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**12. List of Technical personnel available**

With the contractor with their qualification. :

**13. List of construction equipment**

available with the contractor. : \_\_\_\_\_

**14. Details of registration/enlistment No.**

with Govt./Semi Govt. Organisation: \_\_\_\_\_

**15. Earnest Money**

(a) Deposit of earnest money : Amount – Rs.: \_\_\_\_\_

Cash Receipt No. & Date / Draft No. & Date / Bank Guarantee : \_\_\_\_\_

Drawn On : \_\_\_\_\_

**16. Cost of Tender Document (Application Fee) if downloaded from Web Site :**

Bank Draft No & Date : \_\_\_\_\_

Amount : Rs. \_\_\_\_\_

Drawn On : \_\_\_\_\_

Whether Under taking enclosed with the cost of the tender document  
\_\_\_\_\_

**NOTE :** The bank draft towards the cost of tender documents (Application fee) & the **undertaking of the tenderer** shall be submitted in a separate envelope marked “**COST OF TENDER DOCUMENT AND THE UNDERTAKING “ & not with the Part – I / EMD.**

**17. Details of Bank account & code No. & Branch of Bank:**

\_\_\_\_\_  
\_\_\_\_\_

**18.** If registered with the company, quote registration no.: \_\_\_\_\_

**19. Whether the bidders has been BANNED or DELISTED by any Govt. / Quasi Govt. Agencies or PSUs. With details :** \_\_\_\_\_  
\_\_\_\_\_

**20.** Acceptance by the Tenderer of the General Terms & conditions, special notes & terms & conditions & other stipulations as per the tender document (attached signed copies).

**Note: - (I)** Separate sheets may be attached to furnish the details, if necessary.

**(ii)** Tenderer is to sign with seal in all pages / places of the entire tender document (Part-I & Part – II ) including enclosures / documents to be submitted by the tenderer.

**(iii)** In case of tender signed by an authorized representative of the tenderer **POWER OF ATTORNEY** (Legally Valid) should be submitted along with the Part – I offer of the tender.

**Signature of the Tenderer with Seal**

## **IMPORTANT NOTE.**

1. Tenderers are requested to furnish the full and complete information as required under Sl. Nos. 11 (a), (b), (c ) & (d) of above in the respective columns directly on the format attached for the purpose.

In case of inadequate space in the particular column, the relevant information should be furnished in the separate enclosure in the same manner as specified stating the column no. on top of the sheet in tabulated fashion year wise as per Performa.

Photocopies of documents/credentials as asked for under Sl. Nos. 11 (a), (b), (c ) & (d) of Part-I (Above) should be neat and legible & duly signed.

2. Qualifications/eligibility of tenderer for opening the Part-II of tender should be clearly established in clause Sl. Nos. 11 (a), (b), (c ) & (d) of Part-I(Above) itself with documentary proofs as desired in the NIT.

3. Tenders of those tenderers not complying the above guidelines are liable for summary rejection.

**EASTERN COALFIELDS LIMITED**

(A Subsidiary of Coal India Limited)

Office of the General Manager, Jhanjra Area

PO: Jhanjra (BO) – 713385, Dist: Burdwan (WB)

Ref:- GM/JNR/Civil/11-12/ 1376

**Dated: 07.02.2012**

**NOTICE INVITING TENDER**

Sealed tenders in two parts (Part-1 & Part-II) are invited on percentage basis from reputed, bonafied, competent and resourceful contractors having required qualification and suitable experience in work of similar nature in Govt./Semi Govt. or Public Sector/Joint Sector Enterprise (Managed jointly by Govt.and private sector) for the following job at Jhanjra Area.

Sl No.	Name and place of work	Estimated cost (Rs.)	Earnest Money (Rs.)	Application Fee including VAT 13.5% Non Refundable ) (Rs.)	Period of Completion
1	<b>Making Manhole ,side wall with Joist support at 368.57 M Parallel Drift of Main Incline at MIC,Jhanjra Project Colliery.</b>	<b>Rs.16,70,343.00</b>	<b>16700/-</b>	<b>568/-</b>	<b>6(six) months</b>

1. (a) **Issue of Tender Documents : Begins 17.02.2012 & Closes on 24.02.2012** (Issue /Sale up to 12.30 P.M. on working days except on Sunday and holidays).

(b) Tender papers may be **obtained ( 1)from the Office of the GM, Jhanjra Area (Civil Engg. Dept.)**, PO:- Jhanjra (BO), Dist:- Burdwan (WB).

Tender documents will be displayed through web site **from 17.02.2012 to 24.02.2012** Tender Documents can also be downloaded from, Web Sites **www.easterncoal.gov.in** or **WWW.tenders.gov.in** for participation in the Tender process. Cost of Tender document shall be paid in cash, which is non-refundable. In case of tender document obtained by downloading from the Web site, cost of the Tender document shall have to be deposited by the Tenderers in the form of 'Demand Draft' at the time of submission of the Tender along with the **EMD**. Tenderers shall be solely responsible for the correctness of the downloaded tender document. Submission of incomplete downloaded tender document will be rejected. No Tender Documents will be issued or received by Post

2. **Date & Time of Submission of Tender : On 27.02..2012** from 9:30 A. M. to 12:30 P. M. at the office of the CGM-Jhanjra Area (Civil Engg. Dept). :

**3.Date & Time of Opening of Tender (Part-1) : On 27.02.2012 at 03.30 P.M.(Part-I)** at the Office of the CGM-Jhanjra Area. If the office happens to be closed on the date of opening of the tender as specified, the tenders will be opened on the next working day at the same time & venue.

4. Tenderers are required to deposit the requisite amount of Earnest Money as indicated against the work in the form of Demand Draft drawn in favour of **“EASTERN COALFIELDS LIMITED, Jhanjra Project”**, on any nationalized Bank payable at Asansol preferably on State Bank Of India. and the same should be submitted in a separate sealed cover super scribed **“EARNEST MONEY”**. No tender shall be considered unless accompany by the required Earnest Money & tender document cost in case of Tenderers who will download tender document from Web Site for submitting their offer. **The tenderer can also make deposit of Earnest Money/Initial security deposit by way of direct deposit in the current account maintained by Finance Department of Jhanjra Area with SBI, Laudoha, after obtaining Challan from Cash department of Jhanjra Area after following requisite departmental formalities.**

5. Tenders will be received in two parts i.e. Part-1 & Part-II each in separate sealed covers besides the third cover containing **“Earnest Money”**, super scribing the name of the work and the part of tender paper it contains. Part-1 shall contain the updated VAT/Sales Tax (current validity), I.T. PAN No., documents in support of fulfillment of eligibility criteria, status of the Firm showing type of formation (Proprietor, Partnership, limited Company/any other type) Audited balance sheet, the commercial & technical conditions etc. and Part-II shall contain price bid only. All the three covers of **Part-1, Part-II & Earnest Money** are to be put under **another cover** duly sealed while submitting the tender super-scribing on it the NIT no, name of work, name & address of the tenderers and clearly mentioning that this sealed cover contains Part-1, Part-II & Earnest Money cover for the particular work.

The bank draft towards the cost of tender documents (Application Fee) & the undertaking of the tendered as given in the Tender Document shall be submitted **in a separate envelope marked “Cost of Tender Documents & The Undertaking” & not with Part – I / EMD**

#### **6. Eligibility Criteria:**

(a) The intending tenderer must have in its name as a prime contractor Experience of having successfully completed similar works during last 07 years ending on **31.01.2012** should be either of the following:

(i) Three similar completed works each costing not less than 40% of the respective estimated cost.

**OR**

i. Two similar completed works each costing not less than 50% of the respective estimated cost.

**OR**

ii. One similar completed work costing not less than 80% of the respective estimated cost.

**Similar nature of works means:- Civil work.**

Average annual financial turn over of Civil Engg. works during last 03 years ending on 31<sup>st</sup> March 2011 should be at least 30% of the respective cost..

7). The intending tenderer must submit documentary evidence in support of 6(a) & (b) above in the form of certified copy of work order, completion certificate, payment certificate / Voucher indicating the period of work for which payment has been made

8). In addition the intending tenderer has to submit certified copy of the following documents:-

- i) **VAT Registration**
- ii) **Professional Tax**

- iii) **Income Tax PAN (Permanent Account No)**
- iv) **Audited Balance Sheet, if required.**
- v) **Status details of the firm in the form of Affidavit in case of Individual/ copy of Partnership deed in case of Partnership deed/ and Memorandum of Association and Article of Association in case of limited Company (if any**
- vi) **Declaration for not banning/delisting by any Govt/Quasi Govt agencies or PSUs with details.**

vii).Every tenderer will have to submit a declaration in support of the authenticity of the credential / certificates / documents submitted by him / them in the form of an affidavit in non-judicial stamp paper as per the enclosed format provided in the tender document duly authenticated by Notary Public.

**Other eligibility criteria and details required to be submitted with the Tender shall be available in the Tender Document.**

Earnest money etc. shall qualify for opening of Part-II of the tender i.e.(**Price Bid**). All such documents shall be attested and authenticated before submission and original shall be produced for verification as & when required. **Mere issuance of tender paper will not make a party eligible for opening of Part – II tender.** The date of opening of Part-II shall be notified separately only to the qualified bidders of part-1.

9.The validity period of the tenders shall be 4(four) months from the date of opening of price bid or revised price bid, if any. Other details may be obtained from the tender document.

10. The Contractor who are not having PF/EPF **Code No./ Registration No.**, in the event of being **awardee /recipient of the Contract**, the said contractor, on receipt of **Work-Order**, has to apply to respective PF Commissioner for obtaining **PF /EPF Code No.** and shall have to ensure implementation of Employees Provident Fund & Misc.provision Act,1952(EPF Act & schemes framed thereunder under section 6 of the Act and Para 30(3) of the EPF Scheme 1952. and allied schemes framed thereunder in respect of contractors workers deployed by him /them and **will have to recover statutory dues and deposit the same along with employer's contributions (contractor' share) to the respective PF Office** and to submit statutory returns under intimation to the principal employer.

**OR**

Those tenderers who are registered under EPF Scheme and their employees covered under the said scheme may continue to operate under EPF Scheme. They should furnish such proof.

11.ECL would not be liable for any compensation due to stoppage/change in scope of work due to local disturbance, change in Govt. policy, law and any order of judiciary, obstruction or delay by any out side elements/agency.

12. ).The bidder should furnish complete Bank details mentioning Bank A/c No, Name of Bank, & Name of Branch with postal address of the Bank & IFSC & MICR No of 09(nine) digit.

13.The tenderers should visit the site of work before offering their tenders. Others details are available in the tender documents.

14.The contractor has to ensure supervision of work under execution by a qualified supervisor ..

15. **The Contractor** shall pay minimum wages in the midway between the minimum prescribed by the Govt under the **minimum wages Act 1948**(II of 1948)as well as medical facilities on the Colliery dispensary on payment. Payment of wages to the contract workers are to be made only through **Bank** by the contractor. The contractor should get the account opened by the workers engaged by him/them. The Contractor shall prepare wages sheet for his/their employees in triplicate, copy of which shall be regularly submitted to the Personnel Deptt and a copy to this office.. The responsibility of the contractor in respect of all payment to his/their employees will be complete & absolute. The Company (ECL) shall have no liability whatsoever in regard and shall be fully indemnified by the contractor against any claim arising of any non-payment short-payment/dispute/award.

16.The Contractor has to issue Identity Card to the workers engaged by them/him with photograph duly attested by him which the employee shall carry with while on work and produce for inspection whenever required

17.The contractors should make arrangement of the Initial Medical Examination of the workman before they are engaged for any mines jobs in the Colliery Hospital. The charges for the same shall be recovered from their bills.

18.The contractors should ensure deployment only vocationally trained workmen before they are engaged in any mines jobs .

19 .No document will be received /considered by the Tender Committee for the purpose of evaluation of the tender after scheduled date & time of dropping of the tender. No further correspondence will be made regarding any lacking document neither any further opportunity will be provided for submission of the document(s)after the deadline. However, clarification, if necessary may be asked by the Management.

20..No conditional tender will be accepted

21..All others will be as per Tender Document.

ECL, Jhanjra Area reserves the right to accept or reject any or all the tenders without assigning any reasons whatsoever.

Area Engineer ( civil )  
**Jhanjra Area**

**Distribution**

1.D (T) P&P/D(T)OP/D(F)/D(P)-ECL, Sanctoria

2.CVO- ECL, Sanctoria.

3.G.M.(Civ. & Env.)/G.M.(SC) - ECL, Sanctoria

4.All CGM/GMs of the Areas of ECL.

5.AGM - Jhanjra Area

6.Area Finance Manager, Jhanjra area./ Cashier, Jhanjra Area

7.Agent, Jhanjra Project Colliery

8.All Area Engineer (Civ)/ECL

9.PRO/ECL, Sanctoria-with a request to arrange to post in Website as per company's policy as well publication in news papers.

10..Area Security Officer, Jhanjra area for needful action during submission/opening of the tender.

11.T.C.Members. a)Area Finance Manager(b)Area Engr(E&M)(c)Area Engr(Civil), Jhanjra Area.

12,Chamber of commerce, Asansol/Raniganj

13.President,Coal&Steel Chamber o f commerce&Industies,PO Ukhra,Dist.Burdwan(WB)

**14.Notice Board of Jhanjra Area/All units of Jhanjra Area**

## DETAILED TENDER NOTICE

1. Sealed tenders in prescribed forms and parts with the name of works super scribed as **Making Manhole side wall with Joist support at 368.57 m parallel drift of Main Incline at MIC,Jhanjra Project Colliery.** Tender Notice No.**GM/JNR/Civil/11-12/1376 Dt.07.02.2012 (SL.No.1)**on each of the envelope are invited from bonafide and experienced contractors and will be received at Office of the General Manager,Jhanjra Area,PO Jhanjra(BO)Dist,Burdwan(WB) as mentioned in the Notice Inviting Tender(NIT)upto 12.30 p.m.on **27.02.2012**.All tenders(Part-I) as per NIT,will be opened at 3..30 p.m.on **27.02.2012 in the presence of the attending tenderers or their authorized representative** in case where the tender is in two parts only Part-I will be opened on the above day and time.

2. (a) Tenders should be submitted in the prescribed form in time. These forms together with the proposed contract document including specifications and tender drawings (if available) may be obtained either from **(i)** During normal working hours (as notified in the NIT) on payment of **Rs 568/-** (non refundable) (Rupees \_Two hundred eighty two only application Fee for each set, from the office of **(1)GM,Jhanjra,PO Jhanjra(BO)Burdwan**.. The payment may be made either **in cash or by Bank Draft** drawn in favour of “ **EASTERN COALFIELDS LIMITED, JHANJRA PROJECT**” on any nationalized Bank preferably at State Bank of India Bank payable at ASANSOL. General specification and description of work is enclosed with the tender document.

**Or (ii)** Tender documents can also be **downloaded** from our **Web sites www.easterncoal.gov.in & from website of NIC www.tenders.gov.in** for participation in the tender process.

**(ii) (1)** The company shall not be responsible for any delay / difficulties / inaccessibility of the downloading facility for any reason whatsoever. The downloading facility shall be available during the period of sale of tender paper.

**(ii) (2)** The bidders, who will download the tender documents from the website of the company, will be required to pay the cost of tender documents (Application Fee) by “Bank Draft” as per the NIT at the time of submission of tenders.

**(ii) (3)** The bidders will be required to **submit an undertaking/Affidavit** that they will accept the tender documents as available in the website & their tender shall be rejected if any tampering in the tender document is found to be done at the time of opening of tender.

**(ii) (4)** The bank draft towards the cost of tender documents (Application Fee) & the undertaking of the tenderer as above shall be submitted **in a separate envelope marked “Cost of Tender Documents & The Undertaking” & not with Part – I / EMD.**

**(ii) (5)** In case of any discrepancy between the tender documents downloaded from the website & the master copy available in the office, the latter shall prevail & will be binding on the tenderer. No claim on this account will be entertained.

2. (b) Any Bids received after the deadline prescribed at Clause 1 above due to any reasons whatsoever will not be accepted.

In the event of the specified date for the submission of Bids being declared a holiday by the employer, the bids will be received up to the appointed time on the next working day.

**2. (c )** Tenders thus submitted shall consist of the following:

- i. Complete set of tender documents as sold, duly filled in and signed on all pages and at different places as required of the tender documents including Part-I & Part-II of the tenders as per tender notice as applicable..
- ii. Sales tax clearance certificate copy attested by an Gazette Officer of the Govt.(Central or State).
- iii. PAN (Permanent I. Tax Account Number ).
- iv. Earnest Money deposit (as specified hereafter).
- v. Power of Attorney in the case the tender is signed by an authorized representative of the tenderer.
- vi. Full name and address of the tenderer shall be written on the bottom left hand corner of the sealed cover

**2.(d)** The tender document in which the tender is submitted by the tenderer shall become the property of the Company and the Company shall have no obligation to return the same to the tenderer.

**2.(e)** The tender shall be submitted,

**EITHER**

\* in two Envelope system with the first envelope containing credentials (Duly authenticated by the bidder) in support of his qualifications in accordance with the eligibility criteria along with the EMD in a separate envelope & the second envelope containing the duly filled in Tender Document superscribing Envelope I, II & EMD on the cover

**OR**

\* in two parts as indicated in the Notice inviting Tenders. Part - I shall consist of any deviations from terms & conditions of the tender & additional terms & conditions & if asked for, technical bid & credentials.

Part – II shall consist of tender documents as sold to the tenderers duly filling in rates, amounts etc. i.e. price bid.

The Earnest Money Deposit is to be submitted in a separate Envelope altogether; superscribing “Earnest Money Deposit”; & not inside the envelope containing Part – I or Part – II of the bid.

Part-I & Part-II should also be put into separate sealed envelope superscribed as such. Thereafter all three envelope should be submitted in a sealed envelope with appropriate superscription.

The date of opening of the Second Envelope or Part - II of the tenders shall be communicated in due course after consideration of First Envelope or Part - I.

**(\* STRIKE OUT WHICHEVER IS NOT APLICABLE AS PER THE ESTIMATED VALUE OF THE WORK )**

- 2.(f)** Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one bid (other than as sub-contractor or in case of alternatives that have been permitted or requested) will cause all the proposals with the bidders' participation to be disqualified.
- 3.** Earnest Money / Bid Security @ 01 % of the estimated cost (rounded of to nearest hundred rupees subject to maximum of Rs. 50.00 Lakhs) is to be deposited in the form of irrevocable Bank Guarantee (FROM Scheduled Bank / Branch acceptable to the owner) with validity 28 days beyond the validity of the BID in the format given in the Bid Document in a separate envelope along with the tender. Certified Cheques & Demand Drafts will also be acceptable as Earnest Money / Bid Security drawn in favour of "**EASTERN COALFIELDS LIMITED, JHANJRA PROJECT**" on any nationalized Bank preferably at State Bank of India Bank payable at ASANSOL. For works valued up to Rs. 5.00 Lakhs the Earnest Money may be deposited in cash or in the aforesaid form. In case earnest Money deposit by cash, cash receipt is to be submitted in a separate envelope along with the tender. Earnest Money / Bid Security of the unsuccessful bidder shall be refunded as promptly as possible after opening of Price Bid & finalisation the tender & shall bear no interest.
- 4.** No tender shall be considered unless accompanied by the said earnest money.
- 5.** The earnest money will retained in the case of successful tenderer and refunded to the unsuccessful tenderer in due course and will not carry any interest. The earnest money deposited by the successful tenderer will be dealt with as provided elsewhere in the tender documents.
- 6.(a)** Site investigation Report : The contractor, in preparing the bid, shall rely on the site investigation report referred to in the bid document, supplemented by any information available to the bidder.
- 6. (b)** Every tenderer is expected, before quoting his rates, to go through the requirements of materials/ workmanship under specification/requirements and conditions of contract and to inspect the site/area of the proposed work.
- In case of item rate tender a schedule of quantities is enclosed with the tender document. He should quote specific rate for each item in the schedule and the rates shall be in rupees and paise The rates shall be written both in words and figures and the unit in the words and the amount against each item totaled. In the event of any discrepancy between the description in words and figures, the description in words will prevail. The rates for the work should be inclusive of all incidentals, overheads, all taxes Octroi's, duties, leads, lifts, carriage, tools & plant etc. as required for execution and completion of the work. It shall be deemed that the tenderer has visited the site/area and got fully acquainted with the working conditions and other prevalent conditions and fluctuations thereto whether they actually visited the site/area or not and have taken all the above factors into account while quoting his/their rates.
- 7(a).** Corrections where unavoidable, shall be made by crossing out and rewriting duly authenticated with full signature & date by the tenderer. Erasing or overwriting in the tender documents may disqualify the tender.
- 7(b).** The tender shall be submitted either in English or in Hindi, preferably in English.

