



**PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY,
AKURDI, PUNE-44.**



**Name of Work: - DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK
LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105**

VOLUME - I

NATIONAL COMPETITIVE BIDDING

PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY**NIGDI, PUNE 411 044**DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND
SECTOR-8 AT MOSHI, PUNE-412105**E-Tender Notice PIECC No: 03 For 2018-19(1st Call)****COMPETITIVE BIDDING****(CIVIL WORKS)**

NAME OF WORK	:	DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105.
PERIOD OF SALE OF BIDDING DOCUMENT	:	From 19/11/2018 10.00 hrs To 13 /12/2018 Upto 16.55 Hrs
TIME AND DATE OF PRE-BID CONFERENCE	:	Date 28 /11/2018 Time 15.00 Hrs
LAST DATE AND TIME FOR RECEIPT OF BIDS	:	13 /12/2018 Up To 16.55 Hrs
*TIME AND DATE OF OPENING TECHNICAL BIDS	:	17/12/2018 At 15.00 Hrs
*TIME AND DATE OF OPENING FINANCIAL BIDS	:	TO BE ANNOUNCED
PLACE OF OPENING OF BIDS	:	Office Of PCNTDA
OFFICER INVITING BIDS	:	The Chief Executive Officer PCNTDA

INVITATION FOR BID

(IFB)

PIMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY
NIGDI, PUNE 411 044



E-Tender Notice PIECC No: 03 For 2018-19(1st Call)

The Chief Executive Officer, PCNTDA, Pune invites online bids from eligible Bidders/contractors who fulfill the conditions in the respective tender document for the construction of works detailed below. The bidders may submit bids for any or all of the following works.

Sr.No	Name of work	Type of Tender	Cost Put to Tender (Rs.) without GST (Rs.)	Bid Security (EMD) (Rs.) e-payment gateway only (Rs.)*	Time Limit in Months	Cost of Bid document (Including GST) (Rs.)e-payment gateway only (Non Refundable)
1	2	3	4	5	6	7
	DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105	B-2 (Item Rate)	49,64,93,189/-	24,83,000/-	15	3,500/-

The applicant bidders shall submit the appropriate documents along with their completed bids to demonstrate the qualification of their company to participate in bid process.

For the work stated in sr. no. 1 the bidder should have achieved average annual financial turnover of Rs. 30.00 Cr during last 5 financial years. For the work, the bidder should have also achieved following technical experience prescribed below, for which bid has been invited, in last 5 years ending last day of month previous to the one in which bids are invited, should be either of the following.

- i) 3 similar type work (Road work ,Road and Infrastructure Development Work) each having cost Rs 20 Cr. OR
- ii) 2 similar type work (Road work ,Road and Infrastructure Development Work) projects each having cost Rs 25 Cr OR
- iii) 1 similar type work (Road work, Road and Infrastructure Development Work) each having cost Rs 40 Cr

1. Joint Venture/ Consortium not permitted.
2. The detailed tender notice and the bid documents are available on www.mahatenders.gov.in. For interested bidders who are not registered with this e-tendering portal shall get themselves registered on www.mahatenders.gov.in. 24 X 7 technical support is available to bidders on toll free number 1800 3070 2232.
3. The bid document will be available on the website **from 19/11/2018 10.00 hrs to 13/12/2018 upto 16.55 Hrs**. The Prebid conference of bidders is convened **on 28/11/2018 at 15.00 hrs** in PCNTDA office. The other details will be available on website during the period of Bid submission process.
4. Last date and time for submission of Bids is **13/12/2018 up to 16.55 hrs** and the technical bids will be opened on **17/12/2018 at 15.00 hrs**. in the Conference Hall, 7th Floor, PCNTDA Building near Akurdi Railway Station, Pune 411 044.
5. Right to reject any or all the Bids is reserved by the competent authority and also reserves the right to hold or withdraw from or cancel the process at any stage up to the final selection.
6. The interested bidders shall note that after publication of this tender notice, for these works, any further information of bid process including the corrigendum, CSC/CSD will be available on website only.
7. For International Company, it's parent company should be registered in India so as to get eligible for participation. Further the Parent Company shall be required to fulfill eligibility criteria as per NIT.

Date: 16/11/2018

Sd/-
The Chief Executive Officer
Pimpri Chinchwad New Town Development Authority
Pune 411 044

SECTION 1

INSTRUCTIONS TO

BIDDERS

(ITB)

Section 1: Instructions to Bidders**Table of Clauses**

	Page No			Page No
	A. General			D. Submission of Bids
1	Scope of Bid		19	Sealing and Marking of Bids
2	Source of Funds		20	Deadline for Submission of Bids
3	Eligible Bidders		21	Late Bids
4	Qualification of the Bidder		22	Modification and Withdrawal of Bids
5	One Bid per Bidder			
6	Cost of Bidding			E. Bid Opening and Evaluation
7	Site visit		23	Bid Opening
	B. Bidding Documents		24	Process to be Confidential
8	Content of Bidding Document		25	Clarification of Financial Bids
9	Clarification of Bidding Document		26	Examination of Bids and Determination of Responsiveness
10	Amendment of Bidding Documents		27	Correction of Errors
	C. Preparation of Bids		28	Deleted
11	Language of Bid		29	Evaluation and Comparison of Financial Bids
12	Documents Comprising the bid		30	Deleted
13	Bid prices			F. Award of Contract
14	Currencies of Bid and Payment		31	Award Criteria
15	Bid Validity		32	Employer's Right to Accept any Bid and to Reject any or all bids
16	Bid Security		33	Notification of Award and Signing of Agreement
17	Alternative Proposals by Bidders		34	Performance Security
18	Format and Signing of Bid		35	Advance Payment and Security
			36	Dispute Review Expert
			37	Corrupt or Fraudulent Practices

A.GENERAL**1. Scope of Bid**

1.1 The Employer (named in Appendix to ITB) invites bids for the DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105.(as defined in these documents and referred to as "the works") detailed in the table given in IFB.

1.2. The successful bidder will be expected to complete the works by the intended completion date specified in the Contract data.

1.3. Throughout these bidding documents, the terms 'bid' and 'tender' and their derivatives (bidder! tenderer, bid! tender, bidding! tendering, etc.) are synonymous.

2. Source of Funds

2.1. The expenditure on this project will be PCNTDA 's own.

3. Eligible Bidders

3.1. This *Invitation for Bids* is open to all bidders .

3.2. All bidders shall provide in Section 2, Forms of Bid and Qualification Information, a statement that the Bidder is neither associated, nor has been associated,

directly or indirectly, with the Consultant or any other entity that has prepared the design, specifications, and other documents for the Project or being proposed as Project Manager for the Contract. A firm that has been engaged by the Employer to provide consulting services for the preparation or supervision of the works, and any of its affiliates, shall not be eligible to bid.

3.3 Bidders shall not be under a declaration of ineligibility for corrupt and fraudulent practices by the Central Government, the State Government or any public undertaking, autonomous body, authority by whatever name called under the Central or the State Government.

4. Qualification of the Bidder

4.1. All bidders shall provide in Section 2, Forms of Bid and Qualification

Information, a preliminary description of the proposed work method and schedule, including drawings and charts, as necessary. The proposed methodology should include programme of construction backed with equipment planning and deployment duly supported with broad calculations and quality assurance procedures proposed to be adopted justifying their capability of execution and completion of work as per technical specifications, within stipulated period of completion.

4.2 Deleted.

4.3. All bidders shall include the following information and documents with their bids in Section 2:

(a) Copies of original documents defining the constitution or legal status, place of registration, and principal place of business; written power of attorney of the signatory of the Bid to commit the Bidder;

(b) Total monetary value of construction work performed for each of the last five years;

(c) Experience in works of a similar nature as mention in NIT and size for each of the last five years, and details of works underway or contractually committed; and clients who may be contacted for further information on those contracts;

(d) Major items of construction equipment proposed to carry out the Contract;

(e) Qualifications and experience of key site management and technical personnel proposed for Contract;

(f) Reports on the financial standing of the Bidder, such as profit and loss statements and auditor's reports for the past five years (2013-14,2014-2015,2015-2016,2016-2017,2017-2018);

- (g) Evidence of access to line (s) of credit and availability of other financial resources facilities (10% of contract value), certified by the Bankers (Not more than 3 months old)
- (h) Undertaking that the bidder will be able to invest a minimum cash upto 25% of contract value of work, during implementation of work.
- (i) Authority to seek references from the Bidder's bankers;
- (j) Information regarding any litigation, current or during the last five years, in which the Bidder is involved, the parties concerned, and disputed amount;
- (k) Proposals for subcontracting components of the Works amounting to more than 20 percent of the Bid Price (for each The qualifications and experience of the identified sub-contractor in the relevant field should be annexed); and sublet will be MEP work only.
- (l) The proposed methodology and programme of construction, backed with equipment planning and deployment, duly supported with broad calculations and quality control procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones .
- (m) Deleted.

4.4. Bids from Joint ventures are not acceptable:

4.5. A. To qualify for award of the contract, each bidder should have in the last five years as referred to in Appendix.

- (a) The bidder should have a minimum annual financial turnover of Rs.30 Cr during last 5 years.
- (b) For work, the bidder should have also achieved following work(technical) experience prescribed below, for which bid has been invited, in last 5 years ending last day of month previous to the one in which bids are invited, should be either of the following
 - i) 3 similar type work (Road Work, Road and Infrastructure Development Work) each having cost Rs 20 Cr. OR
 - ii) 2 similar type work (Road Work, Road and Infrastructure Development Work) projects each having cost Rs 25 Cr OR
 - iii) 1 similar type work (Road work, Road and Infrastructure Development Work) each having cost Rs 40 Cr

The certificate of the work experience with Government and Semi Government departments shall be signed by the officer of the rank of the Executive Engineer & above. As stated above, the certificates of the technical experience shall be submitted. Non submission of such certificates will treat the bid as nonresponsive.(the similar work is as defined in Appendix to ITB)

iv)The contractor should submit detailed methodology that he intends to implement along with details of number of machinery and number of technical manpower deployment for execution of this project.

- (c) Executed in any one year in Last five year, the minimum quantities of the following items of work as indicated in Appendix. (Approximately 30% of tendered quantity)

1) Cement concrete (including RCC and PCC)	1,207 cum
2) Earthwork in both Excavation and Embankment. (Combined quantities)	84,242 cum
3) GSB/WMM	6,599 cum
4) Bituminous Work	513 cum
5) Cement Concrete Road work	3,768 cum

(d)The contractor or his identified sub-contractor should possess required valid electrical license for executing the Infrastructure electrification works and should have executed similar electrical works for a minimum amount as indicated in Appendix in anyone year.

The contractor or his identified sub-contractor should possess required valid license for executing the water supply/sanitary engineering works and should have executed similar water supply/sanitary engineering works for a minimum amount as indicated in Appendix in anyone year

Note : *For International Company, it's parent company which is a registered company in India however wants to showcase technical experience following conditions shall be fulfilled*

- i) The financial qualification of average annual turnover shall be fulfilled by the registered company in India from works carried out in India.*
- ii) In case where this company wants to showcase the technical qualification requirement of works carried out by its parent company registered in Foreign land, the appropriate authority from that country shall certify the quantum of built up area completed along with period of construction activity.*
- iii) The employer will verify authenticity of such certifications through the Indian embassy in respective country.*

4.5 B. Each bidder should further demonstrate:

- (a) Each bidder should submit
 - (i) An affidavit on a Stamp Paper, duly attested from the Notary, that the information furnished with the bid documents is correct in all respects; and failure to submit the document as specified shall make the bid non-responsive.
- (b)** Each bidder must demonstrate:
 - (i) Evidence of availability (either owned or leased or rented) of items of construction equipment as stated in the Appendix to ITB.
 - (ii) Availability for this work of technical personnel as stated in the Appendix to ITB

The bidders should however, undertake their own studies and furnish with their bid. a detailed construction planning and methodology supported with layout and necessary

drawings and calculations (detailed) as stated in clause 4.3(1) above to allow the employer to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals along with the cycle time for each operation for the given production capacity to match the requirements.

