## PIMPRI CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY, NEAR AKURDI RAILWAY STATION, PUNE-411044.



### TENDER PAPER FOR TENDER NOTICE NO 01 FOR 2014-15 TENDER NO PIECC- 01

### **B-1 TENDER PAPERS**

(e-Tender)

**NAME OF WORK:** Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA (Land Development)

<b>Estimate Cost of Work</b>	Rs.	19,63,63,511/-
Tender form Fee	Rs.	25,000/-
Earnest Money Deposit	Rs.	9,82,000/-
Security Deposit	Rs.	78,55,000/-

Pimpri chinchwad New Town Development Authority New Administrative Building, Near Akurdi Railway station, Pune-411 044

Tel: 020-27652934 Fax: 020-27652935

## NAME OF WORK: - Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA (Land Development)

### CONTENTS OF TENDER DOCUMENT

Sr.No.	Description	Page	Nos.
		From	To
1.	Brief Tender Notice	1	5
2.	Detailed Tender Notice	6	14
3.	Guidelines to Vendors on the operations of Electronic Tender Management System	15	17
4.	i) Tendering Procedure	18	34
	ii) Model Form of Bank Guarantee Bond	35	36
	iii) Declaration of Contractor	37	37
5	General Description and Scope of work	38	41
6	The Method and Sequence of execution (General Guidelines)	42	42
7	Printed 'B-1' Agreement form	43	74
8	Schedule ' A '	75	75
9	Additional Conditions For Materials	76	79
10	Price Variation Clause	80	86
11	Additional General Conditions and Specifications.	87	126
12	Register/ Report Formats	127	133
13	Schedule ' B '		
14	<b>Detailed Itemwise Specifications</b>		
15	Drawings		

### PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY,

NEW ADMINISTRATIVE BUILDING, NEAR AKURDI RAILWAY STATION, PUNE-411 044.

Phone No. (020)-27652934/35 (Extn: 1401/1405) E-Tender Notice No.PIECC-01 for F.Y. 2014-2015

Sealed Online **B-1**, e-**Tenders** for the Appointment of contractor for the following work are invited by the Chief Executive officer from the eligible contractors (JointVenture not allowed.) registered under appropriate class in PWD Maharashtra / MFSD / CPWD.

	Sr. No	e- tender No.	Name of work	Estimated cost of Work (Rs.)	Earnest Money (Rs.)	Security Deposit (Rs.)	T: I ::4	e- tender form fees (Non Rrfundable) only D D (Rs.)
1	l	B-1/2/1	Development of Outdoor Exhibition and Parkland at sector No.5&8 Moshi of PCNTDA	19,63,63,511/-	9,82,000/-	78,55,000/-	9 Months	25,000/-

### The details of bid process schedule as belows:-

1	Download Period of online Tender	Dt. 16/09/2014 at 10.00 am To 13/10/2014 at 17.00 hrs
2	Online Bid Preparation Period	Dt. 16/09/2014 at 10.00 am To 13/10/2014 at 17.00 hrs
3	Technical & Price Bid closing period	Dt. 13/10/2014 at 17.01 hrs To 14/10/2014 at 17.00 hrs
4	Bid Submission Period	Dt. 14/10/2014 at 17.01 hrs To 16/10/2014 at 17.00 hrs
5	Date and timing of opening Technical-bid and Financial bid	Dt. 17/10/2014 at 15.00 hrs
6	Date and place for submission of Earnest Money Deposit & Tender form fee in form of DD in original in Sealed	The original Demand Draft towards Earnest money Deposit and Tender form fee should be submitted physically to the
	Envelope.	office of the Chief Executive Officer/Executive Engineer-
		PIECC Pimpri Chinchwad New Town Development Authority,
		Near Akurdi Railway station, Akurdi, Pune-44
		Date: 17/10/2014 at 11.00 am to 15.00 hrs.
7	Pre Bid meeting	Date: 01/10/2014 at 12.00 hrs in the office of the Chief
		Executive Officer / Superintening Engineer/Executive
		engineer-PIECC, Pimpri chinchwad New Town Development
		Authority, Near Akurdi Railway station Akurdi, Pune-44

#### Note:-

- 1. All eligible/interested contractors who want to participate in tendering process should compulsorily get enrolled on etendering portal <a href="http://pcntda.maharashtra.etenders.in">http://pcntda.maharashtra.etenders.in</a> or further need to empanel online on sub portal <a href="http://pcntda.maharashtra.etenders.in">'inttp://pcntda.maharashtra.etenders.in</a> in the appropriate category applicable to them.
- 2. Contractor shall contact for details or any difficulties in submission of online tenders if any to "Sify technologies Ltd, Nextenders (India) Pvt. Ltd", on Phone Number: 020-30187500, Email ID: support.gom@nextenders.com
- 3. It is compulsory for all participants to submit all documents online. Bids will not be accepted by hand or by post. In case of failure online offer will not be opened.
- 4. It is compulsory to submit Blank Tender form fee and Earnest Money Deposit only in the form of DD.Detailed terms and conditions are displayed on the portal.
- 5. Right to reject any or all online bids of work without assigning any reasons thereof is reserved with PCNTDA.
- 6. Above Tender Notice is displayed on www.pcntda.org.in

Chief Executive Officer P C N T D A, Akurdi

## PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY,

NEW ADMINISTRATIVE BUILDING, NEAR AKURDI RAILWAY STATION, PUNE-411 044.
Phone No. (020)-27652934/35 (Extn: - 1401/1405)

### CORRIGENDUM to e-Tender Notice No.PIECC-01 for F.Y. 2014-2015

All the qualified contractors are requested to note the following changes while submiting their tender.

Sealed Online **B-1,** e-**Tenders** for the Appointment of contractor for the following work are invited by the Chief Executive officer from the eligible contractors (JointVenture not allowed.) registered under appropriate class in PWD Maharashtra / MES / CPWD.

Sr. No	e- tender No.	Name of work	Estimated cost of Work (Rs.)	Earnest Money (Rs.)	Security Deposit (Rs.)	Time Limit for completion	e- tender form fees (Non Rrfundable) only D D (Rs.)
1	B-1/1/1	Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA (Land Development)	19,63,63,511/-	9,82,000/-	78,55,000/-	6 Months	25,000/-

Other than above there are no changes.

Chief Executive Officer P C N T D A,Akurdi

## PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY,

NEW ADMINISTRATIVE BUILDING, NEAR AKURDI RAILWAY STATION, PUNE-411 044. Phone No. (020)-27652934/35 (Extn:-1401/1405)

CORRIGENDUM NO-02 to e-Tender Notice No.PIECC-01 for F.Y. 2014-2015

All the qualified contractors are requested to note the following changes while submiting their tender.

The details of bid process schedule as belows:-

1	Download Period of online Tender	Dt. 30/09/2014 at 10.00 am To 28/10/2014 at 17.00 hrs
2	Online Bid Preparation Period	Dt. 30/09/2014 at 10.00 am To 28/10/2014 at 17.00 hrs
3	Technical & Price Bid closing period	Dt. 28/10/2014 at 17.01 hrs To 29/10/2014 at 17.00 hrs
4	Bid Submission Period	Dt. 29/10/2014 at 17.01 hrs To 31/10/2014 at 17.00 hrs
5	Date and timing of opening Technical-bid and Financial bid	Dt. 01/11/2014 at 15.00 hrs
6	Date and place for submission of Earnest Money Deposit &	The original Demand Draft towards Earnest money Deposit
	Tender form fee in form of DD in original in Sealed	and Tender form fee should be submitted physically to the
	Envelope.	office of the Chief Executive Officer/Executive Engineer-
		PIECC Pimpri Chinchwad New Town Development Authority,
		Near Akurdi Railway station, Akurdi, Pune-44
		Date: 01/11/2014 at 11.00 am to 15.00 hrs.
7	Pre Bid meeting	Date: 13/10/2014 at 12.00 hrs in the office of the Chief
		Executive Officer / Superintening Engineer/Executive
		engineer-PIECC, Pimpri chinchwad New Town Development
		Authority, Near Akurdi Railway station Akurdi, Pune-44

Other than above there are no changes.

Chief Executive Officer P C N T D A, Akurdi

### **DETAILED TENDER NOTICE**

Sealed Online **B-1**, e-**Tenders** for the Appointment of contractor for the following work are invited by the Chief Executive officer from the eligible contractors (JointVenture not allowed.) registered under **appropriate class** in PWD Maharashtra / MES / CPWD.

- 1. NAME OF WORK: Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA(Land Development)
- 2. ESTIMATED COST PUT TO TENDER OF THE WORK: Rs. 19,63,63,511/-

#### 3. BLANK TENDER FORM

Tender form along with terms and conditions can be downloaded from e-tendering portal http://maharashtra.etenders.in or http://pcntda.maharashtra.etenders.in . Tender form Fee **Rs. 25,000/-(Rupees Twenty Five Thousand Only)** in the form of demand Draft drawn on any Nationalized Bank in favor of Chief Executive Officer, Pimpri Chinchwad New Town Development Authority, Pune-44 payable at Pune shall be submitted along with the bid. Cheque or cash will not be accepted. The tender shall be uploaded from above mentioned website after entering the details of said demand draft by the Bidders. The scanned copy of this demand draft should be uploaded in the technical envelop. The cost of tender form is non refundable. The Demand Draft should be submitted physically to the office of Chief Executive Officer/Executive Engineer, Engineering Branch, Pimpri Chinchwad New Town Development Authority, Near Akurdi railway station, Pune-44 on date, time mentioned in tender notice.

### 4. EARNEST MONEY DEPOSIT (EMD) –

- **4.1**) An earnest money deposit of **Rs 9,82,000/- (Rs. Nine Lakh Eighty Two Thousand Only)** should be paid in the form of Demand Draft drawn on any Nationalized Bank in favor of Chief Executive Officer, Pimpri Chinchwad New Town Development Authority, Pune-44 payable at Pune. Cheque or cash will not be accepted. The Demand draft for EMD shall be physically submitted to the office of Chief Executive Officer/Executive Engineer, Pimpri Chinchwad New Town Development Authority, Near Akurdi Railway station, Pune-44 payable at Pune on date, time mentioned in tender notice Scanned copy of same DD should be uploaded for online tender submission. The EMD is liable to be forfeited, in case of work cost quoted by tenderer are approved but the contractor refuses to enter in to the agreement for construction work.
- **4.2**) Tender of those who do not deposit earnest money shall be summarily rejected.
- **4.3**) The amount of earnest money will be refunded to the unsuccessful tenderer on deciding about the acceptance or otherwise of the tender or on expiry of the validity period whichever is earlier. In case of the successful tenderer, it will be refunded on his paying the initial security deposit and completing the tender documents or will be transferred towards a part of security deposit to be paid after awarding of the work. If successful tenderer does not pay the security deposit in the prescribed time limit and complete the agreement, his earnest money deposit will be forfeited.

### 5. SECURITY DEPOSIT

- a) The Security Deposit shall be 4 %( four percent) of contract sum i.e. accepted tendered amount, Such security deposit shall be for a period of work.
- b) The security deposit in the form of cash or demand Draft shall be credited by challan in the account of PCNTDA at Indian Overseas Bank, Nigdi Branch, Pune. This security deposit shall be deposited by the successful bidder within 8 days from the date of Acceptance Letter.

c) The whole Security Deposit will be refunded after the end of work period and payment of final bill.

The successful tenderer shall have to pay 50% initial security deposit in cash or demand Draft in favor of **CEO**, **PCNTDA**, **Pune-44** and complete the contract documents failing which his earnest money will be forfeited to PCNTDA. The balance 50% security deposit will be recovered from the R.A. bill at **4%** of the bill amount. Amount of total Security Deposit to be paid shall be 4% of the cost of accepted tender or estimated cost put to tender whichever is higher. All compensation or other sums payable by the Contractor under the terms of this contract or any other contract or on any account may be deducted from his Security Deposit or from any sums which may be due to him or may become due to him by PCNTDA on any account and in the event of the security being reduced by reason of any such above noted deductions, the Contractor shall within 10 days of receipt of notice of demand from the Engineer-in-charge make good the deficit.

#### 6. TIME LIMIT FOR COMPLETION OF WORK

The time limit for this work will be **06 Months** and will be counted from the date of issue of work order.

### 7. PRE-TENDER CONFERENCE

a)Pre-Tender conference is open to all tenderers and will be held on the date mentioned in detail date and time schedule in the office of the Chief Executive Officer or Executive Engineer, PCNTDA Near Akurdi Railway station, PUNE-44, wherein the prospective tenderers will have an opportunity to obtain clarifications regarding the work and the tender conditions.

b)The prospective tenderers are free to ask for any additional information or clarification either in writing or verbally and the clarifications to the same will be given during pre-bid meeting and this clarification referred to as "Common Set of Deviations" will be applicable to all tenderers. Common set of deviations, if any, issued by PCNTDA will form part and parcel of the tender documents and the same shall be uploaded on E-tender website.

- c) The tender submitted by the tenderer shall be strictly as per NIT and Corrigendum/ Addendum issued by the *Chief Executive Officer*. The tender offer shall be unconditional. **Conditional** tenders/offers will be summarily rejected.
- c) All tenderers are cautioned that the tender containing any deviations from the contractual terms and conditions, specifications, or other requirements will be rejected as non-responsive.

### 8. ELIGIBILITY OF BIDDER

Eligibility of the bidders criteria is evaluated as per documents uploaded mentioned in Sr.No. -9.

### 9. ONLINE ENVELOPE NO. 1 : (Documents)

The First Online envelope "Envelope No. 1" shall contain the following document (Numbering should be done for all papers contained in Envelope No. 1 and indexed.)

- 1. Scanned copy of original Demand Draft from any Nationalised /Schedule Bank for the amount of Tender form Fee.
- 2. Scanned copy of original Demand Draft from any Nationalised /Schedule Bank for the amount of earnest money.
- 3. Scanned copy of Details of Tenderer's PAN No. and complete postal address with Pin Code and telephone Numbers.
- 4. Scanned copy of turnover certificate, the average annual turnover during last three financial years 2011-12,2012-13,2013-14 Certificate from charted accountant shall be attached.

- 5. Scanned copy of original Valid certificate as a Registered Contractor with the Government of Maharashtra in appropriate class .
- 6. Scanned copy of original valid VAT registration certificate from Maharashtra State Sale Tax PCNTDA. (Maharashtra Value Added Tax Act 2005)
- 7. Scanned copy Professional Tax Registration Certificate in form PTR / PTE
- 8. The list of Machinery and plants immediately available with the tenderer for use on this work and list of machinery proposed to be utilized on this work, but not immediately available and the manner in which it is proposed to be procured (in Form No. II Page No. 24) Good quality centering plates of marine plywood and sand washing machine must be available with the contractor.
- 9. Details of work done during last three years with the value of work unfinished. Information to be given in Form No. VI Page No. 31)
- 10. Details of work of similar type and magnitude carried out by the contractor. (inform No. III Page No. 28)
- 11. Details of list of works in hand and works tendered for.(Information to be given in Performa of Form No. I Page No. 23)
  - 12. Details of Technical Personnel on the rolls of the tenderer.(Information to be given in Performa of Form No. V Page No. 30)
- 13. Scanned copy of original Registered Partnership Deed, Memorandum of Articles of Association, if the tenderer is a Partnership Firm, Joint Stock Company and Power of Attorney and Firm Registration Certificate if any. 3.7.14 Numbering should be done for all papers contained in Envelope No. 1 and indexed.
- 14. The tenderer will be qualified only if their available bid capacity is more than the total estimated value of works for which he has offered his bid. The available bid capacity will be calculated as under:

### Assessed Available Bid Capacity = (A\*N\*2) - B

**A** = Maximum value of Civil Engineering works executed in any one year during the last three years (updated to **2013-14** level)

N = Number of years prescribed for completion of works for which bid are invited.

**B** = Value at **2013-14** price level, of existing commitments and on going work to be completed during the next **12** months.

Note: The statement showing the value of existing commitments and ongoing works as well as the stipulated period of completion remaining for each of the works listed

should be countersigned by the Engineer-in-charge, not below the rank of an Executive Engineer.

- 15. To qualify for award of the contract, each Tenderer in his name should have in the last three years.
  - a) Achieved a minimum annual financial turnover (in all Classes of civil engineering construction work only) of **Rs. 1473.0 lakhs** in any one year. In support of this, scanned copy of Annual Audit Report certified by the Chartered Accountant should be produced. (in Form No. 7 Page No. 32)

- b) Satisfactory completed (from start to finish) during last three years as a prime contractor of at least one similar work value not less than **Rs. 1570.90 lakhs** in not more than one contract of **2012-13** price level. Financial turnover and cost of completed works of previous years shall be given weightage of 10% per year based on Rupee value to bring them to **2012-13** price level.
- c) Executed in any one year, the following minimum quantities of work (Approximately 30% of tendered quantity) (In Form No. 8 Page 33)

a)Excavation in hard Rock	29296	Cubic meter
b)Earthwork for Embankment	41184	Cubic meter
c) M20 and above	926	Cubic meter
d)Reinforcement	57	Metric Ton

(Note: Quantity certificate should be signed by not below the rank of Executive Engineer. Scanned copy of Certificate should be attached.)

16. Written statement showing the details of methodology to be adopted by the contractor for completing this work in the stipulated time. The contractor should state the no. of machinery and manpower that he would deploy for the work.

### 17. Use of Specialized Machinery

The following mentioned minimum number of machinery shall be deployed by the contractor for execution of this work. The contractor should own no. of machinery shown under column 'own' in table given below

Machinery	Own	Hire	Total
JCB	1	0	1
Poclain	6	11	17
Dumper/Tipper(72 H.P)	9	16	25
Bulldozer	3	2	5
Water tanker	3	2	5
Vibratory Roller And	3	2	5
Power Roller			

1) Scanned copy of proof of ownership of Excavator 72 HP capacity with bucket of 0.9 cum capacity and with needle attachment 2) Scanned copy of proof of ownership of Dumper /Tipper of various capacities 3) Scanned copy of proof of ownership of Bulldozer 4) Scanned copy of proof of ownership of Water Tanker 3) Scanned copy of proof of ownership of VIBRATORY ROLLER AND POWER ROLLER of 8 to 10Tonnes capacity mentioned in Proforma "2A" attached herewith, shall be enclosed.

OR

ii) In case the tenderer intends to hire the machinery which is required for this work, scanned copy of Legal Agreement in the format attached herewith under the Heading "Articles of Agreement" executed on appropriate stamp paper for procuring (a) POCLAIN (b) DUMPER /TIPPER (72H.P.) (c) Water Tanker d) Bulldozer (e) VIBRATORY AND POWER ROLLER of 8 to 10 Tonnes capacity conforming to Clause No. 501.3.4 of M.O.R.T.& H Specifications (4th Revision, August 2001 edition) on hire from another agency, who owns this machinery if the contractor does not own himself this machinery.

- (Scanned copy of proof of ownership i.e. invoices, shall have to be attached along with the legal agreement for hiring.)
- 18. The contractor should submit detailed methodology that he itends to implement along with details of number of machinary and number of technical manpower deployement for execution of this project.
- 19. For evaluation purpose the similar works shall be construction of concrete dams ,construction of large water tanks involving land development,construction of ghat roads involving hillcutting and filling along with retaining wall

### ii) ONLINE ENVELOPE No.2 TENDER (FINANCIAL BID)

The second online envelope "Envelope No.2" shall contain only the main tender including the Common Set of Conditions / Deviation issued by the Department after the pre-tender Conference. A tender submitted without this would be considered as invalid.

### 10. Post-Qualification

Bidders satisfying the above criteria shall be declared as post-qualified and considered for the further process of the bid. PCNTDA will reserve the right to qualify or disqualify bidders and open envelope no. 2.

### 11. Validity of terms of the BID

- a) It is a firm and irrevocable offer, and shall remain valid and open for a period of not less than 120 days from the last date for submission of the Non-adherence to this requirement will be a ground for declaring the Proposal as non-responsive. In exceptional circumstances, PCNTDA may solicit the Bidder's consent for extension of the period of validity. The Bidder agrees to reasonably consider such a request. The request and response shall be in writing. A Bidder accepting PCNTDA's request for validity extension shall not be permitted to modify its offer.
- b) The above work will be carried out under the supervision of the Engineer-in-charge of PCNTDA.

### 12. POWER OF ATTORNEY:

If the tenderers are a firm or company, they should in their forwarding letter mention the names of all the partners together with the name of the person who holds the power of Attorney, authorizing him to conduct all transactions on behalf of the body, along with the tender.

#### 13. ENQUIRIES

Clarifications, if any, can be sought from:

Chief Executive Officer

Pimpri Chinchwad New Town Development Authority

New Administrative Building, Near Akurdi Railway station,

Pune-411 044

Maharashtra State INDIA

#### 14. ONE BID PER BIDDER

Each contractor shall submit only one bid for the work. The contractor who submits or participates in more than one bid will cause all the bids with the Bidders participation to be disqualified.

#### 15. COST OF BIDDING

The tenderer shall bear all costs associated with the preparation and submission of the bid and PCNTDA will in no case, be responsible and liable for those costs.

### 16. SITE VISIT

The bidder at his own responsibility and risk is encouraged to visit and examine the site of works and its surroundings and obtain all information that may be necessary for preparing the bid and entering into a contract for construction of the works. The costs of visiting the site and collecting the necessary information shall be borne by the bidder. No extra claim will be entertained in future on this account.

#### 17. OPENING OF TENDER

The tenders will be opened on the date specified in the Tender Notice (if possible) in the presence of the intending bidders or their authorised representative to whom they may choose to remain present. Following procedure will be adopted for opening of the tender.

### (A) ENVELOPE No.1 :- ( Documents)

First of all Envelope No.1 of the tender will be opened online to verify its contents as per requirements. If the various documents contained in this envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said tenderers Envelope No. 2 will not be considered for further action and the same will be recorded. The decision of the tender opening authority in this regard will be final and binding on the bidders.

### (B) ENVELOPE No.2: (Financial Bid)

This envelope shall be opened online immediately after opening of Envelope No.1, only if contents of Envelope No.1 are found to be acceptable to the Authority.

### 18. RIGHT RESERVED: -

Right to reject any or all tenders without assigning any reason therefore is reserved by the competent authority of PCNTDA, Near Akurdi Railway station, PUNE – 44, whose decision will be final and legally binding on all the tenderers.

- i) The PCNTDA may extend the dead line for submission of tender by issuing a corrigendum.
- ii) The PCNTDA Near Akurdi Railway station, PUNE 44 shall have the right to revise or to amend the contract document prior to receipt of tender.
- 20. The court of jurisdiction for this work is Pune and Pimpri Chinchwad.

### 19. There shall be no liability on the PCNTDA to pay any interest on the Security eposited by or recovered from the Contractor.

### 20 . Condition for payment of additional security deposit, if offer quoted by the tenderer is more than 15% below the cost put to tender.

The contractor shall deposit an additional security deposit along with the security deposit as per clause 1 within 10 days of acceptance of tender in the form of cash or demand Draft when the below percentage quoted is more than 15% of cost put to tender. When the below percentage quoted is in between 15 to 25%, the Additional security Deposit shall be 2% and for offers below more than 25%, Security Deposit shall be 4% out of which 50% shall be inform of cash or DD and

remaining 50% shall be recovered through RA bills as mentioned above in **Sr. No. 5 Security Deposit.** 

If the contractor does not deposit this additional security deposit (if applicable) within stipulated time then his earnest money deposit will be forfeited and his tender will not be considered for acceptance. This additional security deposit shall be extendable up to expiry of valid extensions if any and it shall be refunded along with the final bill, after satisfactory completion of work.

- **21.** The tenders who do not fulfill the condition of the notification and the general rules and directions for the guidance of contractor in the agreement form or are incomplete in any respect are likely to be rejected without assigning any reason therefore.
- 22. (a) The Tenderers shall be presumed to have carefully examined the drawings, conditions and specifications of the work and have fully acquainted themselves with all details of the site, the conditions of rock and its joints, pattern, river, weather characteristics, labour conditions and in general with all the necessary information and data pertaining to the work, prior to tendering for the work.
- **22** (b) The data whatsoever supplied by the PCNTDA along with the tender documents are meant to serve only as guide for the tenderers while tendering and the PCNTDA accepts no responsibility whatsoever either for the accuracy of data or for their comprehensiveness.
- 23. The quarries for extraction of metal, murum etc. provided in the sanctioned estimate are as per survey conducted by the PCNTDA. The Contractor should however examine these quarries and see whether full quantity of materials required for execution of the work strictly as per specification are available in these source before quoting the rates. In case the materials are not available due to reasons whatsoever, the contractor will have to bring the materials from any other source with no extra cost to Government. The rates quoted, should therefore be for all leads and lifts from wherever the materials are brought at site of work and inclusive of royalty to be paid to the Revenue PCNTDA by the Contractor.
- **24.** The contractor or the firms tendering for the work shall inform the PCNTDA if they appoint their authorized Agent on the work.
- **25.** No foreign exchange will be released by the PCNTDA for the purchase of plants and machinery for the work by the Contractor.
- **26.** Any dues arising out of contract will be recovered from the contractor as arrears of Land Revenue, if not paid amicably. Moreover, recovery of Government dues from the Contractors will be affected from the payment due to the Contractor from any other Government works under execution with them.
- **27.** All pages of tender documents, conditions, specifications, correction slips etc.shall be initialled by the tenderer. The tender should bear full signature of the tenderer, or his authorized power of Attorney holder in case of a firm.
- **28.** The Income Tax at 2.00 % including surcharge or percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from bill amount whether measured bill, advance payment or secured advance.