- 7 (c)** Cost of Bidding: The bidder shall bear all costs associated with the preparation & submission of his bid & the Employer will in no case be responsible & liable for those cost.
- 8.** The tenderer shall closely study all specification in detail, which govern the rates for which he is tendering.
- 9.** Sales Tax clearance certificate for the last financial year or the last assessment which ever is later or proof of filing the returns for the previous financial year should accompany the tender.
- 10.** The work should be completed within 6(six) months from expiry of 10(ten) days from the issue of letter of acceptance of tender/work order or handing over the site or handing over reasonable number of working drawings to the contractor or the period of mobilization allowed in the work order for starting the work in special circumstances, whichever is latest.
- 11.** On Completion of the work all rubbish, debris, brick bats etc. shall be removed by the contractor(s) at his/their own expense and the site cleaned and handed over to the company and he/they shall intimate officially of having completed the work as per contract.
- 12.** The company does not bind itself to accept the lowest tender and reserves the right to reject any or all the tenders without assigning any reasons whatsoever and to split up the work between two or more tenderers or accept the tender in part and not in entirety.
- 13.** The tenderer(s) will indicate the equipment/machinery/vehicles he/they is/are going to use on this job and also give adequate evidence of experience in doing similar works and financial capacity to complete the work in time.
- 14.** The tenderer(s) should also state what technical / supervisory personal he / they would be employing for supervising the work.
- 14(a).** Full information should be given by the tenderer in respect of following:-
- i. If an individual:** Full name  
Postal address.  
Place of Business.
  - ii. If Proprietor firm:** Full Name of the Proprietor.  
Full Postal address of Firm/Proprietor.
  - iii. If a partnership Firm:** Full name of partners.  
Full postal addresses of the Registered Office.  
Of Firm & the partners.  
Registered Partnership Deed.
  - iv. In Case of Company:** Date and place of registration.  
Memorandum & Articles of Association,  
Name of all the Directors  
Full Postal address of the registered office & all the Directors.
  - v. Joint Venture :** Two or three Companies/contractors participating in the tender as Joint Venture should submit Firm-wise participation details ,Banker's name, execution of work with details of contribution of each and all other relevant details

Notes- Joint venture must comply the following requirements:

I ) Following are the minimum qualification requirements for joint ventures:

a The qualifying criteria parameter i.e. Experience, financial resources etc.of the individual partner of the joint venture will be added together and the total criteria should not be less than as spell out in qualifying criteria.

ii) The formation of joint venture or change in the joint venture character/partners after submission of the bid and any change in the bidding regarding joint venture will not be permitted.

iii) Any bid shall be signed so as to legally bind all partners jointly and severally and any bid shall be submitted with a copy of the joint venture Agreement (JV Agreement) providing the joint and several liabilities with respect to the contract.

iv) The pre-qualification of a joint venture does not necessarily pre-qualify any of its partners individually or as a partner in any other joint Venture or association. In case of dissolution of a joint venture, each one of the constituent firms may pre-qualify if they meet all the pre-qualification requirements,subject to written approval of the employer.

v) The bid submission must include documentary evidence to the relationship between joint venture partners in the form of JV Agreement to legally bind all partners jointly & severally for the proposed agreement which should set out the principles for the constitution, operation, responsibilities regarding work and financial arrangements, participation (percentage share in the total) and liabilities (joint and several) in respect of each and all of the firms in the joint venture. Such JV Agreement must evidence the commitment of the parties to bid for the facilities applied for (if pre-qualified) and to execute the contract for the facilities if their bid is successful.

vi) One of the partners responsible for performing a key component of the contract shall be designated as Lead partner. This authorization shall be evidenced by submitting with the bid a Power of Attorney signed by legally authorized signatories of all the partners.

vii) The JV Agreement must provide that the lead partner shall be authorized to incur liabilities and receive instructions for and on behalf of any and all partners of the joint Venture and the entire execution of the contract shall be done with active participation of the Lead Partner.

viii) The contract agreement should be signed jointly by each Venture PARTNERS.

ix)An entity can be a partner in only one joint venture. Bid submitted by Joint Ventures including the same entity as partner will be rejected.

x)The JV agreement may specify the share of each individual partner for the purpose of execution of this contract. This required only for the sole purpose of apportioning the value of the contract to that extend for individuals partner for the subsequent submission in other bids if he intends to do so for the purpose of qualification in that tender.

#### **14(b). Change in Constitution of the Contracting Agency:**

Prior approval in writing of the company shall be obtained before any change is made in the constitution of the contracting agency, otherwise it will be treated as a breach of Contract.

15. Canvassing in connection with the tender in any shape or form is strictly prohibited and tenders submitted by such tenderers who resort to canvassing shall be liable to rejection.

16(a). Every Tenderer will have to **submit a declaration** in support of the authenticity of the credentials submitted by him along with the Tender in the form of an AFFIDAVIT as per the format provided duly authenticated by Notary Public.

16(b). If a tenderer deliberately provides wrong information or submits false credentials in support of his qualifications, the Company reserves the right to terminate/rescind the contract, forfeit the EMD and other dues of the contractor and to take any other action as may be deemed fit. \*

**\* (STRIKE OUT WHICHEVER IS NOT APPLICABLE)**

17(a). An intending tenderer, after obtaining tender documents on payment of Application Fee, having doubts as to the meaning of any part of the tender documents may submit to the official inviting tender a written request for interpretation or clarification thereof. Any interpretation or clarification of the tender documents by formal addendum of if issued by the official inviting tender, shall be final and valid and binding on the company and the tenderers.

17(b). A pre-bid meeting will be held on \_\_\_\_\_ at \_\_\_\_\_ AM / PM Hrs. at the Office of the \_\_\_\_\_ to clarify the issues & to answer questions on any matter that may be raised at that stage.

*(Pre-Bid meeting will be held for turnkey civil works only. Such a meeting for normal civil works is considered as not necessary).*

18. On receipt of letter for acceptance of the tender issued by the company, the successful tenderer shall execute/ accept contract agreement/work order in the company's prescribed form for the due fulfillment of the contract. Failure to enter into the required contract/accept the work order issued by the company within the specified period in the work order shall entail cancellation of letter of acceptance of tender/work-order and forfeiture of the earnest money. The written contract/work order to be entered into between the contractor and the company shall be the foundation of the rights of both the parties and the contract shall not be deemed to be executed until the contract/work-order is signed /accepted by both the parties i.e. contractor and the company.

19(a). The validity period of the tenders shall be 4(four) months from the date of opening of price bid or revised price bid, if any.

The tenderer shall not, during the said period or within the period extended by mutual consent, revoke or cancel his tender or alter the tender on any terms / conditions thereof without consent in writing of the company.

In Case the tenderer violates to abide by this, the company will be entitled to forfeit the Earnest money and reject the tender.

- 19(b)** The Company reserves the right to postpone the date of receipt and opening of tenders or to cancel the tenders without assigning any reason what so ever.
- 20.** The company reserves its right to allow Public Enterprise price preference facility as admissible under prevailing policy.
- 21.** This detailed tender notice shall be deemed to be part of the contract agreement / work-order
- 22.** No subletting of work as a whole by the contractor is permissible. Subletting of work in piece rated jobs is permissible with the prior approval of the department.
- The Contract Agreement will specify major items of supply or services for which the contractor proposes to engage sub-contractor / sub-vendor. The contractor may from time to time propose any addition or deletion from any such list & will submit proposals in this regard to the Engineer –in-Charge / Designated Officer in charge for approval well in advance so as not to impede the progress of work. Such approval of the Engineer –in-Charge / Designated Officer in Charge will not relieve the Contractor from any of his obligations, duties & responsibilities under the contract.
- 23.** In case the contractor enters into any litigation such action should have to be taken in a court of law with jurisdiction over the place where the subject work is to be executed.

## **SPECIAL GUIDE LINES FOR TENDERERS FOR SUBMISSION OF TENDERS**

1. Tenderers are requested to pay special attention to go through notice inviting tenders and place the contents of Part-I in the cover meant for Part-I and the contents of Part-II in the cover meant for Part-II of the tender as specified in the NIT so that improper placement of contents in two covers of Part-I & Part-II does not take place.

Both sealed envelopes of part-I and Part-II as well as sealed cover containing the Earnest Money and Demand Draft (towards cost of tender documents for those tenders who will download from web site) are to be placed as such in another envelope and duly sealed indicating on the top of the envelope, the tender notice details and a certification that Part-I, Part-II and Earnest Money sealed envelopes are put in this envelope.

(i) **Name of work**, (ii) **NIT NO.**, & (iii) **Cover identity**, Part-I, Part-II or Earnest Money should be written on the top of each sealed cover.

2. Tenderers are requested to observe the above instruction in their own interest and also to avoid complications at the time of opening their tenders.

3. The information of Part-I of tender shall be examined and the Part-II of tender of such tenderers shall only be opened who will qualify in the light of various stipulations given in NIT. The date and time of opening of Part-II of tenders shall be intimated to the parties subsequently and the same shall be opened in the presence of the tenderers or their authorized representative who choose to be present.

The Part-II of the tender of such tenderers who will not qualify for opening shall stand rejected.

# GENERAL TERMS AND CONDITIONS

## 1. Definitions

- i). **“Employer”** or **“Company”** means the Eastern Coalfields Limited, Sanctoria, P. O. – Dishergarh, Dist: Burdwan (W. B. ), Pin – 713333 who will employ the contractor represented by the appropriate authority.
- ii). **“Principal Employer”** means the Eastern Coalfields Limited, Sanctoria, P. O. – Dishergarh, Dist: Burdwan (W. B.)-713333, or the officer nominated by the company to function on its behalf.
- iii). The word **“Contractor/contractors”** wherever occurs means the successful tenderer/ tenderers who has/have deposited the necessary earnest money and has/have been given written intimation about the acceptance of tender and shall include legal representative of such individual or persons composing a firm or a Company or the successors and permitted assignees of such individual, firm or company, as the case may be.
- iv). **“Site”** means the land and places including any building and erection thereon, over, under, in or through which the Permanent works or Temporary works designed by the Engineer in Charge are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the site.
- v). The term **“Sub-Contractor”** as employed herein, includes those having a direct contract with contractor either on piece rate, item rate, time rate or any other basis and it includes one who furnishes work to a special design according to the plans or specifications of this work but does not include one who merely supplies materials.
- vi). **“Accepting Authority”** shall mean the management of the company and includes an authorized representative of the company or any other person or body of persons empowered in this behalf by the company.
- vii). **“Engineer-in-charge”** shall mean the officer nominated by the company in the Civil Engineering cadre/discipline who is competent to direct supervisors and authorized to be in charge of the works for the purpose of this contract. The Engineer in Charge / Designated Officer in Charge who is of an appropriate seniority, will be responsible for supervising and administering the contract, certifying payments due to the contractor, valuing variations to the contract, awarding extension of time and valuing compensation events. The Engineer in charge / Designated Officer in Charge may further appoint his representatives i.e. another person / Project Manager or any person and notify to the contractor who is directly responsible for supervising the work being executed at the site, on this behalf under their Delegation of Powers of the company. However, overall responsibility, as far as the contract is concerned, will be that of the Engineer in charge / Designated Officer in Charge.
- viii). The **“Contract”** shall mean the notice inviting tender, the tender as accepted by the company, the work Order issued to the contractor, and the formal contract agreement executed between the company and the contractor together with the documents referred to therein including general terms and conditions, special conditions, if any, scope of work, frozen terms and conditions/ technical parameters/ scope of work and revised offer, if any, specifications, drawings, including those to be submitted during progress of work, schedule of quantities with rates and amounts.

- ix). A **“Day”** shall mean a day of 24 hours from midnight to midnight.
- x). The **“Work”** shall mean the works required to be executed in accordance with the contract/ work order or parts thereof as the case may be and shall include all extra or additional, altered or substituted works or any work of emergent nature, which in the opinion of the Engineer-in-charge, become necessary during the progress of works to obviate any risk or accident or failures or become necessary for security.
- xi). **“Schedule of Rates”** referred to in this conditions shall mean the standard schedule of rates prescribed by the company and the amendments issued from time to time.
- xii) **“Contract Amount”** shall mean: -
- a) In the case of turnkey contracts the total sum for which tender is accepted by the company.
- b) In the case of other type of contracts the total sum arrived at based on the individual rates quoted by the tenderer for the various items shown in the **“Schedule of Quantities”** of the tender document as accepted by the company with or without any alteration as the case may be.
- xiii). **“Written notice”** shall mean a notice or communication in writing and shall be deemed to have been duly served if delivered in persons to the individual or to a member of the contractors firm or to an office of the company for whom it is intended, or if delivered at or sent by registered mail to the last business address known to him/them who gives the notice.
- xiv). **“The Constructional Plant”** means all appliances, tools, plans or machinery or whatsoever, nature required in or about the execution, completion or maintenance of the works but does not include materials or other things intended to form part of the permanent work.
- xv). **“The letter of Acceptance of Tender”** means letter giving intimation to the tenderers that his/ their tender has been accepted in accordance with the provisions contained in that letter.
- xvi). **“Department”** means the Civil Engineering Department / Surface Construction Department of Eastern Coalfields Limited.
- xvii). **“Act of Insolvency”** means as it is designed by Presidency Town Insolvency Act or Provincial Insolvency or any act amending such originals.
- xviii). The words indicating the singular only also include the plural and vice-versa where the context so requires.

## 2. **Contract Documents :**

The following documents shall constitute the contract documents:

- i. Notice Inviting Tender / Detailed Tender Notice.
- ii. Article of Agreement / Letter of Acceptance of Tender / Work order.

- iii. General Terms & conditions of contract / commercial terms & conditions of contract.
- iv. Additional terms & conditions of contract, if any.
- v. Specifications.
- vi. Schedule of quantities (or Bill of Quantities) Schedule of work / Scope of Work & Schedule of Deviation (*To be provided by the Contractor*).
- vii. Frozen terms & conditions / technical parameters / scope of work and revised offer, if any.
- viii. Contract drawings and work programme.
- ix. Safety code etc. forming part of the tender.

**N. B. : Deviations :**

Deviations sought by the bidders, whether they are technical or commercial deviations, must only be given in the schedules prescribed for them. Any willful attempt by the bidders to camouflage the deviations by giving them in the covering letter or in any other documents than the prescribed schedules may render the bid itself as non-responsive.

- 2.1** The contractor shall enter into and execute contract agreement in the prescribed form. The cost of the stamp papers for the contract agreement shall be borne by the contractor. Two sets of contract documents/agreements shall be prepared and signed by both the parties. One of the sets shall be stamped "ORIGINAL" and the other "Duplicate". The duplicate copy will be supplied to the contractor free of cost and the Original is to be retained by the company. For any additional copies required by the contractor the price to be charged would be that of the cost of the Tender Document (Application fee)

All additional copies should be certified by the Engineer – in – Charge.

The contractor shall keep copy of these documents on the site / place of work in proper manner so that these are available for inspection at all reasonable times by the Engineer – in - Charge, his representatives or any other officials authorized by the company for the purpose.

- 2.2.** The contract document shall not be used by the contractor for any purpose other than this contract & the contractor shall ensure that all persons employed for this contract strictly adhere to this and maintain secrecy, as required of such documents.

**2.3 Tender Evaluation & Bid Assessment:**

The Tenders received will be scrutinized and evaluated by a duly constituted Tender Committee.

The Tender Committee will examine the Comparative Statements prepared by the concerned technical department and will satisfy itself that all aspects/conditions of each offer has been properly evaluated with respect to financial implications etc.

Tender received without Earnest Money will be rejected.

The deviations from the commercial terms & conditions & the Tender specifications are scrutinized before opening of price bids. Normally no deviations in the commercial terms & conditions will be accepted.

However, the Tender Committee may decide to scrutinize the different conditions given by the tenderers and formulate and freeze the acceptable conditions and intimate all the tenderers about the same and give them an opportunity to revise their price bid if necessary before opening the same.

The Price Bids are opened at the time and place fixed for the same in presence of the tenderers & committee members and due information for opening of Price Bid is to be given to all concerned. In case where the tenderers are given an opportunity to revise their Price Bids, only the revised Price Bids are opened & the Original Price Bids are to be kept intact in the custody of the company.

The Price Bids of the tenderers will have no condition. The price Bids which are incomplete & not submitted as per instructions given in the Tender Document will be rejected.

Bidders who meet the minimum qualifications criteria will be qualified only if their available bid capacity is more than the updated estimated value. The available bid capacity will be calculated as under:

**Assessed Availability Bid capacity = (A x N x 2 – B)**

**Where,**

**A =** Maximum value of Civil Engineering works executed in any one year during the last five years (updated to present level @ 5% per calendar year) taking into account the completed as well as works in progress.

**N =** Number of years prescribed for completion of the works for which bids are invited.

**B =** Value at present price level, of existing commitments and on going works to be completed during the .....months (period of completion of works for which bids are invited).

Even though the bidders meet the above qualifying criteria, they are subject to be disqualified if they have

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualifying requirements, and / or
- record of poor performance such as abandoning of works, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.

Information on Bid Capacity (works for which bids have been submitted & works which are yet to be completed) as on the date of this bid.

**1(A) Existing commitments and on going works:**

Description	Place &	Contract	Name &	Value of	Stipulated	Value of	Anticipated
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of work	State	No. & Date	Address of the Employer	Contract (Rs. Lakh)	period of Completion	works remaining to be completed	date of Completion
1	2	3	4	5	6	7	8

**1(B) Works for which bids already submitted:**

Description of work	Place & State	Estimated Value of Works (Rs. Lakh)	Stipulated period of Completion	Date when decision is expected	Remarks if any
1	2	3	4	5	6

**2. Works performed as prime contractor (In the same name) on works of a similar nature over the last five (05) years : \* \***

Name of Employer	Description of work	Contract No.	Value of Contract (Rs. Lakh)	Date of Issue of work order	Stipulated period of completion	Actual date of completion	Remarks explaining reasons for delay & work completed

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**3. Quantities of work executed as prime contractor (in the same name & style ) in the last five years : \* \***

*(The table given below is a typical example & the contents may vary depending upon the nature & scope of work)*

Year	Name of the work	Quantity of work performed (CuM)			Remarks (Indicate contract Ref.)
		Cement Concrete (Including RCC & PCC)	Masonry	Earth Work	
1	2	2			4
19__ - 19__					
19__ - 20__					
20__ - 20__					
20__ - 20__					
20__ - 20__					

1. Enclose a certificate from Engineer(s)-in-Charge
2. Immediately preceding the financial year in which bids are received.