(c) Liquid assets and/or availability of credit facilities of no less than amount indicated in Appendix to ITB.

4.5 C. To qualify for a package of contracts made up of this and other contracts for which bids are invited in the IFB, the bidder must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for the individual contracts.

4.6 Sub-contractors' experience and resources shall not be taken into account in determining the bidder's compliance with the qualifying criteria except to the extent stated in 4.5(A) above. However the employer permits subcontracting for electrification works, and external water supply & sanitary works having minimum experience as stated in Appendix to ITB.

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

$$\text{Assessed Available Bid capacity} = (A * N * 2 - B)$$

where

A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the year indicated in Appendix) taking into account the completed as well as works in progress.

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

B = Value (updated to the price level of the year indicated in Appendix) of existing commitments and on-going works to be completed during the next 1.25 years (period of completion of the works for which bids are invited)

Note: *The statements showing the value of existing commitments and on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Executive Engineer; not below the rank of an Executive Engineer or equivalent.*

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

- made misleading or false representations in the forms, statements and attachments submitted in proof of the qualification requirements; and/or

- record of poor performance such as abandoning the works, not properly completing the contract, inordinate delays in completion, litigation history, or financial failures etc.; and/or

- participated in the previous bidding for the same work and had quoted unreasonably high bid prices and could not furnish rational justification to the employer.

5. One Bid per Bidder

5.1. Each bidder shall submit only one bid for one package. A bidder who submits or participates in more than one Bid (other than as a subcontractor or in cases of alternatives that have been permitted or requested) will cause all the proposals with the Bidder's participation to be disqualified.

6. Cost of Bidding

6.1. The bidder shall bear all costs associated with the preparation and submission of his Bid, and the Employer will in no case be responsible and liable for those costs.

7. Site Visit

7.1. The Bidder, at the Bidder's 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 shall be at the Bidder's own expense.

B. BIDDING DOCUMENTS

8. Content of Bidding Documents

8.1. The set of bidding documents comprises the documents listed below and addenda issued in accordance with Clause 10:

Section	Particulars	Volume No.
	Invitation for Bids	I
1	Instructions to Bidders	
2	Qualification Information, and other forms	
3	Conditions of Contract	
4	Contract Data	
5	Technical Specifications & Additional Specifications	II
6	Form of bid	
7	Bill of Quantities	
8	Securities and other forms	III
9	Drawings	
10	Documents to be furnished by bidder	IV

8.2. The Bid document is available on the web site www.mahatenders.gov.in. In this case the bidder will have to pay the cost of bid document as stated in Bid document and the payment shall be made by net banking payment gateway system. The bidder shall use the Digital Registration (identification) Key to obtain permission to make such payment.

8.3. The bidder is expected to examine carefully all instructions, conditions of contract, contract data, forms, terms, technical specifications, bill of quantities, forms, Annexes and drawings in the Bid Document. Failure to comply with the requirements of Bid Documents shall be at the bidder's own risk. Pursuant to clause 26 hereof, bids which are not substantially responsive to the requirements of the Bid Documents shall be rejected.

9. Clarification of Bidding Documents

9.1. A prospective bidder requiring any clarification of the bidding documents may notify the Employer in writing or by cable (hereinafter "cable" includes telex and facsimile) at the Employer's address indicated in the invitation to bid. The Employer will respond to any request for clarification which he received earlier than 15 days prior to the deadline for submission of bids. Copies of the Employer's response will be forwarded to all purchasers of the bidding documents, including a description of the enquiry but without identifying its source.

9.2. Pre-bid meeting

9.2.1. The bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in appendix to ITB.

9.2.2. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

9.2.3. The bidder is requested to submit any questions in writing or by cable to reach the Employer upto Pre bid meeting.

9.2.4. Minutes of the meeting, including the text of the questions raised (without identifying the source of the enquiry) and the responses given will be uploaded on the website www.mahatenders.com. Any modifications of the bidding documents listed in Clause 8.1, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to Clause 10 and not through the minutes of the pre-bid meeting..

9.2.5. Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.

10. Amendment of Bidding Documents

10.1. Before the deadline for submission of bids, the Employer may modify the bidding documents by issuing addenda.

10.2. Any addendum thus issued shall be part of the bidding documents and shall be communicated in writing or by cable to all the purchasers of the bidding documents.

10.3. To give prospective bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at his discretion, extend as necessary the deadline for submission of bids, in accordance with Sub-Clause 20.2 .

C. PREPARATION OF BIDS

11. Language of the Bid

11.1. All documents relating to the bid shall be in the English language.

12. Documents Comprising the Bid

12.1 The e-Bid submitted by the Bidder shall be in two separate parts:

Part I

This shall be named Technical Bid and shall comprise of:

(The tender shall be uploaded in two separate parts viz: (1) Technical Bid and (2) Financial Bid as stated in the bid document. The procedure for e-bidding shall be explained in the pre-bid meeting or can be clarified from the consultants to the work)

a) TECHNICAL BID (Shall be submitted by online only)

The technical bid shall be uploaded as per the procedure with the following documents:

- i) Earnest Money Deposit by net banking system (Bid security) as explains above. No exemption is permitted.
- ii) Documents for Eligibility Criteria as stated in the bid document.
- iii) Copy of audited balance sheet and Bid Capacity duly certified by C.A. for F.Y. 2013-14, 2014-15, 2015-16, 2016-17 and for F.Y.2017-18 along with ITR And certificate, undertakings and affidavits as specified in the bid document.
- iv) A list of works in hand and tendered for.
- v) List of machinery and plants immediately available with the Tenderer for use on this work and list of machinery proposed to be utilised on this work, but not immediately available and the manner in which it is proposed to be procured. The condition, cost and location of machinery shall be indicated. (Contractor shall submit document in support of ownership of machinery and Agreement for Hire machinery.)
- vi) Details of Technical personnel on the rolls of the tenderer giving details of experience and qualification of each of them and details of technical personnel to be appointed for this project along with bio-data duly signed by the person to be appointed on the Bidders letterhead.
- vii) Work plans prepared with help of computer software viz. MS-Projects / Prima Vera, indicating the methodology planning with resources logistics and work plan with indicative milestone shall be submitted duly signed by the Tenderer. He should indicate requirement of machinery and manpower in work plan. A bid uploaded without work plan in the form of bar chart indicating mile stone etc. would be considered as invalid and non responsive. The detailed work programme will be finalized and approved by Employer after award of work. Contractor shall suitably modify the programme as directed by Engineer.
- viii) Deleted
- ix) Litigation History if any for last 5 years.
- x) Subcontractors PQ documents
- xi) Evidence of access to financial resources along with name, address, telephone number fax number of the bidders banker along with name of contact person from the bank.
- xii) For bid documents downloaded from website, the payment should be made by gateway system.

xiii) Undertaking that the bidder will be able to invest a minimum cash upto 25% of contract value of work, during implementation of work

Note: 1. All uploaded documents shall be in PDF format with indexing.

2. The bidder shall in no case upload any document related to the financial bid in the technical bid format. The violation will result in disqualification of the bidder from the bidding process.

3. The bidders shall upload the bid document in scanned PDF or any other format as the technical bid

Part II. It shall be named Financial Bid and shall comprise of:

b) FINANCIAL BID(Shall be submitted by online only)

The bidder should upload his financial offer in digital format as e-tendering by using the digital registration key. The Contractor shall quote for the work as per details given in the main tender and also based on the details of conditions, stipulation made by the department and as per bill of quantity, specification and corrigendum / addendum issued before last date of receipt of tender document. The tender / offer shall be unconditional. Conditional offer will be rejected summarily as non-responsive.

12. 2 Each part shall be separately considered.

12.3. Deleted -

13. Bid Prices

13.1. The contract shall be for the whole works as described in Sub-Clause 1.1, based on the priced Bill of Quantities submitted by the Bidder.

Sub Head I: -INFRASTRUCTURE AND SITE DEVELOPMENT
Sub Head II: - ROAD & STORM WATER DRAINAGE
Sub Head III:- CULVERT AND CD WORKS
Sub Head IV(A): INTERNAL FENCING

Sub Head IV(B): GATES
Sub Head V: - SUBSTATION AND PUMP HOUSE
Sub Head VI:- TOILET BLOCK:
Sub Head VII: - UG AND OVER-HEAD WATER TANK
Sub Head VIII: - LANDSCAPING AND IRRIGATION
Sub Head IX (A): - RETAINING WALL AND TOE WALL
Sub Head IX (B): - ENTRANCE GATE
Sub Head X :- PLUMBING AND DRAINAGE
Sub Head XI :- FIRE FIGHTING SYSTEM
Sub Head XII :- ELECTRICAL
Sub Head XIII :- MISCELLANEOUS WORK
Sub Head XIV :- OPREATION AND MAINTENANCE

13.2. The bidder shall fill rates in ‘Rate Column of BOQ Sheet’ in figures and word only for all items of the Works described in the Bill of Quantities. Items for which no rate is entered by the bidder will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities. The bid price entered by the bidders shall be deemed covered by BOQ and the bid price is sufficient to cover all the works stated in the bid document including defect liability and maintenance.

13.3. All duties, taxes (**except GST**), royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder. The estimated cost put to tender does not include GST applicable to Government Contract. GST tax regime being new transformation in direct taxes system; it is likely that the prevailing tax rate percentage may undergo changes during contract period. The contractor will be paid for the GST at prevailing percentage as applicable based on Government of India notifications (applicable to Government contracts) over and above the amount payable as per the accepted contract price on bill to bill basis.

13.4: The rates and prices quoted by the bidder shall be fixed for the duration of the Contract and shall not be subject to adjustment on any account.

14. Currencies of Bid and Payment

14.1. The unit rates and the prices shall be quoted by the bidder entirely in Indian Rupees. All payments shall be made in Indian Rupees.

15. Bid Validity

15.1. Bids shall remain valid for a period not less than 120 days after the deadline date for bid submission specified in Clause 20. A bid valid for a shorter period shall be rejected by the Employer as non-responsive. In case of discrepancy in bid validity period between that given in the undertaking pursuant to Clause 12.1 (v) and the Form of Bid submitted by the bidder, the latter shall be deemed to stand corrected in accordance with the former and the bidder has to provide for any additional security that is required.

15.2. In exceptional circumstances, prior to expiry of the original time limit, the Employer may request that the bidders may extend the period of validity for a specified additional period. The request and the bidders' responses shall be made in writing or by cable. A bidder may refuse the request without forfeiting his bid security. A bidder agreeing to the request will not be required or permitted to modify his bid except as provided in 15.3 hereinafter, but will be required to extend the validity of his bid security for a period of the extension, and in compliance with Clause 16 in all respects.

15.3 Deleted.

15.4 Deleted .

16. Bid Security

16.1 The Bidder shall furnish, as part of the Bid, Earnest Money/Bid security, in the amount as shown in column 4 of the table of IFB.

16.2 The Earnest Money shall be paid by net banking gateway system by using digital registration key as stated in Appendix to ITB.

16.3 Any bid not accompanied by an acceptable Earnest Money, shall be rejected by the Employer as non-responsive.

16.4 The Earnest Money of unsuccessful bidders will be returned within 30 days of the end of the Bid validity period specified in Sub-Clause 15.1.

16.5 The Bid Security of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security

16.6 The Earnest Money of the successful Bidder will be discharged when the Bidder has signed the Agreement and furnished the required Performance Security.

a)The Bid Security / Earnest Money will be forfeited:

b)if the Bidder withdraws the Bid after its submission during the period of Bid validity;

c)if the Bidder does not accept the correction of the bid price, pursuant to Clause 27; or

- d)in the case of a successful Bidder, if the Bidder fails within the specified time limit to
- i)sign the Agreement; and/or
 - ii)furnish the required Performance Security.