- 29. The successful tenderer will be required to produce, to the satisfaction of the specified concerned authority a valid concurrent license issued in his favour under the provisions of the Contract Labour (Regulation and Abolition) Act 1970 for starting the work. On failure to do so, the acceptance of the tender shall be liable to be withdrawn and also liable for forfeiture of the earnest money.
- **30.** The tenderer shall submit the list of apprentices engaged by the Contractor under Act.
- **31.** After completion of the e-tendering process, the successful bidder will have to submit the hard copy of downloaded tender document and drawings duly signed on each page by the contractor or his authorised signatory. The tender should bear full signature of the tenderer, or his authorized power of attorney holder in case of Firm.
- **32.Time limit** The work is to be completed within time limit as specified in the Notice inviting tender which shall be reckoned from the date of written order of commencing the work and shall be inclusive of monsoon period.
- **33. Tender Rate**: No alteration in the form of tender and the schedule of tender and no additions in the scope or special stipulation will be permitted. Rates quoted for the tender shall be taken as applicable to all leads and lifts.
- <u>34.</u>Tender Units: The tenderers should particularly note the unit mentioned in the Schedule "8" on which the rates are based. No change in the units shall be allowed. In the case of difference between rates written in figures and words, the correct rate will be the one, which is lower of the two
- **35.** Correction: No corrections shall be made in the tender documents. Any corrections that are to be made by crossing the incorrect portion and writing the correct portions above with the initials of the tenderer
- **36.The Income Tax** @ **2**% **or** percentage in force from time to time or at the rate as intimated by the competent Income Tax authority shall be deducted from bill amount whether measured bill, advance payment or secured advance.
- 37 The tender notice shall form a part of the contract agreement.
- 38 The tenders are invited on the Departmental design only
- **39** The tenderer if firm or company shall in their forwarding letter mention the names of all the partners of the firm or the company ( as the case may be) and the name of the partner who holds the power attorney if any, authorising him to conduct transaction on behalf of the Firm or Company.
- **40.** Right is reserved to revise or amend the contract documents fully or part thereof prior to the date notified for the receipt of tender. Such deviations/ amendments if any, shall be communicated in the form of corrigendum or by a letter as may be considered suitable.
- **41.**The tenderer shall enter his percentage rates in words and figures" **below / above''**. In case there is difference between percentage written in figures and words, the lower offer will be taken as final.

- **42.** No pages should be removed from, added in or replaced in the Tender.
- **43.**Right is reserved to reject any or all tenders without assigning any reason thereof.
- **44.** Tenders which do not fulfill all or any conditions or are incomplete in any respect are liable to summary rejection.
- **45.** The Tenderer may, in the forwarding letter, mention any points he may wish to make clear but right is reserved to reject the same of the whole of the tenders if the same become conditional tender thereby.
- 46. Price Escalation shall not be paid for the original contract period. However if the contract period is to be extended for no fault of contractor then price escalation shall be paid for only those quantities executed in extended period.

### Guidelines to Vendors on the operations of Electronic Tender Management System of Government of Maharashtra on http://maharashtra.etenders.in

### 1. These conditions will overrule the conditions stated in the Bidding Documents, wherever relevant and applicable.

### 2. Registration of Vendors:

The Vendors interested in doing business with any Department / Agency of Government of Maharashtra that have migrated their process onto the Electronic Tender Management System platform shall be required to enrol on the System. In order to participate in the *Open Tenders* processed using the System by any Department / Agency, the Vendors are required to have a valid enrolment on the System. In order to participate in the *Limited Tenders* processed using the System by any Department / Agency, the Vendors are required to have a valid enrolment on the System.In order to participate in the Restricted Tenders processed using the System by any Department / Agency, in addition to having a valid enrolment on the System, the Vendors are also required have a valid empanelment in appropriate category on the Sub – Portal assigned to the respective Department / Agency. The Bidder may obtain the necessary information on the process of enrolment and empanelment either from Helpdesk Support Team or may visit the information published under the link 'How to enrol?' on the Home Page of the System. After submission of application for enrolment on the System, the application information shall be verified by the Authorized Representative of the Service Provider. If the information is found to be complete, the enrolment submitted by the Vendor shall be approved. After the approval of enrolment, the Vendor shall have to apply for empanelment on the respective Department / Agency Sub - Portal (if the process of empanelment is followed in a particular Department / Agency). The application for empanelment shall be approved by the Competent Authority of the respective Department / Agency. After the application for enrolment of the Vendor is approved, the Vendor shall be able to participate in Open and after the application for empanelment of the Vendor is approved, the Vendor shall be able to participate in restricted Tenders.

### 3. Obtaining a Digital Certificate:

The Bid Data that is prepared online is required to be encrypted and the hash of the Bid Data is required to be signed electronically using a Digital Certificate (Class – II or Class – III) to maintain the security of the Bid Data and also to establish the identity of the Vendor transacting on the System. The Digital Certificates are issued by an approved Certifying Authority authorized by the Controller of Certifying Authorities of Government of India through their Authorized Representatives upon receipt of documents required to obtain a Digital Certificate. Bid data / information for a particular Tender may be submitted only using the Digital Certificate which is used to encrypt the data / information and sign the hash during the *Bid Preparation and Hash Submission* stage. In case, during the process of preparing and submitting a Bid for a particular Tender, the Vendor User loses his / her Digital Signature Certificate (i.e. due to virus attack, hardware problem, operating system problem); he / she may not be able to submit the Bid online. Hence, the Users are advised to store his / her Digital Certificate securely and if possible, keep a backup at safe place under adequate security to be used in case of need.

In case of online tendering, if the Digital Certificate issued to an Authorised User of a Firm is used for signing and submitting a Bid, it will be considered equivalent to a no objection certificate / power of attorney to that User to submit the Bid on behalf of the form. The firm has to authorize a specific individual via an authorization certificate signed by a partner of the firm (and in case the applicant is a partner, another partner in the same form is required to authorise) to use the digital certificate as per *Indian Information Technology Act*, 2000. Unless the Digital Certificate is revoked, it will be assumed to represent adequate authority of the Authority User to bid on behalf of the Firm for the Tenders processed on the Electronic Tender Management System of Government of Maharashtra as per *Indian Information Technology Act*, 2000. The

Digital Signature of this Authorized User will be binding on the Firm. It shall be the responsibility of Partners of the Firm to inform the Certifying Authority or Sub Certifying Authority, if the Authorized User changes, and apply for a fresh Digital Signature Certificate. The procedure for application of a Digital Signature Certificate will remain the same for the new Authorised User.

The same procedure holds true for the Authorized Users in a Private / Public Limited Company. In this case, the Authorisation Certificate will have to be signed by the Director of the Company.

### 4. Set up of Computer System for executing the operations on the Electronic Tender Management System:

To operate on the Electronic Tender Management System of Government of Maharashtra, the Computer System of the User is required be set up. The Users are required to install Utilities available on the Home Page of the System. The Utilities are available for download freely on the Home Page. The Vendors requested to refer to the *e-Tendering Toolkit for Bidders* available online on the page http://maharashtra.etenders.in/mah/index.asp to understand the process of setting up the System or alternatively, contact the Helpdesk Support Team on information / guidance on the process of setting up the System.

### 5. Online viewing of Detailed Notice Inviting Tenders:

The Vendors can view the detailed Tender Notice along with the Time Schedule (Key Dates) for all the Tenders processed by the Departments / Agencies of Government of Maharashtra on their respective Sub – Portals on the System.

#### 6. Online Download of Tender Documents:

The Tender Documents can be downloaded by the Vendors having valid enrolment on the System (and valid empanelment in case of Restricted Tenders) from the respective Sub – Portal of the Department / Agency on the System.

### 7. Submission of Bid Hash (Seal) of online Bids:

Submission of Bids will be preceded by submission of the digitally signed Bid Hashes (Seals) as stated in the Tender Time Schedule (Key Dates) published in the Notice Inviting Tender. The Hashes are the thumbprint of electronic data and are based on one – way algorithm. The Hashes establish the unique identity of Bid Data. The Hashes are digitally signed.

### 8. Generation of Super Hash:

After the expiry of the cut – off time of submission of digitally signed Bid Hashes (Seals) by the Bidder has lapsed, the stage is automatically locked and digitally signed Super Hashes (Seal) will be generated by the Competent Authority of the respective Department / Agency will generate a Super Hash.

### 9. Decryption and re-encryption of online Bids (submitting the Bids online):

After the generation of Super Hash, the Vendors have to decrypt their Bids using their Digital Certificate and immediately re-encrypt their Bids using the Public Key of the Competent Authority of the Department / Agency. At this time, the Vendors are also required to upload the files for which they generated the Hash values during the Bid Preparation and Hash Submission stage.

The Bid data / information of only those Vendors who have submitted their Bid Hashes (Seals) within the stipulated time (as per the Tender Time Schedule), will be available for decryption and re-encryption and to upload the relevant files. A Vendor who has not submitted his Bid Hashes (Seals) within the stipulated time will not be allowed to decrypt / re-encrypt the Bid data / information. For submitting the Bids online, the Vendors are required to make a payment using the Electronic. Payments Gateway Service of Rs. 882/- + Service tax towards the fees of the Contractor

No. of corrections

Executive Engineer

Service Provider. The various options of making online payments are available on the Home Page of the System.

### 10. Submission of Earnest Money Deposit:

The Vendors are required to submit the Earnest Money Deposit and cost of Tender Documents in a Sealed Physical Envelope and the same should reach the concerned Competent Authority before the last date and time as specified in the Tender Documents. Vendors are required to keep the instruments for submission of Earnest Money Deposit and the cost of Tender Documents ready as the details of these instruments are required to be entered in the System during the Bid Preparation and Hash Submission stage. The details of the Earnest Money Deposit and cost of Tender Documents instruments shall be verified and matched during the Tender Opening event.

### 11. Opening of Electronic Bids:

The Competent Authority receiving the Bids shall first open the manual Earnest Money Deposit and cost of Tender Documents and verify with the details submitted online.

The Competent Authority shall then open the online envelope(s) (decrypt the Bid Data) through the System. The Authority shall generate the Hash value of each envelope of each Vendor and match it with the original Hash value of the envelope generated and submitted by the Bidder during the Bid Preparation and Hash Submission stage.

### 12. Tender Schedule (Key Dates):

The Vendors are strictly advised to follow the Dates and Times allocated to each stage as indicated in the Time Schedule in the Notice Inviting Tender for each Tender. All the online activities are time tracked and the Electronic Tender Management System enforces time-locks that ensure that no activity or transaction can take place outside the Start and End Dates and Time of the stage as defined in the Tender Schedule.

### Bond नमुना सत्यप्रतिज्ञा लेख

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FORM-I List of works tendered for and in hand as on the date of submission of the tender

### Name of tenderer:

Sr.No.	Name of	Place	Work in hand		Anticipated		,	Work tendered for	or	Remarks
	work	and			date of					
		Country			completion					
			Tendered	Cost of		Е	Estimated	Date when	Stipulated	
			Cost	Remaing		С	ost	decision is	date of	
				Work				expected	period of	
									completion	
1	2	3	4	5	6		7	8	9	10
				SPECI	MEN FORM	KM				

The statement should be supported by attested copies of certificates issued by Heads of offices not below the rank of Executive Engineer.

### $\label{eq:form-II} \textbf{FORM-II}$ Details of plant and machinery immediately available with the tenderer for the work.

### Name of tenderer:

		No.					
Sr. No.	Name of equipment	of	Kind and Make	Age a	and Condition	Present Location	Remarks
		Units					
			SPECIMEN I	FORM			

### STATEMENT NO. 2'A' OUESTIONAIRE ON MODERN MACHINERY (OWNED OR HIRED)

Proforma for information regarding machinery required for this work.

### (II) Other Machinery required for the use on this work.

- 1. JCB
- 2. Poclain
- 3. Dumper/Tipper(72 H.P)
- 4. Bulldozer
- 5. Water Tanker

### Question -1:

Is the above machinery at **Sr.No.** (I) and (II) is owned by you and available with you immediate deployment on this work?

If 'Yes' give following information.

Type of Number of Unit		Location	Output in tonnes of mix per day	Quantity in tonnes of Hot Mix balance for execution on work in hand	Remarks
------------------------	--	----------	--	---	---------

#### Question -2:

If answer to Question 1 is 'No' then the Contractor shall have to procure the same on hire from another Agency /Contractor who owns it. Legal agreement on stamp paper executed for hire with the Agency / Contractor who owns this machinery and also the information mentioned in Question-1 above shall have to be attached along with this statement as well as their proof of ownership of machinery (i.e. Attested copies of invoices) as well as the valid certificate issued by the Assistant Chief engineer (Mech.) of Public Works PCNTDA to the effect that these machineries are in "Efficient Working Condition" and in conformity with M.O.S. T. Specifications.

### ( Duly attested by Gazetted Officer )

# (Note: To be included in Envelope No. 1) STATEMENT NO. 2'B' STATEMENT SHOWING DETAILS OF MACHINERY AVAILABLE WITH THE TENDERER FOR THIS WORK

### 1. JCB

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

:

### STATEMENT SHOWING DETAILS OF POCLAIN AVAILABLE WITH THE TENDERER FOR THIS WORK

#### 2. POCLAIN

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

### STATEMENT SHOWING DETAILS OF Dumper/Tipper(72 H.P) AVAILABLE WITH THE TENDERER FOR THIS WORK

### 3. Dumper/Tipper(72 H.P)

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

### STATEMENT SHOWING DETAILS OF Bulldozer AVAILABLE WITH THE TENDERER FOR THIS WORK

#### 4. Bulldozer

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

### STATEMENT SHOWING DETAILS OF Water Tanker AVAILABLE WITH THE TENDERER FOR THIS WORK

### 5. Water Tanker

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

:

### STATEMENT SHOWING DETAILS OF VIBRATORY ROLLER AVAILABLE WITH THE TENDERER FOR THIS WORK

### 6. VIBRATORY ROLLER

STATIC WEIGHT

- a) Name of manufacturer:
- b) Date of purchase:
- c) Present location:
- d) Name of work on which deployed:
- e) Name and address of Engineer-in-charge:
- f) Anticipated date of completion of work on which deployed.

:

### FORM – III

### Details of works of similar type and magnitude carried out by the Contractor

### Name of the tenderer:

Sr.No.	Name of work	Cost of work	Date of	Stipulated date of period		Actual date of	Remarks
			starting	of completion		completion	
			SPECIMEN FORM				

## $FORM-IV \\ Details of works executed in the interior , backward and hilly areas during the preceding 5 years \\ ( If applicable)$

### Name of tenderer:

Sr.No.	Name of work	Cost of work	Date of Starting	Stipulated	date	Actual date	Remarks
				of comple	etion	of completion	
			SPECIMEN FOR	M			

### FORM – V Details of Technical Personnel available with Contractor

### Name of the Tenderer:

Sr.No.	Name and	Qualification	Wheter working	Experience of	Period for which the	Remarks
	Designation		field or office	execution of	personis working	
				similar works	with the tenderer	
			SPECIMEN FOR	M		

## FORM NO.VI STATEMENT SHOWING WORK DONE IN ALL CLASSES OF CIVIL ENGINEERING CONSTRUCTION WORKS DURING LAST THREE YEARS

### NAME OF CONTRACTOR:-

Sr.		Amount Put	Agreement	Date of	Amount of work done		Amount of	Remarks	
No.		to Tender/	No.	Commencement	ď	uring each of	f last	work still	
		Tendered			tl	nree years (R	s. in	remaining to	
	Name of work	cost				lakhs)		be executed	
								2013-2014	
							(Rs. In lakhs)		
					2011-	2012-	2013-		
					2012	2013	2014		
1	2	3	4	5	6	7	8	9	10

Grand Total :-

Outward No. and Date of Certificate issuing authority

FORM – VII
Maximum value of Civil Engineer works in any one year during last 3 years.

### Name of tenderer:

Sr.No.	Name of work	Tender	Civil	Civil works executed during		Remarks
		Cost	2011-12	2012-13	2013-14	
						In support of the details entered in this statement, the tenderer shall attach the attested copies of the works done certificates signed by the authority not below the rank of Executive Engineer.
		Total				
		Multiplying factor for	1.2	1.1	1	
		updating				
		Grand Total				

(1) Tenderer shall work out this Bid capacity on basis of highest amount "A" i.e. the total cost of work done in anyone year out of the last three years and the amount "B" i.e. the total cost of works in hand as per Statement No.1 and shall work out the Bid Capacity as below.

Bid Capacity = (A\*N\*2)-B

### FORM - VIII

### Name of tenderer:

Sr. No.	Item	1		Remarks		
		in one year	2011-12	2012-13	2013-14	
1	Excavation in hard Rock	29296 Cubic Metre				In support of the details entered in this statement, the tenderer shall attach the attested copies of the
2	Embankment work	41184 Cubic Metre				Quantity executed certificates signed by the authority not below the
3	M20 and above	926 Cubic Metre				
4	Reinforcement	57 Metric Tonne				

## SAMPLE FORM DECLARATION TO BE FILLED IN BY THE CONTRACTOR / FIRM (This document should be on Original Stamp Paper of Rs. 100/- not on Xerox

	`
CONV	١
CUDY	,

( To be submitted in ENVELOPE NO.1 ) if applicable.

Name of work:

**1.** I/We, have the required machinery i.e. JCB,Poclain,Bulldozer, water tanker, Vibrator Roller and tipper etc. owned by me/us which can be spare for this work immediately after awarding the work within a reasonable time. The documentary evidence i.e. (i) copies of purchase bill and delivery challan in respect of hot mix plant and paver finisher in Envelope No.1

#### OR

I/We, intend to hire the required machinery modern JCB, Poclain, Bulldozer, water tanker, Vibrator Roller and tipper etc. from \_\_\_\_\_\_who has promised to spare the said machinery for this work immediately after awarding the work, within a reasonable time and legal agreement or hire deed duly executed in front of magistrate / any other registration authority by Government of Maharashtra is given in Envelope No.1.

- **2.** I/We shall observe the local authorities rules as would be applicable to all activities pertaining to the work.
- **3.** I/We shall also maintain the required standard traffic regulation system, without any extra cost to Government.

### **ARTICLES OF AGREEMENT**

(This document should be on Original Stamp Paper of Rs. 100/- not on Xerox copy ) (On Stamp Paper of worth Rs. 100/-)

	Agreement of Hire of Machinery made and executed at on this, the day of the month of 200 .
	BETWEEN:
Ltd. (	A Sole Trading concern Pvt. Co. / Public Ltd. Co. / Partnership Firm registered under the provisions of respective Acts in and having his /their Office situated. Who is a ,
i) ii) iii	Partner of the above mentioned partnership firm.
	AND
Ltd. (force Maha	A Sole Trading concern Pvt.  Co. / Public Ltd. Co. / Partnership Firm registered under the provisions of respective Acts in and registered Government contractors registered in appropriate Class with Government of rashtra Having his / their office situated atand managed ri
Who	is a,
i) ii) iii)	Sole Proprietor of the above mentioned concern. Partner of the above mentioned partnership firm. Holder of power attorney of the above mentioned firm, Executive Director or Manager of the above mentioned Company. Hereinafter for the sake of brevity referred to as "The Hirer" (which expression shall, unless it be repugnant to the meaning of context thereof, mean and

included the firm of all partners of the Firm, the company at material time and their successors).

Party of the Second Part

Where in the party of the first part herein is an absolute owner of the
Name of Machine/s
And substantiate or establish it the documentary evidence in token of voucher enclosed. Where as party of the second part herein is a registered Government Contractors as stated in appropriate Class with Government of Maharashtra. AND whereas the party of the second part is or is likely to submit the tender
for
Executive Engineer / Superintending Engineer,
AND WHERE AS the party of the second part intends to use the machinery of the said work as is being stipulated by the PCNTDA and desirous of taking the one /s on the monthly hire charges basis.
AND WHERE AS the party of the first part, is desirous of giving machinery on hire charges basis to the party of second part.
AND WHERE AS to these presents are desirous of recording the terms and of the agreement , reduce the same to writing.
Now therefore, this articles of agreement witnessed as under:
One /s to be hired.
It is hereby agreed between the parties to these presents that
Name of Machine / s  Of the second part has agreed to pay an amount of Rs to the party of the first part on account of monthly wages of the machine /s as detailed below at the end of each month.
The party of Second part shall also pay an amount of Rs as interest deposit to the party of the first part at the time of intimation in writing. This deposit shall either be refunded by the First Part to the party of the Second Part or shall be adjusted in the final of the hire charges of the machine /s .  Name of Machine Monthly rate of hire charges.  2) Date of Hire:

**3.** It is hereby agreed by and between the parties to these presents that instant agreement shall remain in force from the date of hire as specified in Clause -2 above to the date of either completion of the work in question or six months from the date of hire whichever period expires later.

#### 4. Possession:

The party of the first part has agreed to deliver the possession of the machine /s that would be hired as described in Clause one above in good working conditionalong with its operational crew and all the necessary accessories of the machine / s being hired to the party of the second part within eight days from the date of intimation in writing given by the party of the second part to the party of the first part.

### 5. Mode of payment:

Monthly hire charges of the machine /s as specified in Clause one above shall be paid by the party of the second part as on the last day of each month by issuing acrossed Account Payee Cheque or Crossed Account Payee Demand Draft.

### 6. Repairs and Maintenance:

It is hereby agreed by the party of the first part that it shall bear all day to day expenses of the machine /s on account of fuel, oil and lubricants, operations, maintenance and repair charges during the currency of the period for which machine/slet out on hire charges to the party of the second part. It is further agreed that if the party of the second part spends on the operations, repairs and maintenance for the machine /s hired by it, the party of the second part has every right to deduct the said amount from the monthly hire charges payable to the party of the first part.

- 7. The party of the first part shall always keep the machine /s in good working conditions that are given on hire charges basis to the party of the second part. It is further agreed that the day spend on repairs and maintenance shall be excluded for the purpose of calculating the monthly hire charges.
- **8.** The party of the second part shall have right to deduct the Income Tax at source at the prescribed rate of the provisions of Income Tax Act as ordered by the Government of India, are applicable.

In Testimony where of the parties to these present have set and subscribed their respective signatures on the day, month and year herein above written.

Party of the First Part	Party of the Second Part
Signed Executed	Signed Executed
and delivered for and on	and delivered for and on
behalf of	behalf of
Shri./ M/s	Shri. /M/s
In presence of :	A EELDMED AND EVECUTED
1)	AFFIRMED AND EXECUTED
2)	BEFORE ME
	NOTARY

# FORM – VII (On Stamp Paper of worth Rs. 100/-) MODEL FORM OF BANK GUARANTEE BOND In consideration of the Governor of Maharshtra (hereinafter referred to as "TheGovernment")

In consideration of the Governor of Manarshira (hereinatter feleried to as "The Contractor")						
having agreed to exempt( hereinafter referred to as " The Contractor") from depositing with the Government in cash the sum						
of Ds (Puness only) heing the						
of Rs						
and conditions of the said agreement, on the contractor furnishing to the Government a guarantee in the prescribed form of scheduled bank in India being in fact these present in the like sum of Rs.						
BANK /						
LIMITED registered in India under Act and having one of our local Head						
Office atdo hereby :						
1. Guarantee to the Government:						
a) Due performance and observance by the Contractor of the terms, covenants and conditions on the part of the Contractor contained in the said agreement,						
AND						
b) Due and punctual payment by the Contractor to the Government of all sums of money, losses, damages, cost charges, penalties and expenses payable to the Government by the Contractor under or in respect to the said agreement 2. Undertake to pay to the Government on demand and without demur and notwithstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding filed in any court of tribunal relating thereto the said sum of Rs (Rupees only) or such less sum may be demanded by the						
Government from us our liability hereunder being absolute and unequivocal and agree that .3.a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said agreement and that the same will continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been duly paid and its claims satisfied or discharged and till the Government certifies that the terms and conditions of the						
said agreement have been fully, properly carried out by the ontractor.						
b) We shall not be discharged or released from the liability under this guarantee by reasons of i) any change in the constitution of the bank or the Contractor or;						
ii) any arrangement entered into between the Government and the Contractor with or without our consent;						
iii) any forbearance of indulgence shown to the Contractor;						
iv) any variation in the terms covenant or conditions contained in the said agreement; v) any time given to the Contractor or;						
vi) any other conditions or circumstances under which, in law, a surety would be discharged.						

c) Our liability hereunder	shall be joint and several	with that of the Contractor as if we were principal
debtors in respect of the sa	aid sum of Rs	( Rupees
	only) and	_
d) We shall not revoke this consent in writing of the C	s guarantee during its curr	rency except with the previous
		has been
hereunto affixed this		
W	as pursuant to the resolution	on of the Board of Directors of the
Company dated the	day of	herein affixed
in the presence of 1		

**NAME OF WORK:** Development of Outdoor Exhibition Centre and Parkland at

sector No.5&8 Moshi of PCNTDA (Land Development)

DECLARATION OF THE CONTRACTORS

I/We hereby declare that I/we have made myself /ourselves thoroughly conversant with the

sub-soil conditions, the local conditions regarding all materials ( such as stone, murum, sand , etc.)

and labour of which I/we have based my/our rates for this work. The specifications, conditions, bore

results and lead of materials on this work have been carefully studied and understood by me/us

before submitting this tender. I/We undertake to use only the best materials approved by the

**Executive Engineer, PCNTDA, Pune. 44** or his duly authorised assistant, before starting the work

and to abide by his decision.

I/We hereby further declare that my/our tender is unconditional in every manner or whatsoever in

nature.

I/We hereby undertake to pay the labourers engaged on the work as per Minimum Wages Act, 1948

applicable to the zone concerned.

TO BE FILLED BY THE CONTRACTOR

I/We have quoted my/our offer in percentage rate in words as well as in figures. I/We further

undertake to enter into contract in regular "B-1" form in Public Works PCNTDA.

Name and Signature of the Contractor(s) / Power of attorney holder

with complete address.

# GENERAL DESCRIPTION AND SCOPE OF WORK

**NAME OF WORK:** Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA (Land Development)

# **GENERAL DESCRIPTION**

### Introduction:

The General description refers to the proposed development of Outdoor Exhibition and Parkland at Sector 5&8 located in Pimpri- Chinchwad New Town, Moshi, Pune i.e, at the plot for Pune International Exhibition and Convention Centre to be developed by PCNTDA.

# **Need of the Project:**

The Pune region is one of the fastest growing urban agglomerations, and is a hub in the fields of Engineering, automobile and Information Technology. For further economic and social development, the region requires an Exhibition and convention Centre, easily accessible, with well-planned infrastructure.