**( THE SYSTEM OF DETERMINATION OF BID ASSESSMENT CAPACITY AS ABOVE WILL BE USED ONLY IN CASE OF WORKS OF ESTIMATED VALUE OF OVER Rs. 1.00 CRORE )**

**2.4 Abnormally High Rate (AHR) & Abnormally Low Rate (ALR) Items.**

Abnormally High Rates & Abnormally Low Rates, if quoted by the contractor, in item rate tenders will be identified & dealt with as under:

- i) For identification of AHR & ALR items the ceiling of +/- 20 % respectively, when compared with the updated estimates rate, will be considered.
- ii) Variation in Quantity on quoted rate during execution for AHR & ALR items shall be permitted upto +/- 2 % (+ 25 % for AHR & - 25 % for ALR) of the quantity provided for items of work below plinth level & +/- 5 % of the quantity provided for items of work above plinth level respectively.
- iii) Quantity variation beyond the limit mentioned at ii) above shall be dealt by arriving new rate based on prevalent market rates of materials & labour analysed as per standard analysis of rate of N.B.O. / C.P.W.D. Payment to extra quantity over the permitted quantity of +/- 25 % and +/- 5 % (as the case may be ) would be made on the basis of the new analysed rate.
- iv) For identified abnormally low rate (ALR) items, the contractor will be required to deposit with the company the difference in amount calculated between the departmental justified rate multiplied by the quantity of a particular ALR item and the ALR rate quoted by the contractor multiplied by the quantity of the same item.

The total amount to be deposited will be the sum total of all the identified ALR items calculated as per the method outlined above.

The amount so retained will be refunded on successful completion individual ALR items of work.

## **2.5 Negotiations:**

Negotiations will be held only if the lowest rate received is not reasonable and the decision of the company regarding reasonableness of rates quoted will be final & binding on the bidders.

Work will be awarded to the lowest bidder (L-1) without post tender negotiations if the rates are reasonable.

If rates are not reasonable, negotiations with L-1 only may be undertaken to arrive at a reasonable rate.

## **2.6 Acceptance of Offer :**

Letter of Acceptance is an acceptance of offer by the Company and it need not be accepted by the tenderer. But the tenderer should acknowledge the receipt of the order within 15 days of mailing of work order and any delay in acknowledging the receipt will be treated as a breach of contract and compensation for the loss caused by such breach will be declared by the company by forfeiting EMD/Bid bond.

## **2.7 Banned or delisted Contractors.**

The bidders would give a **declaration** that they have not been banned or delisted by any Govt. or Quasi Govt. agencies or PSU's. If a bidder has been banned or delisted by any Govt.or Quasi Govt agencies or PSU's this fact must be clearly stated and it may not necessarily be a cause for disqualification. If the declaration is not given, the bid will be rejected as non-responsive.

### 3. **Discrepancies in contract documents & Adjustments there of :**

The documents forming part of the contract are to be treated as mutually explanatory of one another and in case of discrepancy between schedule of quantity, the specifications and/or drawing, the following order of preference shall be observed :-

- a) Description in Bill ;of quantities of work.
- b) Particular specification and special condition, if any.
- c) Drawings.
- d) General specifications.

3.1 In the event of varying or conflicting provision in any of the documents(s) forming part of the contract, the Accepting Authority's decision/clarification shall hold good with regard to the intention of the document or contract as the case may be.

3.2. Any error in description, quantity or rate in Bill of Quantities or any omission there from, shall not vitiate the contract or release the contractor from discharging his obligations under the contract including execution of work according to the Drawing and specifications forming part of the particular contract document.

3.3. Any difference detected in the tender/tenders submitted resulting from:

- a) Discrepancy between description in words and figures, the rate which corresponds to the amount worked out by the contractor, shall be taken as correct.
- b) Discrepancy in the amount quoted by the contractor due to calculation mistake of the unit rate and quantity, the unit rate shall be regarded as firm and amount corrected.
- c) Discrepancy in totaling or carry forward in the amount quoted by the contractor shall be corrected.

The tendered sum so corrected and altered shall be substituted for the sum originally tendered and considered for acceptance instead of the original sum quoted by the tenderer along with other tender/tenders. Rounding off to the nearest rupee should be done in the final summary of the amount instead of in totals of various sections of the offer.

### 4. **Security Deposit.**

4.1 Security Deposit shall consist of two parts;

- a) Performance Security to be submitted at awards of work and
  - b) Retention Money to be recovered from running bills.
- The security deposit shall bear no interest.

4.1.2. Performance Security should be 5% of contract amount and should be submitted within 28 days of receipt of LOA by the successful bidders in any of the form given below.

- A Bank Guarantee in the form given in the bid document.
- Govt.securities, FDR or any other form of deposit stipulated by the owner.
- Demand Draft drawn in favour of Eastern Coalfields Ltd., Jhanjira Project. On any Scheduled Bank payable at its Branch at Asansol.

The Earnest Money /Bid Security deposited in the form of Bank Guarantee shall be discharged when the bidder has signed the Agreement and furnished the required Performance Security / Security Deposit. The Bid security deposited in the form of Demand Draft / cash shall be adjusted against the security deposit.

If performance security is provided by the successful bidders in the form of bank guarantee it shall be issued either –

- a) at Bidder's option by a nationalized /Scheduled Indian Bank or
- b) by a foreign bank located in India and acceptable to the employer.
- c) the validity of the Bank Guarantee shall be for a period of one year or ninety days beyond the period of contract , whichever is more.

Failure of the successful bidder to comply with the requirement as above shall constitute sufficient ground for cancellation of the award of work and forfeiture of the bid security.

**4.2.1.** All Running on account bills shall be paid at 95% (ninety five percent) of work value. This 5% (five percent) deduction towards Retention Money will be the second part of security deposit.

**4.2.2.** 5% Performance security should be refunded within 14 days of the issue of defect liability certificate (taking over certificate with a list of defects). Retention Money should be refunded after issue of No defect Certificate. Retention Money should be deducted at 5% from running bills.

**4.3.** The Bank Guarantee towards security deposit shall be acceptable only for values above Rs. 50,000/-and the Bank Guarantee shall also be valid for a minimum period of one year or the period of contract plus the period of retention of security deposit (as described hereafter) or six months whichever is more. Bank Guarantee is to be submitted in the format prescribed by the company. Bank Guarantee shall be irrevocable and will be from amongst the list of Banks (Scheduled Banks) provided in the bid document.

**4.4.** The Company shall be at liberty to deduct/appropriate from the security deposit such sums as are due and payable by the contractor to the company as may be determined in terms of the contract, and the amount appropriated from the security deposit shall have to be restored by further deduction from the contractors subsequent on account running bills, if any.

The refund of security deposit shall be subject to company's right to deduct / appropriate its due against the contractor under this contract or under any other contract.

**4.5** On completion of the entire work & certified as such by the Engineer-in-Charge & on passing of the final bill by the department, one half of the Security Deposit lying with the company shall be refunded to the contractor. The other half shall be refunded to the contractor on the expiry of six months from the date of completion as certified by the Engineer –in-Charge subject to the following conditions:

- a. Any defect / defects in the work, if detected after issue of completion certificate is / are rectified to the satisfaction of the Engineer-in-charge within the said period of six months.
- b. In the case of building work / other work of similar nature, the refund shall be made on the expiry of the said six months period or at the end of full monsoon period i.e. June to October, whichever is later in point of time & any defects such as leakage in roof, efflorescence in walls, dampness, defects in drainage etc. should be rectified to the satisfaction of Engineer-in-Charge.

## 5. **Deviation/Variations in Quantities and Pricing.**

The quantities given in the "Schedule of Quantities" are based on estimates and are meant to indicate the extent of the work and to provide a uniform basis for tendering and any variation either by addition or omission shall not vitiate the contract.

- 5.1. The company through its Engineer-in-Charge or his representative shall, without radically changing the original scope and nature of the work under contract, have power to make any alterations in or additions to or substitution of the original specifications, drawings, designs and instructions that may appear to be necessary or advisable during the progress of the work.

The contractor shall be bound to carry out the works in accordance with the instructions given to him/them in writing by the Engineer –in-Charge or his representative on behalf of the company, Such altered or additional or substituted work which shall form part of the original contract, shall be carried out by the contractor on the same terms and conditions in all respects they agreed to do the main work and at the same rate/rates as are specified in the contract/work-order.

- 5.2. The right is reserved to cancel any item of work included in the contract agreement or portion thereof in any stage of execution if found necessary to the work and such omission shall not be a waiver of any condition of the contract nor invalidate any of the provisions thereof.

- 5.3. If the additional, altered or substituted work included any class of work for which rate/rates is/ are not specified in the contract/work-order, rates for such items shall be determined by the Engineer-in-charge as follows:

- a. In the case of percentage tenders, if the rate for the item of work executed is available in the company's approved SOR, it will be paid at the schedule rate plus or minus the accepted percentage as per contract.
- b. In case of item rate tenders, the rate for extra item shall be derives from the rate for similar item or near similar item of work available in the agreement schedule of work or by analysis of rates as at (c) below and the lower rate out of the above two shall be considered.
- c. In case the rate for extra item is to be derived by analysis of rate, the same shall be done by analysis on prevalent market rate of materials and labour based on standard norms of analysis of rate of N.B.O/C.P.W.D.
- d. In case of combined tender, with partly item rate for non-schedule items & partly percentage tenders for SOR items, the rate for extra item shall be derived as at (b)

above in case of non schedule item rates and in case of percentage rates for SOR items the rate for extra items shall be derived as at (a) above.

- e. In case of variation in quantity of abnormally high value and abnormally low value items beyond 25% of the agreement schedule of quantity, new rate shall be arrived at for such excess quantity over 25% of the agreement schedule of quantity by analysis of rates based on prevalent market rates of materials and labour following N.B.O./C.P.W.D. norms

In case of any difference between the contractor and the Engineer-in-charge as to the fixation of rates, the matter shall be referred to the accepting authority of the company i.e. CGM(C )/GM(C )/CE(C ) i.e. of the Company or Staff Officer(C ), for the work awarded at company Hqrs. level and Area level respectively, whose decision shall be final and binding on the contractor.

- 5.4 Payment for such deviated items (Additional / altered / substituted items of work or excess quantities of work beyond +/- 25% of the agreement schedule) shall be made in the contractors running on account bills, till the revised estimate regularising these items are sanctioned by the competent authority of the company, at the provisional rates and shall not exceed:

- a. 75% of the rate recommended by the Engineer-in-charge to the accepting authority of the company i.e. CGM(C )/GM(C )/CE(C ) i.e. of the Company or SO(C ) of the area, if the rate is directly available in the SOR of the company.
- b. 50% of the rate recommended by the Engineer-in-charge to the accepting authority of the company i.e. CGM(C )/GM(C )/CE(C ) i.e. of the Company or SO(C ) of the area, if it is analysed item rates based on prevalent market rates of materials and labour following N.B.O./CPWD norms.

- 5.5. The time for completion of the originally contracted work shall be extended by the company in the proportion that the additional work (in value) bears to the original contracted work (in value) plus 25 % of the time calculated as explained above as may be assessed and certified by the Engineer-in-charge.

- 5.8. The company through its Engineer-in-charge or his representative, on behalf of the company, shall have power to omit any part of the work in case of non-availability of a portion of the site or for any other reason and the contractor shall be bound to carry out the rest of the work in accordance with the instructions given by the Engineer-in-charge. No claim from the contractor shall be entertained / accepted on these grounds.

- 5.9. In the event of any deviation being ordered which in the opinion of the contractor changes radically the original scope / nature of the contract, the contractor shall under no circumstances suspend the work, either original or altered or substituted, and the dispute / disagreement as to the nature of deviation of the rate / rates to be paid for such deviations shall be resolved separately with the company as per the procedures / norms laid down hereafter.

## **6. Time for completion of contract, Extension thereof, Defaults And Penalties.**

Time is the essence of the contract and as such all works shall be completed within the time stipulated in the contract / work-order.

Immediately after the contract is executed/the work order is issued, the Engineer-in-charge and the contractor shall agree upon a detailed time and progress chart prepared based on BAR CHART / PERT CPM techniques on the basis of a construction schedule submitted by the contractor at the time of executing contract showing the order in which the work is proposed to be carried out within the time specified in the contract document /work-order. For the purpose of this, detailed time & progress chart, the work shall be deemed to have commenced on the expiry of 10(ten) days from the issue of Letter of Acceptance OF tender/Work-order or handing over the site of work or handing over reasonable number of working drawings to the contractor or the period of mobilization allowed in the work order for starting the work in special circumstances, whichever is later.

- 6.1. If the contractor, without reasonable cause or valid reasons, commits default in commencing the work within the aforesaid time limit, the company shall without prejudice to any other right or remedy, be at liberty, by giving 15 days notice in writing to the contractor to commence the work, to forfeit the Earnest Money deposited by him and to rescind the letter of Acceptance/work-order.

Additionally, the company will reserve the right to debar such defaulting Contractors from participating in future tenders for a minimum period of 1 (ONE) Year.

- 6.2 If the contractor fails to maintain the required progress in terms of the agreed time and progress chart or to complete the work and clear the site on or before the contract or extended date of completion, he shall without prejudice to any other right or remedy available under the law to the company on account of such breach, pay as compensation ( Liquidated Damages) @ half percent (1/2%) of the contract price per week of delay. The aggregate of such compensation/compensations shall not exceed 10(ten) percent of the total value as shown in the contract.

This will also apply to items or group of Items for which separate period of completion has been specified. The amount of compensation may be adjusted or setoff against any sum payable to the contractor under this or any other contract with the company.

- 6.2.1 The Company, if satisfied, that the works can be completed by the contractor within a reasonable time after the specified time of completion, may allow further extension of time at its discretion with or without the levy of L.D. in the event of extension granted being with L.D, the company will be entitled without prejudice to any other right or remedy available in that behalf to recover from the contractor as agreed damages equivalent to half percent of the contract value of the works for each week or part of the week subject to a ceiling of 10% of the contract price.

- 6.2.2. The company, if not satisfied that the works can be completed by the contractor, and in the event of failure on the part of the contractor to complete work within further extension of time allowed as aforesaid, shall be entitled, without prejudice to any other right, or remedy available in that behalf, to rescind the contract.

**6.2.3.** The Company, if not satisfied with the progress of the contract and in the event of failure of the contractor to recoup the delays in the mutually agreed time frame, shall be entitled to terminate the contract.

**6.2.4.** In the event of such termination of the contract as described in clauses of 6.2.2. or 6.2.3. or both the company, shall be entitled to recover LD upto ten percent (10%) of the contract value and forfeit the security deposit made by the contractor besides getting the work completed by other means at the risk and cost of the contractor.

**6.3** a) The company may at its sole discretion, waive the payment of compensation on request received from the contractor indicating valid and acceptable reasons if the entire work is completed within the date as specified in the contract/work-order or as validity extended date without stipulating any compensation for delay.

**OR**

b) If the progress of the work or of any portion of the work is un-satisfactory, the Engineer-in-charge shall be entitled, after giving the contractor 15 days notice in writing, to employ another agency for executing the job or to carry out the work departmentally either wholly or partly debiting the contractor with the cost involved in engaging another agency or the cost involved in executing the work departmentally, as the case may be. The certificate to be issued by the Engineer-in-charge for the cost of the work so done shall be final and conclusive and the extra cost, if any, shall be borne by the contractor.

**6.4. Extension of date of completion:** On happening of any events causing delay as stated hereunder, the contractor shall intimate immediately in writing to the Engineer-in Charge.

**a) Force Majeure:**

(i) Natural phenomena, including but not limited to abnormally bad weather, unprecedented flood and draught, earthquakes & epidemics.

(ii) Political upheaval, civil commotion, strikes, lockouts, acts of any Govt. (Domestic / foreign) including but not limited to war, properties, quarantine embargoes.

The successful bidder/contractor will advise in the event of his having to resort to this clause by a Registered letter duly certified by the local chamber of commerce or statutory authorities, the beginning and end of the cause of delay, within fifteen days of the occurrence and cessation of such Force Majeure condition.

In the event of delay due to Force Majeure for more than one month the contract may be terminated at the discretion of the company. Termination under such circumstances will be without any liability on either side.

**b) Serious loss or damage by fire.**

**c) Non-availability of stores, which are the responsibility of the company to supply as per contract**

**d) Non-availability of working drawing/drawings in time, which are to be made available by the company as per contract during progress of the work.**

**e) Delay on the part of the contractors or tradesmen engaged by the company not forming part of the contract, holding up further progress of work.**

f) Non-availability or breakdown of tools and plant to be made available or made available by the company.

g) The execution of any modified or additional items of work or excess quantity of work

h) Any other causes which, at the sole discretion of the company, is beyond the control of the contractor.

6.4.1. A **HINDRANCE REGISTER** shall be maintained by both department and the contractor at site to record the various hindrances, as stated above, encountered during the course of execution.

Hindrance register will be signed by both the parties. The contractor may also record his observations in the Hindrance Register. In case the contractor has a different opinion for hindrance and a dispute arises then the matter would be referred to the EIC and or the next higher authority whose decision would be final & binding on the contractor & the decision to be communicated within 15 days.

6.4.2 The contractor shall request the company in writing for extension of time within 15 days of happening of such event causing delay stating also the period for which extension is required. The company may, considering the genuinity of the request, give a reasonable extension of time for completion of the work. Such extension shall be communicated to the contractor in writing by the company through the Engineer-in-Charge within 1 month of the date of receipt of such request.

6.4.3 The opinion of the Engineer-in-Charge, whether the grounds shown for the extension of time are or are not reasonable, is final. If the Engineer-in-Charge is of the opinion that the grounds shown by the contractor are not reasonable and declines to the grant of extension to time, the contractor cannot challenge the soundness of the opinion by reference to arbitration.

The opinion of the Engineer-in-Charge that the period of extension granted by him is proper or necessary is not, however, final. If the contractor feels that the period of extension granted is inadequate he can appeal to the CGM (Civil) / GM(Civil) / CE(Civil) of the company for consideration on the question whether the period of extension is or is not proper or necessary.

6.4.4 Provisional extension of time may also be granted by the Engineer-in-Charge during the course of execution, on written request for extension of time within 15(fifteen) days of happening of such events as stated above, reserving the company' right to impose / waive penalty at the time of granting final extension of time as per contract agreement.

6.4.5.1. When the period fixed for the completion of the contract is about to expire, the question of extension of the contract may be considered at the instance of the contractor or the Department or of both. The extension will have to be by parties' agreement, express or implied.

In case the contractor does not apply for grant of extension of time within 15(fifteen) days of the hindrance occurring in execution of the work and the department wants to continue with the work beyond the stipulated date of completion for reason of the work having been unavoidably hindered, the Engineer-in-charge can grant extension of time even in the absence of application from the contractor. Such extension of time granted by the Engineer-in-charge is valid provided the contractor accepts the same either expressly or implied by his actions before and subsequent to the date of completion. Such extension of

time shall be without prejudice to company's right to levy compensation under the relevant clause of the contract.

The contractor shall however use his best efforts to prevent or make good the delay by putting his endeavors constantly as maybe reasonably required of him to the satisfaction of the Engineer-in-Charge.

## 7. **Materials supply & other facilities.**

7.1\* The Company does not undertake any responsibility for supply of any materials to the contractor.

**OR**

7.1\* The company will supply steel both reinforcement & Structural & cement at the following rates inclusive of all taxes. The contractor shall bear all cost for transportation; handling & storage from the issuing store of the company to contractor's site store.

- i) Reinforcement Steel :-
  - (a) M. S. Round : Rs.
  - (b) Tor Steel : Rs.
  - (c) Structural Steel : Rs.
- ii) Cement : Rs.

**[ \* Delete whichever is not applicable ]**

7.2 If the steel is issued by the department, the wastage of steel shall be the barest minimum. The wastage allowed from theoretical quantity will be upto a maximum of 5% to cover the wastage due to cutting into pieces, bending and other factors. No cut pieces or scrap less than 2 mtr. in length will be taken by the department. Efforts should be made to use the cut pieces of 2 mtr. or above length as far as possible.