16.7 Additional Performance Security:

If the tenderer has quoted the offer below the estimated cost put to tender, the tenderer shall have to submit Additional Performance Security in the form of Demand draft / Bank Guaranty/ Fixed Deposit Receipt of any Nationalized or Scheduled Bank in favor of the Chief Executive Officer, PCNTDA payable at Pune .The scanned copy of the Demand draft/Bank Guaranty/Fixed Deposit Receipt of any Nationalized or Scheduled Bank (Additional Performance Security) shall be uploaded and submitted in financial bid through e-tendering process. It is mandatory to each tenderer that he shall submit sealed envelope bearing name of agency, name of work and tender notice number which contains the Demand draft/Bank Guaranty/Fixed Deposit Receipt of any Nationalized or Scheduled Bank (for which the photocopy has been submitted online as above) The envelope shall be submitted to office of the Chief Executive Officer at the time of opening of financial bid.The amount of the Additional Performance Security shall be calculated by the tenderer in accordance with the following manner.

16.8 If the tenderer has quoted below the estimated rates, the Additional Performance Security shall be paid additionally as mentioned below.

If the offer submitted is below cost put to tender by more than 1% but less than 10% of the estimated cost put to tender	1% of the estimated cost put to tender
If below by more than 10% of the estimated cost put to tender.	1% of the estimated cost put to tender plus an amount equal to the percentage by which the offer is below 10% of the estimated cost put to tender, (eg. if the offer is 14.31%

	below, the Performance Security will be $1\%+(14.31-10)=5.31\%$ of the estimated cost put to tender
If below by more than 15% of the estimated cost put to tender	1% of the estimated cost put to tender plus an amount equal to the percentage by which the offer is below 10% plus an amount double to the percentage by which the offer is below 15% of the estimated cost put to tender, (eg. if the offer is 16% below, the Performance Security will be $1\%+(15-10)*1\%+(16-15)*2\%=8\%$ of the estimated cost put to tender

16.9 The DD/FDR/Bank Guaranty shall be valid beyond 30 days from the date of expiry of the Defect Liability Period + Maintenance Period +60 days

16.10 After opening the technical bid, if it is found that the tenderer is not qualified for opening his financial bid, then his Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank shall be returned within 7 working days of opening of financial bid. Also after opening financial bid, except the Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank of 1st and 2nd lowest bidders, the Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank of other bidders shall be returned within 7 working days of opening of financial bid.

16.11 Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank of the 2nd lowest bidder shall be returned within 3 working days after issue of work order to the 1st lowest bidder.

16.12 In case it is found that the documents Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank submitted by the tenderer are false or misleading, his earnest money shall be forfeited and additionally legal action may be initiated against the tenderer.

16.13 The work order shall be given to the concerned tenderer after the clearance of the Demand draft/Fixed Deposit Receipt/BG of any Nationalized or Scheduled Bank submitted by him.

Refund of Additional Performance Security.

16.14 The additional performance security shall be returned immediately upon satisfactory completion of work, the certificate of which shall be issued by Executive Engineer before releasing the additional security.

16.15 Non submission of Additional Performance security or submission of less amount of the Additional Performance Security shall be liable to summary rejection of his tender.

16.16 There shall be no liability on the Department to pay any interest on the Additional Performance Security Deposited by or recovered from the Contractor

17. Deleted.

17.1 Deleted.

18. Format and Signing of Bid

18.1 The Bidder shall upload one set of the bid comprising of the documents as described in Clause 12.

18.2 Deleted

18.3 Deleted.

D. SUBMISSION OF BIDS

19. Sealing and Marking of Bids

19.1. Deleted

19.2. Deleted

19.3. Deleted

19.4. Deleted

20. Deadline for Submission of the Bids

20.1. Complete Bids (including Technical and Financial) must be received by the Employer at the address specified above not later than the date indicated in appendix. In the event of the specified date for the submission of bids declared a holiday for the Employer, the Bids will be received upto the appointed time on the next working day.

20.2. The Employer may extend the deadline for submission of bids by issuing an amendment in accordance with Clause 10, in which case all rights and obligations of the Employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

21. Late Bids

21.1. Any Bid received by the Employer after the deadline prescribed in Clause 20 will be returned unopened to the bidder.

22. Modification and Withdrawal of Bids -Deleted

22.1. Bidders may modify or withdraw their bids by giving notice in writing before the deadline prescribed in Clause 20 or pursuant to Clause 23.

22.2. Deleted

22.3. No bid may be modified after the deadline for submission of Bids except if pursuance of Clause 23.

22.4. Withdrawal or modification of a Bid between the deadline for submission of bids and the expiration of the original period of bid validity specified in Clause 15.1 above or as extended pursuant to Clause 15.2 may result in the forfeiture of the Bid security pursuant to Clause 16.

E. BID OPENING AND EVALUATION

23. Bid Opening

Bid opening shall be carried out in two stages. Firstly, 'Technical Bid' of all the bids received (except those received late) shall be opened on the date and time mentioned in the Appendix to ITB. 'Financial Bid' of those bidders whose technical bid has been determined to be substantially responsive shall be opened on a subsequent date, which will be notified to such bidders.

23.1. The Employer will open all the envelope marked the 'Technical Bid' of all the Bids received (except those received late), including modifications made pursuant to Clause 22, in the presence of the Bidders or their representatives who choose to attend at time, date and the place specified in Appendix of ITB in the event specified the date for the submission of bid being declared a holiday for the Employer, the Bids will be opened at the appointed time and location on the next working day.

23.2 Deleted

23.3 Deleted

23.4 The Employer will prepare minutes of the Bid opening, including the information disclosed to those present in accordance with Clause 23.1.

23.5 Within three or four days after the opening of the technical bids their evaluation will be taken up with respect to bid security, qualification information and other information furnished in Part I of the bid in pursuant to clause 12.1 and a list will be drawn up of the responsive bids whose financial bids are eligible for consideration.

23.6 The Employer shall inform the bidders, whose technical bid is found responsive, of the date, time and place of opening of the financial bids. The bidders so informed, or their representative, may attend the meeting of opening of financial bids.

23.7 At the time of the opening of the 'Financial Bid', the names of the bidders whose bids were found responsive in accordance with clause 23.5 will be announced. The financial bids of only these bidders will be opened. The remaining bids will be returned unopened to the bidders. The responsive bidders' names, the Bid prices, the total amount of each bid, any discount/rebate and such other details as the Employer may consider appropriate will be announced by the Employer at the time of bid opening. Any Bid price, which is not read out and recorded, will not be taken into account in Bid Evaluation.

23.8 Deleted

23.9 The Employer shall prepare the minutes of the opening of the Financial Bids.

24. Process to be Confidential

24.1. Information relating to the examination, clarification, evaluation, and comparison of Bids and recommendations for the award of a contract shall not be disclosed to Bidders or any other persons not officially concerned with such process until the award to the successful Bidder has been announced. Any effort by a Bidder to influence the Employer's processing of Bids or award decisions may result in the rejection of his Bid.

25. Clarification of Financial Bids

25.1. To assist in the examination, evaluation, and comparison of Bids, the Employer may, at his discretion, ask any Bidder for clarification of his Bid, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the Bid shall be sought, offered, or permitted except as required to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids in accordance with Clause 27.

25.2. Subject to sub-clause 25.1, no Bidder shall contact the Employer on any matter relating to his bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of the Employer, it should do so in writing.

25.3. Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders' bid.

26. Examination of Bids and Determination of Responsiveness

26.1. During the detailed evaluation of "Technical Bids", the Employer will determine whether each Bid (a) meets the eligibility criteria defined in Clause 3 and 4; (b) has been properly signed; (c) is accompanied by the required securities and; (d) is substantially responsive to the requirements of the Bidding documents. During the detailed evaluation of the "Financial Bid", the responsiveness of the bids will be further determined with respect to the remaining bid conditions, i.e., priced bill of quantities, technical specifications, and drawings.

26.2. A substantially responsive "Financial Bid" is one which conforms to all the terms, conditions, and specifications of the Bidding documents, without material deviation or reservation. A material deviation or reservation is one (a) which affects in any substantial way the scope, quality, or performance of the Works; (b) which limits in any substantial way, inconsistent with the Bidding documents, the Employer's rights or the Bidder's obligations under the Contract; or (c) whose rectification would affect unfairly the competitive position of other Bidders presenting substantially responsive Bids.

26.3. If a "Financial Bid" is not substantially responsive, it will be rejected by the Employer, and may not subsequently be made responsive by correction or withdrawal of the non-conforming deviation or reservation.

27. Correction of Errors

27.1. "Financial Bids" determined to be substantially responsive will be checked by the Employer for any arithmetic errors. Errors will be corrected by the Employer as follows:

(a) where there is a discrepancy between the rates in figures and in words, the rate in words will govern; and

(b) where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by the quantity, the unit rate as quoted will govern.

27.2. The amount stated in the "Financial Bid" will be corrected by the Employer in accordance with the above procedure and the bid amount adjusted with the concurrence of the Bidder in the following manner:

(a) If the Bid price increases as a result of these corrections, the amount as stated in the bid will be the 'bid price' and the increase will be treated as rebate;

(b) If the bid price decreases as a result of the corrections, the decreased amount will be treated as the 'bid price' Such adjusted bid price shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected amount the Bid will be rejected, and the Bid security may be forfeited in accordance with Sub-Clause 16.6 (b).

28. Deleted

29. Evaluation and Comparison of Financial Bids

29.1. The Employer will evaluate and compare only the Bids determined to be Substantially responsive in accordance with Clause 26.

29.2. In evaluating the Bids, the Employer will determine for each Bid the evaluated Bid Price by adjusting the Bid Price as follows:

(a) making any correction for errors pursuant to Clause 27; or

(b) making an appropriate adjustments for any other acceptable variations, deviations; and

(c) making appropriate adjustments to reflect discounts or other price modifications offered in accordance with Sub-Clause 23.6.

29.3. The Employer reserves the right to accept or reject any variation or deviation. Variations and deviations and other factors, which are in excess of the requirements of the Bidding documents or otherwise result in unsolicited benefits for the Employer shall not be taken into account in Bid evaluation.

29.4. The estimated effect of the price adjustment conditions under Clause 47 of the *Conditions of Contract*, during the period of implementation of the Contract, will not be taken into account in Bid evaluation.

29.5. If the Bid of the successful Bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, the Employer may require that the amount of the performance security set forth in Clause 34 be increased at the expense of the successful Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

29.6. A bid which contains several items in the Bill of Quantities which are unrealistically priced low and which cannot be substantiated satisfactorily by the bidder, may be rejected as non-responsive.

30. Price Preference

30.1 There will be no price preference to any bidder.

F. AWARD OF CONTRACT

31. Award Criteria

31.1. Subject to Clause 32, the Employer will award the Contract to the Bidder whose Bid has been determined

(i) to be substantially responsive to the Bidding documents and who has offered the lowest evaluated Bid Price; and

(ii) to be within the available bid capacity adjusted to account for his bid price which is evaluated the lowest in any of the packages opened earlier than the one under consideration.

In no case, the contract shall be awarded to any bidder whose available bid capacity is less than the evaluated bid price, even if the said bid is the lowest evaluated bid. The contract will in such cases be awarded to the next lowest bidder at his evaluated bid price.

32. Employer's Right to Accept any Bid and to Reject any or all Bids

32.1. Notwithstanding Clause 31, the Employer reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

33. Notification of Award and Signing of Agreement

33.1. The Bidder whose Bid has been accepted will be notified of the award by the Employer prior to expiration of the Bid validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the *Conditions of Contract* called the "Letter of Acceptance") will state the sum that the Employer will pay the Contractor in; consideration of the execution, completion, and maintenance of the Works by the Contractor as prescribed by the Contract (hereinafter and in the Contract called the "Contract Price").

33.2. The notification of award will constitute the formation of the Contract, subject only to the furnishing of a performance security in accordance with the provisions of Clause 34.