The plot selected for this purpose is well-connected by means of road network to the rest of the city, Airports at Pune and Mumbai, being located along the Pune –Nashik Highway. It affords mobility and ease of access for exhibitors, local, domestic and international visitors.

The entire project is planned to be undertaken phase-wise, as per the Master Plan prepared by PCNTDA. However, there is an imminent need to provide a suitable exhibition space. Due to this, PCNTDA had decided to undertake the development of the Outdoor Exhibition and Parkland at the outset.

Landmark Design Group, an Architectural and Interior design firm, which is empanelled with PCNTDA was appointed for the above work vide Work order no. Engg C/12/2014 dated 18.07.2014.

The layout and design was developed within the framework of the Approved Master Plan. The total area envisaged to be developed under this is 201194.63 sqm (including permanent and temporary works). The scope of work includes the following, required for the functioning of the Outdoor Exhibition and Parkland, such as:

Infrastructure- including:

Site Development

Roads

Footpaths and paving

Culverts

Compound wall

Retaining walls

Services including:

Security systems

Drainage and storm water

# **SITE DEVELOPMENT:**

Physical and Geographical considerations:

Geographical location: The site is located at Moshi, Pune at an altitude of 610 mtr above MSL. The latitude is 18 deg 35 min N and the longitude is 73 deg 50 min E.

Area: The area of plot envisaged in the scope of work under this Estimate is 64000 sqm.

Location and Access: The plot allocated for Outdoor Exhibition and Parkland is accessed (not directly abutting) from the North by 31 mtr wide road. Plot reservations for Metro, Museum, Public utility, Parking and Water bodies lie between the plot and the 31.0 mtr wide road. To the East is the location for Block C of the Exhibition Centre, which is planned to be taken up in a later phase.

MNGL pipeline: A constraint exists in the form of the MNGL pipe line which cuts across the South-West of this plot. It is required to provide Buffer (Non-development zone) of 9 mtrs width on either side of the pipe line. Crossing of the Pipeline is to be effected by means of Culvert- type construction, detached from the existing ground surface by about 2-2.5 mt height. Though the construction of these structures is included in the scope of this estimate, Requisite permissions for this work are to be sought by PCNTDA prior to execution.

Topography: The Site is undulating, rocky and slopes down towards the North. The undulating terrain includes two watersheds, through which rain water flows in monsoon. One water course originates at the south western edge of the outdoor exhibition plot,

Contractor No. of corrections Executive Engineer

while the other on the eastern side runs across the entire plot from south to North. In order to utilize the potential of the plot allocated for Outdoor exhibition, the course of the water flow is regulated in a specific section, without affecting the quantum or the direction of flow. This is done by creating culverts, deeper channels and pipe drains.

The undulating terrain with nearly 7 mtr drop is not ideally suited for the purpose, since exhibitions require nearly level, even ground. To make the ground more effectively usable, certain amount of earthwork is entailed, including cut and fill and retention. During the design and detailing process, efforts were made to balance the quantum of cut and fill, so as to minimize the quantum of soil material to be brought from outside.

The section of the plot across the MNGL pipe line is however located at a much higher level, hence it is retained at a higher elevation, to be accessed by steps.

The strata at the site was investigated at four locations which require excavation. The strata classification is as follows:

# CD WORKS:

CD works and culverts made as per the catchment area and waterway required. At some locations the diameter and waterway is kept more than the actual requirement to achieve the profile correction i.e. to remove the sudden dip at CD work location. The provisions of Hume pipe and slab drain is made. All the pipes are NP-3 pipes. For speedy and quality construction the provision of C.C. M15 is made for head wall of all CD works. The waterway is calculated as per the actual catchment area measured from Toposheet of survey of India dept. The waterway is calculated as per the guidelines for preparation of road project.

MNGL pipeline: A constraint exists in the form of the MNGL pipe line which cuts across the South-West of this plot. It is required to provide Buffer (Non-development zone) of 9 mtrs width on either side of the pipe line. Crossing of the Pipeline is to be effected by means of Culvert- type construction, detached from the existing ground surface by about 2-2.5 mt height. Though the construction of these structures is included in the scope of this estimate, Requisite permissions for this work are to be sought by PCNTDA prior to execution.

Storm water: Storm water emerging from the natural watershed zones within the plot is to be conveyed across the site to the natural water bodies at the lower edge of the plot, from where the water is conveyed by means of pipe drains across the 31 mtr wide public road on the North. This is proposed to be effected by creating pipe drains below the

proposed roads. The volume of discharge is calculated based on rainfall intensity of 50mm / hour and the pipe cross sectional area is determined thus.

Fig 4: section of culvert

# **COMPOUND WALL:**

The entire project is planned in phases, during which it is essential to secure the premises from encroachment, theft and other security hazards. The design of the proposed compound wall is functional and economical, consisting of a 0.6 mtr high RCC framed structure, with a 1.68 mtr high chain link fencing. This low wall would act as a base for the construction of the final design of the compound wall (to be developed at a later date), without imposing any restrictions on the future design.

In order to secure the area under Open exhibition and Parkland during operation phase, a 1.5 mtr high chain link fencing is proposed.

# **RETAINING WALLS:**

The undulating terrain with 7 mtr difference in level necessitated cut and fill of the site in order to render it suitable for the purpose it is allocated for, making it necessary to propose retaining walls to retain soil & prevent erosion.

Retaining walls of RCC construction are proposed, and designed based on the height of retaining. Shorter retaining walls are proposed in Plum concrete (without reinforcement steel), which is more economical as well as in Gabion wall structure. Instead of full height retaining walls, toe walls are proposed at the level of natural Nala, to prevent shoring and soil is retained in slope of 1:2 (shallower than natural angle of repose), protected from erosion by green cover.

# **BROAD SCOPE OF WORK:**

- 1) To excavate as per level shown in drawing
- 2) To for embankment in layers by watering and compaction.
- 3) To construct compound wall as per the drawing.
- 4) To construct retaining wall as per drawing
- 5) To construct culvert, CD works as per drawing.
- **6)** All other allied structure shown in the drawing.
- 7) All other works incidental to the work as per the instruction of Engineer In charge.

# THE METHOD AND SEQUENCE OF EXECUTION (GENERAL GUIDELINES)

- 1) On award of contract, the contractor shall take levels jointly with Engineer's representative for existing cross sections and L sections of the road. The cross sections shall be taken at 10.00 m. interval at other and 5.00 m. interval on curves and in Ghat Section along the length of the road. Bench mark pillars shall be erected at 500 m. interval before starting leveling work.
- **2**) After taking line out , contractor must excavate the gutter as per section attached with the tender. Minimum longitudinal slope towards natural drain shall be 1:40.
- 3) The formation widening shall be executed simultaneously as per necessity.
- **4)** After completion of gutter excavation, contractor shall take the work of C.D.Work in the excavation for head wall of C.D. work shall be completed after passing of foundation for head walls. Contractor shall construct masonry work upto sill level of pipe and then pipe shall be laid in line and level and complete head wall construction alongwith catch pit.
- **5**) Work of collection for W.B.M. shall be taken in hand only after completion of gutter and C.D. work with catch pit and completion of earth work.
- **6)** W.B.M. and B.B.M. shall be completed with 3% camber and super elevation if required as per specification with schedule. B.M. shall be completed after B.B.M.
- 7) Open graded premix carpet with liquid seal coat, road side furniture shall be executed as per schedule.
- 8) The contractor will not be paid for W.B.M. gutter, C.D. works and B.T. Items if he has not excavated Gutters.
- 9) The work of filling watering and compacting side shoulder as specified with available murum shall be done simultaneously with laying of W.B.M., B.B.M. and carpet layers. The side shoulders shall be compacted with side slope of 5% from carriageway edge towards to the gutter.
- **10**) Traffic plying at design speed should not feel bump or jerk on any stretches. Contractor shall plan for all such locations well before taking up work in such stretches and difficulties in doing so, if any, be brought to the notice of the Engineer and only after his permission work proceed further.
- 11) If there is traffic plying on the existing road, the tenderer should get him self accustomed with the traffic conditions before quoting for the work. Once the work is started sufficient care shall be taken to see that obstruction / inconvenience to traffic is kept to the bearest minimum. Sufficient number of boards as required, approved by Executive Engineer in charge shall be provided by the Contractor at his own cost at such a location which give sufficient warning of work in progress, special care shall be taken by the contractor during night hours. The Contractor shall maintain the diversion properly at his own cost as directed by the Engineer in charge till the completion of the work.
- **12**) Work of construction of road side furniture shall be completed before execution of premix carpet and seal coat.
- 13) Contractor shall erect scheme board within fifteen days from the date of work order.
- 14) Testing of material shall be as per frequency.

# FORM B-1

# PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

PCNTDA: Pimpri Chinchwad New Town Development Authority, Akurdi, Pune

**NAME OF WORK:** Development of Outdoor Exhibition Centre and Parkland at sector No.5&8 Moshi of PCNTDA (Land Development)

# **General Rules and Directions for the Guidance of Contractors**

1. All works proposed to be executed by contract shall be notified in a form of linvitation to tender passed on a board hung up in the office of the Executive Engineer and signed by the Executive Engineer, PCNTDA, Akurdi, Pune. This form will state the work to be carried out as well as the date for submitting and opening tenders, and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of security deposit to be deposited by the successful tenderer, and the percentage, if any, to be deducted from bills. It will also state whether a refund of quarry fees, royalties, dues and ground rents will be granted. Copies of the specifications, designs and drawings, estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Executive Engineer for the purpose of identification and shall also be open for inspection by contractors at the office of the Executive Engineer, PCNTDA,Akurdi, Pune. during office hours.

Where the works are proposed to be executed according to the specifications recommended by a contractor and approved by a competent authority on behalf of the Governor of Maharashtra such specifications with designs and drawings shall form part of the accepted tender.

**2.** In the event of the tender being submitted by a firm, it must be signed by each partner thereof, and in the event of the absence of any partner, it shall be signed on his behalf by a person holding a power of attorney authorising him to do so.

**2**(A) i) An earnest money deposit of Rs 9,82,000/- (Rs. Nine Lakh Eight Two Thousand Only) should be paid in the form of Demand Draft drawn on any Nationalized Bank in favor of Chief Executive Officer, Pimpri Chinchwad New Town Development Authority, Pune-44 payable at Pune. Cheque or cash will not be accepted. The Demand draft for EMD shall be physically submitted to the office of Chief Executive Officer/Executive Engineer, Pimpri Chinchwad New Town Development Authority, Near Akurdi Railway station, Pune-44 payable at Pune on date, time mentioned in tender notice Scanned copy of same DD should be uploaded for online tender submission. The EMD is liable to be forfeited, in case of work cost quoted by tenderer are approved but the contractor refuses to enter in to the agreement for construction work.

- **ii**) In the event of his tender being accepted, subject to the provisions of **Sub-clause** (**iii**) below, the said amount of earnest money shall be appropriated toward the amount of security deposit payable by him under conditions of General Conditions of Contract.
- **iii**) If, after submitting the tender, the Contractor withdraws his offer or modifies the same, or if, after the acceptance of his tender the Contractors fails or neglects to furnish the balance of security deposit without prejudice to any other rights and powers of the Government, hereunder, or in law, Government shall be entitled to forfeit the full amount of the earnest money deposited by him.
- iv) In the event of his tender not being accepted, the amount of earnest money deposited by the contractor shall, unless it is prior thereto forfeited under the provisions of Sub-clause (iii) above, be refunded to him on his passing receipt therefor. (Amended vide G.R., B &C Department No. CAT 1272/44277-C, dated 3/3/1973.)
- **3.** Receipts for payments made on account of any work, when executed by a firm, should also be signed by all the partners except where the contractors are described in their tender as firm, in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
- **4.** Any person who submits a tender shall fill up the usual printed form stating at what percentage below or above the rates specified in Schedule 'B' (Memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or such percentage of all the estimated rates/scheduled rates shall be named. Tenders which propose any alteration in the work specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions of any sort will be liable to rejection. No printed form of tender shall include a tender for more than one work, but if Contractor who wish to tender for two or more works shall submit a separate tender for each. Tender shall have the name and the number of work to which they refer written outside the envelope.
- **5.** The **Chief Executive Officer**, **PCNTDA** or his duly authorized assistant shall open tenders in the presence of the Contractors who have submitted their tender or their representatives who may be present at the time and he will enter the amounts of the several tenders in comparative statements in a suitable form. In the event of a tender being accepted, the Contractor shall, for the purpose of identification, sign copies the specifications and other documents mentioned in Rule1. In the event of tender being rejected, CEO shall refund the amount of Earnest Money deposited to the Contractor making the tender, on his giving a receipt for the refund of the money.
- **6.** The CEO shall have the right of rejecting all or any of the tenders.
- **7.** No receipt for any payment alleged to have been made by a Contractor in regard to any matter relating to this tender or the contract shall be valid and binding on the PCNTDA unless it is signed by the Executive Engineer.
- **8.** The memorandum of work to be tendered for and the Schedule of materials to be supplied by the PCNTDA and their rates shall be filled in and completed by the office of the Executive Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed, he shall request the said office to have this done before he completes and delivers his tender.

- **9.** All works shall be measured net by standard measure and according to the rules and customs of the PWD and their rates shall be without reference to any local custom.
- **10.** Under no circumstances shall any Contractor be entitled to claim enhanced rates for items in this contract.
- **11.** Every registered Contractor should produce along with his tender certificate of registration as approved Contractor in the appropriate class and renewal of such registration with date of expiry.
- **12.** All corrections and additions or pasted slips should be initialed.
- **13.** The measurements of work will be taken according to the usual methods in use in the PWD no proposals to adopt alternative methods will be accepted. The Executive Engineer's decision as to what is "the usual method in use in the PWD will be final.
- **14.** A tendering Contractor shall furnish a declaration along with a tender showing all works for which he has already entered into contract, and the value of the work that remains to be executed in each case on the date submitting the tender.
- **15.** Every tenderer shall furnish along with the tender, information regarding the Income Tax Circle or Ward of the District in which he is assessed to Income Tax, the reference to the number of the assessment and the Assessment Year and a valid Income Tax Clearance Certificate or True Copy thereof duly attested by Gazetted Officer. **Permanent Account Number (PAN) No.**

**16.** In view of the difficult position regarding the availability of foreign exchange, no foreign exchange would be released by the PCNTDA for the purchase of plant and machinery required for the execution of the work contracted for (GCD/PWD/CFM/1058/62517 of 26.5.1959).

17. The Contractor will have to construct shed for storing controlled and valuable materials issued to him under Schedule 'A' of the agreement, at work site, having double locking arrangement. The materials will be taken for use in the presence of the PCNTDA person. No materials will be allowed to be removed from the site of works.

- **18.** The Contractors shall also give a list of machinery in their possession and which they propose to use on the work in the form of Statement No. II.
- **19.** Every registered Contractor should furnish along with the tender a statement showing previous experience and technical staff employed by him , in the Form No. V.
- **20.** Successful tenderer will have to produce to the satisfaction of the accepting authority a valid and current licence issued in his favour under the provisions of Contract Labour (Regulation and Abolition) Act, 1973 before starting work failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to the Government. (Reference Government of Maharashtra, Irrigation & Power Department letter No. LAB 1076/1181/(666E-(17), dated 8/9/1976).
- **21.** The Contractor shall comply with the provisions of Apprentices Act, 1961 and the rules and the orders issued thereunder from time to time. If he fails to do so, his

failure will be breach of the contract and the CEO may in his discretion cancel the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act.

		TENDER FOR	THE WO	DRKS
	and wri	1. I/We hereby tender for INCHWAD NEW TOWN DEVELO hereinafter referred to as PCNTD ten memorandum within the time.	OPMENT A) of the	AUTHORITY (herein before work specified in the under
*In figures as well as in words	drav	s entered in Schedule 'B' (memorized out) and in accordance in all rewings and instructions in writing refor the annexed conditions of the corwork are provided by the Government them shall be as provided in Schedul	randum shapects with Serred to intract and ont, such m	th the specifications, designs, a Rule 1 hereof and in clause agree that when materials for aterials and the rate to be paid
		<u>MEMODI</u>	RANDUN	<u>M</u>
(a) If several sub works are included they should be detailed in a separate list.	a) (	General Description- <b>_Given separ</b>	ately	
	b)	Estimated cost	Rs.	As stated in NIT
(c.)The amount of earnest money to be deposited shall be in accordance with the provisions of paras 204 and 205 of the M.P.W.	c)	Earnest Money	Rs	As stated in NIT
Manual.	d)	SECURITY DEPOSIT		
	i)	Cash (not less than the Amount of earnest money	Rs	As stated in NIT
	ii)	To be deducted from Current bills.	Rs	
		Total	Rs.	

(d) This Deposit

shall be in accordance with paras 211 and 212 of the M.P.W. Manual.

This Percentage where no security deposit is taken will vary from 5 percent to 10 percent according to the requirement of the case where security deposit is taken see note 1 to clause 1 of condition of contract

f)Give Schedule where necessary showing dates by which the various items are to be completed.

Percentage, if any to be deducted from bills so as to make up the total amount required as security deposit by the time, half the work as measured by the cost is done.

(f) Time allowed for the work from the date of

written order to commence

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AS	Stati	au III		

6\_\_\_ Calendar Months
(Including monsoon)

2. I/We agree that the offer shall remain open for acceptance for a minimum period of /120 days from the date fixed for opening the same.

The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Government, should I/we fail to (I) abide by the stipulated to keep the offer open for the period mentioned above or (ii) Sign and complete the contract documents as required by the Engineer and furnish the security deposit as specified in item (d) of the memorandum contained in paragraph 1 above within the time limit laid down in Clause (1) of the annexed General conditions of contract. The amount of earnest money may be adjusted towards the security deposit or refunded to me/us if so desired by me/us in writing, unless the same or any part thereof has been forfeited as aforesaid.

3. Should this tender be accepted I / We hereby agree to abide by and fulfill all the terms, and provision of the conditions of contract annexed hereto so far as applicable, and in default thereof to forfeit and pay to PCNTDA the sums of money mentioned in the said conditions.

In respect of the sum Of Rs.\* **9,82,000/-** is herewith forwarded representing the earnest money(a) the full value of which is to be absolutely forfeited to PCNTDA should I/We not deposit the full amount of security deposit specified in the above memorandum, in the accordance with clause 1(A) of the said conditions of the contract otherwise the said amount of Rs **9,82,000/-** Shall be refunded.

Contractor. #		-
Address		
Dated	The	day of

Cantua atau #

		20
Amount to be specified in words	(Witness) \$	
and figures.	Address	
*Strike out (a) if no cash security deposit is to be taken	(Occupation)	
	The above tender is hereby accepte Maharashtra	d by me and on behalf of the Governor of
#Signature of Contractor before submission of tender.	Dated200	Executive Engineer
\$ Signature of witness		
to contractor's signature.		
*Signature of the officer by whom accepted.		

# CONDITIONS OF CONTRACT **Security deposit** Clause 1: PWD. Resolution a) The Security Deposit shall be 4 %( four percent) of contract sum i.e. accepted tendered amount, Such security deposit shall be for a No. CAT/1087 / CR-94 Bldg. 2 dt. period of work. 14-6-89. b) The security deposit in the form of cash or demand Draft shall be credited by challan in the account of PCNTDA at Indian Overseas Bank, Nigdi Branch, Pune. This security deposit shall be deposited by the successful bidder within 8 days from the date of Acceptance c) The whole Security Deposit will be refunded after the end of work period and payment of final bill. All compensation or other sums of money payable by the contractor to PCNTDA under the terms of his contractor may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due by PCNTDA to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as a fore said, the contractor shall, within ten days thereafter, make good in cash as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part there of.. The security deposit will not be accepted in form of Insurance Company bonds as per Government orders contained in No. CCM / PWD / CAT 4250 Dt. 27.2.1956 If the amount of the security deposit to be paid in a lumpsum within the **Security deposit** period specified at (A) above is not paid the tender/ contract already PWD. Resolution accepted shall be considered as cancelled and legal stapes taken against the No. CAT/1087 contractor for recovery of the amount. The amount of the security deposit / CR-94 Bldg. 2 dt. 21-6-2004. lodged by a contractor shall be refunded along with the payment of the final bill, if the date up to which the contractor has agreed to maintain the work in good order is over. If such date is not over, only 50% of amount of the security deposit shall be refunded along with the payment of the final bill. The amount of security deposit retained by the Government shall be released after expiry of period up to which the contractor has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete rectification work within the period up to which the contractor has agreed to maintain the work in good order, then, subject to provision of clauses 17 and 20 here of the amount of Security Deposit retained by Government shall be adjusted towards the excess cost incurred by the PCNTDA of rectification work.

# Compensation for Delay

# Clause 2:

The time shall be the essence of contract. The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall through the stipulated period of the contract be proceeded with, with all due diligence (time being deemed to be the essence of the contract on the part of the contract ) and the contractor shall pay as compensation an amount equal to one per cent or such smaller amount as the CEO(whose decision in writing be final) may decide, of the amount of the estimated cost of the whole work as shown by the tenderer for every day that the work remains uncommenced ,or unfinished afte the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound , in all cases in which the time allowed for any work exceeds one month to complete.

The program for completion of work is attached in form of bar chart given in tender.

The contractor is supposed to carryout the work and keep the progress as per bar chart given in tender. The contractor should complete the work as per phase period given below, which is arrived from the bar chart.

1/4 do of the work in 2 Months \*\*
1/3 do of the time
1/2 do of the work in 3.5 Months \*\*
3/4 do of the work in 4.8 Months \*\*
4/5 do of the time
Full work to be completed in **\_6 calendar** months(including monsoon)

\*\* Note: The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in the blank space kept for purpose by the Officer competent to accept the contracts after taking into consideration the circumstances of each case and abide by the program of detailed processes laid down by the Executive Engineer. In case of change in priority of items the contractor shall execute the same with written instruction of Engineer in charge.

The following proportion will usually be found suitable In ½,1/2, ¾ of the time.

Reasonable progress of the earth work 1/6, ½ ¾ of the total value of the work to be done.

Reasonable progress of masonry work 1/10 ,4/10, 8/10 of the total value the work to be done.

In the event of the contractor failing to comply with this condition he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the CEO(whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that the due quantity of work remains incomplete provided always that the total amount of compensation to be paid under the provisions of this clause shall not exceed 10 per cent of the estimated cost of the work as shown in the tender. Superintending Engineer, should be the final authority in this respect irrespective the fact that the tender is accepted by Chief Engineer, Additional Chief Engineer / CEO/ Executive Engineer OR Assistant Engineer/ Deputy Engineer.

# Action when whole of security deposit is forfeited.

Clause 3: In any case in which under any clause of this contract the contractor shall have tendered himself liable to pay compensation amounting to the whole of this security deposit whether paid in one sum or deducted by installments or in the case of abandonment of the work owing to serious illness or death of the contractor or any other causes the Executive Engineer, on behalf of the Governor of Maharashtra, shall have power to adopt any of the following courses, as he may deem best suited to the interest of Government:-

- (a)To rescind the contract (for which rescission notice in writing to the contractor under the head of Executive Engineer shall be conclusive evidence) and in that case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.
- (b)To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant, and charges on

additional supervisory staff including the cost of work-charged establishment employed for getting the un-executed part of the work completed and crediting him with the value of the work done departmentally n all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to the costs and other allied expenses so incurred and as to the

value of the work so done PCNTDA ally shall be final and conclusive against the contractor.

(c)To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted out of his hands, and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or execute through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid, any sum for any work therefore actually performed by him under this contract unless and until the Executive Engineer shall have certified in writing the performance of the such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors the amount of excess shall be deducted from any money due to the contractor, by Government under the contract or otherwise howsoever or from his security deposit or the sale proceeds thereof provided, however, that contractor shall have no claim against Government even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clauses. (a), (b) or (c) is adopted by the Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advance on account of or with a view to the execution of the work or the performance of the contract.

Action when the Progress of any Particular portion Of the work is Unsatisfactory

# Clause 4:

If the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall not withstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3 (b) after giving the contractor 10 days notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

# Contractor Remains liable to Pay compensation If action not

# Clause 5:

In any case in which any of the powers conferred upon the Executive Engineer by clauses 3 and 4 hereof shall have become exercisable and the same shall not have been exercised the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall not withstanding be exercisable in the event of any future case of default by the

# taken Under clause 3 and 4

contractor for which under any clause hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Executive Engineer taking action under sub-clause (a) or (c) of clause 3, he may, if he so desires, take possession of all or any tools & plant, materials and stores in or upon the work or the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by the Executive Engineer whose certificate thereof shall be final. In the alternative the Executive Engineer may, after giving notice in writing to the contractor or his clerk of the work, foreman or other authorized agent require him to remove such tools & plant, materials, or stores from the premises within a time to be specified in such notice, and in the event of the contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

# Extension of time

# Clause 6:

If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Executive Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Executive Engineer, or in the opinion of CEO as the case may be if in his opinion, there were reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper. The decision of the CEO in this matter shall be final. Due to administrative delay in communicating decision about extension, the contractor shall not unilaterally terminate the contract.