If the wastage of steel is more than the permissible variation mentioned above the cost of excess wastage made by the contractor shall be recovered at double the issue rates indicated above, or 115% of prevailing market rate including Sales tax and general tax during the period of work whichever is more.

No allowance shall be entertained on account of Rolling Margin or the steel either issued by the department or procured by the contractor.

7.3 If the cement is issued by the department, the variation of 5% will be permitted over the theoretical consumption of cement for value of work upto Rs.10.00 lakhs and 3% for value for work above Rs.10.00 lakhs. In the event of cement consumed is more / less than specified above, the recovery for the quantity of cement consumed in excess or less than the specified quantity shall be made at double the issue rate or 115% of prevailing market rate including sales tax and general tax during the period of work, whichever is more.

7.4 In case the department is not able to supply cement / steel as per the provisions of the contract, the Engineer- In -charge may allow, with the approval of CGM(Civil)/ GM(Civil)/ CE(Civil) of the company, the contractor in writing for procurement of cement / steel from the approved sources and the extra on this account including transport charges, if any, over the issue rate shall be reimbursed to the contractor on production of authentic documents. Transportation of cement / steel from the place of purchase to the site of work and proper

storage of cement / steel shall be contractor's responsibility. He should maintain proper account of cement / steel procured by him and should allow inspection of his Godown and his cement / steel account by the concerned Engineer-in-charge or any other authorized Officers of the company. Contractor should draw materials from the company on the basis of actual requirement as assessed by the Engineer-in-charge "as and when required" basis.

- 7.5. Recovery of cost of materials issued on sale A/C will be made as per actual consumption basis but the Engineer-in-Charge will have the discretion for making full recovery while processing a particular bill or asking for the return of the balance materials if the work is not progressing satisfactorily.

The contractor shall keep accurate record of materials issued by the company, maintain proper account for the materials received and consumed in the work and shall be open to check by the Engineer-in-Charge or his authorized representative. The contractor shall ensure that such materials are consumed for the contract works only and the Register for the aforesaid account shall be signed both the representatives of Engineer-In-Charge and the contractor.

- 7.6. All materials, tools and plants brought to site by the contractor including the materials supplied by the company shall be deemed to be held in lien by the company and the contractor shall not have the right to remove the same from the site, without the written permission of the Engineer-In-Charge. The company shall not however be liable for any loss, theft or damage due to fire or other cause during this period of lien, the responsibility for which shall lie entirely on the contractor.

- 7.7. The contractor shall bear the cost of loading, transportation to site, unloading, storing under cover as required etc. as may be necessary for the use and keeping the materials in good condition.

- 7.8. Any surplus materials issued by the company, remained after completion or termination of the contract, shall be returned by the contractor at his cost to the place of issue and the Engineer-in-charge shall accept the same at the rate not exceeding the rate at which these were originally issued taking into consideration the deterioration or damage, if any, that may have been caused during the custody of the contractor. In the event, the contractor fails to return the surplus materials out of those supplied by the company, the Engineer-in-charge may in addition to any other liability which the contractor would incur in this regard, by giving notice in writing require the contractor to pay the amount at a double the issue rate for such un-returned surplus materials or 115% of the prevailing market rate including S.T & General Tax during the period of work, whichever is more.

- 7.9. On completion or on termination of the contract and on complete recovery of secured advance paid by the company, if any, in respect of materials brought to site, the contractor with due permission of the Engineer-in-charge shall be entitled to remove at his expenses all surplus materials originally supplied by him and upon such removal, the same shall become the property of the contractor.

- 7.10. All charges on account of octroi, terminal or Sales Tax and other duties on materials obtained for the works from any source (excluding materials supplied by the company) shall be borne by the contractor.

- 7.11 The contractor shall arrange necessary electricity at his own cost for the work and his own establishment. However, if available and feasible the company may arrange electricity at one point near the work site and necessary recovery of cost of energy consumed will be made at

rates prescribed by the company from time to time. Energy meter for this purpose shall be provide by thee contractor.

7.12. The contractor shall arrange necessary water for the work and his own establishment. However, if available and feasible the company may arrange water at one point near the work site for which recovery @ 1% of the contract value of work done will be made from the contractor's bills.

7.13. Explosives, detonators and other inflammable materials shall not be used in the execution of the work at site by the contractor without prior written permission of the Engineer-in-charge. Transportation & Storage of such materials shall be done in specified manner in accordance with the law in force. The contractor shall also obtain license with the handling of the same.

## **8. Quality Assurance-Materials and Workmanship :**

The contractor shall carry out and complete the work in every respect in accordance with the contract and shall ensure that the work conforms strictly to the drawings, specifications, instructions of Engineer-in-charge. The Engineer-in-Charge may issue from time to time, further drawings, detailed instructions / directions in writing to the contractor. All such drawings, instructions/directions shall be consistent with the contract documents and should be reasonably inferable there from, along with clarifications / explanations thereof, if necessary.

8.1 For Quality Assurance of all the Civil Engineering works the norms / guidelines laid down by the company herein and elsewhere will form part of the contract for the purpose of quality of works.

8.2. The contractor shall be responsible for correct and complete execution of the work in a workman like manner with the materials as per specification which shall be subject to the approval of the company. All work under execution in pursuance of the contract shall be open to inspection and supervision by the Engineer in Charge or by his authorised representative or any other official of higher rank or any other person authorised by the company in his behalf & the contractor shall allow the same.

8.3 All materials to be provided by the contractor shall be in conformity with the specification / schedule of work as per the contract and the contractor shall furnish proof, if so required by the Engineer-in-Charge to his satisfaction that the materials do so comply.

8.4. The contractor shall immediately after the award of work draw up a schedule giving dates for submission of samples as required or necessary as per the specification for approval of Engineer-in-charge who shall approve, if found acceptable, promptly so that there is no delay in the progress of the work of the contractor or of the work of any of the sub-contractor.

On receipt of samples as per schedule, the Engineer-in-charge shall arrange to examine/test with reasonable promptness ensuring conformity of the samples with the required specification and complying with the requirements as per contract documents keeping in view that the work shall be in accordance with the samples approved by him. The contractor shall not start bringing materials at the site unless the respective samples are approved. Materials conforming to approved samples shall only be brought to site.

Samples are to be supplied by the contractor at his own cost. The cost involved in testing shall be borne by the contractor. If any test is ordered by the Engineer-in-charge

which is to be carried out by any independent person or agency at any place other than the site even then the cost of materials and testing charge etc. shall be borne by the contractor. If the test shows that the materials are not in accordance with the specifications, the said materials shall not be used in the work and removed from the site at contractor's cost.

- 8.5. The company, through the Engineer-in-charge shall have full powers to reject any materials or work due to a defect therein for not conforming to the required specification, or for materials not being of the required quality and standard or for reasons of poor workmanship or for not being in accordance with the sample approved by him, The contractor shall forthwith remedy the defect/replace the materials at his expense and no further the work shall be done pending such rectification/replacement of materials, if so, instructed by the Engineer-in-charge.

In case of default on the part of the contractor, the Engineer-in-charge shall be at liberty to procure the proper materials for replacement and/or to carry out the rectifications in any manner considered advisable under the circumstances and the entire cost & delay for such procurement/rectification shall be borne by the contractor.

- 8.6. The Engineer-in-charge shall be entitled to have tests carried out for any materials according to the standard practice followed for such tests, other than those for which satisfactory proof has already been furnished by the contractor who shall provide at his expense all facilities, which the Engineer-in-charge may require for the purpose.

The cost of any other tests, if so required by the Engineer-in-charge shall be borne by the contractor only, if the test shows the workmanship or materials not to be in accordance with the provision of the contract or the instruction of Engineer-in-charge, but otherwise by the company.

- 8.7. **Access To The Works:** The Engineer-in-charge and any person authorized by he company shall at all times have access to the works and to all workshops and placed where work is being prepared or from where materials, manufactured articles are being obtained for the woks and the contractor shall afford every facility for and every assistance in or in obtaining the right to such access.

8.8. **Inspection of works:**

- (i) No work shall be covered up or put out of view without the approval of the Engineer-in-charge or the Engineer-in-charge's representative or any other officer nominated by the company for the purpose and the contractor shall afford full opportunity for the Engineer-in-charge or his representative or any other officer nominated by the company for the purpose to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The contractor shall give due notice to the Engineer-in-charge's representative whenever any such work or foundation is ready or about to be ready for examination and Engineer-in-charge's representative shall, with out unreasonable delay, unless he considers it unnecessary and advises the contractor accordingly, attend for the purpose of examining and measuring such work or foundations.
- ii) The contractor shall uncover any part or parts of the works or making openings in or through the same as the Engineer-in-charge may from time to time direct and shall reinstate and make good such part or parts to the satisfaction of Engineer-in-charge.

If any such part or parts have been covered up or put out of view after compliance with the requirement of sub-clause above and are found to be executed in accordance

with the contract, the expenses of uncovering, making openings in or through and making good the same shall be borne by the Employer, but in any other cases all costs shall be borne by the contractor.

**8.9. Removal of Improper work and Materials:**

- i) The Engineer-in-charge shall during the progress of the works have power to order in writing from time to time.
  - a) The removal from the site, of any materials, which in the opinion of Engineer-in-charge are not in accordance with the contract / work order / approved sample.
  - b) The substitution with proper and suitable materials.
  - c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment therefore, of any work which in respect of materials or workmanship is not in accordance with the contract.
- ii) In case of default on the part of the contractor in carrying out such order, the Engineer-in-charge shall be entitled; to employ and pay other agency to carry out the same and all expenses consequent thereon shall be recoverable from the contractor or may be deducted from any amount due or which may become due to the contractor.

**8.10. Devaluation of work.** In lieu of rejecting work done or materials supplied not in conformity with the contract/work order/approved samples, the Engineer-in-Charge or any other officer nominated by the company for the purpose may allow such work or materials to remain, provided the Engineer-in Charge/the officer nominated by the company is satisfied with the quality of any materials or the strength and structural safety of the work, and in that case shall make such deduction for the deduction for the difference in value, as in his opinion may be reasonable.

**8.11. Final Inspection of work:** The Engineer-in-charge and any other officer nominated by the company for the purpose shall make final inspection of all work included in the contract/work order, or any portion thereof, or any completed structure forming part of the work of the contract, as soon as practicable after notification by the contractor that the work is completed and ready for acceptance. If the work is not acceptable to the Engineer-in-charge at the time of such inspection, he shall inform the contractor in writing as to the particular defects to be remedied before final acceptance can be made.

**8.12. Defects appearing after acceptance:** Any defects, which may appear within the defects liability period and arising in the opinion of the Engineer in Charge, from lack of conformance with the drawing and specification shall, if so, required by the Engineer in Charge in writing, be remedied by the contractor at his own cost within the time stipulated by the Engineer in Charge. If the contractor fails to comply, the Engineer in Charge may employ other persons to remedy the defects and recover the cost thereof from the dues of the contractor.

**8.13. Site Order Book:** A site order book is a register duly certified by the Engineer in Charge regarding number of pages it contains, each page being numbered, name of work, name of contractor, reference of contract / work order and the aforesaid certificate should be recorded on its first page.

Site order book shall be maintained on the sites of works and should never be removed there from under any circumstances. It shall be the property of the company. The Engineer in Charge or his authorized representative shall duly record his observations regarding any work which needs action on the part of the contractor like, improvement in the quality of work, failure to adhere to the scheduled programme etc. as per contract / work order. The contractor shall promptly sign the work order book and note the orders given therein by the EIC or his

representative and comply with them. The compliance shall be reported by the contractor in writing to the EIC in time so that it can be checked.

The site order book will be consulted by the Engineer in Charge at the time of making both running on account and final bills of the contractor. A certificate to this effect should be given in the measurement books by the Engineer in Charge or his representative.

- 8.14. **Samples and Testing of Materials:** All the materials to be procured by the contractor and to be used in work shall be approved by the Engineer-in-charge in advance and shall pass the tests and analysis required by him, which will be as specified in the specifications of the items concerned and or as specified by BIS or the IRC standard specification acceptable to the Engineer-in-charge. The method of sampling and testing shall be as per the relevant BIS, IRC and other relevant standards practices. Minor minerals like sandstone, chips etc. shall be conforming to relevant BIS standards. All bought out items including cement and steel shall be procured from such manufactures who hold valid license conforming to relevant BIS standards for manufacturing of such items.
- 8.15. **Storage of Materials:** Materials shall be so stored as to ensure the preservation of the quality and fitness for the work. When considered necessary by the Engineer-in-charge, they shall be placed on wooden platforms or other hard clean surface and not directly on the ground..

Materials shall be placed under cover when so directed and the contractor shall erect and maintain at his own cost temporary weatherproof sheds at the work site for the purpose of stored materials shall be inspected at the time of use in the work, even though they may have been inspected and approved before being placed in storage or during storage.

- 8.16. **Defective Materials:** All materials not conforming to the requirements of the specification shall be considered as defective, and all such materials, whether in place or not, shall be rejected. They shall be removed immediately by the contractor at his expenses and replaced with acceptable materials.

No rejected materials, the defects of which have been subsequently corrected, shall be used on the work until approval in writing, has been given by the Engineer-in-charge. Upon failure on the part of the contractor to comply with any instruction of the Engineer-in-charge made under the provisions of this article within the time stipulated by the Engineer-in-charge, the Engineer-in-charge shall have authority to remove and replace defective materials and recover the cost of removal and replacement from the contractor.

Further all such defective materials lying at site not removed and replaced within 30 days after issue of notice by the Engineer-in-charge, if the Engineer-in-charge so decides, shall dispose off such materials in any manner without any further written notice to the contractor.

## 9. **Measurement of Payments:**

Except where any general or detailed description of the work in the Bill of Quantities or specifications of the contract /work order provides otherwise, measurement of work done shall be taken in accordance with the relevant standard method of measurement published by the Bureau of Indian Standard (BIS) and if not covered by the above, other relevant Standards/Practices shall be followed as per instruction of the Engineer-In-charge.

- 9.1. All items of work carried out by the contractor in accordance with the provision of the contract having a financial value shall be entered in the Measurement Book as prescribed

by the company so that a complete record of the measurements is available for all the works executed under the contract and the value of the work executed can be ascertained and determined there from. Measurements of completed work/portion of completed work shall be recorded only in the Measurement Books.

9.2 Measurement shall be taken jointly by the Engineer-in-charge or his authorized representative and by the contractor or his authorized representative.

9.3 Before taking measurements of any work, the Engineer-in-charge or the person deputed by him for the purpose. Shall intimate the contractor to attend or to send his representative to attend the measurement. Every measurement thus taken shall be signed and dated by both the parties on the site on completion of the measurement. If the contractor objects to any measurements, a note to that effect shall be made in the measurement Book/Log Book and signed and dated by both the parties.

9.4. The measurement of the portion of work/items of work objected to, shall be re-measured by the Engineer-in-charge himself or the authority nominated by the company for the purpose in the presence of the contractor or his authorized representative and recorded in the M B.which shall be signed and dated by both the parties. Measurement so recorded shall be final and binding upon the contractor and no claim whatsoever shall thereafter be entertained.

In case the contractor or his authorized representative does not attend to the joint measurements at the prefixed date and time after due notice, the measurement taken by the Engineer-in-charge or his representative shall be final and binding on the contractor.

Measurement of the extra items of work or excess quantities of work duly authorized in writing by the Engineer-in-charge shall also be taken and recorded in the M.B. based on the existing items in the SOR of the company and if such items do not exist in the company's SOR, the description of the work shall be as per actual execution, payment for such extra items will be based on the rates to be derived as described in the relevant clause of the contract/work-order.

9.5. No work shall be covered up or put out of view without the approval by the Engineer-in-charge and recording of measurements and check measurement thereof duly accepted by the contractor. The contractor shall provide full opportunity to the Engineer-in-charge or his representative to examine and measure all works to be covered up and to examine the foundations before covering up.

The contractor shall also give notice to Engineer-in-charge whenever such works or foundations are ready for examination and the Engineer-in-charge shall without unreasonable delay arrange to inspect and to record covering of such works or foundations.

9.6. In case of items which are claimed by the contractor but are not admissible according to the department, measurements of such items, will be taken by for record purposes only and without prejudice so that incase it is subsequently decided by the department to admit the contractor's claims, there should be no difficulty in determining the quantities of such work. A suitable remark should however, be made against such measurements to guard against payment in the ordinary way.

9.7. **Payments:** The running on account payments may be made once in a month or at intervals stipulated in the work /contract agreement.

9.7.01. Running on account bill/bills for the work executed/materials supplied in accordance with the work order /contract shall be prepared on the basis of detailed measurements recorded as described herein before and processed for payment.

9.7.02. Payment of on account bill shall be made on the Engineer-in-charge's certifying the sum to which the contractor is considered entitled by way of interim payment for the following:

- a) The work executed as covered by the bill/bills after deducting the amount already paid, the security deposit and such other amounts as may be deductible or recoverable in terms of the work order/contract.
- b) **(i)** Payment for excess quantity of work done with the written instructions of the Engineer-in-charge or items already appearing; in the bill of quantities of work with approved rates, will be made along with the on account bills only upto 10% of the quantities provided in the agreement subject to overall value of work not exceeding the agreement value.  
**(ii)** The CGM(Civil)/GM(Civ)/CE(Civ) of the company and /or the Staff Officer(Civ) of the Area may authorize interim payment for excess work done upto 20% of the quantity of work provided in the Bill of quantity of the work awarded from company level respectively subject to overall value of work done does not exceed the contract value.
- c) Extra item of work executed will be paid on specific written authorization of CGM(Civil)/GM(Civ)/CE(Civ) of the company or Staff Officer(Civ) of the Area provided that the value of such extra items of work when added together is not more than 10% of the contract value and the total gross payment including excess quantity does not exceed the contract value.  

Balance amount on account of excess quantity and extra quantity and extra items of work executed shall be paid after the deviation estimate/revised estimate regularizing the extra items and excess quantities of work is sanctioned by the competent authority of the company with the concurrence of the Finance Department of the company.
- d) On the Engineer-in-charge's certificate of completion in respect of the work covered by the contract/final measurements of the work certified by the Engineer-in-charge or his representative.

9.7.03. The measurements shall be entered in the M.B. for the work done upto the date of completion and evaluated based on the approved rates for the items in the contract agreement/sanctioned revised estimate. In case of extra items of work, the rates shall be derived as stated in the relevant clause of the contract.

The payment shall be released against the final bill subject to all deductions which may be made on account of materials supplied, water supply for construction, supply of electricity and any other dues payable by the contractor to the company, and further subject to the contractor having given to the Engineer-in-charge a no claim certificate. The contractor shall indemnify the company against proof of depositing royalty on account of minor minerals used in the work before the final bill is processed for payments. The final payment to be made will also be subject to clause 4.5 of the General Terms & Conditions of the contract.

9.7.04. Any certificate given by the Engineer-in-charge for the purpose of payment of interim bill/bills shall not of itself be conclusive evidence that any work/materials to which it relate is/are in accordance with the contract and may be modified or corrected by the Engineer-in-charge by any subsequent certificate or by the final certificate.

9.7.05 The company reserve the right to recover/enforce recovery of any over payments detected after the payment as a result of post payment audit or technical examination or by any other means, nor withstanding the fact that the amount of disputed claims, if any, of the contractor exceeds the amount of such over payment and irrespective of the facts whether such disputed claims of the contractor are the subject matter of arbitration or not.

The amount of such over payments shall be recovered from subsequent bills under the contract, failing that from contractor's claim under any other contract with the company or from the contractor's security deposit or the contractor shall pay the amount of over payment on demand. In case of contractor's non-payment on such demand, the same should be realized from the contractor's dues, if any, with Coal India Limited or any of it's subsidiaries.