33.3. The Agreement will incorporate all agreements between the Employer and the successful Bidder. It will be signed by the Employer and sent to the successful Bidder, within 28 days following the notification of award along with the Letter of Acceptance. Within 21 days of receipt, the successful Bidder will sign the Agreement and deliver it to the Employer.

33.4. Upon the furnishing by the successful Bidder of the Performance Security, the Employer will promptly notify the other Bidders that their Bids have been unsuccessful.

34. Performance Security

34.1. Within 10 days / as mentioned in the letter of Acceptance of receipt of the Letter of Acceptance, the successful Bidder shall deliver to the Employer a Performance Security in any of the forms given below for an amount equivalent to 5% of the Contract price, 30 days after the expiry of defect liability and maintenance period of 36 months plus additional security for unbalanced Bids in accordance with Clause 29.5 of ITB and Clause 52 of Conditions of Contract: a bank guarantee in the form given in Section 8; or certified Cheque / Bank Draft as indicated in Appendix.

34.2. The performance security shall be either in the form of a Bank Guarantee of entire amount or Demand Draft of 2% of contract price, in the name of the Employer, from a Nationalised or Scheduled Bank payable in PCMC area as defined in Appendix to ITB. (Balance 3% amount of security deposit will be recovered from R.A. Bills)

34.3. Failure of the successful Bidder to comply with the requirements of Sub-Clause 34.1 shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security.

35. Advances

35.1. Mobilisation & Machinery Advance. Deleted.

35.2 Secured Advance – Deleted.

36. Dispute Review Expert

36.1. Deleted

37. Corrupt or Fraudulent Practices

37.1. The Employer will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question and will declare the firm ineligible. either indefinitely or for a stated period of time, to be awarded a contract with National Highways Authority of India / State PWD and any other agencies, if it at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for the contractor, or in execution.

The Employer requires the bidders/Contractors to strictly observe the laws against fraud and corruption enforced in India, namely, Prevention of Corruption Act, 1988.

37.2. Further more, Bidders shall be aware of the provision stated in Sub-Clause 23.2 and Sub-Clause 59.2 of the Conditions of Contract.

APPENDIX to ITB

Instructions to Bidders -Clause Reference with respect to Section-I.

DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105. AT MOSHI, PUNE-412105.

1. Name of the Employer : **Pimpri Chinchwad New Town Development Authority**
Address: **New Administrative Building, Near Akurdi Railway station,**
Pune-411 044 .Tel :- 020-27652934 Fax : 020-27652935 [Cl. 1.1]

**Name of work:- DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND
IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105. AT MOSHI, PUNE-
412105**

Scope of Work

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:

Pune Metropolitan Region (PMR) comprising of Pune and Pimpri Chinchwad cities is one of the fastest growing urban agglomerations in India. PMR is a major automobile and auto ancillary hub; and also a well-known international education destination. The region is also among the top Information Technology (IT) destinations of India. Along with IT and auto industries, the region has many industrial clusters that house industries like Fast Moving Consumer Goods (FMCG), engineering, agro and biotechnology.

Pimpri Chinchwad is a major industrial centre, with large industrial conglomerates, particularly, the auto-ancillary industries, along with IT Industry, and also is connected with Pimpri Chinchwad New Town Development Authority and nearing Industrial Belts developed by MIDC, These business centers are expected to further boost the industrial development, encouraging commercial development and consolidate its service economy. In step with this trend there is a substantial demand for large integrated real estate space in Pimpri Chinchwad as well PCNTDA.

Pimpri Chinchwad New Township Development Authority (PCNTDA) is one of the development authorities of Pune Metropolitan Region that is responsible for development of peri urban areas towards the north of PMR. PCNTDA was established in the year 1972 with a mandate to create Pimpri Chinchwad New Town with well thought out goals and objectives. Towards this objective, PCNTDA, since its inception, has been instrumental in developing Affordable urban housing and commercial infrastructure for this rapidly growing population of the Pimpri Chinchwad city.

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.

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:

1. Infrastructure including Site Development – Total Area 20.11 Ha
2. Roads and Storm Water Drainage - Total Road Length 3758.00 M
3. Culverts and CD works -2 No of Culverts
4. Internal Fencing and Gates – Total length – 2663.00 M
5. Substation and Pump house – 2 no of Substation
6. Toilet Blocks- 3no of Toilet Blocks
7. UG water tank- Capacity - 3.0 lakh Lit
8. Landscaping and Irrigation – Area- 25,000.00 Sqm
9. Retaining walls and Toe wall- Length 588.00 M, height varies from 1.0 M to 5.0 M
10. Entrance Gate – Length 54.0 M, Height -9.0 M
11. Plumbing and drainage -
12. Services including: Fire fighting and Electrical
13. Operation and Maintenance

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 20.11 Ha

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.

HPCL pipeline:

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

A constraint exists in the form of the HPCL 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 and work is carried out with the presence of HPCL representatives. For this work all responsibility will be in Contractor's scope. Contractor shall be complete work with in time period which is given by HPCL. All necessary liaisoning work shall be done by Contractor only. If Contractor falls to complete work within Time as per given by HPCL(6 months) period Penalty of Rs. 18,000/ per day will be proposed which will be born by bidder/contractor.

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, 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.

The strata at the site was investigated at various locations which require excavation.

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-3/4 pipes. For speedy and quality construction the provision of C.C. M20 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.

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.

Internal road network: The location of the plot necessitates the introduction of a few additional roads (some of temporary nature), other than in the Master plan, in order to provide suitable access to reach the plot and to fulfill the functional requirements in and around the plot, such as movement of Cargo vehicles, Visitors(vehicular and pedestrian), Fire-tender and service vehicles for Electrical, sanitation and other purposes, during the pre-event(installation), operation (during event) and maintenance phases.

Internal Fencing:

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.

ENTERANCE GATE :

The entrance gateway is planned to facilitate smooth and streamlined movement of vehicular and pedestrian traffic, as well as VIP movement. Appropriate arrangements for security, including boom barriers, CCTV surveillance are provided.. Attractive landscaping, lighting and signages are provided for this location.

Street furniture such as benches, dust bins, are provided at suitable locations.

FIRE FIGHTING:

Firefighting provisions are made around the exhibition ground of elliptical shape.. Every part of the ground can be reached by fire-fighting equipment from the peripheral roads.

ELECTRICAL PROVISIONS:

It includes all works to be carried out to provide power for the infrastructure such as street-lighting, High mast lighting, lighting and ventilation of toilet blocks, water pumping, fire-fighting pump and security systems.

All the permission for Load sanctioning from MSEDCL,inspection of MSEDCL,electrical inspection, PCMC, etc, shall be the responsibility of the contractor. In this record no extra chargers will be paid PCNTDA. No Expenses/extra charges will be paid by PCNTDA.

Water supply and Sanitation:

Water storage including for fire-fighting purpose is planned in underground storage tank designed for maximum capacity, based on sanitation, irrigation and other requirements. Adequate arrangements with low- maintenance fittings, fixtures and finishes are made for the maximum number of visitors that could be accommodated in the Outdoor exhibition ground. Septic tank with soak pits are to be provided.RCC design of Ground Storage tank is included in scope of work.

STRUCTURAL DESIGN OF BUILDING, GATE, RETAINING WALL and CULVERT

The Structural design, specifications and grade of concrete and Steel are as per design calculations based on provisions of IS 875 (part 1 to 5), IS 1893 – 2016 (part 1), IS 13920- 2016, IS 456-2000, IS 4326.It is Proposed to have M-20,M 40 Grade as grade of Concrete and TMT 500 grade reinforcement with 20% percentage elongation. All the forces as stated in I.S. 875 (including earthquake forces) acting on the building are considered during the design of the building. Dynamic analysis with worst combination of forces are carried out. The analysis is based on I.S. 1893 part I – 2016, IS 13920-2016 and the design of RCC elements is based on I.S. 456 – 2000, and National Building Code of India (2016).

The Safe Bearing capacity ascertained for Foundation is based on the Soil Investigation carried out, which works out to be 400 kN/sqm. (As per table 4 page 13 of IS 1893-2016 (Part 1) soft, medium, stiff, rocky soil type).

The fire resistance of various concrete elements fulfils the provisions of I.S. 456 – 2000 for 2 hours. The works shall be carried out as per design and drawing provided by Engineer/Employer

PROOF CHECKING

The contractor at his own cost shall get the all structural design and drawings approved for stability and durability aspects from Collage of engineering Pune/ IIT Mumbai as directed by PCNTDA. For proof checking all necessary arrangements and follow-up shall be done by contractor. The charges for structural design and Proof checking will be born by bidder/contractor.

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 retaining wall as per drawing
- 4) To construct culvert , CD works as per drawing .
- 5) To construct Roads as per drawing
- 6) To construct Substation and Toilet Blocks as per drawing
- 7) To construct Entrance Gate as per drawing
- 8) To construct Landscaping and Irrigation work
- 9) All other allied structure shown in the drawing.
- 10) All services works Fire fighting, Plumbing and Electrical

All other works incidental to the work as per the instruction of Engineer In charge

Maintenance

Includes the maintenance of the entire project Gardening, and Maintenance of Electrical and Plumbing works, etc

Royalty + Testing

As per the directives the GST component will be considered for amount arrived at grand total of Sub Estimate I to XIV.

2. The last five years
 - 2013 - 2014
 - 2014 - 2015
 - 2015 -2016
 - 2016 – 2017
 - 2017 - 2018

3. This annual financial turn over amount is Rs. 30.00 Cr [Cl. 4.5A(a)]
Rs Thirty Crore only (in words)

4. Value of work is as stated in NIT [Cl. 4.5A(b)]

5. Quantities of work executed: [Cl. 4.5A(c)]
- | | |
|--|------------|
| 1) Cement concrete (including RCC and PCC) | 1,207 cum |
| 2) Earthwork in both Excavation and Embankment.
(Combined quantities) | 84,242 cum |
| 3) GSB/WMM | 6,599 cum |
| 4) Bituminous Work | 513 cum |
| 5) Cement Concrete Road work | 3,768 cum |
6. The cost of electric work is Rs..5.50 Cr [Cl. 4.5A(d)]
.....(in words)
7. The cost of water supply / sanitary works is Rs. 87.0 Lakhs- [Cl. 4.5A(e)]
Rupees ----- Only(in words)
8. Liquid assets and/or availability of credit facilities is as stated in NIT [Cl. 4.5B(c)]
9. Price level of the financial year 2018-19 [Cl. 4.7]
10. The pre-bid meeting will take place at PCNTDA, Office, New Administrative Building,Akurdi,Pune 411044. [Cl. 9.2.1]
(address of the venue) on(time and date)
11. The technical bid will be opened as stated in NIT
12. Address of the Employer -**The Chief Executive Officer, Pimpri Chinchwad New Town Development Authority**
Address: **New Administrative Building, Near Akurdi Railway station,**
Pune-411 044 .Tel :- 020-27652934 Fax : 020-27652935 [Cl. 4.5(a)]
13. Identification: [Cl. 19.2(b)]
- Bid for(name of Contract)
 - Bid reference No.(insert number)
 - Do not open before..... (time and date)
14. The bid should be submitted latest by(date and time) [Cl. 20.1(a)]
15. The bid will be opened at..... [Cl. 23.1]
(place) on..... (time and date).