# **Final Certificate**

Clause 7: On the completion of the work the contractor shall be furnished with a certificate by the Executive Engineer (hereinafter called the Engineerin-charge) of such completion: but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus materials and rubbish, and shall have cleaned off, the dirt from all wood work, doors, windows, wall, floor or other parts of any building in or upon which the work has been executed or of which he may have had possession for the purpose of executing the work, nor until the work shall have been measured by the Engineer-in charge or where the measurement have been taken by his subordinates until they have received approval of the Engineer-in -charge, the said measurements being binding and conclusive against contractor. If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in -charge may at the expense of the contractor, remove such scaffolding, surplus materials and rubbish, and dispose off the same as he thinks fit and clean off such dirt as aforesaid and

	the contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.
Payment on Intermediate Certificate to be Regarded as Advances	Clause 8: No payment shall be made for any work estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand the contractor shall on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work than approved and passed by the Engineer-in—charge, Whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed or reerected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or effect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way very or effect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.
Payment at reduced rates on account of items of work not accepted as completed, to be at the discretion of the Engineerin-charge	Clause 9:  The rates for several items of works estimated to cost more than Rs. 1000/agreed to within shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are not accepted as so completed by the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of final or on account bills.
Bill to be submitted monthly.	Clause 10:  A bill shall be submitted by the contractor in each month or before the date fixed by the Engineer-in-charge for all work executed in the previous month, and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorized agent whose countersignature to the measurement list shall be sufficient warrant, and Engineer- in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.  Clause 11: The Contractor shall submit all bills on the printed forms to be

# printed form had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates hereinafter provided for such work. Stores supplied by Government Clause 12: If the specification or estimate of the work provides for the use of any special description of material to be supplied from the store of the PUBLIC WORKS PCNTDA store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge. (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him

prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the proposes of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise, or from security deposits or the proceeds of sale thereof if the security deposits is held in Government Securities ,the same or sufficient portion thereof shall in that case be sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government and shall on no account be removed from the site of the work, and shall at all times be open for inspection by the Engineer-in charge. Any such materials unused and in perfectly good condition at the time of completion or termination of the contract shall be returned to the Public Works PCNTDAal store if the Engineer-in-charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of any such materials supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.

### **Clause 12 (A):**

All stores of controlled materials such as cement, steel etc. to be supplied to the contractor by Government. Should be kept by the contractor under lock and key and will be accessible for inspection by the Executive Engineer or his agent at all times.

Works to be executed in accordance with specifications, drawings, orders, etc. Clause 13: The contractor shall execute the whole and every part of the work in the most Substantial and workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of work during office hours. The contractor shall be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of contract drawings and working drawings If required

by him, shall be supplied at the rate of Rs. \_300\_ /- per set of contract drawings and Rs. \_200\_Per working drawing except where otherwise specified.

# Alterations in specifications and designs not to invalidate contracts

Clause 14 : The Engineer-in-charge shall have power to make any alteration in or additions to the original specifications, drawings, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. And if the additional and altered work, including any class of work for which to rate is specified in contract, there such class of made shall be carried out at the rates entered in the Schedule of Rates of the Division or at the rates mutually agreed upon between the Engineer-in-charge and the contractor, whichever are lower. If the additional or altered work for which no rate is entered in the schedule of Rates of the Division is ordered to be carried out before the rates are agreed upon than the contractor shall within seven days of the date of receipt by him of the order to carry out the work, inform the Engineer-in-charge of the rate which it is his intention to charge for such class of work. And if the Engineer-in-charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry out in such manner as he may consider advisable provided always that if the contractor shall commence work or incur any expenditure in regard thereto before the rates shall have been determined as lastly herein before mentioned, than in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rate as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-charge. In the event of a dispute the decision of the CEO of the Circle will be final. Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings and specifications appended to the tender.

# Extension of time In consequence of Additions or Alterations.

The time limit for the completion of the work shall be extended in the proportion that increase in its cost occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Engineer-incharge as to such proportion shall be conclusive.

# No claim to any Payment or Compensation for Alteration in or Restriction of work

# **Clause 15:**

- (1) If at any time after the execution of the contract documents the Engineer shall for any reason what-so-ever (other than default on the part of the contractor for which the Government is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out, at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the The contractor shall have no claim to any payment or compensation what so ever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.
- (2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the un-executed part of the work by giving a 10 days prior notice in writing to the Engineer, within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineer to record the final measurement of the work all ready done and to pay final bill. Upon giving such notice the contractor shall be deemed to have been discharged from his obligations to complete the remaining unexecuted work under his contract.

On receipt of such notice the Engineer shall proceed to complete the measurements and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.

(3) Where the Engineer required to contractor to suspend the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work after such suspension for payments of compensation to the extent of pecuniary loss suffered by him in respect of working machinery remained idle on the site or on the account of his having had to pay the salary or wages of labour engaged by him during the said period of suspension provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension or in respect or any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.

# No claim to Compensation on Account of loss due to delay in supply of material by Government

(4) In the event of ----

- (i) Any total stoppage of work on notice from the Engineer under Sub clause
- (1) in that behalf.
- (ii) Withdrawal by the contractor from the contractual obligations to complete the remaining unexecuted work under sub-clause (2) on account of continued suspension or work for a period exceeding 90 days.

### OR

(iii) Curtailment in the quantity of item originally tendered on account of any alteration, omission on substitution in the specifications, drawings, designs or instructions under clause (14) I where such curtailment exceeds 25% in quality and the value of the quantity curtail beyond 25% at the rates for the item specified in the tender is more than Rs. \_5,000\_/-

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under the clause 14 (1) resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work , before receipt by him of the notice of stoppage, suspension or curtailment and require the Government to take over on payment such material at the rates determined by the Engineer, provided , however,

such rates shall in no case exceed the rates at which the same was acquired by the contractor. The Government shall thereafter take over the material so offered, provided the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer.

# No claim to Compensation on Account of loss due to delay in supply of material by Government

Clause 15 A: The contractor shall not be entitled to claim any compensation from Government for the loss suffered by him on account of delay by Government in the supply of materials entered in Schedule A where such delay is caused by

- (i) Difficulties relating to the supply of railway wagons.
- (ii) Force majeure.
- (iii) Act of God.
- (iv) Act of enemies of the State or any other reasonable cause beyond the control of Government In the case of such delay in the supply of materials, Government shall grant such extension of time for the completion of the work as shall appear to the Executive Engineer to be reasonable in accordance with the circumstances of the case. The decision of the Executive Engineer as to the extension of time shall be accepted as final by the contractor.

# Time limit for Unforeseen claims

Clause 16: Under no circumstances whatever shall the contractor be entitled to any compensation from PCNTDA on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the case of such claim occurring.

Action and compensation payable in case of bad work

Clause 17: If at any time before the security deposit or any part thereof is refunded to the contractor it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful workmanship or with materials of inferior quality. Or that any materials of articles provided by him for the execution of the work are unsound, or of a quality inferior to that contracted for, or are otherwise not in accordance with the contract, it shall be lawful for the Engineer-in-charge to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed, certified and paid for, the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part, as the case may require or if so required, shall remove the materials or articles so specified and provided other proper and suitable materials or articles at his own charge and cost and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation aforesaid, the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding 10 days, during which the failure so continues and in the case of any such failure the Engineer-in-charge May rectify or remove and re-execute the work or remove, and replace the materials or articles complained of as

the case may be at the risk and expense in all respects of the contractor. Should the Engineer-in-charge consider that any such inferior work or materials as prescribed above may be accepted or made use of it shall be within his description to accept the same at such reduced rates as he may fix therefor.

# Work to be open to Inspection

Contractor or responsible Agent to be present

Clause- 18: All works under or in course of executed in pursuance of the contract shall at all times be open to the inspection and supervision of the Engineer-in-charge and his subordinates, and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice, of the intention of the Engineer-in-charge and his subordinates to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

# Notice to be given Before work is covered up.

Clause-19: The contractor shall give not less than five days notice in writing to the Engineer-in-charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions there of taken before the same is so covered up or placed beyond the reach measurements and shall not cover up or place beyond reach of measurement any work without the consent in writing of the Engineer-in –Charge or his subordinate in charge of the work and if any work shall covered up or placed beyond the reach of measurement, without such notice having been given or consent obtained the same shall uncovered at the contractor's expenses and in default there of no payment or allowance shall made for such work or for the materials with which the same was executed.

Contractor liable for damage done and for imperfections

Clause- 20: If during the period of ---24----- months from the date completion as certified by the Engineer-in-charge pursuant to clause -7 of the contract or ---42---- months (Forty Two Only) after commissioning the work, whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall fourth with on receipt of notice in that behalf from the Executive Engineer, duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said noticed

and /or to complete the same as aforesaid as required by the said notice the Executive Engineer get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the PCNTDA. The amount of such costs, charges and expenses sustained or a incurred by the Government of which the certificate of the Executive Engineer shall be final and binding on the contractor, Such costs, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the Govt. the same may be recovered from the contractor as arrears of land revenue. PCNTDA shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by PCNTDA to the contractor either in respect of the said work or any other work whatsoever or form the amount of security deposit retained by PCNTDA

The defect liabilities period particular for water proofing treatment (building works) shall be 10 years.

Contractor to supply plant , ladder, scaffolding etc.

And it is liable for Damages Arising form non-provisions of lights, fencing etc.

Clause- 21: The contractor shall supply at his own cost all material (except such special materials if any as may in accordance with the contract, be supplied from The PCNTDA stores.) plant, tools, appliances, implements ladders, cordage, tackle, scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original, altered or substituted from and whether included in specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting out works and counting, weighing and assisting in the measurements or examination at any time and from time to time of the work or the materials, failing which the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposits or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident and shall also be bound to bear the expenses of defense of every suit, action or other legal proceedings 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 any such person or which may with consent of the contractor be paid for compromising any claim by any such person.

List of machinery in contractor's possession and which they propose to use on the works should be submitted along with the tender.

**Clause 21 A :** The contractor shall provide suitable scaffolds and working platform gangways and stairways and shall comply with the following regulations in connections herewith –

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- (b) A scaffolds shall not be constructed, taken down or substantially altered except –
- (i) Under the supervision of a competent and responsible person; and
- (ii) As far as possible by competent workers possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therewith and ladders shall –
- (i) be of sound material.
- (ii) Be of adequate strength having regard to the loads and strains to which they will be subjected, and
- (iii) Be maintained in proper condition.
- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be over- loaded- and so far as practicable the load shall be evenly distributed.
- (f) Before installing lifting gear on Scaffolds special precaution shall be taken to ensure the strength and stability of the scaffold.
- (g) Scaffold shall be periodically inspected by the Competent person.
- (h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulation here in specified.
- (i) Working platform, gangways stairways shall
  - (i) be so constructed that no part thereof can sagunduly or unequally.
- (ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and
  - (iii) be kept free from any unnecessary obstruction.
- (j) In the case of working platform, gangways, working places and stairways at the height exceeding 2 meters ( to be specified)
- (i)every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensue safety.
  - (ii)Every working platform and gangway shall have adequate width and
  - (iii) Every working platform, gangway, working place and stairway shall be suitably fenced
- (k) Every opening in the floor of a building or in a working platform shall except for the time and to the extent required to allow the excess of persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.

- (1) When persons are employed on roof where there is a danger of falling from a height exceeding 3 meters suitable precautions shall be taken to prevent the fall of persons or materials.
- (m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffold or other working places.
- (n) Safe means of access shall be provided to all working platforms & other working places.
- (o) The contractor / (s) will have to make payments to the laborers as per minimum Wages Act 1948.

**Clause 21 B:** The contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him.

- (a) Hoisting machine and tackle, including their attachments, anchorage's and supports shall-
  - (i) be of good mechanical construction, sound material and adequate strength and free from patent defect,

### and

- ii) 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 suitable quality and adequate strength and free from patent defect.
- (c) Hoisting machine and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Government.
- (d) Every chain, ring, hook, shackle swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- (e) Every crane driver or hoisting appliance operator shall be properly qualified.
- (f) No person who is below the age of 21 years shall be in control of any hoisting machine, including any scaffolding which, or give signals to the operator.
- (g) In the case of every hoisting machine and of every chain, ring hook, shackle, swivel and pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means.
- (h) Every hoisting machine and all gear referred to in proceeding regulation shall be plainly marked with the safe working load.
- (i) In the case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated.
- (j) No part of any hoisting machine or of any gear referred to in regulation (g) above shall be loaded beyond the safe working load except for the purpose of testing.
- (k) Motors, gearing transmissions. Electric wiring and other dangerous part or hoisting appliances shall be provided with efficient safeguards.
- (1) Hoisting appliances shall be provided with such means as will reduce to minimum & the risk of the accidental descent of the load. Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

Measure for Prevention of fire	Clause 22: The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Executive Engineer. When such permit is given, and also in all cases when destroying cut or dug up trees brushwood, grass etc. By fire; the contractor shall take necessary measure to prevent such fire spreading to or otherwise damaging surrounding property. The contractor shall make his own arrangements for drinking water for the labour employed by him.
Liability of Contractor for any Damage done in or Outside work area	Clause 23: Compensation for all damages done intentionally or unintentionally by contractor's labour whether in or beyond the limits of PCNTDA property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he may appoint and the estimate of the Engineer-in-charge subject to the decision of the CEO on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from PCNTDA to contractor under this contract or otherwise.  The contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.
Employment of Female labour	Clause 24: The Employment of female labours on works in neighborhood of soldier's barracks should be avoided as far as possible.
Work on Sunday	Clause 25: No work shall be done on a Sunday with out be sanction in writing of the Engineer-in-charge

# Work Clause 26: not to sublet. The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent of commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the contractor or any of his servants or agents to any public officer or person in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in Contract may be the contract, the Engineer-in-charge may thereupon by notice in writing rescinded and rescind the contract, and the security deposit of the contractor shall thereupon **Security** stand forfeited and be absolutely at the disposal of Government and the same deposite consequences shall ensure as if the contract had been rescinded under Clause forfeited for **Subletting** it 3 thereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract. without approval or for bribing a public officer of if contractor becomes insolvent. Sum payable by **Clause 27:** way of All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to compensation to be considered the use of Government without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained. as reasonable compensation without reference **Clause 28:** Changes in the In the case of tender by partners, any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in-charge for his constitution information. firm to be notified Direction and Clause 29: All works to be executed under the contract shall be executed Control of the under the direction and subject to the approval in all respects of the **Superintending** Superintending Engineer of the approval in all respects of the Superintending Engineer of PCNTDA, for the time being, who shall be entitled to direct at **Engineer** what point or points and in what manner they are to be commenced, and from

time to time carried on.

Direction and Control of the Superintending Engineer	Clause 30 (1) Except where otherwise specified in the contract and subject to the powers delegated to him by PCNTDA under the Code, rules then in force, the decision of the Superintending Engineer of PCNTDA for the time being shall be final, conclusive, and binding on all parties to the contract upon all questions relating to the meaning of the specifications, designs, drawings and instructions herein before mentioned and as to the quality or workmanship or materials used on the work, or as to any other question, claim, right matter, or thing whatsoever, if any way arising out of, or relating to the contract, designs, drawings, specifications, estimates, instructions, orders, or these conditions, or otherwise concerning the works, or the execution, or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment thereof.
	Clause 30 (2)The contractor may within thirty days of receipt by him of any order passed by the CEO of PCNTDA as aforesaid appeal against it to CEO of PCNTDA concerned with the contract, Work or project provided that—  (a) The accepted Value of the Contract execeeds Rs. 10 Lakhs (Rupees Ten Lakhs.)  (b) Amount of claim is not less than Rs. 1.00 Lakh (Rupees One Lakh)
	Clause 30 (3) If the contractor is not satisfied with the order passed by the CEO as aforesaid, the contractor may, within thirty days of receipt by him of any such order, appeal against it to Development Authority of PCNTDA who if convinced that prime-facia the contractor's claim rejected by CEO is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision of D.A. or committee appointed by D.A. for this purpose shall be final.
Stores of European or American manufacture to be obtained from Government	Clause 31: The contractor shall obtain from the PCNTDA stores, all stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any articles required there for or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-charge will be debited to the contractor in his account at the rates shown in the schedule, in Form A attached to the contract and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and other expenses whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid
Lumpsum in estimate.	Clause 32: When the estimate on which a tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment in respect of the items or work involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of work in

Action where no specifications	question is not in the opinion of the Engineer-in-charge capable of Measurement, the Engineer-in-charge may as his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive against. The contractor with regard to any sum or sums payable to him under the provision of this clause.  Clause 33: In the case of any class of work for which there is no such specification as is mentioned in rule 1 such work shall be carried out in accordance with the Divisional specifications, and in the event of there being no Divisional specifications, then in such case the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer-in-charge.
Definition of work.	Clause 34:  The expression 'works' or 'work' where used in these conditions shall unless there be something in the subject or context repugnant to such construction, be construct to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original altered substituted or additional.
Contractor's Percentage Whether applied To net or gross Amount of bill	Clause 35: The percentage referred to in the tender shall be deducted from/added to the gross amount (excluding the amount of royalty) of the bill before deducting the value of any stock issued.
Payment of quarry fees and royalties G.R.No. Misc. 02/05/(291)/ Buildg.2, dated 11/9/2003	Clause 36: All quarry fees, octroi dues and ground rent for stacking materials, if any, should be paid by the contractor, However the royalty shall be deducted by PCNTDA from each RA Bill and paid to Revenue Department.
Compensation Under Workmen's Compensation Act	Clause 37:  The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workman's Compensation Act 1923 (VII of 1923) (hereinafter called the said Act) for injuries caused to the workmen. If such compensation is payable paid by the Government as principal under Sub-section (1) of section 12 of the said Act on behalf of the contractor, it shall be recoverable by PCNTDA from the contractor under sub-section (2)of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.
	Clause 37 A: The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by PCNTDA

	the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of PCNTDA from any amount due or that may become due to the contractor.
	Clause 37 B.: The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of persons employed on the site & shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.
	<ul> <li>(a) The workers shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.</li> <li>(b) When work is carried on in proximity to any place where there is a risk or drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.</li> <li>(c) Adequate provision shall be made for prompt first-aid treatment or all injuries likely to be sustained during the course of the work.</li> </ul>
(Govt. circular No. PWD IID CAT 6076/3336/(400)/ Bldg.2 Dated 16.08.1985.	Clause 37 C The Contractor shall duly comply with the provisions of 'The Apprentices Act, 1961' (III of 1961) the rules made there under and the orders that may be issued from time to time under the Act the said rules and on his failure or neglect to do so, he shall be subjected to all the liabilities and penalties provided by the said Act and said Rules.
Claim for quantities entered in the tender or estimates	Clause 38:  (1) Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing a different percentage of permissible variation in the quantity of the item does not exceed the tender quantity by more than 25 percent and so long as the value of the excess quantity beyond this limit at the rate of the item specified in the tender is not more than Rs. 5000.
	(2) The contractor shall if ordered in writing by the Engineer so to do, also carry out any quantities in excess of the limit mentioned in sub clause (1) hereof on the same conditions as and in accordance with the specifications in the tender and at the rates (i) derived from the rates entered in the current schedule of rates and in the absence of such rates, (ii) at rate prevailing in the market, the said rates being increased or decreased as the case may be by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the schedule of rates applicable to the year in which the tenders were invited. (For the purpose of operation of this clause, this cost shall be worked out from the DSR prevailing at the time of acceptance of tender for 2012-13 )Rs 19,63,63,511 /- (Nineteen corers Sixty three lakh sixty three thousand five hundred and eleven only.)  (3) Claims arising out of reduction in the tendered quantity of any item

	beyond 25 percent will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than Rs. 5000/- (This clause is not applicable to extra items.)  (4) This clause is not applicable to extra items.
	(5) There is no change in the rate if the excess is more than 25 % of the tendered quantity, but the value of the excess work at the Tendered rates does not exceed Rs. 5000/-
	<ul> <li>(6) The quantities to be paid at tendered rate shall include.</li> <li>(a) Tendered quantity plus.</li> <li>25% excess of the tendered quantity or the excess quantity of the value of Rs.</li> <li>5,000 /- at the tendered rate whichever is more.</li> </ul>
Employment of Famine labour etc	Clause 39:  The contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the Engineer-incharge.
Claim for Compensation for Delay in Starting The work	Clause 40: No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works, on account of any delay in according to sanction of estimates.
Claim for Compensation for Delay in execution Or work	Clause 41: No Compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil excavation in mud soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.
Enter upon or Commencing any Portion of work	Clause 42: The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of Engineer-in-charge or of his subordinates in charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.
Minimum age of Person employed, The employment of Donkeys and or Other animals	Clause 43: (i) No contractor shall employ any person who is under the age of 18 years.  (ii) No contractor shall employ donkeys or other animals with breeching of string or thin rope. The breeching must be least three inches wide and should be or tape (Newar).  (iii) No animal suffering from sores, lameness or emaciation or which is

# and The immature shall be employed on the work. payment of fair (iv) The Engineer-in-charge or his Agent is authorized to remove from the work any person or animal found working which does not satisfy these wages conditions and no responsibility shall be accepted by Government for any delay caused in the completion of the work by such removal. (v) The contractor shall pay fair and reasonable wages to the workmen employed by him, in the contract undertaken by him. In the event of any dispute arising between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Executive Engineer who shall decide the same the decision of the Executive Engineer shall be conclusive and binding on the contractor but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by Government at the sanctioned tender rates. Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas. (vii) Contractor to take precaution against accidents which take place on account of labours using loose garments while working near machinery. (viii) All facilities provided in the contract labour ( Regulation and Abolition Act 1971) Maharashtra Contract Labour Regulation and Abolition Rule 1971 should be provided. Clause 44 : METHOD OF Payment to contractors shall be made by check provided the amount exceeds **PAYMENT** Rs. 10. Amounts not exceeding Rs. 10 will be paid in cash. **Clause 45:** of Any contractor who does not accept these conditions shall not be allowed to Acceptance **Conditions** tender for works. **Compulsory** Before tendering For work **Employment of** Clause 46: **Scarcity labour** If Government declares a state of scarcity or famine to exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Executive Engineer, or by any person to whom the Executive Engineer may have delegated this duty in writing to be in need of relief and shall be bound to pay to such person wages not below the minimum which Government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Executive Engineer whose decision shall be final and binding on the Contractor. Clause 47: The price quoted by the contractors shall not in any case exceed the control price, if any, fixed by Govt. or reasonable price which it is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under Hoarding and profiteering Ordinance, 1948 as amended from time to time, if the price

	quoted exceeds the controlled price or the price permissible under Hording
	and profiteering prevention Ordinance,
	the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to confirm with controlled price on the permissible under the Hoarding and profiteering prevention Ordinance . The discretion will be exercised without prejudice to any other action that may be taken against the contractor.
Maharashtra value added Tax act, 2005, Govt .in.P.W.Dept. Circular No. BDG/ 2005/ OR - 324 BDG -2 dated 3/3/2006	Clause 47 A: "The tender rates are inclusive of all taxes, rates and cesses and are also inclusive of the tax leviable tax in respect of sale by transfer of property in goods involed in the execution of a work contract under the provision of Rule 58 of Maharashtra value added Tax act,2005,for the purpose of levy of tax."
	Clause 48: The rates to be quoted by the contractor must be inclusive of Sales Tax. No extra payment on this account will be made to the contractor
	Clause 49: In case of materials that may remain surplus with the contractor from those issued for the work contracted for the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of sales tax and the sales tax will be recovered on such sale.
PWD Government Resolution No.CAT/1097/C R-478/Bldg-2/ mantralaya / dated 3.3.1998	Clause 50: The contractor shall employ at least 80 percent of the total number of unskilled labour to be employed by him on the said work from out of the persons ordinarily residing in the district in which site of the said work is located. Provided, however, that if the required number of unskilled labours from that district is not available, the contractor shall in the first instance employ such number of persons as is available and thereafter may with previous permission in writing of the Executive Engineer –in-charge of the said work, obtain the rest of requirement of unskilled the labour from outside district.
	Clause 51: Wages to be paid to the skilled and unskilled labourers engaged by the contractor.  The contractor shall pay the labourers skilled and unskilled according to the wages prescribed by the minimum Wages Act of 1948 applicable to the area in which the work the contractor is in Progress  The contractor shall comply with the provision of the apprentices Act 1961 and the rules and orders issued there under from time to time, if he fails to do so his failure will be a breach of the contract. The contract and the CEO, may in his discretion's cancel the contract. The Contract shall also be liable for any pecuniary liability, arising on account of any violation by him of the

	provision of Act. The contractor shall pay labourers, skilled and unskilled according to prescribed wages by Minimum Wages Act of 1948 applicable to the area in which the of the contractor work is in progress
Government Circular No. : CAT 1274 /40364/ desk-2 Mantralaya, Bombay 400 032. Dated 1/12/1976	Clause 52: All amount whatsoever which the contractor is liable to pay to the PCNTDA in connection with the execution of the work including the amount payable in respect of (i) materials and/or stores supplied/issued hereunder by the PCNTDA to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire by the PCNTDA to the contractor for execution by him of the work and/or on which advances have been given by the
	PCNTDA to the contractor shall be deemed to be arrears of the Land Revenue and the PCNTDA may without prejudice to any other rights and remedies of the Government recover the same from the contractor as arrears of land Revenue.
Government Circular No.: CAT 1284 (120) Building 2, Mantralaya, Bombay 400 032. Dated 14/08/1985	Clause 53: The Contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971 as amended form time to time and all other relevant statutes and statutory provisions concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work. In particular the contractor shall pay wages to each workers and working employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules 1971. If the contractor fails or neglects to pay wages at the said rates or makes short payment and the Government makes such payment of wages in full or part thereof less paid by the Contractor as the case may be the amount so paid by the Government to such workers shall be deemed to be arrears of Land Revenue and the Government shall be entitled to recover the same as such from the contractor or deduct same from the amount payable by the Government to the contractor hereunder or of from any other amount payable to him by the Government.
	Clause 54: The contractor shall engage apprentices such as brick-layer, carpenter, wiremen, plumber, as well as black-smith by recommended by the State Apprentice Ship Advisor Director of Technical Education, Dhobi-Talao, Bombay-1. in the construction work (As per Government of Maharashtra, Education PCNTDA No. TSA/5170/T/5689, dated 7.7.1972).
	Clause 55: (Government of Maharashtra P.W.D. Resolution No. CAT 1086/CR-243/K/Bldg. 2 Mantralaya, Mumbai dt. 11.8.1987.)

# CONDITIONS FOR MALARIA ERADICATION ANTI MALARIA AND OTHER HEALTH MEASURES

- a) The anti-malaria and other health measures shall be taken as directed by the Joint Director (Malaria and Fileria) of health Services, Pune.
- b) Contractor shall see that mosquitogenic conditions are not created so as to keep vector population to minimum level.
- c) Contractor shall carry out anti-malaria measures in the area as per guidelines prescribed under National Malaria Eradication Programme and as directed by the Joint Director (Malaria and Fileria) of Health Services, Pune.
- d) In case of default in carrying out prescribed anti-malaria measures resulting in increase in malaria incidence, contractor shall be liable to pay to Government the amount spent by Government on anti-malaria measures to control the situation in addition to fine.