9.7.06 The contractors are required to execute all works satisfactorily and according to the specifications laid down in the contract/work-order. If certain items of work, executed by the contractor, are below specifications, the contractor should re-do them according to the specifications and instructions of EIC, and if the contractor fails to rectify the defects within the time and in the manner specified by the EIC, the work shall be got re-done or rectified by the department at the risk and cost of the contractor. Engineer-in-charge may accept such work of below specification provided the department is satisfied with the quality of such works and the strength/structural safety of such works. In that case, Engineer-in-charge shall make such deductions for the difference in value, as in his opinion is reasonable and is approved by the accepting authority of the company i.e. CGM(Civ)/GM(Civ)/CE(Civ) of the company or any other officer nominated by CGM(Civ)/GM(Civ)/CE(Civ) for the purpose

**9.7.07 The Payment stage involved will be as under:**

i) Signature of EA(Civil) / Sr. Overseer( c ) / Overseer ( c ) in MB's both in pages recording measurements, abstract of bill & the duly filled in bill form.

ii) Signature of Engineer( c ) / EE(C ) with appropriate check measurements in the MB's and the bill form.

iii) Signature of Sr.EE( c ) / SE(C ) with appropriate check measurements in MB's and the bill form,.

iv) Signature of Engineer in charge as per definition as at clause 1(vii)of the General terms and Conditions, as a token of acceptance for payment of the bill. The EIC may sign in the abstract of the bill in the MB & the bill form. In between stage ( iii) & (iv) accountal checking may be made by the concerned Accounts Officer/ Accountant.

9.7.08 **Secured Advance:** Secured advance can be paid for items of materials required for execution of the work and covered under categories A & B and supplied by the contractor at work site, supported by necessary vouchers, challans, test certificates etc. after execution of indemnity bond as per prescribed Form of the company on on-judicial stamp paper of prescribed value.

This advance shall be recovered in four equal installments or as per consumption whichever is higher. Engineer In Charge shall recover at his discretion all or any part of secured advance paid, if in his opinion the work is not progressing satisfactorily or the security of these materials at site is not adequately taken care of by the contractor. Secured advance shall be payable for contracts of value above Rs.10.00 lakhs Only.

Secured advance for structural steel sections, reinforcement steel and cement collected at site, will be paid upto 75% of the corresponding stock yard prices of SAIL for the corresponding steel items and Govt. approved / D.G.S.D prices for cement, if the same exist.

In case of non-availability of Govt. approved prices of cement & steel and for the materials falling under Category - A and B the secured advance will be paid at the basic rate available in the approved schedule of rates of the company plus or minus the overall percentage on which the work was awarded, provided such rate is not more than 60% of the quoted rate of the contractor for the actual work.

At any point of time the outstanding recoverable secured advance shall not be more than 10% of the contract value.

Items against which secured advance can be granted :

### **Category - A**

#### **Category-A**

##### **Civil:**

**1.Bricks**

**2.Stone and brick aggregate.**

**3.Stones.**

**4.Finished products of brass, iron and steel such as doors & windows frames, wire mesh, gate, GI sheets.**

**5.Pre-cast R.C, C. Products such as pipes, jail, water storage tanks etc.**

**6.Doors & windows fittings.**

**7.Pipes and sanitary fittings of CI, SCI & HCI.**

##### **Electrical:**

**1.Steel conduits**

**2.GI Pipes.**

**3/I.C.Bords**

**4.Switchgears (Air circuit beakers and Air break switches)**

**5.C.I Boxes.**

**6.A.C.S.R.Conductors.**

**7.A.C.Plant & Machinery.**

**8.Pkumps**

**9.Generating sets (without oil)**

**Itmes against which secured advance can be granted:**

### **Category-B**

##### **Civil :**

- 1. Glazed tiles, terrazzo, tiles and similar articles.**
- 2. Marble slabs.**
- 3. Asbestos cement products.**
- 4. Finished timber Products such as doors, windows, flush doors, particle boards (subject to mandatory test being satisfactory) etc.**
- 5. Bitumen in sealed drums.**
- 6. Bitumen felt.**
- 7. Plythene pipes and fittings and tanks.**
- 8. Sanitary fittings and pipes of S.W. porcelain and chinaware materials.**
- 9. Laminated/safety, one-way vision, and bullet proof glasses.**
- 10. Chemical required for anti-termite treatment (in sealed drums)**
- 11. Paints, varnishes, distempers, pigment, spirit etc.**

**Electrical :**

- 1. Transformers.**
- 2. Oil-filled switch gears.**
- 3. L.T. & H.T Cable**
- 4. Fans.**
- 5. Storage and Dry Batteries.**
- 6. Insulation tapes.**
- 7. Epoxy cable compounds,**
- 8. Electric light fittings.**
- 9. Wooden battens, casing, & capping and wooden boards.**
- 10. Flexible wires.**
- 11. PVC materials.**
- 12. Oil and lubricants.**
- 13. Rubber materials.**
- 14. Glass wool, termocole & other insulating materials.**
- 15. Porcelain H.T. and L.T. insulators**

***In addition to indemnity bond, for material listed under Category –B, the contractor shall be required to provide necessary insurance cover of equivalent value of materials.***

***Items against which no secured advance shall be granted:***

- 1. Glass products other than those indicated in Category-B/***
- 2. Bulbs and tubes.***
- 3. Petrol and diesel.***

9.8 Income tax deduction @ 2% of the gross value of each bill or at the rate as amended from time to time, shall be made unless exempted by the competent authority of the Income tax Department.

Sales tax on works contract shall be payable by the contractor, if however, the company is asked to make deduction from the contractor's bills, the same shall be done and a certificate to this effect shall be issued to the contractor for dealing with the State Govt. and the company does not take any responsibility to do anything further in this regard.

9.9. No interest shall be payable on the amounts withheld, under the terms of the Agreement/work-order.

**10. Termination, Suspension, Cancellation and Foreclosure of Contract.**

The company shall, in addition to other remedial steps to be taken as provided in the conditions of contract be entitled to cancel the contract in full or in part, if the contractor.

a) makes default in proceeding with the works with due diligence and continues to do so even after a notice in writing from the Engineer-in-charge, then on the expiry of the period as specified in the notice.

OR

b) Commits default/breach in complying with any of the terms and conditions of the contract and does not remedy it or fails to take effective steps for the remedy to the satisfaction of the Engineer-in-charge, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing.

OR

c) Obtain a contract with the company as a result of ring tendering or other non-bonafide methods of competitive tendering.

OR

d) Shall offer or give or agree to give any person in the service of the company or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for act/acts of favour in relation to the obtaining or execution of this or any other contract for his company.

OR

e) fails to complete the work or items of work with individual dates of completion, on or before the date/dates of completion or as extended by the company, then on the expiry of the period as may be specified by the Engineer-in-charge in a notice in writing.

OR

f) Transfers, sublets, assign the entire work or any portion thereof without the prior approval in writing from the Engineer-in-charge. The Engineer in Charge may by giving a written notice, cancel the whole contract portion of it in default.

10.1. The contract shall also stand terminated under any of the following circumstances:

a) If the contractor being an individual in the case of proprietary concern or in the case of a partnership firm any of its partner is declared insolvent under the provisions of insolvency Act for the time being in force, or makes any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors amounting to proceedings for liquidation or composition under any insolvency Act.

b) In the case of the contractor being a company, its affairs are under liquidation either by a resolution passed by the contractors company or by an order of court, not being a voluntary liquidation proceedings for the purpose of amalgamation or re-organisation, or a receiver or manager is appointed by the court on the application by the debenture holders of the contractor's company, if any.

c) If the contractor shall suffer an execution being levied on his/their goods, estates and allow it to be continued for a period of 21 days (twenty-one) days.

d) On the death of the contractor being a proprietary concern or of any of the partners in the case of a partnership concern and the company is not satisfied that the legal representative of the deceased proprietor or the other surviving partners of the partnership concern are capable of carrying out and completing the contract, the decision of the company in this respect shall be final and binding which is to be intimated in writing to the legal representative or to the partnership concern.

10.2. On cancellation of the contract or on termination of the contract, the EIC shall have powers:

- a) to take possession of the site and any materials, constructional plant, equipments, stores etc. thereon.
- b) to carry out the incomplete work by any means at the risk and cost of the contractor.
- c) To determine the amount to be recovered for completing the remaining work or in the event the remaining work is not to be completed the loss/damage suffered, if any, by the company after giving credit for the value of the work executed by the contractor up to the time of cancellation less on a/c payment made till date and value of contractor's materials, plant, equipments, etc/ taken possession of after cancellation.
- d) To recover the amount determined as above, if any, from any money due to the contractor on any account or under any other contract and in the event of any shortfall, the contractor shall be called upon to pay the same on demand. The need for determination of the amount of recovery of any extra cost/expenditure or of any loss/damage suffered by the company shall not however arise in the case of termination of the contract for death/demise of the contractor as stated in clause 10.01(d) of the contract.
- e) To give the contractor or his representative on the work 7(seven) days notice in writing for taking final measurement for the works executed till the date of cancellation or termination of the contract. The EIC shall fix the time for taking such final measurement and intimate the contractor in writing. The final measurement shall be carried out at the same appointed time notwithstanding whether the contractor is present or not. Any claim as regards measurement which the contractor is to make shall be made in writing in 07 (seven) days of taking final measurement by Engineer in Charge as aforesaid and if no such claim is received, the contractor shall be deemed to have waived all claims regarding above measurement and any claim made thereafter shall not be entertained.

### 10.3 **Suspension of work:**

- (i). The company shall have power to suspend the work or any part thereof and the Engineer In Charge may direct the contractor in writing to suspend the work, for such period and in such manner as may be specified therein on account any default on the part of the contractor, or for proper execution of the work for reasons other than any default on execution of the work for reasons other than any default on part of the contractor, or on ground of safety of the work.
- (ii). In the event of suspension for reasons other than any default on the part of the contractor extension of time shall be allowed by the company equal to the period of such suspension and the contractor shall properly protect and secure the works to the extent necessary during such suspension.

The contractor shall carry out the instructions given in this respect by the Engineer In Charge & if such suspension exceeds 45 ( forty five ) days , the contractor will be compensated on mutually agreed terms.

- 10.4 The work shall, throughout the stipulated period of contract, be carried out with all due Diligence on the part of the contractor. In the event of termination or suspension of the contract, on account of default on the part of the contractor, as narrated herein before, the security deposit and other dues of the work or any other work done under the Company shall be forfeited and brought under the absolute disposal of the company Provided, that the amount so forfeited shall not exceed 10 (ten) percent of the contract Value.

#### 10.5. **Foreclosure of contract:**

If at any time after acceptance of the tender the company decides to abandon for any reason whatsoever, the company, through its EIC, shall give notice in writing to that effect to the contractor. In the event of abandonment the company shall be liable:-

a) To pay reasonable amount assessed and certified by the EIC of the expenditure incurred, if any, by the contractor on preliminary works at site e.g. temporary access roads, temporary construction for labour and staff quarters, office accommodation, storage of materials, water storage tanks and water supply for the work including supply to labour /staff quarters, office etc.

b) To pay the contractor at the contract rates full amount for works executed and measured at site up to the date of such abandonment.

c) To pay for the materials brought to site or to be delivered at site, which the contract or is legally liable to pay, for the purpose ;of consumption in works carried out or were to be carried out but for the foreclosure, including the cost of purchase and transportation and cost of delivery of such materials. The materials to be taken over by the company should be in good condition and the company may allow at its discretion the contractor to retain the materials in full or in part if so desired by him and to be transported by the contractor from site to his place at his own cost with due permission of the EIC.

d) To take back the materials issued by the company but remaining unused, if any, in the work on the date of abandonment/reduction in the work, at the original issue price less allowance for any deterioration or damage caused while in custody of the contractor.

e) To pay for the transportation of tools and plants of the contractor from site to contractor's place or to any other destination, whichever is less.

10.5.01 The contractor shall, if required by the EIC furnish to him books of accounts, papers, relevant documents as may be necessary to enable the EIC to assess the amounts payable in terms of clause 10.5 (b) (c) & (e) of the contract. The contractor shall not have any claim for compensation for abandonment of the work, other than those as specified above.

#### 11. **Completion Certificate.**

Except in cases where the contract provides for "Performance Test" before issue of completion certificate, in which case the issue of completion certificate shall be in accordance with the procedures specified therein, the contractor shall give notice of completion of work, as soon as the work is completed, to the EIC. The Engineer-in-charge and or any other officer, nominated for the purpose by the company shall within 30(thirty) days from the receipt thereof, inspect the work and ascertain the defects/deficiencies, if any, to be rectified by the contractor as also the item, if any for which payment shall be made at reduced rate.

If the defects, according to the Engineer-in-charge are of a major nature and the rectification of which is necessary for the satisfactory performance of the contract, he shall intimate in writing the defects and instruct the contractor to rectify the defects/remove deficiencies within the period and in the manner to be specified therein. In such cases completion certificate will be issued by the Engineer-in-charge after the above rectification are carried out/deficiencies are removed by the contractor to the satisfaction of EIC.

In the event there are no defects or the defects/deficiencies are of minor nature and the EIC is satisfied that the contractor has already made arrangement for rectification, or in the event of contractor's failure to rectify the defects for any reason whatsoever, the defects

can be rectified by the company departmentally or by other means and the 50% of the security deposit of the contractor shall be sufficient to cover the cost thereof, he shall issue the completion certificate indicating the date of completion of the work, defects to be rectified, if any, and the items, if any, for which payment shall be made at reduced rate indicating reasons therefore and with necessary instructions to the contractor to clear the site/place of work or all debris/waste materials, scaffoldings, sheds, surplus materials etc. making it clean.

11.1. In case where separate period of completion for certain items or groups of Items are specified in the contract, separate completion certificate for such items or group of items may be issued by the EIC after completion of such items on receipt of notice from the contractor only in the event the work is completed satisfactorily in every respect.

Refund of security deposit and payment of final bill shall, however, be made on completion of the entire contract work, but on completion of such items of work.

## 12. Additional Responsibilities of the contractor(s)

The cost on account of the “Additional Responsibility of the Contractors” under this clause is deemed to be included in the tendered rates.

i) The company reserves the right to let other contractors also work in connection with the Project and the contractor /contractors shall co-operate in the works for the introduction and stores and materials and execution of his/their works.

ii) The contractor/contractors shall keep on the work site during the progress a competent and experienced Resident Engineer exclusively for the work and necessary assistants who shall represent the contractor(s). The contractor shall employ, on the site in connection with the execution and maintenance of the work, the following technical staff:

### **For Buildings, Roads, Water supply & Sanitary works.**

1	For value of work ranging from Rs.10.00 lakhs to 20.00 lacks	1 Experienced Diploma holder
2	.For value of work above Rs.20.00 Lacs and upto Rs.1.00 crore	1 Experienced Graduate Engineer in Addition to Diploma holder as per Sl. No. 4 Below
3	For value of work in excess Of Rs.1.00 crore & for every additional Rs. 2.00 crores or part thereof.	1 Experienced Graduate Engineer in Addition to Graduate Engineer & Diploma holder as per Sl. No. 1 & 4
4	For value of work in excess of Rs.20.00 lacs & for every additional Rs.50.00 lacs or part thereof	1 Diploma Holder Extra

### **For Industrial Structures.**

1	For value of work ranging from Rs. 5 lacs to Rs.15 lakhs.	1 Experienced diploma holder
2	For value of work over Rs.15 lacs and upto Rs.75 lakhs.	1 Experienced Graduate Engineer In addition to Diploma holder as per sl.no.4 below
3	For value of work in excess of Rs.75 lakhs & for every additional Rs.1.5 crore or part thereof.	1 Graduate Engineer extra in addition to Graduate engineer And Diploma holder as per sl. No.1 & 4.

4	For value in excess of Rs.15 lakhs & for Every additional Rs.50 lakhs value or part Thereof.	1 Diploma holder extra.
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The contractor shall intimate the EIC in writing the names, qualifications, experience and full postal address of each and every technical personnel employed at site by him.

The contractor(s) shall not be allowed to execute the work unless he/they engage the required technical staff at site as stated above. The delay on this account, if any, shall be the contractor's responsibility.

Important instructions shall be confirmed to the contractor(s) in writing .If any contractor/contractors in course of the woks finds/find any discrepancy between the drawing , forming part of the contract documents and the physical conditions of the locality or any errors or omissions in drawings except those prepared by himself/themselves and not approved by the EIC. It shall be his/their duty to immediately inform the EIC in writing and the EIC shall verify the same. Any work done after such discovery and without intimation as indicated above will be done at the risk of the contractor/contractors.

**iii)** The contractor /contractors shall employ only competent, skillful and orderly men to do the work. The EIC shall have the right to ask the contractor/contractors to remove from the work site any men of the contractor/contractors who in his opinion is undesirable and the contractor/contractors will have to remove him within three hours of such orders.

The contractor shall employ apprentices in the execution of the contract work as required under Apprentice Act.

The contractor shall further be responsible for making arrangements at his own cost, for accommodation and social needs of the staff and workers under his employment.

**iv)** Precautions shall be exercised at all times by the contractor(s) for the protection of persons (including employees) and property. The safety required or recommended by all applicable laws, codes, statues, and regulations shall be observed by the contractors. In case of accidents, the contractor(s) shall be responsible for compliance with all the requirements imposed by the workmen's compensation Act or any other similar laws in force and the contractor(s) shall indemnify the company against any claim on this account.

All scaffoldings, ladders and such other structures which the workmen are likely to use shall be examined by the Engineer-in-charge or his authorized representative whenever they want and the structure must be strong, durable and safe and of such design as required by Engineer-in-charge.

In no case any structure condemned by the EIC or his authorized representatives shall be kept on the work and such structure must be pulled down within three hours of such condemnation and any certificate or instructions, however, shall in no way absolve the contractor/contractors from his/their responsibility, as an employer, as the company shall in no way be responsible for any claim.

The contractor/contractors shall at all times exercises reasonable precautions for the safety of employees in the performance of his/their contract and shall comply with all applicable provisions of the safety laws drawn up by the State Govt.or Central Govt.or Municipality and other authorities in India. The contractor/contractors shall comply with the

provision of the safety hand book as approved and amended from time to time by the Government of India.

**v)** The contractor/contractors shall familiarizes themselves with and the governed by all laws and rules of India and Local statutes and orders and regulations applicable to his/their work.

**vi)** The contractor shall maintain all records as per the provision made in the various statutes including Contract Labour (Regulation&Abolition) Act, 1970 and the Contract Labour (Regulation & Abolition) Central Rules,1971, Minimum Wages Act, Workmen Compensation Act etc.and latest amendment thereof. Such records maintained by the contractor shall be opened for inspection by the EIC or by the nominated representative of the Principle Employer.

**vii)** The contractor/contractors shall provide facilities for the sanitary necessities of all persons employed on the work shall be constructed and maintained in the number, manner and place approved or ordered by the EIC/The contractor / contractors shall vigorously prohibit committing of nuisance at any other place. Cost of all works under this item shall be covered by the contractor/contractor's tendered rates.

**viii)** The contractor / contractors shall furnish to the EIC or his authorized representative with work reports from time to time regarding the contractor/contractors organization and the progress made by him/them in the execution of the work as per the contract.

**ix)** All taxes, whether Local, municipal, Provincial or Central etc. and cess, royalties etc. are payable or may become payable during the entire periods of contact, shall be to the contractor/contractors account and shall be deemed to have be included in the tender for the work to be executed by him/them.

However, in the event of any change in the Sales Tax on Works Contract as required by the Statutory Authority during the contract period, necessary adjustments will be made in contractual payment. For this purpose, the base date shall be the date on which the price bids / revised rice bids have been opened.