16. The Bank Draft in favour of (Cl. 34.1)
payable at
17. Deleted
18. Escalation factors (for the cost of works executed and financial
figure to a common base value for works completed)

<u>Year before</u>	<u>Multiply factor</u>
One	1.1
Two	1.21
Three	1.33
Four	1.46
Five	1.61

ANNEXURE-I

List of Key Plant & Equipment to be deployed on Contract Work

[Reference Cl. 4.5 (B) (a)]

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

Sl	Type of Equipment	Maximum age as on	Own	Hire	Total
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		date of submission of bid			
1	JCB	15	2	2	4
2	Excavators/Poclain (150 HP)	15	6	11	17
3	Motor Grader	15	1	2	3
4	Bulldozer	15	3	2	5
5	Dumper/Tipper(72 H.P)	15	9	16	25
6	Front end Loader	15	1	1	2
7	Smooth Wheeled Roller	15	1	1	2
8	Vibratory Roller and Power Roller	15	3	2	5
9	Hot Mix Plant with Electronic Controls (Minimum 80-100 TPH Capacity)	15	1	1	2
10	Paver Finisher with Electronic Sensor	15	1	1	2
11	Water Tanker	15	3	2	5
12	Bitumen Sprayer	15	1	1	2
13	Tandem Roller	15	1	1	2
14	Concrete Mixes with Integral Weigh Batching facility	15	1	1	2
15	Concrete Batching and Mixing Plant (Minimum Capacity – 30 Cum / hour)	15	1	0	1
	Total		35	44	79

- 1) Scanned copy of proof of ownership of Excavator 150 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

- 2) 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 (150H.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.)

3) Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan mixer), ----- then -----.

Tenderer shall furnish details of Ownership.

(a) If the Contractor owns a Fully Automatic Micro Processor Based Programmable Logical Control (PLC) with SCADA Enabled **Reversible Drum Type Mixer/ Concrete Batch Mix Plant** of minimum 18-20 cubic metre per hour capacity of any standard company with SCADA and Transit mixers and concrete pumps of desired number and capacity as required under this contract then he should give details of its current location and under taking whether the **Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer)** needs to be shifted or otherwise for this work.

(b) If **Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer)** of minimum 30 cubic metre per hour capacity and Transit mixers and concrete pumps of desired number and capacity is not owned by contractor at the time of tendering then conditions for **Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer)** of minimum 30 cubic metre per hour capacity and concrete pumps of desired number and capacity are as below:-

4.1 Contractor shall install **Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer) of minimum 30 cubic metre per hour capacity** and Transit mixers and concrete pumps of desired number and capacity within **30 days** from the date of issue of work order.

4.2 If the Contractor wants to **Procure / Purchase Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer)** of minimum 30 cubic metre per hour capacity and Transit mixers and concrete pumps of desired number and capacity as mentioned above, he should submit necessary firm purchase order placed on manufacturer of reputed in envelope number one.

4.3. If Contractor intend to purchase **Reversible Drum Type Mixer/ Concrete Batch Mix Plant (Pan Mixer)** of minimum 30 cubic metre per hour capacity and Transit mixers and concrete pumps of desired number and capacity as in **3.2 above** or shift already owned plant from existing location to the new location as required for this work, for this bidder shall give trial run on or before **30th day** from the date of issue of work order.

4.4 No extension of time limit shall be granted at any level for giving trial run after **30th day** from the date of issue of work order.

This information shall be given by the contractor in technical bid correctly and completely otherwise his financial bid will not be opened.

Note :

1. (a) Fully automatic microprocessor based PLC with Supervisory Control and Data Acquisition enabled concrete batch mix plant (pan mixer). (b) Concrete pumps

of desired number and capacity with SCADA. (c) Sand screening cum washing unit electrically or diesel operated 4/6 cubic meter per hour capacity. (d) Compression Testing Machine (CTM) for the testing cement mortar, concrete at the site, linked with "SCADA" shall be owned by the Contractor.

2. (a) Fully automatic microprocessor based PLC with Supervisory Control and Data Acquisition enabled concrete batch mix plant (pan mixer). (b) Concrete pumps of desired number and capacity with SCADA. (c) Sand screening cum washing unit electrically or diesel operated 4/6 cubic meter per hour capacity. (d) Compression Testing Machine (CTM) for the testing cement mortar, concrete at the site, linked with "SCADA" shall be in good condition.

The bidder must upload the following documentary evidence in support of his availability of the above machinery & equipment's. Purchase Voucher, current valid RC Books, Ownership documents & certificates, etc.

The use of Machinery and equipment will be verified with the respective purchase invoices.

Age of machinery shall be as stated in Appendix to ITB.

Machinery as mentioned above required for the work shall be brought to site immediately by the Contractor as intimated by Engineer in charge and shall give successful trial run otherwise Performance Security and Additional Performance Security will be forfeited.

Note: The proof of the above equipment's shall be uploaded in technical submission.

List of Key Personnel to be deployed on Contract Work (for each project separately)

[Reference Cl. 4.5 (B) (b)]

ANNEXURE-II

List of Key Personnel to be deployed on Contract Work

[Reference Cl. 4.5 (B) (b)]

SI.	Personnel	Qualification/Experience	NO
1	Project Manager/ Resident Engineer	B.E. Civil + 20 Years Exp (5 years as a Manager in	1 No.

		Road Construction)	
2	Senior Engineer	B.E. Civil + 10 Years Exp (5 years as a Exp in Road Construction)	1 No
3	Junior Engineer	B.E. Civil + 3 years Exp. or Dip. Civil + 5 years Exp	2 no
4	Plant Engineer	B.E. Mech. + 10 Years Exp.or Dip. Mech + 15 years Exp.	1 No
5	Quantity Surveyor	B.E. Civil + 7 years Exp. or Dip. Civil + 10 years Exp.	1 No
6	Site Supervisors	Dip. Civil + 5 years Exp.	4 No
7	Survey Engineer	B.E. Civil + 5 years Exp. or Dip. Civil + 8 years Exp.	1 No
8	Electrical Engineer	B.E. Elect + 7 years Exp. or Dip. Elect + 10 years Exp	1 No
	Total		12

Note: The information of personnel shall be uploaded in technical submission.

Experience of Identified subcontractor shall be as stated below [Cl. 4.6]

Sr. No.	Work	Cost of Work Rs. In CR	Financial Eligibility Rs. In CR (30% of each work)	Technical eligibility (Amount of Single Work Done) Rs. In CR (30% of each work)
1	External Electrification	5.5	1.65	1.65

2	Water Supply & Sanitary Works	0.87	0.26	0.26
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Note: 1) The financial turn over credentials duly certified by the CA and technical experience duly certified by Executive Engineer or equivalent or in case of private works by concerned architect shall be uploaded in technical submission.

2) The Financial Eligibility is Average Annual Turnover in last five financial years and Technical eligibility means the value of work carried out in five financial years.

3) Single Similar Work of costing not less than 30% of for MEP work in last five financial years. ii) Avg. annual financial turnover not less than 30% in MEP work during last 5 financial years i.e. 2013-14,14-15,15-16,16-17,17-18 iii) Single Similar Work of costing of similar amount for MEP work.

SITE HSE PLAN

(Health, Safety and Environmental Plan)

1.0 INTRODUCTION

1.1 SCOPE AND APPLICABILITY

This document defines the Health, Safety and Environmental management system requirements of BIDDER Limited during the execution stage of project at construction sites. These requirements are applicable to all active sites managed by BIDDER.

Requirements defined in the manual are applicable to all personnel of BIDDER and their sub-contractors working on the project. In case any work is to be carried out within or

affected area of existing facility of client, the norms as specified by the Owner / Project Management Consultant (PMC) shall prevail and supersede these requirements.

1.2 PURPOSE

The purpose of this manual is to ensure that all persons concerned with the project carry out the effective management of occupational health and safety in all activities in order that people, plant and the environment are not exposed to any undue risks / impacts.

1.3 ADMINISTRATION

The Site Incharge & team are responsible for the communication and enforcement of the requirements defined in the site HSE Manual.

2.0 Duties and responsibilities

- 2.1** Responsibilities of all personnel working at site (Including persons working on behalf of BIDDER and other person directly associated with our business, visiting the work place)
All personnel working at site have responsibility to work safely, prevent pollution and comply with BIDDER policies, plans and procedure. They shall comply with the requirements of BIDDER - HSE management System.

They shall take reasonable care of their own health, safety and ensure that their actions do not adversely affect the safety of co-workers, plant and property.

2.2 Site In-charge

Main Responsibilities of Site In-charge shall be:-

- Providing inputs for updating site HSE Manual for site specific requirements
- Coordinate, the site HSE activities, and effective implementation of Site HSE Manual
- Authorize disciplinary actions, as required.
- Be informed / participate in incident analysis.
- Co-ordinate with the Corporate Office.

2.3 Site HSE In charge:

The HSE function at the site may be headed by Site HSE in charge. Main Responsibilities of Site HSE In charge shall be:-

- Site HSE in charge reports to site in charge and shall assist site management to effectively implement the requirements of Site HSE Manual.
- Liaison with Owner and Sub-contractors representatives on HSE matters on behalf of site in charge.

- Co-ordinate with subcontractors for implementation of requirements of this manual
- Ascertain HSE awareness of all personnel on site.
- Ensure compliance and in case of violations initiate disciplinary action, as required.
- Verify and maintain the statistical data submitted by subcontractors.
- In case of any accident / incident, conduct analysis and suggest corrective measures as required.
- In case of Major/Fatal accidents organise investigation by HSE in charge of other site
- Investigation for Minor incidents will be done by respective HSE In charge only

The Site HSE In charge is in charge of all general aspects of site HSE. In particular role and responsibilities of Site HSE in charge during various phases of site activities shall be:-

a) At start of works:

- Conducting periodic inspection of equipment in general and, in particularly for equipment required by regulations and/or Owner standards.
- Checking suitability of Personal protective equipment (PPE) for intended use.
- Review and provide inputs on Hazard Identification and Risk Assessment (HIRA) and Environmental aspects for the site for updating Site HSE Manual.

b) During the execution of the works:

- Performing periodic inspections to ensure compliance with BIDDER's HSE standards and requirements.
- Participate as an observer in construction meetings in order to be able to forestall any new risks/ aspects.
- Organise periodic meetings with Sub-contractor's representatives, once in a six months to discuss typical problems and particularly important aspects of HSE.
- Taking particular care whenever subcontractor is to undertake a new type of work that may involve special risks. Such special risks, if any, should always be well communicated and special procedures shall be instituted.
- Organize Daily tool box talks by site supervisor & weekly by HSE Incharge.
- Maintain copies of all necessary work permits in order to ensure compliance with their conditions and regulations.
- Safety committees review meetings shall be organized once in three months for project sites smaller than Rs. 100 crores and once in a month for project sites more than Rs. 100 Crores.

c) End of works:

- Drawing up an HSE statistical overview of the entire construction period.

2.4 Main Responsibilities of Sub-contractor

- Subcontractors shall be responsible for the HSE of their own activity, personnel and property on site assigned for their scope of work. They shall also be responsible for compliance with all applicable local statutes, rules, regulations and BIDDER's HSE Requirements, as defined in this manual.
- Subcontractors should ensure that the requirements are read, understood and implemented throughout the duration of the Contract.
- Site organisation should have competent safety officer(s) depending up on the number of workers to be generally deployed by the subcontractor.

2.5 Welfare of construction workers

Drinking Water Arrangement

- Sufficient supply of Portable water shall be maintained at site. The portable of drinking water shall be checked periodically, specifically in case of change of source.
- Water storage tanks shall be inspected / cleaned at least once in a month.
- Nearby area shall be kept clean and drained.
- Water quality shall be tested for portability at least once in a six months, if it is not packaged drinking water.

Toilets

- Sufficient number of latrines and urinals shall be provided.
- Latrines shall be under cover and so partitioned off as to secure privacy, and shall have a proper door and fastenings

I Where both male and female construction workers are employed, outside each block of latrines or urinals a notice containing indicating therein "For Men Only" or "For Women Only", as the case may be shall be displayed. The notice shall also be displayed in local vernacular language

II Such notice shall also bear the figure of a man or of a woman, as the case may be.

- Latrines and Urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
- Latrines and Urinals other than those connected with a flush sewage system shall comply with the requirements of the local public health authorities
- Water shall be provided by means of a tap or otherwise, so as to be conveniently accessible in or near every latrine and urinal.