#### e) <u>RELATION WITH PUBLIC AUTHORITIES</u>:

The contractor shall make sufficient arrangements for draining away the sewerage water as well as water coming from bathing and washing places and shall dispose off this water in such away so as not to cause any nuisance. He shall also keep the premises clean by employing sufficient number of sweepers. The Contractor shall comply with all rules, regulations bye-laws and directions given from time to time by any local or public Authority in connection with this work and shall pay fees charges which are leviable on him without any extra cost to Government.( Government of maharashtra P.W.D. Resolution No. CAT-243/ D/ BLDG.2 MANTRALAYA, MUMBAI. DATED 11.9.1987).

# Clause 56:

### CONDITIONSRELATING TO INSURANCE OF CONTRACT WORK

The contractor shall take out necessary insurance policy / policies (viz. contractor's all risks insurance policy, erection all risks insurance policy etc. as decided by the Directorate of insurance) so as to provide adequate insurance cover For execution of the awarded contract work for total contract value and complete contract period **COMPULSORILY** from the "directorate of insurance, maharashtra state, Mumbai" only. its postal address for correspondence is '264 MHADA, First Floor, Opposite Kalanager, Bandra (EAST)Mumbai -400051".(Telephone Nos is 022-26592461/26590403)

similarly all workmen's appointed to complete ther contract work are required to insure under workmen's compensation insurance policy / policies taken out from any other company will not be accepted. if any contractor has not taken out the insurance policy from the "directorate of insurance, maharashtra state, Mumbai " or has effected insurance with any insurance company, the same will not be accepted and 1% of the tender amount or such amount of premium calculated by the Government insurance fund will be recovered directly from the amount pay-able to the contractor for the executed contract

	work and paid to the directorate of insurance fund, maharashtra state ,Mumbai.the director of insurance reserves the right to distributes the risks of insurance among the other insurers.
Government in P.W.Deptt. letter ( in Marathi) No. Misc./ 10 / 09 / Pra.Kra.277/ Bldg2, Mantralaya, Mumbai.32 dated 17/08/2010.	Clause-57 - Building and Other Construction Workers Welfare Cess As per Government of Maharashtra, Industry, Energy &Labour Deptt. G.R. No. BLA 2009/Pra.Kra.108/Kamgar-7A,dt. 17/6/2010 & Public Works PCNTDA Circular No. BDG-2010/Pra.kra. 277/Building-2, dated 28/09/2010, Building andOther Construction Workers Welfare Cess at one percentor at the rates amended from time to time as intimated by thecompetent authority under Building and Other ConstructionsWorker Welfare Act 1996 will be deducted from the Billamount, whether measured Bill, advance payment orSecured Advance.
Extera Items Of Work That May Crop-Up During Execution Of Work	<ul> <li>Clause-58 Extera Items</li> <li>i) For any work other than given in the Schedule – B which are found necessary to be executed in the course of work, such items shall be executed by the contractor as per schedule rate (D.S.R.) of Pune Region + 5% for work in PCNTDA limits.</li> <li>ii) For any such extra work, rates are not available in the D.S.R. of PWD Region, Pune such rates will be derived from actuals + 10% or at rates mutually agreed upon by the contractor and P.C.N.T.D.A. In the above cases the decision of the Dev. Authority will be final.</li> <li>iii) Escalation on extra item of work is not payable.</li> </ul>

# SCHEDULE - 'A'

Schedule showing (approximately) the material to be supplied from the PCNTDA stores for work contracted to be executed and preliminary and ancillary works and the rates at which they are to be charged for

				Rates at which the materials will be charged to the contractor			
Sr.No.	Particulars	Quantity	Unit			Place of	Remarks
						delivery	
				In Figure	In Words		
1	Cement	Nil	Metric Tone	6100	Rs.Six thousand one hundred only		
2	Reinforcement steel (Fe 500)	Nil	Metric Tone	46000	Rs. Forty Six thousand only		
3	Bitumen (IS 60/70 Grade)	Nil	Metric Tone	53823	Rs. Fifty three thousand eight hundred twenty three only		

#### ADDITIONAL CONDITIONS FOR MATERIALS

#### (CEMENT, M.S. / H.Y.S.D./T.M.T. BARS, ASPHALT, ETC. BROUGHT BY CONTRACTOR)

- **1.** All the materials such as Asphalt, Cement, steel etc. shall be procured by the Contractor from approved Government Institutions or as directed by Engineer-incharge only. The material shall be brought at the site of work well in advance by the Contractor. The gate pas of the Asphalt , Invoice of Cement, steel etc. shall be examined by the authorised representative of the Engineer-in-charge.
- **2.** The Contractor shall submit periodically as well as on the completion of work, an account of all materials used by him on the work. In addition, a separate register shall be maintained on site for recording daily itemwise Asphalt, Cement, steel consumption and also itemwise consumption of other materials. This shall be signed daily by Contractor or his representative and authorised representative of the Engineer-in-charge.
- 3. All the materials such Asphalt, Cement, steel etc. shall be procured by the Contractor from approved Government Institutions or as directed by Engineer-incharge only. The materials from any other source in lieu of the approved Institutions shall be allowed except under written permission from the Executive Engineer. In such case, Certificate for its quality shall be produced by the Contractor and samples of materials shall be tested from any Government Laboratory by the Contractor at his cost and the test results be supplied to the PCNTDA. The materials not conforming to the required standard shall be removed at once from the site of work by the Contractor as his own cost. All the materials such as Asphalt, Cement etc. required for use in the work shall be confirming to the concerned I.S. / M.O.R.T.& H. specifications. The Contractor shall get necessary tests carried out to the frequency specified for each material in the specification and submit the test results to the Engineer-in-charge or his authorised representative. These materials shall be used on work by the Contractor, only if the test thereof are found satisfactory to the results Engineer-in-charge or his authorised representative. For the purpose of daily testing of material, such metal, sand, rubble, etc., the Contractor shall make his own arrangements to install a well equipped Laboratory at the site of work at his own cost. The Contractor shall employ qualified personnel at the site of work at his own cost. The responsibility of carrying out tests to the frequency specified for each material shall rest with the Contractor. The extract of register shall be submitted to the Executive Engineer with each bill. Copy of register for the entire period shall be submitted along with the final bill.
- **4.** The Contractor shall construct at his own cost shed/ sheds as per direction of the Engineer-incharge of the work for storing the materials and provide double locking arrangements. The Store shed such constructed shall be removed on completion of work. The Contractor shall take all necessary steps to guard the materials brought by him.
- **5.** The Contractor shall make his own arrangement for the safe custody of the materials brought by him on site of work.

- **6.** The charges for conveying of materials from the place of purchase by the Contractor to the site of work and the actual spot on work site shall be entirely borne by the Contractor. No claims on this account shall be entertained.
- **7.** Separate registers shall be maintained by the Contractor on the site for recording detailed itemwise Asphalt, Cement and Steel consumption on the work. These registers shall be signed by Contractor or his authorised representative and got signed from the representative Engineer-in-charge.
- **8.** The material required only for this work shall be kept in the godown at site. No material shall be shifted outside of the godown except for the work for which this arrangement is entered, without prior approval of the Engineer-in-charge.
- **9.** The Contractor shall produce sufficient documentary evidence i.e. bill for the purchase, octroi receipts etc. for the purchase of material brought on the work site at once if so equested by the PCNTDA.
- 10. All these material i.e. cement, steel etc. shall be protected from any damages, rains etc. by the contractor at his own cost.
- 11. The Contractor will have to erect temporary shed of approved specifications storing of above materials at work site at contractors cost having double lock arrangements (By Double lock it is meant that godown shall always be locked by two locks, one lock being owned & operated by Contractor & other by Engineer-incharge of his authorised representative & the door shall be openable only after both locks are opened.)
- **12.** If required, the wieghment of cement bags/ steel/ bulk asphalt bouzers etc. brought by the Contractor shall be carried out by the contractor at his own cost.
- **13.** The contractor shall not use cement and other material for the item to be executed outside the scope of his contract except for such ancillary small item as are connected and absolutely necessary for execution of this work as may be decided by the Engineer-in-charge.
- **14.** The Government shall not be responsible for the loss in cement, steel, bulk asphalt etc. during transit to work site. The cement brought by the contractor at the work site store shall mean 50 Kg. equivalent to 0.0347 Cubic Meter per bag by weight. The rate quoted should correspond to this method of reckoning. In case of ordinary/controlled concrete, if cement is found short, the shortage/shortages will be made good by the contractor at his cost.
- 15. ANNEXURE FOR R.C.C. PIPE PROCUREMENT: The R.C.C. pipes required for the work shall be procured from the MISSIDC only. The payment towards providing and fixing NP<sub>2</sub> / NP<sub>3</sub> / NP<sub>4</sub> pipes will be released only after the contractor submits the bill of MISSIDC to authenticate that the pipes have been purchased from the MISSIDC. No payment towards the item of providing and laying of the pipe will be released in absence of the submission of the requisite document. After completion of these items in the particular kilometer the withheld payment will be finally released.
- **16. INDEMNITY**: The condition regarding indemnity as defined on Page ...... At Sr.No.4 will apply mutatis mutandis in case of material brought by contractor at the site for the execution of the work being executed under this contract.

- 17. In case the material brought by the Contractor become surplus owing to the change in the design of the work, the material should be taken back by the Contractor at his own cost after prior permission of Engineer-in-charge.
- **18.** Empty asphalt drums shall be the properly of the Contractor and the same shall be removed immediately after completion of work.
- **19.** All empty cement bags shall be returned by Contractor to PCNTDA and the Executive Engineer shall preserve them for one year as token of proof of use of cement in proper proportion in work.

# **Arrangement of material**

- 1. The Contractor shall make his own arrangement for supply of materials including bitumen 60/70 grade, and 30/40 grade cement and steel, R.C.C pipes/ Collars. The Contractor shall be responsible for all transportation and storage of the materials at the site and shall bear all the related costs. The Engineer shall be entitled at any time, to inspect or examine all such materials. The Contractor shall provide reasonable assistance for such inspection or examination as may be required.
- 2. The Contractor shall keep as accurate record of use of materials like bitumen, cement and steel used in the work in a manner prescribed by the Engineer.
- 3. After receiving the bitumen, the authorized challan/ gate pass should be obtained from the refinery mentioned in the quality of bitumen, grade of bitumen, date, time of delivery etc. and it should be handed over to PCNTDA for each consignment.
- 4. While transportation of bouzer a through transport pass should be obtained from the Corporation / Municipality through which the bouzer is passed and same should be handed over the authorized person of the PCNTDA.
- 5. If there is any doubt regarding the material received, the same should be get tested from the Government laboratory at the cost of the Contractor, and if the results are substandard, the material or the work executed with such material will be rejected.
- 6. The day to day record of the receipt / utility / balance of material should be kept by the Contractor at plant site/ site of work / store and same will be checked by the Engineer-in-charge or authorized Engineer at any time.
- 7. The procurement of cement / steel etc. should be from the authorized manufacturing company and the vouchers regaurding purchase thereof shall be submitted to Engineer-in-charge.
- 8. The testing charges shall be entirely borne by the Contractor.

#### SPECIAL ATTENTION OF CONTRACTOR FOR EXECUTION

#### **Procurement of Material:**

PCNTDA will not supply any material for execution of work such as Cement, Tor steel, Asphalt etc. The contractor has to arrange the same from his own source. The quality of the material brought to the site by the contractor should be verified through the various tests provided as per relevant Indian Standards at the cost of the contractor.

The adjustment for variation in cost prices of mild steel and Tor steel bars, structural steel, cement (all tested quality )shall be separately made corresponding to the difference in the cost as per the basic price mentioned hereafter and the purchase price of the material subject to limitation of price.

The contractor shall construct shed / sheds at his own and as per direction of Engineer-incharge for storing the materials brought by him and provide double locking arrangements, one lock shall be in the charge of PCNTDAal person and the material shall be taken for use in presence of the PCNTDAal person only.

#### ENSURING GRADE OF ASPHALT BROUGHT ON SITE BY THE CONTRACTOR

It shall be mandatory on the part of the contractor to procure the asphalt from Government owned Refinery only. The contractor shall communicate the schedule of arrival of bouzer of asphalt to the Engineer- in-charge in advance. Apparatus and equipment for testing grade of asphalt shall be made available by the contractor at site. If the grade of asphalt is found as per specification written permission will be given for unloading the bouzer by the Engineer –in-charge, otherwise written instructions will be given for not using the same on site. (Please refer Government Circular (Marathi) No. Misc 2005/CR-187/ N.H.2, dated 8/10/2007.

# Accompaniment to the Government Resolution Public Works Department No.CAT/06/04/148, Dated 16/05/2005.

#### **PRICE VARIATION CLAUSE**

If during the Operative Period of the contract as defined in condition (i) below, there shall be any variation in the Consumer Price Index (New Series ) for Industrial workers for Pune Centre as per the Labour Gazette published by the Commissioner of Labour, Government of Maharashtra and/or in the wholesale Price Index for all commodities prepared by the Office of Economic Adviser, Ministry of Industry, Government of India, or in the price of petrol/ oil and lubricants, and major construction material like bitumen, cement steel, various type of metal pipes etc, then subject to other conditions mentioned below, price adjustment on account of (i) Labour component (ii) Material component and (iii) Petrol, Oil and Lubricant components, (iv) bitumen component (v) HYSD and Mild steel component (vi) cement component, (vii) C.I and D.I pipes component calculated as per the formulae hereinafter appearing shall be made. a part from these no other adjustments shall be made to the contract price for any reasons whatsoever. Component percentage as given below are as of the total of the work put to tender. **Total of labour, material and POL components** shall be 100 and **other components** shall be **as per actual**.

1) Labour component : K<sub>1</sub> 65%

2) Material component :  $K_2$  25%

3) POL component : K<sub>3</sub> 10%

4) Bitumen component : Actual

5) HYSD and steel component: Actual

6) Cement component : Actual

7) C.I and D.I pipes component : Actual

Note: if cement, steel, bitumen, C.I and D.I pipe are supplied on schedule 'A', then respective component shall not be considered. Also if particular component is not relevant same shall be deleted.

#### (1) Formula for Labour Components

$$V1 = 0.85 \quad x \quad P \quad x \quad \underline{K}_{\underline{1}} \quad x \quad \underline{L}_{\underline{1}} - \underline{L}_{\underline{0}} \qquad \qquad Where,$$

**V1=** Amount of price variation in Rupees to be allowed for labour component.

**P1** = Cost of work done during the period under consideration

**Minus** the cost of cement HYSD and mild steel, bitumen, C.I and D.I pipes calculated at the **basic star rates** as applicable for the tender, consumed during the quarter under consideration.

( these star rates shall be specified here)

1) Bitumen component : Bitumen 60/70 Grade Rs. 53823 per M.T

2) HYSD and steel component : Rs. 46000 Per M.T 3) Cement component : Rs. 6100 Per M.T

**K**<sub>1</sub> = Percentage of **labour** components indicated above

- $L_0$  = Basic consumer price index for <u>Pune</u> center shall be average price index for the quarter preceding the month in which the **last date** prescribed for receipt of tender, falls.
- L<sub>1</sub> = Average consumer price index for <u>Pune</u> centre for the quarter under consideration.

#### (B) FORMULA FOR MATERIALS COMPONENT:

$$V_2 = 0.85 \text{ X} \quad P \text{ X} \qquad \frac{K_2}{100} \text{X} \quad \frac{M_1 - M_0}{M_0}$$

Where,

 $V_2$  = Amount of price variation in Rupees to be allowed for **material** component

**P** = Same as worked out for labour component

 $\mathbf{K}_2$  = Percentage of material Component as indicated above.

 $M_0$  = Basic Wholesale Price Index ascertained as above on the date 30 days preceding the last date prescribed for receipt of tender.

 $M_1$  = Average Wholesale Price Index ascertained as above during the period under consideration.

#### (C) FORMULA FOR PETROL, OIL AND LUBRICANT COMPONENT:

$$V_3 = 0.85 \text{ X P X} \quad \underline{K}_3 \quad \text{x} \quad \underline{P}_1 - \underline{P}_1$$

#### Where,

 $V_3$  = Amount of price variation in Rupees to be allowed for **POL** component.

**P** = Same as worked out for labour component

 $K_3$  = Percentage of petrol, oil and lubricant Component.

 $P_1$  = Average Price of H.S.D. for <u>Mumbai</u> during the period under consideration.

 $P_0$  = Average price of H.S.D. for <u>Mumbai</u> on the date quarter preceding the month last date prescribed for receipt of tender falls.

# (D) FORMULA FOR BITUMEN COMPONENT:

$$V_4 = QB X (B1-B_0)$$

#### Where,

 $V_4$  = Amount of price variation in Rupees to be allowed for **Bitumen** component.

**QB** = Quantity of bitumen (grade) in metric tones used in the permanent works and approved enabling works during the quarter under consideration.

 ${f B_1}={f Current},$  average ex refinery price per metric tone of bitumen ( grade ) under consideration including taxes ( octroi, excise, sale tax) during the quarter under consideration.

 ${f B_0}={f Basic}$  rates of bitumen in rupees per metric tone as considered for working out value of P or average ex refinery price in rupees per ton including taxes (octroi, excuise, sale tax) of bitumen under consideration for prevailing quarter preceding the month in which the last date prescribed for receipt of tender, falls which ever is higher.

#### (E) FORMULA FOR HYSD and MILD STEEL COMPONENT:

$$V_5 = S_0 (\underline{SI_1} - \underline{SI_0}) \times T$$
 where,  
 $SI_0$ 

Contractor

No. of corrections

**Executive Engineer** 

- $V_5$  = Amount of price variation in Rupees to be allowed for **HYSD and Mild Steel**Components.
- S<sub>0</sub> = Basic rates of HYSD / Mild steel in rupees per metric tone as considered for working out value of P.
- $SI_1$  = Average steel index as per RBI bulletin during the quarter under consideration.
- $SI_0$  = Average steel index as per RBI bulletin during the quarter preceding the month in which the last date prescribed for receipt of tender, falls.
- T = Tonnage of steel used in the permanent works for the quarter under consideration.

#### (F) FORMULA FOR CEMENT COMPONENT

$$V_6 = C_0 (CI_1 - CI_0) X T$$
 where,  
 $CI_0$ 

- **V6** = Amount of price escalation in Rupees to be allowed for **Cement** Components
- $C_0$  = Basic rates of **cement** in rupees per metric tone as considered for working out value of P.
- CI<sub>1</sub> = Average **cement** index as per RBI bulletin during the quarter under consideration.
- CI<sub>0</sub> = Average cement index as per RBI bulletin during the quarter preceding the month in which the last date prescribed for receipt of tender, falls.

T = Tonnage of **cement** used in the permanent works for the quarter under consideration.

# (G) FORMULA FOR C.I / D.I PIPE COMPONENT

 $V_7 = Q_d \times (D_1 - D_0)$  where,

- V7 = Amount of price escalation in Rupees to be allowed for C.I / D.I PIPE

  Components
- $\mathbf{D_0} = \mathrm{pig}$  iron Basic rates in rupees per metric tone as considered for working out value of P.
- $D_1$  = Average **pig iron pipe** in rupees per tonne during the quarter under consideration ( published by **IISCO**).
- $\mathbf{Q}_{D}$  = Tonnage of  $\mathbf{C.I}$  /  $\mathbf{D.I}$  PIPE used in the permanent works for the quarter under consideration.

# THE FOLLOWING CONDITIONS SHALL PREVAIL:

- (i) The **Operative Period** of the **contract** shall mean the period commencing from the date of the work order issued to the Contractor and ending on the date on which the time allowed for the completion of the contract for work expires, taking into consideration the extension of time, if any completion of the work granted by Engineer-in- charge under the relevant clause of the conditions of contract in cases other than these where such extension is necessitated on account of default of the contractor. The decision of the Engineer-in-charge as regards the Operative Period of the contract shall be final and binding on the contractor. Where compensation for **liquidated** damages is levied on the contractor on account of delay in completion or inadequate progress under the relevant contract provisions, the price adjustment amount for the balance work from the date of levy of such compensation shall be worked out by pegging the indices **L1, M1, C1, P1, B1, S1 and C1** to levels corresponding to the date from which such compensation is levied.
- (ii) This Price Variation clause shall be applicable to all contracts in **B.-1**, **B.-2** and **C** forms but shall not apply for piece works. the price variation shall be determined during each quarter as per formula given above in this clause.
- (iii) The price variation under this clause **shall not be payable for the extra items** required to be executed during the completion of the work and also on the excess quantities payable under the provisions of clause 38/37 of the contract from **B1/B2** respectively, since the rates payable for the extra items or the extra quantities under Clause 38/37 are to be fixed as per the current DSR or as mutually agreed, subject to yearly revision till completion of such work. In other words, when the completion/execution of extra item as well as extra quantities under Clause 38/37 of the contract form **B1/B2** extends beyond the Operative date of then DSR, the rates payable for the same beyond that date shall be revised with reference to the next current DSR prevalent at that time on year to year basis or revised in accordance with mutual agreement thereon, as provided for in the contract, whichever is less.
- (iv) This clause is **operative both ways**, i.e. if the price variation as calculated above is on the plus side, payment on account of the price variation shall be allowed to the contractor and if it is on the **negative side**, the Government shall be entitled t recover the same from the contractor and the amount shall be deductible from any amounts due and payable under the contract.
- (v) To the extent that fully compensation for any rise or fall in costs to the contractor is **not entirely covered by the provision of this or other clauses** in the contract, the unit rate and prices included the contract shall be deemed to include amounts to recover the contingency of such other actual rise or fall in costs.

#### ADDITIONAL GENERAL CONDITIONS AND SPECIFICATIONS

1. These are to apply as additional condition and specification unless otherwise already provided for contradictorily else where in this contract.

#### 2. **CONTRACTOR TO STUDY SITE CONDITIONS:**

The contractor shall be deemed to have carefully examined the work and site conditions including labour, the general and the special conditions, specifications, schedules and drawings and shall be deemed to have visited the site of the work and have fully informed himself regarding the local conditions and carried out his own investigation to arrive at rates quoted in the tender. In this regard, he will be given necessary information to the best of knowledge of PCNTDA but without any guarantee about it.

If he shall have any doubt as to the meaning of any portions of these general conditions or special conditions, the scope of work of the specifications and drawing, or any other matter concerning the contract, he shall in good time, before submitting his tender, set forth the particulars thereof and submit them to the Executive Engineer in charge PCNTDA PUNE -44 of the work in writing in order that such doubts may be clarified authoritatively before tendering. Once a tender is submitted, the matter will be decided according to tender conditions in the absence of such authentic pre clarification.

#### 3. **DECLARATION OF THE CONTRACTOR:**

The contractor should sign the declaration from on page.----

### 4. **INDEMNITY**:-

The contractor shall indemnify PCNTDA against all actions, suits, claims and demands brought or made against him in respect of anything done or committed to be done by the contractor in execution of or in connection with the work of this contract and against any loss or damage to the PCNTDA in consequence of any action or suit being brought against the contractor for anything done or committed to be done in the execution of the work of this contract.

### 5. **DEFINITION:-**

Unless excluded by or repugnant to the context.

- **a)** The expression "PCNTDA" as used in the tender papers shall mean PIMPRI CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY,
- **b**) The expression "CEO as used any where in the tender papers shall mean Chief Executive Officer of the PCNTDA.
- c) The expression "Superintending Engineer" as used in the tender papers shall mean an officer or Superintending Engineer's rank (by whatever designation he may be known) under whose control the work lies for the time being.
- d) The expression "Engineer" or "Engineer-in-charge" as used in the tender papers shall mean the Executive Engineer-in-charge of the work for the time being.

- e) The expression "Contractor" used in the tender papers shall mean the successful tenderer whose tender has been accepted and who has been authorised to proceed with the work.
- The expression "Contract" as used in tender papers shall mean the deed of contract together with its original accomplishments and those later incorporated in it by mutual consent.
- g) The expression "Plant" as used in the tender papers shall mean every temporary and necessary or considered necessary by the Engineer to execute, construct, complete and maintain the works and used in, altered, modified, substitute and additional work ordered in the time and the manner herein provided and all temporary materials and special and other articles of appliances of every sort, kind and description what-so-ever intended or used thereof.
- h) "Drawing" shall mean the drawing referred to in the specifications and any modifications or such drawings approved writing by Engineer and such other drawings as may from time to time be furnished or approved in writing by the Engineer.
- i) "Engineer's representative" shall mean an assistant of the Engineer notified in writing to the contractor by the Engineer.
- j) Provisional sum or "Provisional lump sum" shall mean a lump sum included by Government in tender documents and shall represent the estimate value of work for which details are not available at the time of issue of tender.
- k) "Provisional items" shall mean items for which approximate quantities have been included in the tender documents.
- The "Site" shall mean the lands and/or other places, on under, in or through which the work is to be executed under the contract including any other lands or places which may be allotted by Government or used for the purpose of contract
- m) The "Work" shall mean the works to be executed in accordance with the contract or part (s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the contract.
- n) The "Contract sum" shall mean the sum for which the tender is accepted.
- o) The "Accepting Authority" shall mean the officer competent to accept the tender
- p) The "Day" shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in any day in that week.
- q) "Temporary works" shall mean all temporary works of every kind required in or about the execution, completion, or maintenance of the works.
- r) "Urgent works" shall mean any measure which, in the opinion of the Engineer in charge, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the person working, thereon.

Where the context so requires, works importing the singular only also include the plural and viceversa.

Heading and marginal notes, if any, to the general conditions shall not be deemed to form part thereof or be taken into consideration in the interpretation or construction thereof of the contract.

Wherever there is mention of "Schedule of rates" of the Division or simply D.S.R. in this tender, it will taken to mean as "the Schedule of the rate of the Division in whose jurisdiction the work lies."