In case the company land is used for manufacture of bricks or extraction of gravels etc.the contractor will have to pay compensation to the company (apart from the liability of the contractor to make the payment of royalty etc.to the State Government) at the same rates or royalty fixed by the State Govt. or an appropriate deduction may be made in the rate to be paid to the contractors.

**x)** The contractor/contractors shall make his / their own arrangement for all materials, tools, staff and labourer required for the contract, which shall include cost of lead, lift, loading, unloading, railway freight, recruiting expenses and any other charges for the completion of the work to entire satisfaction of the company.

**xi)** The contractor / contractors shall make their own arrangement for carriage of all materials to the work site at his / their own cost.

**xii)** The work shall not be sublet to any other party, unless approved by Engineer in Charge, in writing.

**xiii) ( a)** No fruit trees or valuable plants or trees with trunk diameter exceeding 150mm shall be pulled, destroyed or damaged by the contractor/contractors or any of his/their employees without the prior permission of the company, failing which the cost of

such trees or plants shall be deducted from the contractor / contractors dues at the rate to be decided by the company. The rates quoted are supposed to include clearance of shrubs and jungles and removal of such trees upto 150mm dia., as well be permitted by the Engineer in Charge in writing.

**xiii) (b)** Anything of historical or other interest or of significant value unexpectedly discovered on the site is the property of the employer. The contractor is to notify the Nodal Officer or his nominee of such discoveries and carry out the Nodal Officer or his nominee's instructions for dealing with him.

**xiv)** The contractor/contractors shall not pay less than the minimum wages to the labourers engaged by him/them as per Minimum Wages Act or such other legislation or award of the minimum wages fixed by the respective State Govt. or Central Govt. as may be in force.

**xv)** All accounts shall be maintained properly and the company shall have the right of access and inspection of all such books of accounts etc., relating to payment of labourer considered necessary and the company may arrange for witnessing the payment of the labourer by its representatives.

**xvi)** The contractor shall in additions to any indemnity provided by the relevant clauses of the agreement or by law, indemnify and keep indemnified for the following:

**a)** The company or any agent or employee of the company against any action, claim or proceeding relating to infringement or use of any patent or design right and shall pay any royalties or other charges which may be payable in respect of any article or materials included in the contract.

However, the amount so paid shall be reimbursed by the company in the event such infringement has taken place in complying with the specific directions issued by the company or the use of such article or materials was the result of any drawing and/or specifications issued by the company after submission of tender by the contractor. The contractor must notify immediately after any claim being made or any action brought against the company, or any agent or employee; of company in respect of any such matter.

**b)** The company against all claims damages or compensation under the provisions o of payment of Wages Act, 1938, Minimum Wages Act, 1948, Employer's Liability Act, 1938, The Workmen's Compensation Act, 1923, Industrial Dispute Act, 1947, Mines Act as applicable, Employees State Insurance Act, 1948 and Maternity Benefit Act, 1961, Acts regulating P. F. or any modification thereof or any other law relating thereto and rules made there under from time to time, as may be applicable to the contract which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and also against costs, charges and expenses of any suit, action or proceedings arising out of any accident or injury.

**c)** The company against all losses and claims for injuries or damages to any third party or to any property belonging to any third party which may arise out of or in consequence of the construction or maintenance or performance of the work under the contract and against all claims/demands proceedings; damages cost, charges and expenses whatsoever in respect of or in relation thereto.

**xvii)** The contractor is under obligation to hand over to the company the vacant possession of the completed building/structures failing which the EIC can impose a levy upon the contractor upto 5% of the total contract value for the delay in handing over the vacant possession of the completed works after giving a 15(fifteen) days notice to the contractor.

**xviii) Insurance: a)** The contractor shall take full responsibility to take all precautions to prevent loss or damage to the works or part thereof for any reasons whatsoever (excluding act of God e.g. flood, riots, war, earthquake, etc) and shall at his own cost repair and make good the loss/damage to the work so that on completion, the work shall be in good order and condition and in conformity with the requirements of the contract and instructions of the EIC.

In case of construction works without limiting the obligations and responsibilities under the contract, the contractor shall take insurance policy for the total value of work for the period from commencement to completion including defect liability period against risk of loss/damage to the extent as permissible under the law of insurance.

The contractor shall arrange necessary insurance and pledge the same in the name of the company and all moneys payable by the insurers shall be recovered by the company which shall be paid to the contractor in installments as may be certified by the EIC for the purpose of rebuilding or replacement or repair of the works and/or goods destroyed or damaged for which payment was received from the insurers.

**b)** Where any company building thereof is used, rented or leased by the contractor for the purpose of storing or using materials of combustible nature, the contractor shall take separate insurance policy for the entire building and the policy shall be deposited with the company.

**c)** The contractor shall at all times during the pendency of the contract indemnify the company against all claims, damages or compensation under the provision of the workmen's Compensation Act and shall take insurance policy covering all risk, claims, damages or compensation payable under the Workmen's Compensation Act or under any other law relating thereto.

**d)** The contractor shall ensure that the insurance policy/policies is/are kept alive till full expiry of the contract by timely payment of premiums and it/they shall not cancelled without the approval of the company and a provision is made to this effect in all policies, and similar insurance policies are also taken by his sub-contractor if any. The cost of premium shall be borne by the contractor and it shall be deemed to have been included in the tendered rate.

**e)** In the event of contractor's failure to effect or to keep in force the insurance referred to above or any other insurance which the contractor is required to effect under the terms of the contract, the company may effect and keep in force any such insurance and pay such premium /premiums as may be necessary for that purpose from time to time and recover the amount thus paid from any moneys due to the contractor.

**THE CLAUSE 12 xviii SHALL BE APPLICABLE FOR WORKS OF ESTIMATED VALUE OF OVER RS. 50 LAKHS.**

**xix) Setting Out:** The contractor shall be responsible for the contract and proper setting out of the works and correctness of the position, reduced levels, dimensions and alignment

of all parts of the work including marking out the correct lay out in reference to the permanent bench mark and reference points. Only one permanent benchmark and basic reference lines shall be marked shown to the contractor as basic data.

The contractor shall have all necessary instruments, appliances and labour in connection therewith, if at any time during the progress of work any error is detected in respect of the position, levels, dimensions or alignment of any part of the work, the contractor on being required to do so by the EIC or his representative shall at the expenses of the contractor rectify such errors to the satisfaction of Engineer In charge unless such error is due to incorrect data supplied by the Engineer In charge.

**xx)** On receipt of Letter of Acceptance of Tender/Work-order the contractor shall forthwith Register and obtain License from the competent authority under the Contract Labour (Regulation & Abolition) Act, 1970, THE Contract Labour (Regulation & Abolition) Central Rules, 1971 and submit certified copies of the same to the EIC and the Principal Employer.

**xxi)** The contractor shall be registered with the concerned State Govt. and the Central Govt. in respect of Sales Tax Act and the Certificate having details of Registration No., period of validity etc. should be submitted to the EIC.

**xxii)** The contractor shall, in connection with woks, provide and maintain, at his own cost, all lights, security guards, fencing when and where necessary as required by the EIC for the purpose of protection of the works, Materials at site, safety of workmen and convenience of the public.

**xxiii)** All materials (e.g.stone, moorum and other materials) obtained in the course of execution of the work during excavation and dismantling etc. shall be the property of the company and the same may be issued to the contractors, if required for use in the works at the rates to be fixed by the EIC.

**xxiv)** Unless otherwise specifically provided for, dewatering of excavation pits, working areas etc shall be the contractor's responsibility and is to be carried out at his own cost as per instructions of EIC. The rates quoted by the contractor shall be deemed to include the dewatering costs.

**xxv)** Approval by the Nodal Officer/Engineer in Charge or his nominee: The contractor shall submit specifications and drawings showing the proposed temporary work to the Nodal Officer / Engineer-in-Charge or his nominee, who is to approve them if they comply with the specifications and drawings.

The contractor shall be responsible or design of Temporary Works.

The Nodal Officer / EIC for his nominee's approval shall not alter the contractor's responsibility for design of the Temporary Works.

### **13. Defects Liability Period**

In addition to the defect/s to be rectified by the contractor as per terms of the contract/work order, the contractor shall be responsible to make good and remedy at his own expense the defects mentioned hereunder within such period as may be stipulated by the EIC in writing.

- a) Any defect/defects in the work detected by the EIC within a period of 6 (six) months from the date of issue of completion certificate.

b) In the case of building works or other works of similar nature any defect in the work detected by the EIC within a period of 6 (six) months from the date of issue of completion certificate or before the expiry of one full monsoon period i.e. June to September whichever is later in point of time.

13.1 A programme shall be drawn by the contractor and the EIC for carrying out the defects by the contractor detected within the defect liability period and if the contractor fails to adhere to this programme, the EIC shall be at liberty to procure proper materials and carry-out the rectifications in any manner considered advisable under the circumstances and the cost of such procurement of materials and rectification work shall be chargeable to the contractor and recoverable from any of the pending dues of the contractors.

The defects liability period can be extended by the company on getting request from the contractor only for valid reasons.

There will be no defect liability period for works like Grass Cutting, Jungle Cutting, Surface Dressing & any other work of similar nature to be decided by the Engineer in Charge.

**14. Operating & Maintenance Manual :**

If “as built” drawings and / or Operating & Maintenance Manual are required the contractor shall supply them by the dates as per instruction of the Engineer – in – Charge.

If the Contractor does not supply the drawings and / or Manual by the dates as stated above, or they do not receive the Nodal Officer or his nominee’s approval, the Nodal Officer or his nominee shall withhold the amount as stated in the agreement.

**15. Settlement of Disputes / Arbitration**

15.1 It is incumbent upon the contractor to avoid litigation and disputes during the course of execution. However, if such disputes take place between the contractor and the department, effort shall be made first to settle the disputes at the company level. The contractor should make request in writing to the Engineer-In-charge for settlement of such disputes/claims within 30(thirty) days arising of the cause of dispute/claim failing which no disputes/claims of the contractor shall be entertained by the company.

15.2 If differences still persist, the settlement of the dispute with Govt. Agencies shall be dealt with as per the Guidelines issued by the Ministry of Finance. Govt. of India in this regard. In case of parties other than Govt. Agencies, the redressal of the dispute may be sought in the Court of Law.

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# **ADDITIONAL TERMS AND CONDITIONS**

## **SHUTTERING**

### **SPECIAL TERMS AND CONDITIONS OF CONTRACT**

#### **1. Construction Of Shuttering**

Shuttering shall be substantially and rigidly constructed of timber or steel or precast concrete or other approved materials and shall be true to the shape and dimensions described. Timber shall be well seasoned free from loose knots and for exposed concrete faces, free from wrought on all faces. Faces in contact with concrete shall be free from adhering grout, projecting nails splite or other defects that may mark the concrete surface.

All joints, excepts as hereinafter specified, shall be sufficiently tight to prevent leakage of cement grout and to avoid the formation of fins or other blemishes and all faulty joints shall be caulked. If timber boarding be continuously wet throughout the period of use, the joints shall not be tight when the shuttering be first constructed. Where the appearance of the concrete face be important, the position and direction of the joints shall be as described.

Opening for inspection of the inside of beams, well column and similar shuttering and for the escape of wash-water shall be formed so that they can be conveniently closed before commencing to place the concrete.

Connections shall be constructed to permit of easy removal of the shuttering and shall be either nailed, screwed, bolted clamped wired or otherwise secured to retain the correct shape during consolidating of the concrete by tamping, ramming, vibrating or other means. Bolts or clamps shall be used in preference to wire ties. Bolt holes in the concrete shall be made good after removal of bolt, if wire ties be approved, the ends shall be concealed and measure taken to prevent stress strains in the concrete face.

Top shuttering shall be provided to concrete faces where the slope exceeds 1 in 4 ½. Such shuttering shall be counter weighted or otherwise anchored against floating.

#### **1. a) Erection of Shuttering :**

Shuttering shall be erected true to line and braced & strutted to prevent deformation under the weight and pressure of concrete, constructional loads, wind pressure and other forces. The deflection shall not exceed 3mm. Beam soffits shall be erected with an upward camber of 6mm for each 3mtr. Of horizontal span. If so instructed, calculation and designs of the shuttering shall be submitted for approval before construction.

#### **2. Finish For Concrete Surface :**

Good surface for the exposed reinforced concrete must be assured by the contractor by using plane and true to shape form work. The slight local imperfection may be corrected by adequate touching by rubbing this projection by Carborandum stones. Plastering shall not be normally permitted on RCC surfaces. Correction of defects must be done as directed by the EIC.

Beams and slab shuttering shall be so erected that the shuttering on beam sides and also soffits can be removed without disturbing the beam bottom boards. Re-propping of beams shall not be approved except when props to reinstate to relieve the beam of loads in excess of the design load as hereinafter specified. Vertical props shall be supported on folding wedges on sole plate or other measures taken whereby props can be gently lowered vertically when commencing to remove the shutter. Props for upper stories shall be placed directly over those in the lower stories and the lower most props shall bear upon work sufficiently mature to carry the load.

The contractor shall be responsible for providing and maintaining sufficiently strong scaffolding so as to withstand all loads likely to come upon it. Also the safety and adequacy of centering and scaffolding shall be the sole responsibility of the contractor. If at any stage of work during or after placing concrete in structure the form work sags or bulges, gives way, the concrete shall be removed and work redone at contractor's risk and cost.

### **Coating Shuttering :**

All faces of shuttering or moulds in contact with wet concrete shall be treated with oil or other approved coating to prevent adherence of concrete. Such coatings shall be insoluble in water non-sustaining and not injurious to the concrete and shall not become flaky nor be removable by rain or wash water. Liquids that retard the setting of cement shall only be applied to the shuttering when described or instructed. Mould oils retarding liquids and similar coating shall be kept out of contact with the reinforcement.

Tolerance- Workmanship for dimensions, levels sizes, positions and cover.

1. For layout position or dimensions horizontal or vertical +/-
2. Level of floors, beams and lintels  $\frac{1}{4}$ " surface intended to be horizontal, must not slope more than  $\frac{1}{4}$ " in 10' – 5".
3. For cover of concrete around reinforcement +/-  $\frac{1}{8}$ "
4. For sizes of beams columns or wall thickness not less than specified or not more than  $\frac{1}{2}$ ". If lesser sections of concrete members are acceptable payments shall be made only for the actual section thus executed.

### **SPECIAL NOTES**

#### **Excavation:**

##### **1. Cleaning the site:**

The area required to be set out and should be cleared from all constructions such as stone materials, rubbish of all kinds, vegetation, bushes and trees (removed as directed and roots being entirely grubbed up). No payment shall be made for this to the contractor. In case trees having girth of size 6" or more are cut and removed the materials shall be the property of the company and should be handed over to the EIC.

##### **2. Setting out**

After clearing the site, a central line will be given by the EIC and it will be the responsibility of the contractor to go ahead with further detailed layout, being benchmarks etc. Permanent bench marking by constructing pillars and central line shall be permanently laid by the contractor at his own cost and shall remain at places till handing over the work.

### **3.Foundation:**

Foundation excavation shall include the removal of material of whatever mentioned and whether wet or dry exactly in accordance with the laid levels and contour shown on the plan or as directed by the EIC. It shall be taken to the exact level of the lowest footing and the site shall be left plumb out to slopes as per the instructions of the EIC, which shall in writing. The rates quoted shall be deemed to include dewatering of foundation trenches as long as water is a result of rain, seepage, sub-soil water or broken water mains. In case spring water is met, dewatering of which be the responsibility of the Management.

Measurement of quantities if not specified shall be based on IS: 1200-1974

### **4.Contract for plain and reinforced cement concrete.**

This specification covers the requirement of ordinary concrete of the specified properties for use in concrete items, special requirements if specified shall also apply.

#### **Materials.**

**Cement:** Cement shall be ordinary Portland cement and should conform to IS-269-1967.

**Water:** Water for mixing cement concrete shall not be salty or Brackish and shall be reasonably clear and free from objectionable quantities of salt and traces of oil, acid and injurious alkali salts, organic matter and other deleterious materials which will either weaken the concrete or cause efflorescence or attack the steel in RCC. Water shall be obtained from sources approved by the Engineer. Sources of water shall be maintained at such a depth and the water shall be withdrawn in such a manner as to exclude silt, mud grass or other foreign materials, container for transport, storage and handling of water shall be (water fit for drinking will generally be found suitable for mixing concrete).

**Water for curing:** Water for curing should not be too alkali, it should have a Ph value ranging between 4.5 to 6.5 it shall be free from element which significantly affect the hydration and reaction or otherwise interfere with the hardening of concrete. Hard and bitter water containing more than 10 days sulphates shall not be used. Portable water will generally be suitable.

**Fine Aggregate:** Sand for use in concrete work shall be natural sand or crushed stone screening sand shall be clean well graded hard stone durable and gritty particles free from injurious amount of dust, clay, Kankar Nodule,s soft or flaky particles, shale, alkali salts or organic matter, loam, mica or other deleterious materials and shall be approved by the Engineer. The maximum size of particles shall be limited to 5mm (about 3/16").

When the quality of fine aggregate is doubtful, it shall be tested for clay, organic impurities and other deleterious substances as laid down in IS-383/1963. It shall not contain deleterious materials in such quantity as to reduce strength or durability of the concrete or attack the reinforcement in case of the work. The fineness modulus may range between 2.6 to 3.5

**Coarse Aggregate-** Coarse aggregate shall consist of crushed or broken stone and be hard, strong, dense, durable, clean of proper gradation and free from and coating likely to prevent proper adhesion of mortar. The aggregate shall generally be cubical in shape as far as possible, flaky elongated pieces shall be avoided. Aggregate shall be broken from the best trap granite/quartzite/stones in order available in the region approved by the Engineer. Stone shall have not deleterious reaction with cement gravel of the appropriate grading may be permitted to be substituted for some proportion of the metal without price adjustment if it is shown that there by strength of concrete is increased and workability improved.

The maximum size of the aggregate should be as large as possible and in case should exceed  $\frac{1}{4}$  of the minimum thickness of the member provided this size presents no difficulty in the case of RCC to surround the roofs satisfactorily.

Approximate range in relevant grading of coarse aggregate may be of

Maximum size of aggregate

Percentage of coarse gate fracting

	40mm to 80mm	20mm to 40mm	5mm to 20mm	10mm to 20mm	5mm to 10mm
20mm(about $\frac{3}{4}$ " )	--	-	100 50-60	55-67 28-40	33-45 18-30
40mm(about 1 $\frac{1}{2}$ " )	20-36	40-50 16-36	35-44	10-30	13-20
80mm(about 3" )					

In the case of general concrete work maximum size 40mm, (about 1  $\frac{1}{2}$ " is used and in RCC work a maximum size of 20mm( $\frac{3}{4}$ " ) will be found satisfactory but it should be restricted to 6mm(about  $\frac{1}{4}$ " ) less than the cover which is smaller.

Coarse aggregate of a porous nature where absorption of water after 24 hour immersions in water is more than 5 percent by weight shall not be used. Limits of deleterious substances shall not exceed those as in IS-515/1959.

### Proportion of Mix.

In ordinary concrete, although proportion of cement to fine and coarse aggregate is specified by volume, the quantity of cement shall be determined by weight assuming and bag of cement weighing 50 kg.(about 110 lb)not to be equivalent to 35 ltrs.(about 1.2 cft). Fine and coarse aggregate shall be measured by dry volume in suitable wooden/steel boxes. Due allowance shall be made for bulking in the fine aggregate due to moisture if any, at the time of mixing.