Canteens

- In every place wherein not less than two hundred and fifty construction workers are ordinarily employed, the employer shall provide an adequate canteen in the manner as specified in the Building Workers Rules for the use of construction workers.
- The canteen shall consist of a dining hall with furniture sufficient to accommodate construction workers using such canteen, a kitchen, a store room, a pantry and washing places separately for construction workers and for utensils.
- The canteen shall be sufficiently lighted at all times when any person has access to it.
- The floor of canteen shall be made of smooth and impervious material and inside walls of canteen shall be lime-washed or colour-washed at least once in every six months and that the inside walls of the kitchen of such canteen shall be lime washed once in every three months.
- The precincts of the canteen shall be maintained in a clean and sanitary condition.
- Waste water from canteen shall be carried away in suitable covered drains and shall not be allowed to accumulate in the surroundings of such canteen.
- Suitable arrangements shall be made for the collection and disposal of garbage from such canteen.
- Building of the canteen shall be situated at the distance not less than 15 metres from any latrine or urinal or any source of dust.

Workers Rest Shelter

- Separate rest shelter shall be maintained for male and female workers. Rest shelters shall be kept clean.

First Aid

- Sufficient number of first aid boxes shall be provided and maintained for providing first-aid to the workers. Stretcher shall also be made available at site.

Every first-aid boxes shall be distinctly marked “First Aid” and shall be equipped with the articles as specified below:

- Paracetamol/crocin 10 tabs
- Bandage clothe 2 rolls
- Bandage cotton 2 rolls
- Bentadine solution 1 bottle
- Cotton ear buds 20 nos
- Soframycin/Silverex 1 tube
- Moov Ointment 1 tube
- Gentamycin 1 tube
- Band-aid 5 nos
- Scissors 1 no

First Aid boxes shall be kept in the charge of a person trained in first-aid and shall be readily available during working hours. For the purpose, sufficient number of personnel shall be trained on First aid.

The first aid boxes shall be checked every month for the contents and “Use before Date”, and shall be topped up as required. Record of checking of first aid boxes shall be maintained.

3.0 SITE HSE Requirements

Following are the minimum requirements, but not limited to, with regards to HSE for various aspects at Construction site.

3.1 Site Office Safety

Office equipment and furniture shall be provided and maintained in safe working order. Awareness of all the personnel working in these temporary facilities with regards to following arrangements / requirements should be ensured:-

Fire

- All personnel shall be familiar with evacuation procedures, escape routes and safety exits.

Electrical:

- No office electrical equipment shall be used in faulty or unsafe conditions.
- Only a qualified person shall repair faulty electrical equipment.

- Leads on equipment shall not be routed in such way that they may cause a tripping hazard across walkways, corridors or open spaces.
- “Please switch off power when not in use” note shall be displayed at all locations.

Furnishings and Fittings:

- Safety shall be the prime consideration when arranging furniture and fittings in any office space.
- No furniture shall block or restrict movements in walkways, corridors, or other escape routes.

Flammable Material and Solvents:

- All flammable liquids (such as toners for photocopiers) shall be handled and stored with care. Only a minimum quantity for ready use shall be stored. They should be stored in the shade and away from any source of heat, potential ignition or naked flame.

First Aid Box:

At least one First-aid box (with specified contents) shall be available and kept conspicuously identified at the office. List of First-aiders shall be maintained at the office.

HSE In charge shall be immediately notified for any personnel injury.

Drinking Water

Sufficient supply of Potable water shall be maintained. Potable of drinking water shall be checked periodically, specifically in case of change of source. Pot ability test for drinking water is not in applicable in case of Mineral water /ROPS systems / Aqua guard Purification system.

Toilets

Toilets shall be provided according to the Contract requirements.

Exits

Every office building shall be provided with exits sufficient to permit the prompt escape of occupants in case of emergency.

Exits and the access and egress from exits shall be maintained so that they are unobstructed and are accessible at all times. Exits shall be identified conspicuously.

All exits shall discharge directly to an open space that gives safe access to a public way.

3.2 Control of Visitors

Concerned BIDDER officer shall ensure that the visitors at work place are made aware of relevant HSE requirements.

The following shall be ensured:

- The visitor shall be briefed on the safety norms pertinent to the visitor's work.
- The visitor shall be informed of the requirement of use of PPEs depending on the nature of work and work location to be visited.
- The visitor shall be informed of "No Smoking" Requirement.
- Requisite PPEs shall be provided to the visitor. The visitor shall ensure that the same are used properly.
- Safe route from the office to site shall be shown to the visitor. The visitor shall be strictly advised not to loiter around the site.
- Smoking zones shall be identified

3.3 Vehicle Movement

Following shall be ensured:-

- Only Licensed drivers shall drive the vehicle.
- Speed limits shall be clearly displayed. Speed limits shall be observed strictly.
- Vehicles shall be parked at the designated parking place.
- No vehicle shall be parked under LT / HT power lines.
- Vehicles shall not block emergency evacuation road, escape path, access road for fire tenders / rescue vehicles etc.
- No worker shall take rest / sleep under any vehicle.

3.4 Storage of Flammable Liquid

Flammable liquid at project site may include Diesel, Lubricating Oil, and Construction chemicals etc. The following measures shall be taken:

- Flammable liquid containers shall be stored on concreted floor. Dyke wall around the storage tank / drum shall be provided to prevent loss of containment.
- Electrical connection in the flammable liquid store shall not be provided.
- In the case of storage in tanks, the capacity of the tank shall be conspicuously marked on the tank.

- Smoking, fire near the storage area shall be prohibited. Caution board to the effect shall be displayed.
- Foam type fire extinguishers and Sand buckets shall be provided near the storage area.
- No receptacle containing flammable liquid shall be repaired unless thoroughly cleaned and freed from the liquid.
- Decanting of flammable liquid from the drums shall be carried out using hand pumps.

Type of Extinguisher	Type of Fire			
	General paper, wood, carbonaceous material	Inflammable Liquids – HSD, Kerosene etc	Inflamable Gases, Acetylene, LPG etc.	Electrical motor, Cable, Switchgear installation.
Soda Acid	Yes			
Chemical Foam		Yes		
Dry Chemical Powder (DCP)		Yes	Yes	Yes
Carbon dioxide (CO ₂)		Yes	Yes	Yes

Guide for Selection of Fire Extinguishers

3.5 Storage of Gas Cylinders

The following measures shall be taken:

- Gas cylinders shall be stored in areas away from direct sunlight.
- The LPG, Oxygen and Dissolved Acetylene cylinders shall be stored in upright position; each cylinder shall be chained individually.
- Cylinder valve shall be protected using metal cap.
- Electrical connection in the gas cylinder storage area shall not be provided.
- Smoking, fire near the storage area shall be prohibited. Caution board to the effect shall be displayed.

- Oil and lubricants shall not be used on valves or other fittings of cylinders.
- Foam type fire extinguishers and Sand buckets shall be provided near the storage area.
- Trolleys shall be used for moving cylinders.

3.6 Fire Safety Management

Fire Safety Management efforts shall include, but not be limited to, the following:

- Ensuring that storage of flammable liquid complies with the requirements defined in the Site HSE Manual.
- Ensuring that storage of gas cylinders complies with the requirements defined in the Site HSE Manual.
- Welding and cutting equipment shall be maintained in good order and shall be checked periodically.
- Work areas shall be kept clean and free of combustible waste and scrap materials.
- Smoking / fire shall be prohibited throughout the flammable premises.
- Suitable and sufficient firefighting equipment (including fire extinguisher) shall be maintained near all those locations having potential for fire.
- The firefighting equipment shall be inspected and refilled in accordance with manufacturers' recommendations.
- The list of firefighting equipment, along with their location, type, capacity and inspection / refilling date shall be maintained.
- Access to firefighting equipment shall be unobstructed.
- Personnel working at the site shall be trained on safe working practices in relation to fire prevention and protection.

3.7 Work Permit System

Work Permit System shall be implemented to prevent HSE Incident during the course of the activity.

Applicability of work permit shall be governed by the type of construction site, and shall be discussed and agreed with the client. Normally, the following Work Permits may apply:

- Working at height
- Confined space entry
- Electrical Installation
- Radiography

3.8 Construction Equipment

Acceptance / inspection of construction equipment prior to deployment at site

Inspection of following construction equipment shall be carried out prior to their deployment at the site by the concerned Engineer / Safety Office.

- Welding machines
- Gas Cutting set
- Cranes / Hydra
- Earth Moving Machinery
- Lifting tools and tackles
- D G Sets

Concerned Site Engineer & Safety Officer shall inspect the equipment as per the prescribed checklist. Record of checking shall be maintained.

Periodic Inspection of Construction equipment

Periodic inspection of equipment shall be carried out at least once in a quarter and record shall be maintained.

Additionally, for lifting equipment, inspection shall be carried out prior to use in critical activity, e.g. heavy lift.

3.9 Hand, Air, and Electrical Tools

- Tools shall be used only for their intended purpose.
- Employees shall report damaged and defective tools to their supervisor or return them to the tool room for proper tagging and repair.
- Damaged or defective tools shall be taken out of service, tagged "Do Not Operate" and stored in a controlled area until appropriate repairs have been made.
- Tools shall not be altered in any way and shall be operated in accordance with manufacturers' specifications.
- Tools, such as saws and grinders, shall have guards in place during their operation.
- Persons who operate earth compactors, rollers, chisel impact hammers, and other such tools shall wear appropriate protective footwear.
- Tools shall not be abused and shall be kept in good operating condition.
- Tools shall be inspected prior to each use for defects such as cracked handles, damaged cutting edges, splitting or cracked parts, and broken adjusting components. Damaged tools shall not be used.
- All electrically powered tools shall have double insulation or connection to earth (ground).

- The pressure of compressed air used for component cleaning purposes must be low pressure to prevent dust and debris from creating hazards. Compressed air shall not be used for cleaning or blowing dust from any part of the body or clothing.
- Airline hoses for tools and other equipment will be secured together using anti whip lines to prevent uncontrolled whipping in the event hose couplings become separated while under pressure.
- Temporary construction outlets used for 230 V tools shall be protected by an assured connection-to-earth- system.
- Portable grinders shall be provided with hood type guards with side enclosures that cover the spindle and at least 50% of the wheel. All wheels shall be inspected regularly for signs of fracture.
- Bench grinders shall be equipped with deflector shields and side-cover guards. Tool rests shall have a maximum clearance of 3mm between the wheel and grinding stone.
- Air supply lines shall be protected from damage, inspected regularly, and maintained in good condition.
- Hoses and hose connections used for connecting compressed air shall be designed for the planned pressure and service.

3.10 Electrical Safety

- All electrical connections shall be done by an electrician with valid license.
- One licensed electrician shall be made available at site round the clock to attend to the normal / emergency jobs.
- All switch boards / welding machines shall be kept in well ventilated and covered shed. The shed shall be elevated to avoid water logging. No flammable material shall be used for construction of the shed. Similarly flammable materials shall not be stored in and around.
- Earth Leakage Circuit Breakers (ELCB) shall be used on all temporary electrical connections.
- Industrial type extension boards and plug sockets shall be used.
- The temporary cables used shall be free from cuts, damaged insulation, kinks or improperly insulated joints.
- All power supply cables shall be laid properly and neatly so that they don't cause hindrance to persons working and no physical damage also takes place to the cables during various construction activities.
- Proper grounding shall be ensured for all switch boards and equipment including portable ones prior to taking into service.

- Electricians shall be provided with approved tools and personal protective equipment such as rubber gloves mats etc.

3.11 Scaffolds and Platforms

- All scaffolding shall be of sound construction. A competent person must inspect each scaffold.
- All scaffolding and platforms shall be equipped with toe boards, mid-rails, top rails; and access ladders.
- Personnel who are conversant with and competent to perform this work shall erect scaffolding and platform.
- Scaffolding and platform shall be removed according to construction requirements and when work has been completed.
- Where a scaffold / platform is erected in an area where the construction activities may pose hazards to pedestrians or vehicular traffic nearby from the falling of objects, wire nets or screening nets shall be used to envelope such scaffold / platform.