#### 6. <u>ERRORS, OMISSIONS AND DISCREPANCIES</u>:

- a) In case of errors, omissions and / or disagreement between written and scaled dimensions on the drawings or between drawings and specifications etc. the following orders of preference shall apply.
- <u>i)</u> Between actual scaled and written\_dimensions or description on a drawing, the later shall be adopted.
- <u>ii)</u> Between the written or shown description/ or dimensions in the drawing and corresponding one in the specification, the later shall apply.
- <u>iii)</u> Between the quantities shown in schedule of quantities and those arrived at from the drawing, the latter shall be preferred.
- <u>iv)</u> Between the written description of the item in the schedule of quantities and the detailed description in specifications of the same items, the latter shall be adopted
- (b) In cases of difference between the rates written in figures and words, the rate adopted by the contractor for working out the total amount of the item will be taken as correct. In other cases correct rate would be that, which is lower.
  - (c) In all cases of omissions and/or doubts of discrepancies in the dimensions or description of the items or specification, a reference shall be made to the Executive Engineer, PCNTDA Pune-44 whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that my occur in the work through lack of such reference and precaution.
- (d) The special provision in detailed specifications and wording of any item shall gain precedence over corresponding contradictory provision (if any) in the Standard Specification of Public PCNTDA Hand Book where reference to such specifications is given without reproducing the details in contract.

#### 7. PROGRAM OF WORK :-

7.1 The work is required to be completed within a period of \_\_6\_\_months (including the monsoon period.) The tentative program may be as per the Bar-chart as given in tender.

# 7.2 a) <u>METHODOLOGY OF CONSTRUCTION AND CONSTRUCTION</u> EQUIPMENT:-

Contractor shall furnish at least 15 days in advance his program of commencement of item of work, the details of actual methods that would be adopted by the contractor for the execution of various items of work such as well sinking, cast-in-situ, superstructure for Bridge work and earth work, W.B.M. black topping items etc. For road works, supported by necessary detailed drawing and sketches including those of the Plant and Machinery that would be used, their locations, arrangement for conveying and handling materials etc. and obtain prior approval of the Engineer-in-charge well in advance of starting of such item of work. The Engineer-in-charge reserves the right to suggest modifications or make complete charges in the method proposed by the Contractor, whether accepted previously or not, at any stage of the work, to obtain the desired accuracy, quantity and progress of the work which shall be binding on the contractor, and no claim on account of such change in method of execution will be entertained by Government so long as specification of the item remain unaltered. The sole responsibility for the safety and adequacy of the methods adopted by the contractor, will however, rest on the contractor, irrespective of any approval given by the Engineer.

In case of slippage from the approved work program at any stage the contractor shall furnish revised program to make up the slippage within the stipulated time schedule and obtain the approval of the Engineer to the revised program.

# b) **CONSTRUCTION EQUIPMENT AND LOCATION :-**

- i) The contractor shall be required to give a trial run of the equipments for establishing their capability to achieve the laid down specifications and tolerance to the satisfaction of Engineer before commencement of the work. All equipment provided shall be of proven efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personnel will be removed from site without permission of the Engineer.
- ii) The Contractor's Hot Mix Plant shall be located within travelling distance of 40 Kms. From the site of work without interruption and natural obstruction and smooth plying of dumpers with average speed of 40 Kms. Per hour. Location of Hot Mix Drum Mix Plant should be such that maximum time taken for transporting bitumen mix from plant site to the Paver does not exceed 60 minutes.

#### c) PROGRESS SCHEDULE :-

The Contractor shall furnish within the period of the one month of the order to start the work the programme of work in CPM /PERT Charts in quadruplicate including the date of actual start, the monthly progress expected to be achieved and the anticipated completion date of each major item of work to be done by him, also indicating dates of procurement and setting up of materials, plant and machinery. The schedule is to be such as is practicable of achievement towards the completion of the whole work in the time limit, the particular items, if any, on the due date specified in the contract and shall have the

approval of the Engineer-in-charge. No revised schedule shall be operative without such acceptance in writing. The Engineer is further empowered to ask for more detailed schedule or schedules say week by week for any item or items, in any case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.

The Contractor shall furnish sufficient plant, equipment and labour as may be necessary to maintain the progress of schedule. The working and shift hours restricted to one shift a day for operations to be done under the PCNTDA supervision shall be such as may be approved by the Engineer-in-charge. They shall not be permitted except when specifically allowed by Engineer each time , If requested by the contractor. The Contractor shall provide necessary lighting arrangements etc. for night work, as directed by the Engineer without any extra cost to PCNTDA

Further, the Contractor shall submit the progress report of work in prescribed forms and charts etc. at periodical intervals, as may be specified by the Engineer-in-charge. Schedule shall be in the form of progress charts, forms, progress statement and/or reports as may be approved by the Engineer.

The contractor shall maintain proforma, charts details regarding machinery, equipment, labour material, personnel etc. as may be specified by the Engineer and submit periodical returns thereof as may be specified by the Engineer-in charge

#### 8. **AGENT AND WORK ORDER BOOK:**

The Contractor shall himself manage the work or engage an authorised all time agent on the work capable of managing and guiding the work and understanding the specifications and contract conditions. A qualified and experienced Engineer shall be provided by the contractor as his agent for technical matter in case the Engineer-in-charge considers this is essential for the work and so directs the Contractor. He will take orders as will be given by the Executive Engineer or his representative and shall be responsible for carrying them out.

This agent shall not be changed without prior intimation to the Executive Engineer and his representative on the work site. The contractor shall supply to the Engineer-in-charge the details of all supervisory and other staff employed by the Contractor and notify changes when made and satisfy the unquestionable right to ask for changes in the quality and number of Contractor's supervisory staff and to order removal from work of any such staff. The Contractor shall comply with such orders and effect replacement to the satisfaction of the Engineer.

A work order book shall be maintained on the site and it shall be the property of the PCNTDA and the Contractor shall promptly sign orders given therein by the Executive Engineer or his representative and his Superior Officers, and comply with them. The compliance shall be reported by Contractor to the Engineer in good time so that it can be checked. The blank work order book with machine numbered pages will be provided by the PCNTDA free of charge for this purpose. The contractor will be allowed to copy out instructions given therein from time to time.

# 9. SETTING OUT FOR

#### i) (ROAD WORK)

- 9.1 The contractor shall establish working bench marks in the area soon after taking possession of the site. The reference Bench mark for the area shall be as indicated in the Contract Documents. The working bench marks shall be at the rate of four per KM and also at or near all drainage structures, over bridge and underpasses. The working bench marks / levels should be got approved from the Engineer. Checks must be made on these bench marks once every month and adjustments if any got agreed with the Engineer and recorded. An upto date contractor and also a copy supplied to the Engineer for his record.
- 9.2 The lines and levels of formation, side slopes, drainage, carraigeways and shoulders shall be carefully set out and frequently checked, care being taken to ensure that correct gradients and cross sections are everywhere obtained.
- 9.3 In order to facilitalte the setting out of the works, the centre line of the carriageway or highway must be accurately established by the contractor and approved any the Engineer , It must then be accurately referenced in a manner satisfactory to the Engineer, every 50 M. intervals in plain and rolling terrain and 20 M. intervals in hilly terrain and in all curve points as directed by the Engineer, with marker pegs and chainage boards set in or near The fence line, and a schedule of reference dimensions shall be maintained until the works reach finished formation level and are accepted by the Engineer.
- 9.4 On construction reacting the formation level stage the centre line shall again be set out by the contractor and when approved by the Engineer shall be accurately referenced in a manner satisfactory to the Engineer by marker pegs set at the outer limits of the formation.
- 9.5 No reference pet or marker shall be moved or withdrawn without the approval of the Engineer and no earthwork or structural work shall be commenced until the centre line has been referenced.
- 9.6 The Contractor will be the sole responsible party for safeguard all survey monuments, bench marks, beacons etc. The Engineer will provide the contractor with the data necessary for the setting out of the centre line. All dimensions and levels shown on the drawings or mentioned in documents forming part of or issued under the contract shall be verified by the contractor on the site and he shall immediately inform the Engineer of any apparent errors of discrepancies in such dimensions or levels. The contractor shall after or in connection with the setting out of the centre line, survey the terrin along the road and shall submit to the Engineer for his approval, a profile along the road centre line and cross sections at intervals as required by the Engineer.
- 9.7 After obtaining approval of the Engineer , work on carthwork can commence and the profile and cross sections shall form the basis for measurements and payment . The contractor is responsible for checking that all the basic traverse points are in place at the commencement of the contract and if any ared missing , or appear to have been disturbed, the contractor shall make arrangements in re-establish these points.

A " Survey File " containing the necessary data will be made available

for this purpose . If in the opinion of the Engineer, design modifications of the centreline or grade are advisable, the Engineer will issue detailed instructions to the contractor and the contractor shall perform the modifications in the field, as required. There will be no separate payment for any survey work performed by the contractor. The cost of these services shall be considered as being included in the cost of the items of work in the Bill of Quantities.

9.8 The work of setting out shall be deemed to be a part of general works prepratory to the execution of work and no separate payment shall be made for the same.

# II) SETTING OUT FOR (BRIDGE WORKS ):-

Immediately on receipt of the work order, the contractor shall at his own expense clean the site and take up a provisional and final setting out and lining out of the work under the supervision of his responsible representative and shall provide necessary material labour, tools, instruments etc. required for the same.

One tentative abutment location will be indicated by Engineer in charge and the centre line of the bridge shall be defined by him. The contractor will then have to fix up the location of the other abutment. The abutment location will then be verified by the PCNTDA and may be adjusted. Once the final location of abutments is so finalised, it will be the contractor's responsibility to line out and locate the remaining foundations.

The contractor shall be responsible for true and proper setting out of the works and for the correctness of the positions, level dimensions and arrangements of all parts of works, and for providing all necessary instruments appliances and labours in connection there with at his own cost. Officers may assist the contractor in proper setting out. Government instruments may be allowed to be used for setting out of work for which no cost shall be recovered from the contractor if at any time during the progress of work any errors arise in regard to levels for dimensions or alignment of any part of the work , rectification their of, on being required to do so it will be carried out by the contractor at his own cost , unless such errors are based on incorrect data supplied in writing by the Engineer or his authorised representative in which case the expenses of the rectification shall be refunded by Government.

The checking of any setting out or checking of levels by the Engineer or his authorised representative shall not in any way relieve the contractor of his responsibility for the correctness thereof. The contractor shall carefully protect and preserve all bench marks, site rails, pegs and other things used in setting out of works.

#### (iii) SETTING OUT FOR (BUILDING WORKS)

The Engineer-in-charge shall furnish the contract with only the four corners of the works site and a level bench mark and the contractor shall set out the works and shall provide an efficient staff for the purpose and shall be solely responsible for the accuracy of such setting out.

The contractor shall provide, fix and be responsible for the maintenance of all stakes, templates, level marks, profiles and other similar thing and shall take all necessary precautions to prevent their removal or disturbance and shall be responsible for the consequence of such removed or disturbance should the same take place and for their efficient and timely reinstatement. The contractor shall also be responsible for the maintenance of all existing survey marks, boundary marks, distance marks and center marks and center lines marks either exiting or supplied and fixed by the contractor. The work shall be set out to the satisfaction of the Engineer-in-charge the approval theirof or joining with the contractor be the Engineer in charge in setting out the work, shall not relieve the contractor of any of his responsibilities.

Before beginning the work, the contractor shall at his own cost provide all necessary reference and level posts, pegs, bamboos, flags, ranging rods, strings and other materials for proper lay out of the work in accordance with the scheme for bearing marks acceptable to the Engineer-incharge. The center, longitudinal or face lines and cross lines shall be marked by means of small masonry pillars. Each pillar shall have distinct mark at the center to enable theodolite to be set over it. No work shall be started until all these points are checked and approved by the Engineer-in-charge in writing but such approval shall not relieve the contractor of any of his responsibilities. The contractor shall also provide all labour, material and other facilities, as necessary, for the proper checking of layout and inspection of the points of work under construction.

Pillars bearing geodetic marks located at the sites of units of works under construction should be protected and fenced by the contractor

On completion of works, the contractor must submit the geodetic documents according to which the work was carried out.

#### RESPONSIBILITIES FOR LEVEL AND ALIGNMENT:-

The contractor shall be entirely and exclusively responsible for the horizontal and vertical alignment, the levels and correctness of every part of the work and shall rectify effectually any errors or imperfections therein, such rectification's shall be carried out by the contractor, at his own cost, when instructions are issued to that effect by the Engineer-in-charge.

# 10. **LEVELING INSTRUMENTS:**

If measurement of items of the work are base on volumetric measurements calculated from levels taken before and after construction of the item, a large number of leveling staves, tapes etc. will have to be kept available by the contractor at the site of work for this purposes. Lack of such leveling staves, tapes etc., in required numbers may cause delay in measurement and the work. The contractor will therefore to keep sufficient number of these readily available at site.

#### 11. AUTHORITIES OF THE ENGINEER – IN - CHARGE'S REPRESENTATIVE:

The duties of the representative of the Engineer-in-charge area to watch and supervise the work and to test and examine any materials to be used or workmanship employed in connection with the works.

The Engineer-in-charge may from time to time, in writing delegate to his representative any powers and authorities vested in the Engineer-in-charge and shall furnish to the contractor a copy of all such delegations of power and authorities. Any written instruction of approval given by the representative of the Engineer-in-charge to the contractor within the terms of such delegations(but not otherwise)shall bind the contractor and the PCNTDA as though it had been given by the Engineer-in-charge, provided always as follows.

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

#### 12. **CO-ORDINATION:**

When several agencies for different sub-works of the project are to work simultaneously on the project site, there must be full co-ordination and co-operation between different Contractors to ensure timely completion of whole project smoothly. The schedule dates for the completion specified in each contract shall therefore be strictly adhered to. Each Contractor may make his independent arrangements for water, power, access, housing etc., if they so desire. On other hand the Contractors are at a liberty to come to mutual agreement in this behalf and joint arrangements with the approval of the Engineer-in-charge. No Single Contractor shall take or cause to be taken any step or action that may cause distruption discontent or disturbance of work, labour or arrangement etc., of other Contractors in project location. Any action by any Contractor which the Engineer-in-charge in his unquestioned discretion may consider as infringement of the above code, would be considered as a breach of the Contract conditions and shall be dealt with accordingly.

In case of any dispute or disagreement between the Contractors, the Engineer's decision regarding the co-ordination, co-operation and facilities to be provided by any of the Contractors shall be final binding on the Contractor concerned and such a decision or decisions shall not vitiate any contract nor absolve the Contractor(s) of his obligations, under the contract not consider for the grant for any claim or compensation.

#### 13. ASSISTANCE IN PROCURING PRIORITIES, PERMITS ETC:

The Engineer-in-charge on written request by Contractor will, if in his opinion the request is reasonable and in the interest of work and its progress, assist the Contractor in securing the priorities for deliveries, transport permits for controlled materials, etc., where such are needed. The Government will not however be responsible for non-availability of such facility or delay in this behalf and no claims on account of such failure or delays shall be allowed by the Government. The Contractor shall have to make his own arrangements for machinery

required for the work. However, such machinery is conveniently available with the PCNTDA, it may be spared as per rules in force on recovery of necessary Security Deposit and rent with agreement in the prescribed form. Such an agreement shall be independent of this Contract and the supply of machinery shall not form a ground for any claim or extension of time limit for this work.

# 14. **QUARRIES:**

- 14.1 No P.W.D quarries are available with this PCNTDA. The contractor (s) shall have to arrange the same himself / themselves.
- 14.2 The quarrying operations shall be carried out by the Contractor with proper equipment such as compressors, jack hammers, drill bits, explosives etc. and sufficient number of workmen shall be employed so as to gate the required out turn.
- 14.3 The contractor shall carry out the works in the quarries in conformity with all rules and regulations already laid down or that may be laid down from time to time by Government. Any cost incurred by Government due to noncompliance of any rules or regulations or due to damages by the contractor shall be the responsibility of the contractor. The Engineer- in- charge or his representative shall be given full facilities by the contractor for information at all times of the working of the quarry, records maintained, the stock of the explosive and detonators etc. so as to enable him to check that the working records and storage are all in accordance with the relevant rules. The Engineer- incharge or his representative shall at any time be allowed to inspect the work, building and equipment at the quarters.
- 14.4 The contractor shall maintain at this own cost the books, registers etc. required to be maintained under the relevant rules and regulations and as directed by the Engineer- incharge. These books shall be open for inspection at all times by the Engineer- in- charge or his representative and the contractor shall furnish the copies or extracts of books or registers as and when required.
- All quarrying operations shall be carried out by the contractor in an organised and expeditious manner, systematically and with proper planning. The contractor shall engage licensed blasters and adopt electric blasting and / or any other approved method which would ensure complete safety to all the men engaged in the quarry and its surroundings. The contractor shall himself provide suitable magazines and arrange to procure and store explosives etc. as required under the rules at his own cost. The designs and the location of the magazine shall be got approved in advance from the Chief Inspector of Explosives and the rules and regulations in this connection as laid down by the Chief Inspector of Explosives from time to time shall be strictly adhered to by the contractor. It is generally experienced that it takes time to obtained the necessary license for blasting and license or storage of material from the concerned authorities. The contractor must therefore, take timely advance action for procuring all such licenses so that the work progress may not be hampered.
- 14.6 The approaches to the quarrying place from the existing public roads shall have to be arranged by the contractor at his own cost and the approaches shall be maintained by the contractor at his own cost till the work is over.
- 14.7 The quarrying operations shall be carried out by the contractor to the entire satisfaction of the Engineer- in- charge and the deployment of the quarry shall be made efficiently so as to avoid

wastage of stones. Only such stones as are of the required quality shall be used on the work. Any stone which is in the opinion of the Engineer- in- charge, not in accordance with the specifications or of required quality will be rejected at any time, at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown at the contractor's cost.

by the contractor including the excavated over burden are the property of the Government. No stones or earth shall be supplied by the contractor to any other agencies or works are allowed to be taken away for any other works. All such surplus quarried materials not required for work under this contract shall be the property of the Government. And shall be handed over by contractor to Government free of cost at quarry site duly heaped at the spots indicated by the Engineer- in- charge. The rates for several items shown in

Since all stones quarried from Government quarry (if made available)

- site duly heaped at the spots indicated by the Engineer- in- charge. The rates for several items shown in the schdule'B' are inclusive of royalties to be paid to thue Government on mimnor mineral and metal under relevant acts. Full rete for any and every item shall be paid only after production of sufficient proof of having paid the Engineer-in-charge may deem fit. if however the Government does not require such surplus materials the contractor may be allowed to dispose off or use such material else where with prior shall be done only on the approval of the Engineer-in-charge.
- 14.9 Quarrying permission will have to be directly obtained by the contractors from the Collector of the District concerned for which purpose the PCNTDA will render necessary assistance. All quarry fees, royalty charges, Octroi duties ground rent for stacking material etc. if any to be paid, shall be paid directly by the contractor as per rules in force. The contractor will however, be entitled to a refund of part of such charges as are admissible under rules as mentioned elsewhere in this contract, after obtaining a certificate from the Engineer- in- charge that the material were required for use on Government works.
- 14.10 The contractor will be permitted to erect at his own risk and cost at the quarry site if suitable vacant space in Government area is available for the purpose, his own structures for stores, offices, etc. at places approved by the Engineer- in- charge. On completion of the work the contractor shall remove all the structures erected by him and restore the site to its original condition.
- 14.11 The Contractor shall not use any land in the quarry either for cultivation or for any other purpose except, that required for breaking or stacking or transporting stones.

#### 15. COLLECTION OF MATERIALS.

14.8

- i) Where suitable and approved P.W. PCNTDA's quarries exist, the contractor or piece worker will be allowed if otherwise there is no objection to obtained the materials to the extent required for the work from the quarry. He will be, however liable to pay compensation of any damage is caused to the quarry either deliberately or through negligence or for wastage of materials by himself or his staff or labour. The contractor shall pay necessary royalty in advance and claim refund according to rules, if admissible, and shall submit detailed accounts of materials from quarries as directed.
- ii) Where no suitable P.W. PCNTDA's quarries exist or when the quantity of the material required cannot be obtained from a P.W. PCNTDA quarry the contractor or piece worker shall make his own arrangements to obtain the materials from existing or a new quarry in Government west land, privet land or land belong him to other state or Talukas etc. after opening the quarry but before starting collection the quarry shall be got approved by the Engineer-in-charge or his representatives. The contractor or piece worker shall pay all royalty charges compensation etc. No claims

or responsibility on account of any of obstructions caused to execution of the work by difficulties arising out of private owners of the land will be entertained.

- iii) The rates in the tender include all incidental charges such as opening of a new quarry, opening out a new portion in an existing quarry, removing top soil and the unsuitable material, dewatering quarry, cost of blasting powder and fuse, lift, lead, repairs to existing cart tracks, making new cart tracks, control charges, Central/ state Government or Municipal taxes, Local Board Cess etc.
- iv) The rates in the tender are for the delivery of the approved material on road side properly stacked at the places specified by the Engineer-in-charge and are inclusive of conveyance charges in respect of the leads and lifts. No claims on account of charges in lead will be entertained.
- v) No material shall be removed from the land within the road boundary or from the land touching it without the written permission of the Engineer-in-charge or his authorized agent. If any material is unauthorized obtained from such places, the contractor or piece worker shall have to make good the damage and pay such compensation, in addition as may be decided by the Executive Engineer and will have to stop further collection.
- vi) Any material that falls on any P. W. D. Road from the chart etc. during conveyance shall be immediately picked up and removed by the contractor or piece

worker, failing which it will be got removed departmentally at his cost. No heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to the traffic. The contractor or the piece worker shall be liable to pay for any claims of compensation, arising out of any accident etc. Any such materials causing obstruction or danger etc. will be got removed departmentally at his cost and no claims for any loss or damage to the material thus removed will be entertained. The contractor shall also be responsible for the damage or accident etc. arising out of any material that falls on the road or track not in charge of the PCNTDA and shall attend to any complaints which may be received.

- vii) The materials shall not be stacked in place where it is liable to be

  Damaged or lost due to traffic passing over it, to be washed away by rain or floods to be buried under the
  land slide etc. of the slip down an embankment or hill side etc. No claims for any loss due to these and
  similar causes will be entertained.
- viii) Before stacking, the materials shall be free from all earth, rubbish, vegetable matter and other extraneous substance and in the case of metal, screened to gauge, if so directed when ready, it shall be stacked entirely clear of the roadway, on ground which has been cleaned of vegetation and levelled. On high banks, ghat roads etc. where it may not be practicable to stack it entirely clear of the roadway it may be stacked with permission of the Engineer-in-charge on terms in such way as to cause minimum danger and obstruction to the traffic or as may be directed by him.
- ix) The size of the stack for materials other than rubble shall be  $1.0 \text{ m} \times 1.0 \text{ m} \times 0.5 \text{ m}$  or such other size as may be directed by the Engineer –in-charge and all but one stack in furlong shall be of the same uniform size and shall be uniformly distributed over whole lengths.

One stack (at the end) in each furlong may be or length different form the rest in order to adjust total quantity to be required but its width and height will be the same as those of the rest.

- x) The Sub Divisional Officer shall supply the contractor with statement showing 200 m wise quantities that will be required and the order in which the collection is to be done. No materials in excess of requirements in that 200 m shall be stacked. Any excess quantity shall be removed at the expenses of the contractor or piece worker to where it is required before the material in that furlong is finally measured
- xi) In stacking materials the deposition shall commence at the end of the Km. farthest from the quarry and be carried continuously to the other end (unless otherwise directed by the Executive Engineer.). Stacking in one 200M.shall be completed before it is started in another, unless directed otherwise, in writing by the Executive Engineer. Measurements of the material stacked in a 200 M. will not be recorded until the full quantity required has been stacked unless otherwise authorized by Engineer in writing. Collecing and spreading shall not be carried out at the same time in one and the same Km. or in two adjoing Km. except with the written permission of the Executive Engineer.
- xi) Unless otherwise directed, the material shall be collected in the following order according to availability of space: (1) Rubble (if included in tender) (2) Metal (3) Soft murum and (4) Hard Murum. Hard murum shall be stacked on the side opposite to that on which soft murum has been stacked. Similarly metal collected for petty repairs shall be stacked on the side opposite to metal for new layer. Where metal for two layers has to stacked, as in the case of new roads, the metal for each layer shall be stacked on the opposite sides of the road.
- xi) All road material shall be examined before it is spread. The labour for measurements (and check measurements wherever carried out) shall be supplied by the contractor or piece worker. If the contractor or piece worker. Immediately after the measurements are recorded the stacks shall be marked by the contractor or piece worker by white wash or otherwise as may be directed by the Executive Engineer to prevent from any possibility of the same material being measured and recorded over again and to prevent any unauthorised tempering with the stacks.

If the contractor or the piece worker fails to attend the measurements of materials after receiving the notice from the Sub Division Officer or his subordinate stating date and time of the intention to measure the work, the same shall be measured never – the - less and no complaint in this respect will be entertained later on. If the contractor or piece worker fails to supply sufficient labour or the materials required at the time of measurements or check measurement after due notice has been given to him, the expenses incurred on account of employing PCNTDAal labour or material etc. shall be charged against his account.

xiv) No deduction will be made for voids

#### 16. TEMPORARY QUARTERS AND SITE OFFICE:-

(i) The contractor shall at his own expense maintain sufficient experienced supervisory staff etc. required for the work and shall make his own arrangement, provide housing for them with all necessary arrangements, including fire preventive measures etc. as directed by the Engineer-in-charge. General layout plan for such structures shall begot approved from the Engineer-in-charge. It will be the responsibility of the Contractor to get his layout plan of temporary structure approved from the local component authority

(ii) The contractor shall provide, furnish, maintain and remove on completion of the work, a suitable office on the work site for the use of Executive Engineer's representative. The covered area exclusive of verandah should not be less than 40 Sq.m. It may have bamboo mating walls and asbestos or corrugated iron roof, paved floor should be 45 cm. above ground level. He should proved a basket type latrine, urinals and keep them clean daily. This will be supposed to be included in his rate.