Ingredients required for concrete containing 50 kg.bag of cement for different proportions of mix will be as under:-

<u>MIX</u>	<u>Cement</u>	<u>Fine AGGREGATE</u>	<u>COARSE AGGREGATE</u>	<u>WATER</u>
1:1:2	50 Kg	35 Ltrs	70 ltrs	23 to 27 Lts.
1:1.5:3	50 Kg	52.5 Lts.	105 Lts.	23 to 30 Lts
1:2:4	50 kg	70 Lts.	140 Lts.	27 to 32 Lts.
1:3:6	50 Kg	105Lts.	210 Lts.	37.2 to47.5 Lts.
1:4:8	50 Kg	140 Lts.	280 Lts.	47.5 to57.0 Lts.
1:5:10	50 Kg	175 Lts.	350 Lts.	56 to 68 Lts.

The ratio of the volume of fine aggregate and coarse aggregates may be varied within limits of 1:1  $\frac{1}{2}$  to1:2  $\frac{1}{2}$  as directed by the Engineer to suit the mix size of coarse aggregate, the grading density, workability and strength without extra cost. But the sum of the volumes of fine and coarse aggregate so adjusted shall however, be equal to the volumes of fine and coarse aggregate given for the particular mix.

The quantity of water shall be just sufficient but not more than sufficient to produce a dense concrete of required workability for its purpose.

An allowance shall be made for surface moisture present in the aggregate when computing water content as per IS 456 – 1964.

In the case of reinforced concrete work, the workability shall be such that the concrete will surround and properly grip all the reinforcement. Water cement ratio will be such as will give concrete just sufficiently wet to be placed and compacted without difficulty.

For vibrated concrete water content may be reduced by 15% to 20% to give required slump.

**Mixing :** Mechanical mixer should be used for all concrete work. Mixing shall be continued till there is uniform distribution of materials, colour and uniform coating on coarse aggregate. Mixing shall be done for not less than 1 ½ minutes. The water cement ratio shall be between 0.55 to 0.64 for 1:2:4 mix (for other as per IS 456 – 1964). Slump for concrete shall range between 2.5 cm to 5 cm. And shall be least permitted workability (Ref. IS 456 appendix – 6).

**Compacting :** The concrete shall be thoroughly compacted during depositing to get a dense concrete. The vibrator shall have not less than 3600 and preferably about 5000 impulses per minute and shall be worked to make required dense concrete without sinking and segregation of coarse aggregate.

**Curing :** The concrete shall be kept continuously wet preferably by ponding water for period of not less than 14 days from the date of placing continuously ( without a break ).

#### **Sampling And Testing:**

Sampling of materials and concrete shall be done carefully by the contractor under the direct supervision of departmental staff as per IS 456 – 1964 at the cost of contractor. All necessary labour, materials, equipments etc. for sampling, preparing test cubes curing etc. shall be provided by the contractor.

Compressive strength of concrete shall not be less than those specified below: -

#### **WORK TEST IN 15 CM CUBES (ABOUT 6")**

No.	MIX	Kg/sq.cm at 7 days	Kg/sq. cm at 28 days
1.	1:1:2:(M-250)	170	250
2.	1:1 ½:3(M-200)	135	200
3.	1:2:4 (M-150)	100	150
4.	1:3:6 (M-100)	70	100
5.	1:4:8	50	75

Set of 15cm cubes shall be prepared from concrete to be used in the work for compression test for every 20sqm. of concrete or part thereof in slab beams and connected columns and for every 5cum.of concrete or part thereof in column in a day or as desired by the Engineer-in- Charge. Normally a set will consist of 6 cubes of 15cm X 15cm. or as decided by the Engineer-in-Charge.

Three cubes shall be used for test at 7 days age and three at 28 days. If the source of aggregate or grading is changed, one set of this test shall be taken for each changes batch.

After 7 days testing defective concrete having strength less than 80% of required strength shall be rejected.

**STEEL:** Structural steel should conform to IS 226-1962, In case are not specified should be measured as per IS 1200 – 1974. Major earthwork measurements are to be made by levels taken initially and finally.

## **SUPPLEMENTARY TO ANNEXURE "A"**

### **ADDITIONAL SAFETY MEASURES TO BE TAKEN BY CONTRACTORS**

#### **SAFETY CODE**

- i) Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period works can be done safely from ladders. When a ladder is used an extra mozdor shall be engaged for holding the ladder if used carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than  $\frac{1}{4}$  to 1 ( $\frac{1}{4}$  horizontal and 1 vertical).
- ii) Scaffolding or staging more than 12 feet above the ground or floor, swung or suspended from an overhead support or stationary support shall have a guard rail properly attached, bolted, braced and otherwise secured at least 3 feet high above floor or platform of such scaffolding or staging and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- iii) Working platform, gangways and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the Gangway or the Stairway is more than 12 feet above ground level or floor level they should have adequate width and should be suitably fenced as described in (i) above.
- iv) Every opening in the floor of a building or in working platform be provided with suitable means to prevent the fall of person or materials be providing suitable fencing or railing whose minimum height shall be 3 feet.
- v) Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be provided securely fixed. No portable single ladder shall be over 30 feet in length while the width between side rails in rung ladder shall in no case be less than 11" or ladder up to and including 10' in length. For longer ladders this width should be increased at least  $\frac{1}{4}$ " for each additional foot of length. Uniform stop spacing shall not exceed 12". Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall also provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of defence of every suit, action, or other proceeding at all that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to consent of the contractor be paid to compromise any claim by any such person or which may with the any such person.
- vi) **Excavation And Trenching :**

All trenches four feet or more in depth shall at all times be supplied with at least one ladder for each 100 feet in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 3 feet above the surface of the ground. The side of the trenches, which are 5 feet or more in depth, shall be stopped back to give suitable slope or security held by timber bracing, so

as to avoid the danger of sides to collapse. The excavated materials shall not be placed within 5 feet of the edge of the trench or half of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances under mining or undercutting shall be done.

vii) **Demolition:**

Before any demolition work is commenced and also during process of the work.

- a) All roads and areas adjacent to the work site shall either be closed or suitably protected.
- b) No electric cable or apparatus which is liable to be a source of danger even a cable or apparatus used by the operator shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to persons employed from risk of fire or explosion or flooding. No floor, roof or other part of building shall be so overloaded with debris or materials as to render it unsafe.

viii) All necessary personal safety equipment as considered adequate by the Engineer in Charge should be kept available for the use of the persons employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

- a) Worker employed in mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- b) Those engaged in white washing and mixing or stacking of cement bags or any materials, which are injurious to the eyes, shall be provided with protective goggles.
- c) Those engaged in welding works shall be provided with welders.
- d) Stone brokers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- e) When worker's are employed in sewers and manholes, which are in use the contractors shall ensure the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or board to prevent to the public.
- f) The contractor shall not employ men below the age of 18 and women of the work of painting with products containing lead in any form, whenever man above the age 18 are employed for the work of lead painting, the following precaution should be taken.

- 1) No paint containing lead or products should be used except in the form of paste or readymade paint.
- 2) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scraped.
- 3) Overalls shall be supplied by the contractors to the workmen and adequate facilities shall be provided to enable the working painters to wash during the process of work.

ix) When the work is done near any place where there is risk of drowning all necessary equipment should be provided and kept ready. Prompt rescue of any person in danger, adequate provision should be made for prompt first-aid treatment of all injuries likely to be sustained during the course of all work.

x) Use of hoisting machines and tackle including their attachment anchorage and support shall conform to the following standard or conditions.

1. a) Those shall be a good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.

2. Every crane driven or hoisting appliance operator shall be properly qualified and non person under an age of 21 years should be in charge of any hoisting machine including scaffold which or give signals to the operator.

3. In case of every hoisting machine and of every chain ring book ,shackle swivel and pulley block used in hoisting or lowering or as means of suspension of the safe working load

shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable safe working load each safe working load of the conditions under which it is applicable shall be indicated. No part of any machine or of gear referred to above in this photograph shall be loaded beyond the safe working load except for the purpose of testing.

4). In case of departmental machine, the safe working load shall be notified by the Electrical Engineer in Charge, as regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of the work and get it verified by the Electrical Engineer concerned,

xi) Gearing, Transmission, Electric wiring and other dangerous parts or hoisting appliances should be provided with efficient safe guard. Hoisting appliances should be provided with such means as will reduce to minimum risks of accidental descent of the load. Adequate precaution should be taken to reduce to minimum risks of any part of suspended load becoming accidentally displaced

When workers employed on electrical installation, which are already energised, insulating mats wearing apparel, such as Gloves, sleeves and Boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.

xii) All scaffolds ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at near places of work.

xiii) Those safety provisions shall be brought to the notice of all concerned by display on a Notice Board; at a prominent place at the workspot. The person's responsible compliance of these safety codes shall be named therein by the contractor.

xiv) To ensure effective enforcement of the safety regulations relating to Safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineer-in-charge of the department or their representatives.

xv) Notwithstanding the above clauses for (1) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rules in force in the Republic of India.

### **Eastern Coalfields Limited Schedule-C General specification**

**BRICKS** : Bricks manufactured in Bull Patent Kiln/Trench only shall be used unless otherwise specified. Bricks should be of uniform size, shape and colour and must be well burnt so as to give a clear ringing sound when struck and should not break when on the ground or against other bricks. They shall be clean, whole and free from flaws, cracks and underburnt lump of any kind especially lime, and shall have sharp edges and even surfaces. Bricks which when soaked in water for **24** hours absorb more water than one fifth of their dry weight shall be rejected.

The burnt bricks shall be 10"x 5"x3" in size with a variation of 1/8" on either side. The bricks shall be manufactured from carefully selected good firm loam with necessary admixture of sand.

#### **2. Bricks Aggregate for lime Concrete:**

The brick aggregate shall be from hard well burnt brick bats and shall not exceed 1 1/2" size and shall be free from dust, clay, grass or any other foreign matter.

### **3.Surkhi :**

Surkhi shall be made from well burnt bricks and should pass through a sieve of ½” mesh. In no case over burnt bricks to be used for the manufacture of Surkhi.

### **4.Sand :**

Sand shall be clean sharp and coarse and free from all impurities and organic matter and be such as to pass through a 64 mesh sieve .

### **5. Lime :**

Lime stone shall be in the work. It shall be slaked just before use. All impurities, ashes or pieces improperly or carelessly burnt shall be screened or picked out before slaking and removed at once from the work. Lime should pass through screen 12/12 mesh to the square inch and stored in a dry place.

### **6. Aggregate for Cement Concrete:**

Aggregate for cement concrete shall be from trap quartzite or hard quartz stone which shall pass through 1” mesh and rest on ¼” mesh screen. The aggregate shall be well screened and washed before use and shall be free from foreign matter.

### **7. Cement Mortar:**

The mortar shall consist of cement and sand mixed in the proportion defined in the relevant schedule item for the various item of work. Only measured quantity shall be used. Sand and cement shall be spread on a clean dry platform in layers one over the other and mixer only when the mortar is required for use, and than only a sufficient quantity to make the materials moist.

### **8. Lime Concrete:**

The mixer shall have slaked lime, surki and sand in the proportion defined in the relevant schedule item for the various item of work. Ground cinder may be used when directed by the Engineer in Charge, Lime Surki and sand are to be mixed dry on a platform on masonry and then sprinkled with necessary quantity of water and ground in the mortar mill.

### **9. Aggregate for Re-inforced Concrete:**

Aggregate for R.C.C. shall be from trap, quartzite or hard quartz stone. The aggregate shall pass through 1” mesh and rest on mesh screens it shall be well screened and washed before use and contain no foreign matter.

### **10. Earthwork in excavation:**

Excavation shall be strictly as shown in the plans. Bottom of trenches shall be dressed level. All excavated earth will be placed not less than 5 feet from the foundation trench or as directed by the Executive Engineer.

All earth fillings in the plinth or foundation basements will be done in not more than 6” layers well watered and rammed.

### **11.Lime Concrete:**

The concrete shall consist of aggregate of the proportion, mentioned in the schedule of items of approved quantities 1" gauge and down mixed with lime mortar. The concrete shall be mixed on level platform. The aggregate shall be first washed, clean thoroughly wetted and placed to an even thickness on platform. Dry mortar mixed in proper proportion as specified in the schedule of quantities shall then be evenly spread over the aggregate and aggregate/When the bed for the concrete is properly wetted, rammed and prepared, the concrete shall be laid carefully in position in layers not exceeding 6".The bucket etc.shall never be thrown from a high but gently laid with the bucket. Each layer shall be well rammed and kept wet after the days works for such time till it is set and give no impression of the rammer when dropped over it.

### **12.Cement concrete:**

The preparation of the concrete will be the same as specified in the schedule of quantities and will be strictly adhered to the concrete shall be mixed properly in power driven mixer in such manner as to avoid loss of water, The Concrete shall be mixed for a minimum period of two minutes or until it is of even colour and of uniform consistency throughout, Handmixed concrete shall contain 10% extra cement and shall be made on hard, clean and even surface. The cement and sand will be mixed dry until the mixture is uniform, in colour. It shall then be spread evenly over the coarse aggregate and mixed uniformly. The water shall then be added and the whole mixed thoroughly until the mass is uniform in colour and consistency.

Concrete shall be handled from the place of mixings to the place of final deposit as rapidly as practicable. The concrete once laid shall not be disturbed and shall be kept thoroughly damped by means of well matting and sand.

The aggregate should consist of stone ballast of quality approved by the Executive Engineer and shall consist of graded size; 3/4 " and down gauge as per C.P.W.D specifications.

### **13.Brick work in Mud Mortar:**

The mud to be used for mortar shall be from selected earth of tenacious nature to which sand shall be added in such quantity that a dried lump of the mixture shall not show signs of cracking. The mud shall be well trodden and variation in the consistency of paste will be effected by the addition of sufficient water care being taken to remove all clods stones.

### **14.Brick work in Lime Mortar:**

Shall be done with brick soaked in water for not less than 4 hours before use in work. The proportion of mortar will be same as per schedule of quantity, which will be strictly adhered to. The completed work should be perfectly in accordance with the drawing so far the line level and verticality is concerned only mortar mixed properly in bailchaki to be used.

### **15.Brick work in cement Mortar in Foundation Plinth & Superstructure:**

Only selected bricks approved by the Executive Engineer shall be used in the masonry. The bricks must be soaked in water for 6 hours before use. There should be proper bonding and shall be carried through the full width of the wall, each course being truly longitudinal neither horizontal nor vertical joints shall be of greater thickness than 1/4"

The proportions of mortar will be as specified in the schedule of quantities .All old works to be kept thoroughly watered for two days before any new work is put on it. The other specification will be same as that of CPWD

## **16.Damp Proof course:**

Damp proof course to a thickness as specified in the drawing will be laid over the plinth after cleaning the brick work thoroughly of all its loose mortar striking on the surface and wetting in thoroughness. The concrete shall be done with stone ballast of  $\frac{3}{4}$ " size graded, in proportion of 1:2:3 (1 cement:2 sand:4 chips) cement concrete for D.P.C should be cured for 5 days before hot coat of bitumen is applied on it. The bitumen pointed surface should be immediately sealed with sand.

## **17.Lime concrete 3"Thick in floors and with brick Ballast:**

$\frac{13}{4}$ " brick aggregate and down gauge as specified by the Engineer-in charge with 40% of lime mortar consistent of 1 lime & 3 sand shall be used. The aggregate and mortar shall be thoroughly mixed before laying and rammed. Consolidation shall be done until a skin of pure mortar covers the surface & completely hide aggregate. No mortar or water shall be added during ramming. The mortar shall be mixed in a Bail Chukey.

## **18.1" Patent stone flooring 1:2:4**

The concrete shall consist of 1 cement: 2:sand:4 stone ballast  $\frac{1}{2}$ " & down gauge. In all cases only measured quantities shall be used. Cement and sand shall first be mixed dry and then mixed with the aggregate. The whole shall then be laid properly mixed with the water and then laid in a layer of 1" thick cover prepared sub-base and beaten thoroughly with wooden straightedge. The surface shall be finished with a coat of neat cement to the satisfaction of the Engineer-In-charge. The finished floors shall be kept wet for at least 7 days.

## **19.Reinforce cement concrete 1:2:4 slabs, roofings lintels Chajja:**

Reinforcement to be done with a network of M.S. Rods as specified under quantity schedule of by the Engineer in-charge Rods and netting. Shall be waven by the contractor his own cost. Every alternative cross over of M.S rods shall be tied fast with binding wire of approved gauge. The netting shall lbe of p roper size. The concrete shall be for good clean aggregate properly damped with clean water. Size of the stone aggregate to be used shall be  $\frac{3}{4}$ " gauge and below. The p ropor5ion shall be 1 cement: 2 sand and: 4 ballast. Before lying the concrete the centering and framework will have to be approved by the EIC or his authorized Officer.

The concrete shall be well mixed before laying and vibrated properly till mortar comes out the surface and the reinforcing rods are thoro9ghoyi embedded in concrete.

Care is not o be taken that specified covering is there and no reinforcing materials is exposed from outside. The laid concrete should not be disturbed and should be kept wet for 10days. The centering will be removed only afte4 7 days of placing the concrete or as directed by the Executive Engineer.

The general specification of C.P.W.D will be followed in all respects.

## **20.Plaster inside out side:**

Prior to the application of plaster the face the wall shall be cleaned and the joints of the bricks work raked out to depth of  $\frac{1}{2}$ " and properly watered for at least 6 hours. The plaster shall be thoroughly smoothed and rubbed with straightedges & wooden flats in proper workman like manner. Watering shall be continued for 7 days on the finished surface.

The mortar will ordinarily consist of cement and sand in the proportion as specified in the schedule of quantity, which should be strictly adhered.

Where lime also specified the cream of lime shall be prepared by thoroughly slaking required quantity of quick lime with the minimum quantity of water in order to get on thick slurry. This slurry of cream of lime shall than be screened through a cloth to remove all dirt and any unslaked lime particle.

Sand shall be measured by volume in suitable sizes measuring boxes while cement shall be measured by weight taking bag as (1:20) Cft. Screened cream of lime shall be mixed together in requisite proportion and the whole then Mixed with necessary quantity of cement .the minimum quantity of water give a working consistency to the mix should only be added and no more. The plaster shall be applied immediately after mixing maintaining the said precaution as for cement mortar.

### **21. Cement Plaster Dado 1:3**

All the joints of masonry should be raked out  $\frac{3}{4}$ " deep and the walls should be thoroughly wetted at least 6 hours before the plaster is laid. The plaster shall then be laid on which somewhat more than the required thickness and leveled and finished with a trowel. The plaster shall be kept constantly watered for three weeks. The thread liling is to be done. It shall be done before the cement makes initial set.

### **22. 5" Thick Trelling Work In Cement Mortar 1:3**

5" thick 1<sup>st</sup> class Trelliswork in cement mortar 1:3 will be done with brick soaked in water for not less than 4 hour before use in work. Watering to be continued on finished trelliswork for at least 7 days. Freshly mixed mortar shall be used and  $\frac{1}{2}$ " thick cement plaster as directed by the Executive Engineer shall be applied.

### **23. White washing 3 coats:**

White wash shall be prepared from burnt shell lime when thoroughly mixed with water. It should give a thin creamy consistency. It should be screened through clean cloth. Clean. Gum dissolved in hot water of good conjee water shall be added proportion of 2 ounces to 1 Cft for which coat is allowed to be applied. The new wall shall be well cleaned and brushed. Each coat of white wash should be allowed to dry before applying the next coat

### **24 Colour Washing:**

. The colour wash shall be prepared and applied in accordance with the standard specifications for white washing except that the contractors shall provide colouring matter specified and order by the Engineer in Charge during use. The colour should be stirred continuously during use. The colour should be of even tint over the whole surface.