3.12 Ladders

- All ladders used at the project site shall be of sound construction. Ladders shall be inspected prior to each use, and a quarterly inspection will be conducted by a competent person.
- Ladders with broken or missing rungs, broken or split side rails, or otherwise damaged, shall not be used and shall be removed from the project.
- All portable ladders shall be equipped with non-skid safety feet and shall be placed on a stable base. The access areas at the top and bottom of ladders in use shall be kept clear of obstructions.
- The side rails shall extend above the landing. When this is not practical, grab rails shall be installed. All ladders in use shall be tied, blocked, or otherwise secured to prevent an accidental displacement.
- Tripod ladders (ladders with three legs) are prohibited on the project. All folding ladders shall have four supporting rails or legs.
- Only non-metallic, wooden, approved ladders shall be used during electrical operations where employees may come into contact with electrical circuits or systems.

3.13 Excavation

- All excavation work shall be planned and the method of excavation and the type of support work required shall be decided, in consultation with Construction Manager, considering the following:
 - Stability of the ground
 - Excavation will not affect adjoining building, structures etc
 - Presence of underground pipes, cables etc

- Sites of excavation shall be thoroughly inspected:
 - Daily, prior to each shift and after interruption in work of more than one day
 - After every blasting operation
 - After an unexpected fall of ground
 - After heavy rains

- Safe angle of repose shall be maintained while excavating trenches exceeding 1.5 meters. Slope shall, usually be not less than 45°. Suitable bench of 0.5 meter width shall be provided at every 1.5 meters depth of excavation in all type of soil except for hard rock. In case benching is not possible, proper shoring and strutting shall be provided to prevent cave-in or slides.
- Barricading of 1 meter height (with red and white band) shall be provided for excavations beyond 1.5 meters depth. Two entries /exits shall be provided for such excavation.
- Excavated earth shall not be placed within 1 meter of the edge of the trench or depth of the trench, whichever is greater.
- Vehicles shall not be allowed to operate too close to the excavated area. At least 2 meters distance shall be maintained from the edge of excavation. No load, plant or equipment shall be placed or moved near the edge of any excavation where it is likely to cause its collapse and thereby endanger any person unless precautions such as the provision of shoring or piling are taken to prevent the slides.
- During rains, the soil becomes loose. Additional precautions shall be taken to prevent collapse of side wall.
- Necessary precautions shall be taken for underground utility lines such as cables, sewers, pipelines etc. Position of buried utilities shall be located by referring to plant drawings, if available. Necessary clearances from the concerned authorities shall be obtained before commencement of the excavation job.

- In case of mechanized excavation, precaution shall be taken to not to allow anybody to come within one metre of extreme reach of the mechanized excavator. The excavator shall be operated by a well trained experienced operator. While not in operation, the excavator shall be kept on firm ground with excavator shovel resting on the ground. Wheels of excavator shall be suitably jammed to prevent any accidental movement of the excavator.
- Water shall be pumped out, if any accumulates in the trench. Necessary precautions shall be taken to prevent entry of surface water in trenches.
- In case of excavation in the vicinity of any existing building / structure, approval shall be obtained on the excavation method from Construction Manager.

3.14 Reinforcement Work

- Workers carrying out reinforcement work shall use proper personal protective equipment, such as Safety Helmet, Safety Shoe and Gloves.
- Hand shall not be placed below the rods for checking clear distance. Measuring device shall be used for the purpose.
- Loose clothes shall not be worn while checking the rods.

- To carry out welding / cutting of rods, safety procedures / precautions as mentioned in Section “Cutting & Welding” shall be followed.
- For supplying of rods at height, proper staging and / or bundling shall be provided.
- For short distance carrying of materials on shoulders, suitable pads shall be used.
- While transporting rods by trucks / trailers, the rods shall not protrude in front of or by the sides of driver’s cabin. In case such protrusion can’t be avoided behind the deck, then it should not extend 1/3rd of deck length or 1.5 meters whichever is less and shall be tied with red flags / lights.

3.15 Concreting Work

- Stability of shuttering work shall be checked before starting concreting work.
- Concreting area shall be barricaded, if pouring at height / depth.
- Vibrator hoses, pumping concrete accessories shall be kept in healthy condition.
- Pipelines in concrete pumping system shall not be attached to temporary structures such as scaffolds and formwork support as the forces and movement may affect their integrity.
- Safety cages / guards around moving motors / parts of concrete mixers shall be in place.
- Concrete mixers shall be provided with hoppers.

- Concrete mixers shall be inspected for their condition at start of work.
- Concrete mixers shall be maintained well so as not to generate excessive noise.
- Earthing of electrical mixers, vibrators etc shall be done and verified.
- Personal protective equipment such as gloves, safety shoe, gum boots and safety helmet shall be used while dealing with concrete, and nose mask shall be used while dealing with cement.
- Cleaning of rotating drums of concrete mixers shall be done from outside. Lockout devices shall be provided where workers need to enter.
- Adequate lighting arrangement shall be ensured for carrying out concrete work during night.
- During pouring, shuttering and its supports shall be continuously watched for defects.

3.16 Welding & Gas Cutting

- Dry Chemical Powder (DCP) type fire extinguisher shall be ready for instant use in any location where welding is being performed.
- Screens, shields, fire blanket or other safeguards shall be provided for the protection of personnel, equipment and materials exposed to sparks, slag, falling objects, or the direct rays of the arc, and molten slag or sparks.
- Welders shall wear approved eye and head protection. Persons assisting the welder shall also wear protective glasses.
- Electric welding equipment, including cable, shall meet the requirements of the National Electrical Code. Welding practices shall comply with applicable regulations.
- Approved and well maintained apparatus, such as torches, manifolds, regulators or pressure reducing valves shall be used.
- Electric welding cable leads shall be hung in an elevated position wherever they could create a tripping hazard, and protected from damage by moving equipment or materials.
- Welding leads or cords that cross a pathway or roadway shall be protected from damage by underground burial or otherwise protected with wood, conduit or other such means.
- Welding lead with worn out or broken insulation shall be taken out of service or repaired by the concerned agency. Ground lead can be repaired with tape. Grounding shall be done within 18" of the work.
- Compressed gas cylinders shall be properly secured and stored in an upright position.
- All compressed gas cylinders shall be secured in place during use and storage. When not in the gas storage area, all cylinders shall be kept in a cylinder cart, and the cylinders chained.
- Cylinders shall be returned to the main storage area when they become empty.
- Cylinders shall be transported in an upright position. Cylinders shall not be hauled in equipment beds or truck beds on their side. Cylinders lifted from one elevation to

another shall be lifted only in racks or containers designed for that purpose. Slings shall not be used to hoist cylinders.

- Compressed gas cylinders shall not be transported with gauge attached. The gauges shall be removed from cylinders and protective caps provided in place, during their transportation.
- Acetylene cylinder key for opening valve shall be kept on the valve stem, while cylinder is in use, so that the acetylene cylinder could be quickly turned off in case of emergency.
- Flash back arrestor shall be used to prevent back fire in acetylene / oxygen cylinder.
- The valves of compressed gas cylinders shall be completely closed when not in use.
- Lubricants shall not be used on oxygen line connections and copper fittings on acetylene lines.

3.17 Personal Protection Equipment

- Equipment complying with relevant IS standards and carrying ISI mark shall be used.
- Equipment that has been altered in any way shall not be worn.
- Equipment used shall be suitable for the purpose.

Recommended Matrix for PPE Usage

PPE / Category of Personnel	Helmet	Safety Shoe	Apron	Hand Gloves	Welding Gloves	Welding Screen	Goggles	Safety Belt / Full body Harness	Nose Mask	Ear Plug / Ear Muff
Engineer & Above	M	M	R	R	NA	NA	R	AA	AA	AA
Supervisors	M	M	R	AA	NA	AA	R	AA	AA	AA
Surveyor	M	M	R	NA	NA	NA	AA	NA	AA	AA
Welder	M	M	M	NA	M	M	NA	AA	AA	AA
Grinder	M	M	R	M	NA	NA	M	AA	AA	AA
Gas Cutter	M	M	M	M	NA	NA	M	AA	AA	AA

Helpers	M	M	R	M	NA	NA	AA	AA	AA	AA
Masons	M	M	R	AA	NA	NA	NA	AA	AA	AA
Riggers	M	M	R	M	NA	NA	NA	AA	AA	AA
Plant Operators	M	M	R	AA	NA	NA	AA	NA	AA	AA
Driver	M	M	R	NA	NA	NA	NA	Safety Belt	AA	AA
Painter	M	M	R	M	NA	NA	M	AA	M	AA
Shot blaster	M	M	R	M	NA	NA	M	NA	M	M

Legend:

M Mandatory

R Recommended

AA As Applicable

NA Not Applicable

3.26.18 Housekeeping

Housekeeping is an act of keeping the working environment cleared of all unnecessary waste and materials and in a clear and orderly status.

- Work areas, passageways, stairways, and all other areas shall be kept free of debris, equipment, and materials.
- Appropriate refuse containers shall be placed strategically and used for disposal of scrap materials and other debris.
- Liquids (such as paints, solvents, thinners, oils, and greases) and material or containers which have contained chemicals shall be disposed of in accordance with Procedure on hazardous waste management.
- Storage areas shall be kept clean and materials neatly stacked or placed. Materials shall be stored or placed in an orderly manner.

- Lunch or eating areas shall be kept clean and free of all food scraps, wrappers, cups, and other disposable items.
- All scrap timber, waste material, and rubbish shall be removed from the immediate work area as the work progresses.
- All solvent waste, oily rags, and flammable liquids shall be kept in fire-resistant containers until removed from the work site.
- Electric welding leads, cords, wires, electrical cables, hoses, and other temporary systems shall be kept off the walking surface in an elevated position.

4.0 Environmental & Waste Management Practices at site

4.1 Control of Air Pollution

4.1.1 Air pollution control during transportation of construction materials

- Vehicles with open load carrying area shall not be used for moving potentially dust producing materials. Vehicles shall have properly fitting side and tailboards.
- Materials having the potential to generate dust shall not be loaded to a level higher than the side and tailboards, and shall be carried in vehicles covered with cover lids.
- The haulage road at the construction site, if dusty shall be watered regularly.

4.1.2 Air pollution control during storage of construction materials

- Excavated materials shall be placed in the designated dumping / disposal area.
- The materials shall be placed in a manner that will minimize dust generation.
- Excavated materials shall be stabilized during summer season, each day, by watering at regular intervals.
- The heights from which materials are dropped shall be limited to 1.5 meters to limit fugitive dust emission.
- Water spray shall be used to prevent dust generation from piles of raw sand, aggregates and similar materials, during dry and windy weather.
- Cement shall not be stored in an open area; it shall always be stored in a covered shed.

4.1.3 Air pollution control during construction activities

- Water spray shall be used during the unloading and handling of raw sand, aggregates and similar materials, when dust is likely to be created.
- All motorized vehicles on kucha roads on the site shall be allowed a maximum speed of 15 km / h.
- Concrete batching plant and crushing plant sites and ancillary areas shall be cleaned frequently and water shall be sprayed to minimize dust generation.
- Shot blasting and Spray painting shall be done, preferably in an enclosed area.
- Smoke generated from DG Sets shall be tested periodically for its quality (Suspended Particulate Matter, Oxides of Sulphur and Oxides of Nitrogen) and necessary corrective actions shall be taken based on the results of testing.

4.2 Control of Water Pollution

4.2.1 Measures for water pollution control during site planning

- Drainage system shall be constructed to drain off all surface water from the work site into suitable drain outlet.
- Temporary drainage works shall be maintained, removed and reinstated as necessary, and precautions shall be taken for avoidance of damage by flooding and silt.