#### 17. TREASURE TROVE:

In the event of discovery by the Contractor or his employees during the progress of the work of any treasure, fossils, minerals or other articles of value or interest, the contractor shall give immediate intimation thereof to the Engineer-in-charge and forthwith hand over to the Engineer-in-charge such treasure of other things which shall be the property of the Government

#### 18. **PATENTED DEVICES:-**

Whenever the Contractor desires to use any designed devices, materials or process, covered by letter of patent or copy right, the right for such use shall be secured by suitable legal arrangement and agreement with the patent owners and copy of their agreement shall be filed with the Engineer-in-charge if so desired by the later.

#### 19. **EXPLOSIVES** :-

The Contractors shall at his own expenses construct and maintain proper magzines, if such are required for the storage of explosives for use in connection with the works, and such magazines being situated constructed and maintained in accordance with Government Rules applicable in that behalf. The contractor shall at his own expenses obtain such licence or licences as may be necessary for storing and using explosives . Not withstanding that the location etc. for storage of explosives are approved by the Engineer, the Government shall not be incurring any responsibility whatever in connection with storage and use of explosive on the site or any accident or occurrence whatsoever in connection therewith, all operations in or for which explosives are employed being at the risk or contractor and upon his sole responsibility and the contractor hereby gives to government an absolute indemnity in respect thereof.

# 20. DAMAGE BY FLOODS OR ACCIDENTS:-

The Contractor shall take all precautions against damages by floods or like or from other accidents. No compensation shall be allowed to the contractor on this account or for correcting and repairing any such damage to the work during construction. The Contractor shall be liable to make good at his cost any plant or material belonging to the Government lost or damaged by floods or from any other cause while in his charge.

# 21. **POLICE PROTECTION:**

For the Special Protection of camp and of the contractor's work, the

PCNTDA will help the contractor as far as possible to arrange for such protection with the concerned authorities if so required by the contractor in writing. The full cost of such protection shall be borne by the Contractor.

# 22. TRAFFIC REGULATION FOR ROAD WORKS:-

- 22.1 Unless separately provided for in the contract, the contractor shall have to make all necessary arrangements for regulating traffic, day to night during the period of construction to the entire satisfaction of the Engineer. This includes the construction and maintenance to diversions if necessary . The contractor shall have to provide necessary caution boards, barricades flags, lights and watchmen etc. so as to comply with the latest Motor Vehicles Rules and regulation and for traffic safety and he shall be responsible for all claims from accidents which may arise due to his negligence whether in regulating the traffic or in stacking material on the roads, or due to any other reasons.
- 22.2 The contractor shall at all times carry out the work on the road in a manner creating least interference to the flow of traffic, while consistent with the satisfactory execution of the same. For all works involving improvements to the existing road, the contractor shall, in accordance with the directives of the Engineer-in-charge, provide and maintain, during the execution of work a passage for traffic, either along or part of the existing carriage way under improvement, or along a temporary, or along a temporary diversion constructed close to the road.

# 22.3 TRAFFIC REGULATION FOR BRIDGES AND C.D. WORKS:-

It is to be clearly understood that whatever work carried out by the contractor for construction of diversion road including earthwork, W.B.M. bituminous surface dressing. R.C.C. pipe drains etc. will be paid for only once if the items of temporary diversion are included in the contract and if due to flow of traffic, due to floods or due to any other cause, this diversion road and/or the R.C.C. drain gets damaged it shall be repaired and maintained by the contractor in good conditions till completion of the whole work at his own expenses.

Traffic safety and control shall be as per clause No. 112.4 of M.O.S.T. Specification for Roads and Bridges (4<sup>th</sup> Revision, august 2001 edition).

# 23. SUPERVISION AND INSPECTION OR WORKS AND QUALITY CONTROL

#### 23.1 **SUPERVISION:**-

The contractor shall either himself supervise the execution of the works or shall appoint the competent agent approved by the Engineer-in-charge, to act on his behalf. If in the opinion of the Engineer-in-charge, the contractor has himself no sufficient knowledge and experience of receiving instructions or cannot give his full attention to the works, the contractor shall at his own expenses, employ as his accredited agent a qualified Engineer approved by the Engineer-in-charge.

Order given to the contractor's agent shall be considered to have the force as if these had been given to the contractor himself . If the contractor fails to appoint a suitable agent as directed by the Engineer-in-charge, the Engineer-in-charge shall have full power to suspend the execution of the work until such date a suitable agent is appointed and the contractor shall be responsible for the delay so caused to the works and contractor shall not be entitled for any compensation on this behalf.

#### 23.2 **INSPECTION:**

The contractor shall inform the Engineer –in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work. The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-charge shall have certified in writing to that effect. Approval of materials or workmanship or approval of part of the work during the progress of execution shall not bind the Engineer-in-charge or in any way affect him even to reject the work which is alleged to be completed and to suspend the issue of his certificate of completion until such alterations and modifications or reconstruction's have been effected at the cost of the contractor as shall enable him to certify that the work has been completed to his satisfaction. The contractor shall provide at his cost necessary ladders and such arrangement as to provide necessary facilities and assistance for proper inspection all parts of the work at his own cost.

#### 24. INITIAL MEASUREMENT FOR RECORD:

Where for proper measurement of the work, it is necessary to have an initial set of levels or other measurements taken, the same recorded as in the authorised field book, measurement book of Government by the Engineer-in-charge or his authorised representative will be to have a true copy of the same made at his cost. Any failure in the part of the Contractor to get such levels etc., recorded before starting the work will render him liable to accept the decision of the Engineer-in —charge as to the basis of taking measurements. Likewise the Contractor will not cover any work which will render its subsequent measurement difficult or impossible without first getting the same jointly measured by himself and authorised representative of the Executive Engineer. The record of such measurements on the Government side will be signed by the Contractor and he will be entitled to have a true copy of the same made at his cost.

#### 25. SAMPLES AND TESTING OF MATERIALS:

- i) All materials to be used on work shall be got approved in advance from the Engineer-in-charge and shall pass the test and/or analysis required by him which will be:
  - a) as specified in the specification for the items concerned and/or
  - b) Red Book.
  - c) As specified by the Indian Roads Congress Standard Specification and cost of practice for Roads and Bridges 4th Revision, Section 900.
  - d) I.S.I. specifications (whichever and wherever applicable) or
  - e) Quality Control for road work.
  - **f**) such recognized specifications accepted to Engineer-in-charge as equivalent thereto or in absence of such authorised specification.
  - **g**) such requirement test and/or analysis as may be specified by the Engineer-in-charge in order of precedence given above.
- **ii**) The Contractor shall at his risk and cost make all arrangements and/or shall provide for all such facilities as the Engineer-in-charge may require for collecting, preparing required number of samples for tests or for analysis at such time and to such place or places as may be directed by the Engineer and bear all such charges and cost of testing. Testing charges shall be reimbursed subject to conditions under this Clause 25 (viii) 'a' to 'h'. Such samples shall also be deposited with the Engineering- charge.

- **iii**) The Contractor shall if and when required, submit at his cost the samples of materials to be tested or analysed and if, so directed, shall not make use of or incorporate in the work any materials represented by the samples until the required tests or analysis have been made and the materials, finally accepted by the Engineer-in-charge.
- iv) The Contractor shall not be eligible for any claim or compensation either arising out the any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of the materials.
- v) The Contractor or his authorised representative will be allowed to remain present in the PCNTDA laboratory while testing samples furnished by him. However, the results of all the tests carried out in the PCNTDAal laboratory in the presence or absence of the Contractor or his authorised representative, will be binding on the Contractor.
- vi) a) The Contractors shall at his own cost, set up **Field Laboratory**, get it checked and certified by the Executive Engineer, with all necessary equipments as given below, for testing of all materials, finished products used in the construction as per requirements of relevant specifications. The necessary testing equipment shall be calibrated under the supervision of Superintending Engineer, Vigilance & Quality Control Circle, Pune or authorized Government or Private Agency.
- (b) 90% tests shall have to be carried out in his field laboratory and 10% in NABL Accredited Laboratory. In case where there is no field laboratory, 100% tests shall be carried out in the nearest NABL Accredited Laboratory.
- (c) The tests which cannot be carried out both in field laboratory same shall be carried out 100% in the **NABL Accredited Laboratory**.at the entire cost of Contractor.
- vii) in case of materials supplied by the Government, if the Contractor demands certain testing, the charges thereof shall be paid by the Contractor if the testing results are satisfactory and by the PCNTDA if the same are not satisfactory.
- viii) a) The test shall be carried out in accordance with the Clause "Samples & Testing of materials" given under "Additional General Conditions & Specifications" of this tender document and as per relevant IS/ IRC/MORTH Codes
- **b)** The testing of materials shall be carried out as per the frequency specified by the relevant IS/IRC/MORTH Codes
- **c**) The material required for testing shall be sent by the contractor to the specified laboratory at his own risk and cost.
- **d)** In case the desired results are not obtained during testing or the material is rejected due to unsatisfactory results, the testing charges shall not be paid to the contractor.

- **e**) It shall be obligatory on contractor to produce the test results along with receipt of payment made to the Laboratory, for releasing payment towards Testing Charges.
- **f**) In case additional testing of material is found necessary due to change in source, no separate payment shall be made and it shall be the entire responsibility of contractor.
- g) Testing charges mentioned in the tender item are in view of rates published by the Superintending Engineer, Vigilance & Quality Circle, Pune vide their letter No. DSR 2011-12/2071/2011 dated 22/09/2011 and revised till the submission of offer to this tender. No difference shall be payable to the contractor, in case testing charges are revised / increased by the Laboratory in future.
- **h**) Material Testing shall be carried out as directed by the Engineer-incharge.
  - i) If contractor fail to establish field laboratory same shall be established by PCNTDA at the cost of contractor at the rate of cost + 50% of cost as penalty. This amount shall be deducted from RA bills.

# 25.1 FREQUENCYCHARTFORTESTINGOFMATERIALS <u>ANNEXURE-'A'</u>

Sr.No	Material	Test	Frequencyof Testing	Remarks
1.	Sand	i) FinenessModulus ii) SiltContent	Atthebeginningand ifthereischangein source.	
2.	Metal	i) Crushingvalue ii) Impactvalue iii) Abrasionvalue iv) WaterAbsorption v) FlakinessIndex vi) Strippingvalue vii) Gradation	Onetestper200 Cu.M.orpartthereof.	PWD Hand Book I.S.2386 Part-II

3.	Cement Concrete	i) CompressiveStrength	Upto5Cu.M.—1set 6-15Cu.M. —2sets 16-30 —3sets 31-50 —4sets 51&above —4sets +Oneadditionalset foreachadditional50 Cu.M.orpartthereof.	M.O.S.T. Specificati on 1716.
4.	Cement	i) Comp.Strength ii) Initialsettingtime iii) Finalsettingtime iv) SpecificGravity v) Soundness vi) Fineness	Onetestforeach consignmentof50 M.T.( 1000bags)or partthereof. But minimumonetestfor eachconsignment.	I.S.269 12269
5.	WaterBound Macadam	i) AggregateImpact ii) value iii) Gradation Flakinessindex& iv) ElongationIndex Atterberglimitsof v) bindingmaterial Atterberglimitsof portionofaggregates passing425Micron.	1testper200Cum. 1testper100Cum. 1testper200Cum.  Onetest per25 M³ of bindingmaterial Onetestper100 Cum.	M.O.S.T. Specificati onTable 900-3.
6.	Steel	<ul> <li>i) Weightpermeter.</li> <li>ii) Ultimatetensilestress</li> <li>iii) Yieldstress</li> <li>iv) Elongation</li> </ul>	One test for each consignment	

7.	Primecoat/ tackcoat/Fog spray	i) ii)	QualityofBinder  BinderTemperature iii)  Rateofspreadof binder	No.ofsamplesper lotandtestsasper IS-73,IS-217andIS-8887asapplicable. Atregularclose intervals. Onetestper500M <sup>2</sup> andnotlessthantwo	M.O.S.T. Specificati onTable 900-4.
				testsperday.	
8.	SealCoat/ Surface Dressing	i)	QualityofBinder	Sameasmentioned underSr.No.6	M.O.S.T. Specificati onTable 900-4.

9.	Opengraded premix surfacing/ Closegraded premix surfacing	i) ii) iii) iv) v) vi)	QualityofBinder  Impactvalue/Los AnglesAbrasionvalue Flakiness& ElongationIndex Strippingvalueof aggr.(Immersiontray test) WaterAbsorption WaterSensitivityof mix	Sameasmentioned underSr.No.6. 1testper50Cum.  1testper50Cum.  Initially1setof3 representative samplesforeach sourceofsupply. Subsequentlyby changeinthequality ofaggregates.	M.O.S.T. Specificati onTable 900-46.
		vii)	Gradation Soundness	Initiallyone determinationby eachmethodforeach sourceofsupply, thenas warrantedby changeinthequality of aggregate.	
		ix)	Temp.ofbinder BinderContent	Atregularclose intervals. 1testper500M³and notlessthan2tests perday.	
		xi)	Rateofspreadof mixedmaterials.	Regularcontrol throughchecksof layerthickness.	
		xii)	Percentageof fracturalfaces.	Whengravelisused onetestper50Cum.	

11.	Granular Sub-base	ii) Aiii) M co iv) Do	radation terberglimits loisturecontentpriorto empaction ensityofcompacted yer .B.R.	Onetestper200Cum. Onetestper200M³ Onetestper250M³ Asrequired.	M.O.S.T. Specificati onTable 900-3.
12.	Bituminous Macadam & Semi-dence Bituminous Concrete.	ii) In Fl In iv) St v) W vii) Sc viii) %	ualityofbinder npact/Abrasionvalue iii) lakiness/Elongation ldex trippingvalue vatersensitivityofMix vi) vaterAbsorption boundness eoffracturalfaces ix) radation	SameasperSr.No.7 SameasperSr.No.9 SameasperSr.No.9 SameasperSr.No.9 SameasperSr.No.9 SameasperSr.No.9 SameasperSr.No.0 2testsperdayper plantbothonindividual constituents&mixed aggregatesfromdryer	M.O.S.T. Specificati onTable 900-4.
		xi) Co bii mi the xii) Ra mi	indercontent&aggr. rading  ontrolofTempof nder&aggregatesfor ixing&ofthemixat etimeoflaying& rolling. ateofspreadofmixed aterial ensityofcompacted yer.	Periodicsubjectto minimumof2testsper dayperplant. Atregularclose intervals.  Regularcontrolthrough checksoflayer thickness. Onetestper250Sq.M.	
13.	Interlocking ConcretePaving Block	ii) W iii) Flo	ompressiveStrength faterabsorption exuralTest esistancetowear	Asetof8blocksfor every10000blocks. do	

# 26. i) <u>CHANGE OF CEMENT CONTENTS ETC</u>:-

The tendered rates for any item, involving the use of cement shall apply to the

quantity of cement specified for the mix for that item in the specifications. If for any reasons, except those required for compensating the deficiencies, in the components, the cement content and properties are altered by the Engineer (Engineer-in-charge.) at any time or from time to time the tendered rates for that particular item and quantity or quantities, shall be duly enhanced or reduced only to account for the addition or reduction in cost of the cement content from that laid down in the specification at the rates specified in the Schedule 'A' of the contract plus 10% to cover all other incidental charges whatever. Likewise if any additives compounds water proofing materials etc. are ordered by the Engineer to be added to the mortar or concrete, no extra rate shall be payable for this change which shall be carried out as per directions of the Engineer-in-charge, provided cost of such additives etc. is borne by Government or these are supplied free of costs to contractor at site by the Government.

ii) The tendered rates for any item, involving the use of bitumen, shall apply to the quantity bitumen specified for the mix for that item in the schedule'B'. if any reasons, such as change due to job mix formula, the bitumen content is altered by the Engineer-in-charge at any time or from time to time, the tendered rates for that particular items and quantity or quantities, shall be duly changed to the extent of bitumen contents as per job-mix formula.

# 27. **CEMENT CONCRETE:**

#### 27.1 **GENERAL**:-

- a) All concrete shall be controlled and machine mix unless otherwise directed by Engineer-in-charge. For controlled or High grade concrete, the grading of aggregates shall be got approved from the Engineer.
- **b)** The correct proportions and the total amount of water for the mix will be be determined by means of preliminary tests and shall be got approved by the Engineer. However, such approval does not relieve the contractor from his responsibility regarding the minimum works strength requirements . Work test shall be taken in accordance with relevant codes specifications.

All proportioning of aggregates shall be done by weight if so ordered by the Engineer.

- c) All mixing shall be done by mechanical means in approved mixers. The Engineer may at his discretion, allow in writing hand mixing of concrete for minor items where small quantities are involved but in that case the contractor shall increase the cement content of the mixture by 10% without any extra cost.
- **d)** The form work used shall be made preferably of steel or with lining of steel. Wooden shuttering may be allowed at the discretion of the Engineer. e.g. lintels small slabs and beams coping etc.
- **e**) The concrete shall be mechanically vibrated for proper compaction by the method approved by the Engineer.

- f) The concrete shall be cured only by a sweet protable water for full 21 days after the time or the period specified in the detailed specification or as may be directed by Engineer-in-charge.
- **g**) Minimum cement content of concrete shall be as per M.O.R.T. & H. Specifications for Road and Bridge works, clause 1700,table1700.0 on page no.462 considering normal condition.

# 27.2 FORM WORK AND STAGING FOR BRIDGE STRUCTURES:-

- **27.2.1** For bridge structure, forms for concrete shall be constructed of mild steel plates or marine plywood and be of substantial and rigid construction true to shape and dimensions shown on the drawings. Where metal forms are used all bolts and rivets shall be counter sunk and well ground to provide a smooth plain surface.
- 27.2.2 Forms shall be mortar tight and shall be sufficiently rigid by the use of ties and bracings to prevent any displacement or sagging between supports. They shall be strong enough to withstand all pressure, ramming and vibration, without deflection from the prescribed lines occurring during and after placing the concrete and shall be tight enough to prevent any appreciable loss of concrete during vibration. Screw jacks or hard wood wedges where required shall be provided to make up any settlement in the form work before or during the placing the concrete.
- **27.2.3** Schedule camber shall be provided in horizontal numbers of structures, specially in long spans to counteract the effects of any deflection. The form work shall be so fixed as to provide for such camber.
- **27.2.4** Forms shall be so constructed as to be removal in sections in the desired sequence, without damaging the surface of concrete of disturbing other sections.

# 27.2.5 NUMBER OF SETS OF STAGING AND SHUTTERING AND EQUIPMENT

# (for Bridge works only)

In order to ensure completion of bridge within the stipulated period, the Contractor shall have to arrange a minimum number of sets of staging and shuttering as well as equipment of the required size for different components as stipulated hereunder:

i) For well Foundations

 a) Staging and shuttering
 b) Equipments sets

 ii) For other items of substructures

 a) Staging and shuttering
 b) Equipments
 sets

iii) For superstructures a) Staging and shuttering sets

b) Equipments sets

Contractor No. of corrections Executive Engineer

Use of slip form shuttering wherever feasilble will be preferred.

### 28. MISCELLANEOUS:

- 28.1 Rates shall be inclusive of S.T. General tax and other Taxes etc.
- 28.2 For providing electric wiring or water lines etc. recesses shall be provided if necessary through walls, slabs, beams etc. and later refilling up with bricks or stone chipping, cement mortar without any extra cost.
- 28.3 In case it becomes necessary for the due fulfillment of contract for the Contractor to occupy land outside the PCNTDA limits, the Contractor will have to make his own arrangements with the land owners and to pay such rates if any are payable as mutually agreed between them. The PCNTDA will afford the Contractor all the reasonable assistance to enable him to obtain Government land for such purpose on usual terms and conditions as per rules of Government, if such land is available.
- 28.4 The special provisions in detailed specifications or wording of any item shall gain precedence over the corresponding contradictory provisions (if any) in the Standard Specifications, P.W.D. Hand Book where reference to such specifications is given without reproducing the details in contract.
- 28.5 Suitable separating Barricades and enclosures shall be provided to separate materials brought by contractor and material issued by Government to contractor under Schedule 'A' Same applied for the materials obtained from different sources of supply.
- 28.6 The stacking and storage of construction materials at site shall be in such a manner as to prevent deterioration or infusion, of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the contractor to protect the material against atmospheric actions, fire and other hazards. The material likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likely hood of subsidence of soil, such heavy materials shall be stored on approved platforms.
- 28.7 For Road and Bridge works the contractor shall in addition to the specification cited here comply with requirements of relevant I.R.C. Code practice.
- 28.8 The contractor shall be responsible for making good the damages done to the existing property or work during construction by his men.
- 28.9 If it is found necessary from safety point of view to test any part of the structure, the test shall be carried out by the Contractor with the help of the PCNTDA at his own cost.
- 28.10 Defective work is liable to be rejected at any stage. The contractor, on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for recitation.
- 28.11 In the scheduled 'B' the work has been divided in to section but notwithstanding this, every part of it shall be deemed supplementary to and complementry of every other part.

- 28.12 General direction or detailed description of work, materials and items coverage of rates given in the specification are not necessarily repeated in the bill of Quantities. Reference is, however, drawn to the appropriate section Clause (s) of the General specification in accordance with which the work is to be carried out.
- 28.13 In the absence of specific directions to the contrary. The rates and prices inserted in the tems are to be considered as the full inclusive rates and prices for the finish work described there under and are to cover all labours, materials, wastage, temporary work, plant, overhead charges and profits, as well as the general liabilities, obligations and risks arising out of the General Condition of the contract.
- 28.14 The quantities set down against the item in the Schedule 'B' are only estimated quantity of each kind of work included in the contract and are not to be taken as a guarantee that the quantity in the Schedule will be carried out or required or that they will not be exceeded.
- 28.15 All measurements will be made in accordance with the method indicated in the specifications and read in conjunction with general conditions of contract .
- 28.16 The details shown on drawing and all other information pertaining to the works shall be treated as indicative and provisional only and are liable to variation as found necessary while preparing working drawing which will be supplied by the Government during execution the contractor shall not, on account of such variation be entitled to any increase over the ones quoted in the tender which are quantity basis .
- 28.17 The recoveries if any, due from contractor will be effected as arrears of land revenue through the Collector of the District.
- 28.18 Clause 101 to 107 of Specifications of Road Bridges work adhered herewith will be applicable to works as per Schedule 'B' unless specified otherwise in the detailed specifications of the relevant items.
- 28.19 All materials used in the construction shall conform to the requirement of Specification Clause under Section-1000 "Materials for Structures" of Specification of Road and Bridge Work M.O.S.T. New Delhi august 2001 Edition.
- 28.20 Extraneous materials and steps to minimize dust nuisance during construction shall be as per Clause III of M.O.S.T. Specifications (august 2001 edition).

# PROTECTION OF UNDERGROUND TELEPHONE CABLE AND AERIAL TELEPHONE WIRES AND POLES, TRANSMISSION TOWERS, ELEC. CABLE AND WATER SUPPLY LINES:-

During the execution of work it is likely that the contractor may meet with telephone cable, electrical cables, water supply lines, etc. It will, therefore, be the responsibility of the contractor to protect them carefully. All such cases should be brought to the notice of the Engineer-in-charge by the contractor and also to the concerned PCNTDA. Any damage what-so-ever done to these cables and pipelines by the contractor shall be made good by him at his cost.

# 29. <u>MEDICAL & SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR</u> EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR:-

- (a) The contractor shall provide an adequate supply of water for the use of laborers on work and in camps.
- (b) The contractor shall construct trench or semi-permanent latrines for the use of the labours. Separate latrines shall be provided for men and women.
- (c) The contractor shall build sufficient number of huts on a suitable plot of land for use of the Laborers according to the following specifications.
  - 1. Huts of Bamboos and Grass may be constructed.
- 2. A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with trees shall be chosen wherever it is available. The neighborhood of tank, jungle grass or woods should be particularly avoided, Camps should not be established close to large cuttings of earth work.
- 3. The lines of huts shall have open spaces of at least ten yards between rows. When a good natural site cannot be procured particular attention should be given to the drainage.
- 4. There should be no over crowding. Floor space at the rate 3 Sq.m per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
- 5. The Contractor must find his own land and if he wants Government land, he should apply for it. Assessment for it, if demanded will be payable by Contractor. However the PCNTDA does not bind itself for making available the required land..
- 6. The contractor shall construct a sufficient number of bathing places. Washing places should also be provided for the purpose of washing clothes.
- 7. The contractor shall make sufficient arrangement for draining away the surface and sullage water as well as water from the bathing and washing place sand shall dispose off this waste in such way as not to cause any nuisance.

He shall also keep the premises clean by employing sufficient number of sweepers.

- d) The contractor shall engage a Medical Officer with a traveling dispensary for a Camp containing 500 or more persons if there is no Govt. or other private dispensary situated within 8 kilometers from the Camp. In case of emergency the contractor shall arrange at his cost for transport for quick medical help to his sick worker.
- e) The contractor shall provide the necessary staff for effecting a satisfactory drainage system and cleanliness of the camp to the satisfactory of the Engineer. At least one sweeper per 200 persons should be engaged.

- f) The assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary convenience, the camp site accommodation and food supply shall be followed by the Contractor.
- g) The contractor shall make arrangements for all ant malaria-measures to be provided for the labour employed on the work. The ant malaria measure shall be provided as directed by the Assistant Director of Public health.
- h) In addition to above all provisions of the relevant labour act pertaining to basic amenities to be provided to the labourer shall be applicable which will be arranged by the Contractor.

# 30. **SAFETY CODE:**-

Suitable scaffold shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for 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 1 to 4 (1 horizontal and 4 vertical).

Scaffolding or staging more than 3.25 meters above the ground or floors, swing or suspended from an overhead support or erected with stationery supports, shall have a guard rail properly attached, bolted, braced and otherwise assured at least one meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside 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.