### **25. Lime Concrete Terracing on Roof:**

Brick aggregate 1" and down gauge with 50% mortar consisting of 1 lime: 2 surkhi shall be used. The brick aggregate will be well watered before mixing up with mortar. The lime should be thoroughly screened and made from Kankars. The mortar should be mixed in bailchakey separately and then mixed thoroughly with the aggregate before laying over roof. This mixtures shall be properly leveled before beating. The concrete shall be thoroughly consolidated by beating with wooden metals ( Thapies ). Lime water shall be sprinkled at intervals on the terrace to keep it wet while being beaten, Proper slopes are to be made towards caves for flew of the rain water. In no case shall be mixture be allowed to dry until the work is complete. The surface shall be softened by being prikled with clean water, and the mortar which will rise to the surface during beating shall be smoothed and finished of with lime slurry gur and belguri treatment complete . No plastering shall on any account be put on the surface .Watering shall be continued for 10 days after the completion of the work at the cost of the contractor . Ghoondi to be made of the same mix

as in terrace along with junction of the parapets roof to the design as per the instruction of the Engineer-in-charge.

## **26. Sal Wood Door And Window Frames :**

The frame shall be made of well seasoned sal wood free from sap, bend flaws, sun cracks of blemishes of any kind. Alternatively Kiln seasoned & treated Badam or Chuglum free from sap, bends, sun cracks shakes or blemishes of any kind will be acceptable.

## **27. Door and Window Shutters :**

Panelled and glazed shutter 1" to 1" thick shall be of 1<sup>st</sup> class Indian Teak wood and 1" to 1 ¼" battened shutter shall be of wood as specific by Executive Engineer kiln seasoned and treated Badam wood or Chuglum wood will also be acceptable. They shall be framed put together, plained smooth in all surfaces and finished in accordance with the best class of joinery.

Panels of fully or partly paneled doors shall always be of the same class of wood as the shutter, frames, styles, top froize, lock and bottom rails of frame shutter and posts, heads and sills or threshold plates of frame shall be continuous throughout their length the mounting being divided into as many parts as required by the position of the rails, Panel, shall always be made in one piece.

## **28. Holdfasts :**

15"x1 ½"x3/8", 12"x1/2" x3/8" M.S. Plat holdfasts shall be set in cement concrete 1:2:4:6 nos for each door 4 nos window and 2nos. for each clearstory window.

## **29. Pucca Drain**

Earth excavation for cutting trenches for drain shall be done by the contractor and got approved by the Engineer-in-Charge. The detain" dia

Shall be made from well-burnt bricks with cement concrete bed sizes shall be as specified in the schedule. The surface of the top, sides and beds shall also be done.

## **30. painting Doors and Windows:**

Painting of two coats over a coat of priming to all doors and windows shall be done. The quality and shade of the paint shall be approved by Engineer-in-Charge. The wood surface to be painted shall be thoroughly cleaned and sand papered before painting.

## **31. Window Gratings:**

3/4" dia M.S. ROUNDS Vertically and 1 ¼"x1/8" M.S Flats horizontally shall be fixed to windows. The vertical bars shall be 3" center to center.

## **32. 1/4" Cement Plaster (1:4) In Ceiling:**

The surface of the ceiling to be plastered should be thoroughly cleaned and damped before the plaster is laid. Part of clean cement and 4 parts of screened sand shall be mixed and immediately applied on the surface.

## **33. Constructing Brick Masonry Chula:**

Wire netted RCC Jalli ventilators of required size shall be fixed in the wall as per specification and drawing.

**34.Ventilator[s]:** Wire netted of RCC Jalli ventilators of required size shall be fixed in the walls as per specifications and drawings.

**35. Asbestos Rain Water Pipe:**

In order to facilitate painting, all pipes will be blocked 1 2/2"from the wall. Asbestos heads and shoes shall be provided of the proper size of rain water pipes. The shoe, being fixed 6"above ground. Level.

**36.Fan Clamps:**

5\8"dia M.S fan hooks shall be provided and fixed in the ceiling for electric fans.

**37.Fly-Proof doors:**

Galvanized iron fly proof webbing 16x16 mesh per inch shall be used. The webbing shall be fixed securely to the styles, rails and mounting by G>I Stipples at about 6"intervals. The styles, rails and mountings around the fly proof webbing shall be molded.

**38.Items not covered by above will be guided by the specification of the C.P.W.D. or as decided by the Engineer-in-charge whose interpretation will be final.**

**39.Testing of Construction Materials:**

For testing the quality of construction materials as laid down in the relevant I.S codes the contractor shall arrange the testing as per Instruction and at laboratory site duly approved by the E.I.C.The cost of sampling, transpiration to laboratory and testing charge will be borne by the contractor.

**UNDERTAKING IN CASE TENDER DOCUMENTS DOWNLOADED FROM WEB LSITE**  
**(TO BE SUBMIETTED BYTHE TENDERER ALONG WILTH APPLICATION FEE IN A**  
**SEPARATE ENVELOPE LANDNOT THE PART – I/EMD)**

**To**  
**The General Manager**  
**Jhanjra Artea,PO Jhanjra(BO)**  
**Dist.Burdwan(WB)**

Dear Sir

Sub: UNDERTAKING

Re:NIT No.GM/JNR/Civ/11-12/1376 Dt. 07.02.2012(SL.No,01)

I/We have carefully read the terms and conditions given in the tender document, NIT will accept the tender document as available In the Website .We also accept that our tender shall be rejected if any tampering in the tender document is found to be done at the time of opening of thetendfer.

Yours faithfully,

PROFORMA FOR EXECUTION OF AGREEMENT

STAMP PAPER

This agreement is made on.....day of.....between (Name of Company) having its registered office at..... (hereinafter called the 'COMPANY' which expression shall, unless repugnant to the subject or context, include its successors and assignees) of the one party and (Name of the Contractor) carrying on business as a (Partnership/proprietorship/Ltd./Ltd.Co.etc.) Firm under the name and style.....(hereinafter called the 'said Contractor' which expression shall, unless the context requires otherwise include them and their respective heirs executors, administrators and legal representatives) of the other part.

Whereas the Company invited tenders for the work of".....ad whereas the said Contractor/Firm submitted tender for the said work and deposited a sum of Rs.....as Earnest Money and whereas the tender of the said contract has been accepted by the Company for execution of the said work.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- 1) In this agreement words and expressions shall have the same meaning as are respectively assigned to them in the tender papers hereinafter referred to.
- 2) The following documents which are annexures to this agreement should be deemed to form and be read and construed as part of this agreement viz.

- |                 |                                                                                                     |
|-----------------|-----------------------------------------------------------------------------------------------------|
| i) Annexure-A   | Tender Notice (Page.....to.....)                                                                    |
| ii) Schedule-A  | General terms & conditions. Special conditions and General technical specification(Page ...to.....) |
| iii) Schedule-B | The probable Quantities and Amount (Page.....to.....)                                               |
| iv) Schedule-C  | Negotiation letters -                                                                               |
| v) Schedule-D   | Letter of Acceptance/Work-order (Page.....to.....)                                                  |
| vi) Schedule-E  | Drawings (page.....to.....)                                                                         |

3)In consideration ;for the payment of the sum of Rs.....(W/O Value both in words and figures) or such other sum as may be arrived at under the clause of the specification relating to payment by Items measurements at unlit price by the Company, the said Contractor shall, subject to the terms & conditions contained herein execute and complete the work as described and to the extent of probable quantities as indicated in schedule B with such variations by way of alteration, addition to or reduction from the said works.

4)The Company has convertedf a sum of Rs.....only,from the amount of Rs.....deposited by the said contractor as earnest Money,into'Initial Security Deposit' of 2% of the awarded WORK VALUE .The excess/balance amount of earnest money shall be adjusted in the RA Bills(s).

5.The said contractor hereby covenants with the company that the Company shall retain a sum of Rs.....or such sum as may be arrived at based on the executed value of the work, as security deposit for the fulfillment of the contract to the satisfaction of the Company.

IN WITNESS WHEREOF THE parties hiererein hiave set their hiandsd aeals the date and y ear above written.

1. Partner Signature

2. Partner Signature

On behalf of M/s.....

The Contractor, as one of the constituted attorney.

In the presence of

1.Name\_\_\_\_\_Signature

Address :

Occupation :

Signed by Sri.....on behalf of  
(Name of Company) in presence of-

1. Name Signature

2.Address

PROFORMA OF BANK GUARANTEE IN LIEU OF SECURITY DEPOSIT.  
-----

M/s. Eastern Coalfields Limited,  
Sanatoria, Post.Dishergarh,  
Dist.Burdwan (WB)  
Pin-713363

Dear Sir

In consideration of M/s Eastern Coalfields Limited having its Registered Office at .....hereinafter called"the Company" which expression shall unless repugnant to the subject or context includes its successors and assigns) having agreed under the terms and conditions contained in letter No.....dated.....issued in favour of M/s.....for.....(hereinafter referred to as" the contract" to accept the Deed of guarantee as herein provided for Rs.....from the Schedule/Nationalized Bank in lieu of security deposit to be made ny M/s.....(hereinafter called "Contractor")or in lieu of deduction to be made from the contractor's bill, for the due fulfillment the terms and conditions contained in the said contract by the co ntractor,we the.....Bank(hereinafter referred to as the said Bank)having its Registered Office at.....do hereby undertake and agreed to p ay the company to the

extent of rs.....on demand stating that the amount claimed by the company is due and payable by the contractor for the reasons of failure/negligence in performing the terms and conditions contained in the contract by the buyer and to unconditionally pay the amount claimed by the company on demand without any demur to the extent aforesaid.

We.....Bank agree that the company shall be the sole judge as to whether the said contractor has failed/neglected in performing any of the terms & conditions of the said contract and the decision of the company in this behalf shall be final and binding on us.

We the said Bank further agree that the Guarantee herein contained shall remain in full force and effect upto.....and any claim received after the said date shall in no case bind the Bank.

The Company shall have the fullest liberty without affecting in any way the liability of the Bank under this guarantee or indemnity from time to time vary any of the terms and conditions of the said contract or to extend the time of performance by the said contractor or to postpone any time and from time to time any of the powers exercisable by it against the said contractor and either to enforce or to forbear from enforcing any of the terms and conditions governing the said contract or securities available to the company and the said Bank shall not be released from its liability under these presents.

Notwithstanding anything contained herein the liability of the said Bank under this guarantee is restricted to Rs,.....and this Guarantee shall come into force from the date hereof and shall remain in full force and effect till.....Unless the written demand or claim under this guarantee is made by the Company with us on or before.....all rights of the company under this guarantee shall cease to have any effect and we shall be relieved and discharged from our liabilities hereunder.

We the said Bank lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing and agree that any change in the constitution of the said contract or the said bank shall not discharge our liability hereunder. This guarantee issued by Sri.....who is authorized by the Bank.

Under jurisdiction of.....court only,

PROFORMA OF BANK GUARANTEE FOR PERFORMANCE SECURITY OF THE CONTRACT.

To

.....  
.....

Re. Bank Guarantee in respect of Contract No.....

Dated.....Between.....(name of the )

And.....(name of the Contractor)

M/s.....(Name and address of ;the Contractor)hereinafter called” the Contractor” with M/s.....(name of the Company(hereinafter called “the Company”)o execute.....(name of the contract and brief description of work)on the terms and conditions contained in the said contract.

It has been agreed that the Contractor shall furnish the Bank Guarantee from a Nationalised bank for a sum of Rs.....as security for due compliance and performance of the terms and conditions of the said contract.

The.....(name of the Bank)having its Office at.....has at the request of the contractor agreed to give the Guarantor hereinafter contained.

We, the.....Bank (hereinafter called “the Bank” do hereby unconditionally agreed with the Company that if the contractor shall in any way fail to observe or perform the terms and conditions of the said contract or shall commit any breach of its obligation thereunder,the Bank shall on demand and without any objection or demur to pay to the company the said sum of Rs.....or such portion as shall then remain due with interest without requiring the Company to have recourse to any legal remedy that may be available to it to compel the Bank to pay the sum, or failing on the company such payment by the contractor.

Any such demand shall be conclusive as regards the liability of the contractor to the company and as regards the amount payable by the Bank under this Gurantee.The Bank shall not be entitled to withhold payment on the ground that the Contractor has disputed its liability to pay or has disputed the quantum of the amount or that any arbitration or legal proceeding is pending between the company and the Contractor regarding the claim.

We, the.....Bank further agree that the Guarantee shall come into force from the date hereof and shall remain in force till the period that will be taken for the performance ;of the said contract which is likely to be .....day of.....but if the period of contract is extended either pursuant to the p provisions in the said contract or by mutual agreement between the contractor and the company the Bank shall renew the period of the bank Guarantee failing which it shall pay to the company the said sum of Rs.....or such lesser amount of the said sum of Rs.....as may be due to the company and as the company may demand.

This Guarantee shall remain in force until the dues of the company in respect of the said sum of Rs.....and interest are fully satisfied and the Company certifies that the Contract has been fully carried out by the Contractor discharged the guarantee.

The Bank further agrees with the company that the company shall have the fullest liberty without consent of the Bank and without affecting in any way the obligations hereunder to vary any of the terms and conditions



**EASTERN COALFIELDS LIMITED**  
(A Subsidiary of Coal India Limited)  
Sanctoria, P.O.: Dishergarh, Dt.: Burdwan(WB)  
**PIN : 713363**

# **PART - II**

**NIT NO:GM/JNR/Civil/11-12/1376 Dt: 07.02.2012(SL.No.1)**

- 1 -

**EASTERN COALFIELDS LIMITED**  
A Subsidiary of Coal India Limited )  
Sanctoria, P.O.Dishergarh,Dt. Burdwan.

**Part - II (Contains)** : Ten pages.

Tender Notice No. GM/JNR/Civil/10-11/1376 Dt: 07.02.2012(SL.no.1)

Name of **work-** Making Manhole side wall with Joist support at 368.57 m parallel drift of Main Incline at MIC,Jhanjra Project Colliery

Date & time of Submission **On 27.02.2012**  
of Tender **from 9:30 AM to 12:30 PM**

Date & time of opening of  
Tenders (Part – II ) To be intimated to bidders who qualify in Part -I.

Name & Address of the  
Tenderer to whom issued -----  
-----  
-----  
-----

Date of issue -----  
Cost of Tender paper (1) Rs 568.00  
Cash Receipt No. & Date -----

Signature of the Officer  
Issuing Tender Papers

- 4 -

## **PART – II (Price Bid )**

Tender Notice No. GM/JNR/Civil/11-12/1376 Dt: 07.02.2012(**SL.no.1**)

1. Name & Address of Tenderer:
2. Name of person/Official (with designation) authorized to submit price bid: :
3. Amount of Earnest Money deposit :
4. Date of opening Tender (Part-II) : After consideration of Part-I.
5. Name & place of work :

I/We hereby agree to do the above mentioned work as per my/our quoted rates as under with due consideration of various stipulations given in the Part-I & Part-II of the tender document Governing my/our quoted rates irrespective of whether all are specifically mentioned in the description of item or not.

I/We also hereby declare to abide by the all terms & conditions and various stipulations of the tender documents (Part-I & Part-II).

**Signature of Contractor with Seal**

**ABSTRACT OF COST**

**Name of Work-Making Manhole side wall with Joist support at  
368.57 m parallel drift of Main Incline at MIC,Jhanjra Project  
Colliery**

<b>SL.No.</b>	<b>Item</b>	<b>Amount</b>
<b>01</b>	Part-A	Rs.2,71,583.48
<b>02</b>	Part-B	Rs.50,405.52
<b>03</b>	Part-C	Rs.13,48,354.35
	<b>Total of Part-A+B+C</b>	<b>. Rs.16,70,343.35</b>

## BILLOF QUANTITY

**Name of Work-Making Manhole side wall with Joist support at 368.57 m parallel drift of Main Incline at MIC,Jhanjra Project Colliery.**

Part-A					
Sl.No.	Description of item	Quantity	Unit	Rate	Total Amount
<b>Part-A</b>					
01	Drivage in hard stone by drilling & blasting including debris cleaning roof and side dressing disposal of debris upto 15m & cost of drill rods & drill bits.	335.50	cum	677.64	2,27,348.22
2	Cutting hard stone by hand at roof level to accommodate joists support at roof level at +2L R-VIIA seam and +L of R-VII seam	55.96	cum	790.48	44,235.26
<b>Total of part-A</b>					<b>2,71,583.48</b>
<b>PART-B(Explosive &amp; Detonator cost)</b>					
1	Explosive 2Kg/cum.drivage 335,50x2Kg=671Kg	671.00 kg	kg	Rs.52.36	35,133.56
2	Detonator- 2 detonators/Kg explosive=671x2=1342 nos.	1342 nos.	Nos.	Rs.11.38	15,271.96
<b>Total of Part-B</b>					<b>50,405.52</b>
<b>PART-C (Civil Portion)</b>					
<b>C-1 -Based on Analysis Rate</b>					
1	<b>Recess cutting in hard stone</b>	13.68	Cum	<b>1130.11</b>	15,459.90
2	<b>Cleaning of materials</b>	20.52	Cum	<b>108.35</b>	2,223.34
3	<b>Manual lead upto 60mtr</b>	491.00	tub	<b>25.60</b>	12,569.60
<b>Total of C-1 based on Analysis Rate</b>					<b>30,252.84</b>
<b>C-2 based on CPWD,07</b>					
1	Brick Work with bricks of class designation 50 in Foundation and Plinth in cement mortar 1:6 ( 1 cement : 6 fine sand).	116.29	Cum	2720.00	3,16,308.80
2	Brick Work with F.P.S. bricks of class designation 50 in superstructure above PL upto floor V level in all shape and size in cement mortar 1:6 ( 1 cement : 6 coarse sand) .	281.47	Cum	2909.85	8,19,035.47
3	12 mm thick cement plaster of mix : - 1:6 ( 1 cement : 6 coarse sand) .	362.43	SqM	84.95	30788.42
4	Supplying and filling in plinth with jamuna sand under floors including watering ramming consolidating and dressing complete	49.81	cum	<b>237.80</b>	11,844.81
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. All work upto plinth level.1:3:6(1 cement: 3 fine sand: 6 graded stone aggregate 40mm nominal				

	size)				
		6.86	cum	3022.05	20731.26
<b>6</b>	Structural steel work in single section fixed with or without connecting plate including cutting hoisting fixing in position and applying a priming coat of approved steel primer all complete.				
		7.4 M.T	Kg	0.63	4662.00
<b>7</b>	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade. Two or more coats on new work an under coat of suitable shade with ordinary paint of approved brand and manufacture.				
		233.12	Sqm	62.40	14,546.88
<b>8</b>	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering. All work upto plinth level with 1:2:4(1 cement;2 coarse sand:4 graded stone aggregate 40mm nominal size0.				
		1.32	sqm	3779.60	4,989.07
<b>Total of Part-C-2 based on CPWD,07</b>					<b>12,22,906.71</b>
<b>Part'C'-3 (DT)'s approve Rate(Updated</b>					
<b>1</b>	Loading materials into tub and unloading at site.				
		558.00	tub	170.60	95,194.80
<b>Total of Part-C-3 based on D.T's approved rate</b>					<b>95,194.80</b>
<b>Total of Part-C(1+2+3)</b>					<b>13,48,354.35</b>
<b>Total of Part-A+B+C =</b>					<b>16,70,343.35</b>



**Making Manhole side wall with Joist support at 368.57 m parallel drift of Main Incline at MIC, Jhanjra Project Colliery**

**NITNo.GM/JNR/Civil/11-12/1376 Dated 07.02.2012**

Rates are to be quoted in figure as well as in words and the amount to be worked out for each item accordingly and duly totaled.

**The Tenderer(s) is/are to quote his/their rates as here under :-**

Sl	Items of SOR	Est. Amount (Rs.)	Quoted Rates (Both in Figures & Words)			Quoted Amount (Rs.)
			% Below	At Par	% Above	
1	2	3	4	5	6	7
1	Part-A	2,71,583.48				
2	Part-B	50,405.52				
3	Part-C	13,48,354.35				
	Total =	Rs.16,70,343.35				

(Total Rupees in words ..... only)

**Signature of the Tenderer with seal.**