Working platform, gangways, and stairways shall be so constructed that they do no sag unduly or is more than 3.25 meters above ground level or floor level, it shall be closely boarded, have adequate width and be suitably fenced as described in 2 above.

Every opening in floor of the building or in a working platform shall be provided with suitable protection to prevent fall of persons or materials by providing suitable fencing or railing with minimum height or 1 meter.

Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 meters in length, width between side rails in rang ladder shall in no case be less that 30 cms. For ladders up to and including 3 meters in length. For longer ladders this width shall be increase at least 6 millimeter. For each additional 30 cms. of length. Uniform step spacing shall not exceed 30 cms.

Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites shall be stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect public from accident and shall be bound to bear expenses of defense of every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precaution and to pay any damages and costs which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, to be paid to compromise any claim by any such person.

# **EXCAVATION AND TRENCHING:-**

All trenches, 1.5 meters or more in depth, shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of trench to at least one meters above surface of the ground, sides of a trench which is 1.5 meters or more in depth shall be stepped back to give suitable slope, or security held by timber bracing, so as to avoid the danger of sides collapsing. Excavated materials shall not be placed with in 1.3 meters of edge of trench or half of depth of trench whichever is more. Cutting shall be done form top to bottom under no circumstances shall undermining or undercutting be done.

### **DEMOLITION:-**

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

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

All necessary personal safety equipment as considered adequate by the Engineer-in- charge shall be available for use of person employed on the side and maintained in a condition suitable for immediate use and the contractor shall take adequate step to ensure proper use of equipment by those concerned.

- a) Workers employed on mixing asphalted materials cement and lime mortars concrete shall be provided with protective footwear and protective goggles.
- b) Those engaged in handing any materials, which is injurious to eyes shall be provided with protective goggles.
  - c) Those engaged in welding works shall be provided with welder's protective eye shields.
- d) Stone breakers shall be provided with protection goggles and protective clothing and seated at sufficiently safe intervals.
- e) When workers are employed in sewers and manholes which are in use, the contractor shall ensure that manhole covers are opened and man holed are ventilated at least for an hour before worker are allowed to get into them. Manholes opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to public.

- f) The contractor shall not employ, man below age of 18 and women on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken.
- i) No paint containing lead or lead produce shall be use except in form of paste or ready made paint.
- ii) Suitable face masks shall be supplied for use of workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
- iii) Overalls shall be supplied by the contractor to workmen and adequate facilities shall be provided to enable working painters to wash during and on cessation of work.
- g) When work is done near any place where there is risk of drawing all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Use of hoisting machines and shackle including their attachments, anchorage supports shall confirm to the following :-

- a) i) These shall be of good mechanical construction round materials and adequate strength and free from potent defects and shall be kept in good repair and in good working order.
- ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and of adequate strength and free from potent defects.
- b) Every crane driver or hoisting, appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding.
- c) In case of every hoisting machine and of every chain ring hook, shackle owner and pulley block used in hoisting or lowering or as means of suspension safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly make with safe working load.

In case of hoisting machine having a variable safe working load, each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond safe working load except for the purpose of testing.

d) In case of PCNTDAal machines safe working load shall be notified by the Engineer-incharge. As regards contractor's machines the contractor shall notify safe working load of each machine to the Engineer-in-charge whenever, he brings it to site of work and get it verified by the Engineer-incharge.

Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with such means as will reduce to the minimum risk of accidental descent of load. Adequate precautions shall be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced, when workers are employed. On electrical installations which are

already energized insulating materials wearing approved such as gloves, sleeves and coats as may be necessary, shall be provided, Workers shall not wear any rings, watches and carry keys of other materials which are good conductors of electricity.

All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a 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 or near places of work. These safety provisions shall be brought to the notice of all concerned by display on a notice board at a prominent place at the work spot. Persons responsible for ensuring compliance with the safety code shall be named therein by the contractor.

- i) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection by the Engineer-in-charge or his representatives and the inspecting officers.
- ii) Failure to comply with the provision hereunder shall make the contractor liable to pay to the PCNTDA as penalty an amount not exceeding Rs. 50/- for each default and decision of the Engineer-in-charge shall be final and binding.

Not with standing the above conditions 1 to 14 the contractor is not exempted from the operation of any other Act of Rules in force.

### 31. SCOPE OF RATES FOR DIFFERENT ITEMS OF WORK

For item rate contracts, the contract unit rates for different items of work shall be payment in full for completing the work to the requirements of the specifications including full compensation for all the operations detailed in the relevant sections of these specifications under "Rates". In the absence of any directions to the contrary, the rates are to be considered as the full inclusive rate for finished work covering all labour, materials, wastage, temporary work, plant, equipment, overhead charges and profit as well as the general liabilities, obligations and risks arising out of the General Conditions of Contract.

The item rates quoted by the Contractor shall, unless otherwise specified, also include compliance with/supply of the following:-

- (i) General works such as setting out, clearance of site before setting out and clearance of works after completion.
- (ii) A detailed programmed for the construction and completion of the work (using CPM/PERT techniques) giving, in addition to construction activities, detailed network activities for the submission and approval of materials, procurement of critical materials and equipment, fabrication of special products/equipment's and their installation and testing and for all activities of the employer that are likely to effect the progress of work, etc. including updating of all such activities on the basis of the decisions taken at the periodic site review meeting or as directed by the Engineers.
- (iii) Samples of various materials proposed to be used on the work for conducting tests thereon as required as per the Provisions of the contract.
- (iv) Design of mixes as per the relevant clauses of the specifications giving proportions of ingredients, sources of aggregates and binder along with accompanying trial mixes as per the relevant Clauses of these specifications to be submitted to the Engineer for his approval before use of the work.

- (v) Detailed design calculations and drawings for all Temporary works (such as form work, staging, centering, specialized constructional handling and launching equipment and the like.)
- (vi) Detailed drawing for templates, support and end anchorage, and details for prestressing cable profiles, bar bending and cutting schedules for reinforcement, material lists for fabrication of structural steel etc.
- (vii) Mill test reports for all mild and high tensile steel and cast steel as per the relevant provisions of the Specifications.
- (viii) Testing of various finished items and materials including bitumen, cement, concrete, bearings as required under these specifications and furnishing test reports/certificates.
- (ix) Inspection Reports in respect of formwork, staging, reinforcement and other items of work as per the relevant specifications.
- (x) Any other data which may be required as per these Specifications or the conditions of contract or any other annexure/schedules forming part of the contract.
- (xi) Any other item of work which is not specifically provided in the Bill of Quantities but which is necessary for complying with the provisions of the contract; and
- (xii) All temporary works, formwork and false work.

Portions of road works beyond the limits and or any other work may be got constructed by the Employed directly through other agencies. Accordingly, other agencies employed by the Employer may be working in the vicinity of the work being executed by the contractor. The contractor shall liaise with such agencies and adjust his construction program for the completion of work accordingly and no claim or compensation due to any reason whatsoever will be entertained on this account. The Employer will be indemnified by the contractor for any claims from other agencies on this account.

### 32. **PAYMENT**

# (a) Running Bills:-

Two payments in a month will be granted by the Engineer-in-charge if the progress is satisfactory. Contractor should submit bills to the Engineer-in-charge in appropriate forms.

# (b) Final Bills:-

The contractor should submit final bill within one month after completion of the work and the same will be paid within 3 month if it is in order. Disputed item and claims if any shall be excluded from the final bill and settled separately later on.

### 33. HANDING OVER OF WORK:-

All the works and materials before finally taken over by PCNTDA, will be the entire liability of the contractor for guarding, maintaining and making good any damages of any magnitude. Interim payments made for such work will not alter this position. The handing over by the

Contractor and taking over by the Executive Engineer or his authorised representative will be always in writing of which copies will go to the contractor, it is, however understood that before taking over such work PCNTDA will not put it into regular use as distinct from causal or incidental one, except as specifically mentioned elsewhere in this contract, or as mutually agreed to.

#### 34. CLAIMS

Bills for extra work or for any claim shall be paid separately apart from the interim bills for the main work. The payment of bills for the main work shall not be withheld for want of decision on the extras or claims not covered in the appendices.

Claims for extra work shall be registered within 30 days of occurrence of the event. However, bills for these claims including supporting date/details may be submitted subsequently.

# 35. MAINTENANCE:- (ROADS AND LAND)

35.1 The contractor shall maintain the finished surface of the road and land for a period mentioned in clause no 20 after the completion of work without any extra cost to PCNTDA irrespective of the designs, standard and specifications and the actual traffic etc. the contractor shall get the pot holes filled up with asphalt mix materials and keep the road surface in good condition through out the year 5% amount of the total work done shall be recovered from running account bills and shall be withheld for period mentioned in clause no 20 from the date of actual completion of work as maintenance charges of maintaining and keeping the road in road in good condition. This 5% amount with held towards maintenance charges shall be allowed to be replaced with bank guarantee or other recognized forms at intermediate stage, if so desired in writing. This maintenance charges shall be in addition to security deposit.

# 35. MAINTENANCE:- (BUILDINGS)

- 35.1 The Contractor shall maintain the finished and completed item of civil work as per Schedule 'B' and specification for a period 10 years for water proofing and 7 years for polyurethane and 2 years for remaining items after the completion of work without any extra cost to PCNTDA irrespective of the designs, standards and specifications etc. The Contractor shall get done the civil work as per specifications and drawing and keep the building in good condition through out the 10 years for water proofing and polyurethane and 2 years for remaining items.5% amount of the total work done shall be withheld from running account bill for 12 months; out of which 1% amount of the work done shall withheld for 10 years towards water proofing and 7 years for polyurethane from the date of actual completion of work as maintenance charges of the maintaining and keeping the building in good condition. This 54% amount withheld towards shall be allowed to replace with bank guarantee or other recognized from and intermediate state if so desired in writing. This maintenance charges shall be in addition to security deposit.
- 35.2 On completion of the work in all respects, necessary certificates will be issued by the concerned Executive Engineer and the defects liability period will be counted from the date of issue of such certificates.
- 35.3 All damages during execution shall be made good by the contractor at his cost. He will be responsible for any damages to the road surface including B.T surface rainy seasons and during

construction and guaranteed maintenance period and no separate payment will be made for restoring such damages.

- "Any defected noticed in finished black topped surface such as pot holes, damaged etc. within a period mentioned in clause no 20 after completion of work (including monsoon) will have to be repaired by the contractor at his own cost. 5% (five percent) of the amount payable under B.T. terms in addition to the security deposit will not be released till the defect liability period mentioned in clause no 20 is over. The contractors will examine existing road its camber, soil conditions, existing crust etc. before quoting for tender no claims on this account will be accepted. the contractor will have to maintain the road surface in good condition till defect liability period is over".
- 35.4 Defective work is liable to be rejected at any stage. The contractor on no account can refuse to rectify the defects merely on reasons that further work has been carried out. No extra payment shall be made for such rectification.
- 36. In super session to whatever has been defined in clause 10 and 110 of B-1 agreement former else where in the N.I.T. documents, the contractor shall submit detailed measurements of the work done along with each monthly bill and final bill. The Engineer-in-charge hall effect necessary checking of the measurements and then effect payment within 10 days of submission f measurements, if possible. If it is proved that the measurements are mindfully and swollen incorrect / irrelevant the Engineer-in-charge shall deduct 25% of the actual payment due, towards compaction for avoidable labour enforced.

# Working drawing:-

The contractor shall submit two sets working drawing on the base of which the measurements as aforesaid, shall be based.

# 37. TECHNICAL COMPLETION REPORT:-

The contractor shall submit technical completion report along with his final bill, which shall include.

- 1. Detailed measurements
- 2. Working drawing
- 3. Detailed of material brought on the site and consumed in the work, which shall also indicate stander consumption and deviation if any, with reasons.
- 4. Test result of all materials used in work with an abstract of total tests carried out and required as per frequency of tests as laid down in the relevant M.O.S.T. specifications.
  - 5. Rough -meter survey data as laid down acceptance criteria.
  - 6. Design calculations / job-mix formula etc.
  - 7. Maintenance manual.

# 38. QUALITY ASSURANCE AND MAINTENANCE :- (FOR WORK COSTING MORE THAN 100 LAKHS)

1. Ensure the specified quality of work which will also include necessary surveys, temporary works etc. the contractor shall prepare a quality assurance plan and get the same approved from the Engineer-in-charge with in one month from the date of work order, For the, contractor shall submit an organization chart of his technical personnel to be delayed on the work along with their qualification, job descriptions defining the functions of reporting, supervising, inspecting and approving. The contractor shall also submit a list of tools, equipment and the machinery and instrumentation which he proposed to use for the construction and for testing in the field and/or in the laboratory and

monitoring. The contractor shall modify/supplement the organization chart and list of machinery, equipment etc., as per the directions of the CEOand shall deploy the personnel equipment on the fields as per the approved chart and list respectively , The contractor shall submit written method statements detailing his exact proposalsof execution of the work in accordance with the specification. He will have to get these approved from the Engineer-in-charge. The quality of the work shall be properly documented through certificate, records, check-lists and log-books of result etc. Such records shall be complied from the beginning of the work and be continuously updated and supplemented and this will be the responsibility of the contractor. The forms should be got approved from the Executive Engineer-in-charge

2. . Where , the work is to be done on lump sum basis on contractor's design the contractor shall also prepare and submit a maintenance manual giving procedure for maintenance, with the periodicity of maintenance works including inspectors, tools and equipment to be used, means of accessibility for all parts of the structure. He shall also include in the manual, the specifications for maintenance work that would be appropriate for his design and technique of construction. This manual shall be submitted within the contract period.

# 39. **PHOTOGRAPHS**:-

So as to observe the progress of work at different stages of execution of works the contractor shall take out colored photograph at 3 stages i.e. 1) before execution 2) during execution 3) after completion of work contractor shall take out at least 15 photograph of different location of each sub work attach stage, the photographs will be of post card size same shall be submitted along with the running bill in duplicate.

No extra cost shall be paid to the contractor on this account.

# **40. AS BUILT DRAWING :-**

Five set of hard copies and one soft copy of all asbuilt drawing shall be submitted to pcntda. Before final bill failing which a lumpsum amount of rs. Ten lakhs shall be deducted from final bill as a penalty.

# 41. SUPPLY OF COMPUTER S AND PRINTER AT SITE OFFICE:-

The contractor shall provide one latest desktop Computer along with compatible printer and one latest branded laptop for the use of Engineer-In-charge at site office. No separate payment shall be made to contractor for providing this facility.

# 42. SUPPLY OF TATA SUMO /BOLERO JEEP:-

The contractor shall provide 1 tata sumo / bolero jeep to the Engineer –in-charge for entire contract period. No separate payment shall be made to contractor for providing this facility.

# CLAUSES IN THE CONDITION OF CONTRACT

# i) Clause No. 901 of Ministry's Specification (2<sup>nd</sup> Revision) :-

- a) The responsibility for the quality of the entire construction work is on the contractor. For this purpose he is required to have his own independent and adequate set-up.
- b) The Engineer for satisfying himself about the quality of the material and work will also have tests conducted by quality controlled units or by any other agency, generally to the frequency set out in the specification. For test to be done by Engineer, the contractor is to render all necessary cooperation and assistance including the provision of labour assistance in packing and dispatching samples etc.
- c) For the work embankment, sub grade and pavement, construction of subsequent layer of the same or other material over the finished layer shall be done only after obtaining approval from the Engineer.
- d) The contractor shall be responsible for rectifying/replacing any work falling short of quality requirements as directed by the Engineer.

# ii) <u>CLAUSES IN THE CONDITION OF CONTRACT:</u>

- a) all materials and workmanship shall be of the respective type described in the contract and in accordance with the Engineer's instructions and shall be subjected from time to time to such tests as the Engineer may direct at the place of manufacture or fabrication, or on the site. All samples shall be supplied by the contractor.
- b) No work is to be covered up or put of view without the approval of the Engineer for his examination and measurements.
- c) During progress of the works, the Engineer shall have the power to order the removal from the site of any unsuitable material, substitution of proper and suitable material and the removal and proper re erecting not withstanding any previous test or interim payment, therefore, and of any work which in respect of materials or workmanship is not in the opinion of the Engineer in accordance with the contract.

# 2. <u>Guidelines on Quality control operations :-</u>

The onus of achieving quality of work will be on the contractor who will take actions as stipulated in section 900 of Ministry's Specification for Road and Bridge works ( $2^{nd}$  revision, 1990).

# Ministry's specifications for Road and Bridge works (2<sup>nd</sup> revision, 1990)

Ministry's specifications for Road and Bridge works (2<sup>nd</sup> revision, 1990) will

form part of contract documents and the contractor will be legally bound to the various stipulations made therein unless otherwise specifically relaxed or waived wholly or partly through a special clause in the contract documents.

# **CONTRACTOR'S FACILITIES**

According to the contract (see para 1.3 above) the contractor is responsible for the quality of the entire construction work, and for this purpose he is required to have his own independent and adequate set up. To meet this requirement:-

- a) The contractor shall set up his own laboratory at location (S) approved by the Engineer. The laboratory shall be equipped with modern and efficient equipment with sufficient stand byes suitable to carry out the test prescribed for different materials and work according to the specifications. The list of equipment to be procured and the facilities to be provided shall be got approved by the Engineer. The equipment shall be maintained in a work able condition to the satisfaction of the Engineer.
- b) Sampling and testing procedures shall be in accordance with relevant standards of BIS (previously called ISI) or IRC. Frequency of testing shall be as laid down in the Ministry's specification for the Road and Bridge work (2<sup>nd</sup> Revision ,1990). In the absence of relevant Indian Standard sampling and testing procedures shall be as approved by the Engineer.
- c) The laboratory should be manned by qualified Materials Engineer assisted by Materials Inspector/Technicians, and the set up should be got approved by the Engineer.
- d) The contractor should prepare printed proforma for recording reading and result of each type of test, after getting the formats of the performance approved from the Engineer. He should keep a daily record of all the test conducted by him. Two copies of the test results should be submitted to the Engineer for his examination and approval, of which one copy will returned to contractor for being kept at site of work.
- e) The Materials Engineer of the contractor should keep close liaison with the quality control Unit of the Engineer and keep later informed of the sampling and testing programs so that the Engineer's representative could be present during this activity, if considered necessary.

# 3. Day to day quality control operations: -

The day- to-day on controls to be exercised by the contractor and the Engineer are enumerated in the below paragraphs:-

# **ALIGNMENT AND LEVEL CONTROL**

a) The contractor should locate the center line of the road from the pegs, pillars or reference points fixed during the location survey and from the information furnished in the Contract drawings. Any discrepancy between the reference points on the ground and those on the drawings should immediately be brought to the notice of the Engineer for reconciliation.

- b) Based on the approved center line the Contractor should set up better pegs (to delineate the limits of embankment / cutting and cleaning stakes to delineate limits of cleaning and grubbing ) and have these got checked and approved by the Engineer.
- c) The contractor should check the reduced levels of bench marks setup along the alignment. Any discrepancy in the reduced levels of those at site and as indicated in the drawings should immediately be brought to the notice of the Engineer for reconciliation. The Contractor should reestablish those bench marks which are found missing at site, and should establish additional bench marks as needed, for ensuring effective level control.
- d) The contractor shall be responsible for the true and proper setting out of the works in relation to the original survey points lines and levels of reference given by Engineer in writing. If at any time during the progress of the works, any error shall appear or arise in the position, levels dimensions or aliment of any part of works, the Contractor on being required to do so by the Engineer, shall at his own cost rectify the error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer.
- e) The contractor shall be carefully protect and prepare all bench marks, reference pillars and pegs used in setting out the works till final take over by the Engineer.

# NATURAL GROUND FOR EMBANKMENT CONSTRUCTION/ CUT FORMATION AND THEIR COMPACTION:

- a) Atterberg limits, in situ dry density and CBR of the materials at ground / out formation level, should be determined and got approved by the Engineer. Any unsuitable material shall be removed and replaced by better material as ordered by the Engineer.
- b) The Engineer's Quality Control unit (s) shall have independent test checks on the quality and compaction of the natural ground / cut formation.

# **EMBANKMENT CONSTRUCTION:**:

- a) All borrow areas shall be got approved by the Engineer based on results of test for atteerberg Limits proctor / modified proctor density, CBR and soil classification.
- b) Layer thickness and in-situ density shall be checked and got approved by the Engineer before proceeding to the next layer.

# **SUB-GRADE:**

- a) Specific borrow areas having soil satisfying the requirements of specifications and specified strength criteria shall be identified for use in sub grade and got approved by the Engineer based on tests on borrow material for Proctor / modified proctor density and CBR.
- b) In situ density and CBR of the constructed sub grade shall be checked and got approved by the Engineer before proceeding on with the next pavement layer.

- c) The soil used in actual construction of sub grade shall be remolded at density referred in sub para (b) above at placement moisture content and checked for 4 days soaked and unsoaked CBR. A set of 3 specimens shall be collected from each 3000 cum. Area of the sub grade (i.e top 0.5 m of embankment) for CBR test.
- d) In case of any appreciable variation of in built sub grade characteristics from the designed ones, the pavement design shall be reviewed to match the in built characteristics of the sub grade.

### **SUB-BASE:-**

- a) The source of supply of materials shall be inspected, tested and got approved by the Engineer before any material is delivered to the site of the work (s).
- b) Job mix formula falling within the specified limits where applicable, shall be got approved by the Engineer based on test result thereof.
- c) Samples of materials from the laid sub-based shall be tested for gradation, proctor density PI and CBR.
- d) Field compaction shall be checked and got approved by the Engineer before proceeding with the next work on the next pavement layer.
  - d) Incase of any appreciable variation of inbuilt sub-base characteristics from the designed ones, the pavement design shall be reviewed to match the inbuilt characteristics of the sub-base.

#### **CULVERTS AND OTHER APPURTENANCES:-**

- a) Lines, levels and quality of the foundation should be checked.
- **b)** In case of pipe culverts.
- i) The quality of the pipes should be checked. For BIS (formerly ISI) marked pipes, manufacturer's certificate is acceptable For other, the contractor shall demonstrate the strength capability of pipes through tests either at the place of manufacture or at site of works.
- ii) The quality of materials used for pipe bedding should be checked. Invert level, smoothness of the pipeline and proper sealing of joints should be checked prior to back filling.
  - c) In case of cement concrete works:-

- i) Besides manufacturer's test certificate for quality of cement, at least one set of physical and chemical tests should be conducted for each source of supply for verification. Where the quality is in doubt, or where the cement had been stored for long periods or in improper conditions the Engineer shall call for testing the cement at more frequent intervals.
- ii) Job mix formula worked out based on trails carried out in the Contractor's laboratory should be got approved by the Engineer.
- iii) The mineral aggregates should be tested for their properties. Water to be used for mixing should be tested for chemical impurities.
  - iv) Checking for stability and sturdiness of form work.
- v) Ensuring that the crucial equipment like mixers and vibrators are in working order before start of work.
  - vi) Control of water-cement ratio.
  - vii) Control of workability and time elapsed between mixing and placing of concrete.
  - viii) Control on compaction and finishing.
  - Ix) Tests on cube samples at 7 and 28 days.
  - x) Check on provisions for adequate curing.
- **d)** In case of masonry work, control should be exercised on the quality of the material (e.g. stone, brick, sand, cement etc.) as also on mortar proportions.
- e) For RCC work, quality of steel in each batch may be approved on the basis of test certificate. The reinforcement layout should be checked for conformity with approved drawings and bar bending schedules. All laps should be checked for conformity with the specification. The reinforcement should be free of oil and loose rust scale and should be properly tied with binding wire. The size and spacing of the bars as also the cover should be checked for correctness.

# PAVEMENT COURSES - GENERAL CONTROLS:-

- a) The base on which the pavement layer is to be placed should be checked for levels and regularity, and should be in a condition to receive the pavement layer.
- b) Each layer should be checked for thickness, levels, cross fall (camber), regularity and strength before next layer is permitted to be laid.

### **CIVIL COURT JURIDICTION**

All civil disputes in Case of this contract shall be setteled at Pune, Maharashtra

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# PART I

Register showing the receipt, issue and balance of steel at site of work at the end of each day/ month

NAME OF WORK: -

Balance quantity of steel as per previous day / month		Diameter	20 Ф	16 Ф	12 Ф	10 Ф	8Ф	Total Qty. of H.Y.S.D BARS	Qty.of M.S. BARS (6 Φ)
		Qty in M.T							

Date	Receipt of steel		Issue	of steel	Balance of steel		Dated sign. Of Dy. Engr.
	Diameter	Qty in M.T	Diameter	Qty in M.T	Diameter	Qty in M.T	
	20 Ф		20 Ф		20 Ф		
	16 Ф		16 Ф		16 Ф		
	12 Ф		12 Ф		12 Ф		
	10 Ф		10 Ф		10 Ф		
	8Ф		8Ф		8Ф		
	Total		Total		Total		
	6Ф		6Ф		6Ф		
Total Qty. in	For the day						
M.T.	Overall						
	Balance						

PART II

# Abstract of work done during the day / month

Sr.NO.	Date	Item of work Done in Short	Approximate Qty of work Done	Qty of Steel used in m.t	Qty of steel required as per R.C.C. Design
1.					
2.					
3.					
4.					
5.					
6.					

# **DRAWINGS**

# **<u>CONTRACT DRAWINGS</u>**:

The contract drawings provided for tendering purpose with the tender documents shall be used as a reference only. Contractor should visualize the nature of type of work contemplated and to ensure that the rates and prices quoted by hi, in the bill of quantities take due consideration as experienced Contractor in the field.

The tendered rates/ prices for the work shall be deemed to include the cost of preparation, supply and delivery of all necessary drawings, prints, tracings and negatives which the Contractor is required to provide in accordance with the Contract

# **<u>DOCUMENTATION</u>**:

If so ordered by the Engineer - in charge , the Contractor will prepare drawings of the wqork at constructed and will supply original and three copies to the Engineer wto will verify these drawings. Final as constructed drawings shall then be prepared by the Contractor and supplied in triplicate along with a micro film of the same to the Engineer for record and reference purposes at the Contractor's cost.

Contractor No. of corrections Executive Engineer