4.2.2 Measures for minimization of waste water generation

- Bentonite slurries and other grouts used in construction shall be collected in a separate slurry collection system. It shall be reused, to the extent possible.
- Waste water generated due to washing of concrete mixers shall be collected in a sedimentation tank of sufficient capacity, as appropriate. The clear water shall be reused for curing purpose.
- When reuse is not practicable, it shall be disposed off at the nearest landfill site after obtaining permission from agency owning the landfill site and under the conditions imposed by the agency concerned.

4.2.3 Measures for waste water treatment

- If waste water discharge is likely to come in contact with surface water body, sedimentation tanks of sufficient capacity shall be provided to prevent silt being discharged in the outlet drain.
- When required, oil separator shall be provided to prevent the release of oils and grease into the drainage system. Oil separator shall be cleaned on regular basis.
- Washout of construction or excavated materials shall be diverted to drainage system.
- Wastewater from site offices and toilet shall be disposed off through septic tank and soak pit arrangement.

4.3 Control of Noise Pollution

- Stationary equipment shall be located so as to minimize impact of noise on the neighboring community.
- Equipment and plant shall not be kept idling, when not in use.
- Construction equipment shall be maintained / serviced regularly to control noise and vibration.
- High noise areas and equipment shall be notified as such and earmuffs / ear plugs shall be used by the personnel in such areas / near such equipment.

4.4 Waste Management

Construction Materials:

This includes concrete lumps, cement lumps, tested concrete cubes, broken asbestos sheets, soil, rock, fibre glass, broken bricks etc. These shall be collected from the site and used as land fill or transported to designated dumping site.

Paper, Plastics, Rubber and Glass: These shall be collected in the dustbins placed at various points at site / office. These shall be disposed off to the scrap dealer.

Metals:

Metal pieces and welding rod stubs etc shall be collected from site and segregated at source. These scrap shall be stored in the scrap yard and disposed off to the scrap dealer.

Waste Lubricating Oil:

Waste lubricating oils and oil filters shall be stored in closed containers. They shall be disposed off to the authorized recyclers.

Food Waste:

Food waste shall be collected in food waste containers with lid. They shall be disposed off to municipal collection bins or buried in designated areas for composting.

Waste Lead Acid Battery:

They shall be disposed to the authorized dealers of battery manufacturers.

Disposal of empty Paint containers:

Residual paint in the paint containers shall be kept at the minimum, by extracting the maximum paint by use of thinner. The empty paint container, thereafter, shall be disposed off suitably, in consultation with the Owner.

Electrical waste from site:

Electrical waste shall be stored at identified location and shall be disposed off to scrap dealer.

Domestic waste at site:

Domestic waste generated at the site shall be buried in deep pit specifically excavated for the purpose.

5.0 Accident / Incident Reporting & Investigation

Definitions

Incident:	An accident or near-miss
Accident:	An unintended incident which results in injury to persons and/or damage to property, the environment or a third party
Near-miss:	An unintended incident which, under different circumstances, could have become an accident
Lost Time Injury Accident (LTI /LTA)	Injury / accident at work leading to unfitness for work and absence beyond the day of the accident
Reportable Injury	Injury / accident at work leading to unfitness for work and absence beyond 48 Hours from the time of accident.
Restricted work case (RWC)	Injury / accident at work that does not lead to absence after the day of the accident, because of alternative job assignment
Medical treatment case (MTC)	Injury /accident requiring treatment by a doctor, or nurse in consultation with a doctor, before the injured person resumes normal work
LTI- / LTA- Rate	Number of Lost Time Injuries / Accidents per million worked hours
TRI- / TRA- Rate	Total Recordable Injury / Accident Rate, sum of personnel injuries with and without lost time per million working hours (except first aid injuries)

Incident Reporting:

Occurrences which result in injury, ill health or property damage or which have potential for injury, ill health or property damage, shall be promptly reported to supervisor and the Regional Office and a written report completed.

(1) Notice shall be sent of any accident on the construction site which either -

(a) cause loss of life; or

(b) disables a construction worker from working for a period of 48 (forty-eight) hours or more, immediately following the accident, shall forthwith be sent by telegram, telephone, fax or similar other means including special messenger, within four hours in case of fatal accidents and seventy-two hours, in case of other accidents involving construction worker, to :-

(i) The Regional Labour Commissioner (Central), having jurisdiction in the area in which the establishment in which such accident or dangerous occurrence took place, is located. Such Regional Labour Commissioner (Central) shall be the authority appointed under Section 39 of the Act;

(ii) board with which the construction worker involved in accident was registered as a Beneficiary;

(iii) Director General; and

(iv) The next of kin or other relative of the construction worker involved in the accident.

(2) Notice of any accident at a construction site which

(a) cause loss of life; or

(b) disables such construction worker from work for more than ten days following the accident, shall also be sent to -

(i) The Officer in-charge of the nearest police station;

(ii) The District Magistrate, or if the District Magistrate, by order, so desires, to the Sub- Divisional Magistrate.

(3) In the case of an accident causing injury to the worker, the injured worker shall be given first-aid and immediately thereafter, be transferred to a hospital or other place for medical treatment, as appropriate.

- (4) Where any accident causing disablement subsequently results in death of a construction worker, notice in writing of such death shall be communicated to the authorities as mentioned in the rules within seventy-two hours of such death.

Dangerous Occurrences

The following classes of dangerous occurrences shall be reported to the Inspector having jurisdiction, whether or not any death or disablement is caused to a construction worker, in the manner prescribed in the Building Workers Rules:

- (a) collapse or failure of lifting appliances or hoist or conveyors or other similar equipment for handling Building or construction material or breakage or failure of rope, chain or loose gears; overturning of cranes used in Building or other construction work; falling of objects from height;
- (b) collapse or subsidence of soil, any wall, floor, gallery, roof or any other part of any structure, platform, staging, scaffolding or any means of access, including formwork;
- (c) contract work; excavation, collapse of transmission;
- (d) explosion of receiver or vessel used for storage, at a pressure greater than atmospheric pressure, of any gas or gases or any liquid or solid used as Building material;
- (e) fire and explosion causing damage to any place on construction site where construction workers are employed;
- (f) spillage or leakage of hazardous substances and damage to their container;
- (g) collapse, capsizing, toppling or collision of transport equipment;
- (h) Leakage or release of harmful toxic gases at the construction site.

In case of failure of a lifting appliance, loose gear, hoist or Building and other construction work, machinery and transport equipment at a construction site of a Building or other construction work, such appliances, gear, hoist, machinery or equipment and the site of such occurrence shall, as far as practicable, be kept undisturbed until inspected by the inspector having jurisdiction.

Every notice given shall be followed by a written report to the Inspector, authority under Section-39 of the Building Workers Act, the Board and the Director General in Form XIV under proper acknowledgement.

Procedure for enquiry into causes of accident or dangerous occurrence

- (a) The enquiry shall be commenced as early as it may be and in any case, within fifteen days of the receipt of notice of accident or dangerous occurrence.
- (b) The authority or enquiry officer, as the case may be, shall serve or cause to be served, notices in writing, informing the date, time and place of such enquiry to all persons entitled to appear in such enquiry and whose names and addresses are known to such authority or enquiry officer; and

- (d) Notwithstanding the provision of clause (b) for the purpose of notifying other persons who may in any way be concerned or be interested in such enquiry, the authority or enquiry officer, as the case may be, may publish notice of such enquiry in one or more local newspapers, informing the date, time and place of such enquiry.
- (2) The person entitled to appear at the enquiry may include,—
- (a) an Inspector or any officer of the Government or an undertaking or public body, concerned with the enforcement or compliance of safety provisions of the Act and these rules in the concerned establishment;
 - (b) A trade union or workers association or an employers association;
 - (c) The worker involved in the accident or his legal heir or authorized representative;
 - (d) The owner of the premises in which the accident took place; and
 - (e) Any other person, at the discretion of the authority or the enquiry officer, as the case may be, who may be interested in or be concerned with the cause of an accident or may have knowledge about such cause or is likely to give material evidence or produce a relevant document in connection with such accident or dangerous occurrence.
- (3) In case the entitled person referred to in sub-rule(2) is a body corporate, a company, or any other organization, .association, group of persons, such group may be represented through an authorized representative including a counsel or a solicitor.
- (4) Subject to the provisions of sub-rule (5), the enquiry shall be held in public.
- (5) In cases where,—
- (a) the Government are of the opinion that the matter of the enquiry or any part of it are of such nature mat it would be against the interests of national security to hold the enquiry in public and directs the said authority or the enquiry officer, as the case may be, to hold the enquiry in camera; or
 - (b) on an application made by any party to the enquiry, the authority or the enquiry officer, as the case may be, referred to in sub-rule (1), if it or he is of the opinion that the holding of public enquiry will lead to disclosure of information relating to a trade secret, decides to hold the enquiry of such part of it is in camera, such enquiry shall not be held in public.
- (6) Information disclosed by any person during the course of hearing or evidence in the cases covered under sub-rule (5) shall not be disclosed to any person except for the purpose of the enquiry.

- (7) The person entitled to appear under sub-rule (2), called for evidence or representing in an enquiry shall be entitled to make an opening statement, give evidence, request the enquiry officer to call for specified document or evidence, cross examine other person or to the extent and at the stage permitted by the authority or enquiry officer holding the enquiry.
- (8) Any evidence in an enquiry may be admitted at the discretion of the authority or enquiry officer during the enquiry, who may, also direct that documents to be tendered in evidence may be inspected by any person entitled or permitted to appear at such enquiry and that facilities be afforded to such person to take or obtain copies thereof.
- (9) The authority or the enquiry officer holding an enquiry may authorize any person, being an officer of the Government, to assist such authority or enquiry officer where necessary, for the purpose of conducting the enquiry, and the officer so authorized may enter the premises of the concerned establishment during working hours, inspect the records, relevant to such enquiry, investigate and take such evidence as may be required to conduct such enquiry.
- (10) The findings of the enquiry along with all evidence, in original, including statements of witnesses shall be forwarded to the authority specified under section 39 of the Act within five days of the completion of the enquiry, in case, where such enquiry was not conducted by such authority itself.
- (11) A copy of the findings along with a brief statement of facts relating to an enquiry conducted under this rule shall be forwarded to the chief inspector of Building and other construction works and the Government, by the authority referred to in sub-rule (1) of rule 210.

6.0 Safety Committee

- (1) Every establishment wherein 500 (five hundred) or more construction workers are ordinarily employed, there shall be a safety committee constituted by the employer which shall be represented by equal number of representatives of employer and the construction workers employed in such establishment. In no case the number of representatives of the employer shall exceed the representatives of the construction workers.
- (2) The main functions of the safety committee, shall be,—
 - (a) To identify probable cases of accident and safe practice in Building or other construction work and to suggest remedial measures;
 - (b) To stimulate interest of employees and construction workers in safety by organizing safety weeks, safety competitions, talks and film shows on safety, preparing posters or taking similar other measures as and when required or as necessary;

- (c) To go round the construction site with a view to check unsafe practices and defect unsafe conditions and to recommend remedial measures for their rectification including first aid, medical and welfare facilities;
 - (d) To look into the health hazards associated with handling different types of explosives, chemicals and other construction materials and to suggest remedial measures including use of proper personal protective equipment;
 - (e) To suggest measures for improving welfare amenities in the construction site and other miscellaneous aspects of safety, health and welfare in Building or other construction work; and
 - (f) To bring to the notice of the employer the hazards associated with the use, handling and maintenance of the equipment used during the course of the Building and other construction work.
- (3) The minutes of the meeting shall be circulated to all concerned and shall be produced to the Inspector on demand for inspection.
- 4) The decisions and recommendations of the safety committee shall be implemented by the employer within reasonable time limits.

6.1 HSE In charge

- (1) In every establishment wherein 500 or more construction workers are ordinarily employed, the employer shall appoint safety officer, such safety officers may be assisted by suitable and adequate staff.
- (2) Duties, qualifications and the conditions of service of safety officers appointed under sub-rule (1) shall be as provided in Schedule-VIII to the Building Workers Rules.
- (3) Wherever the number of workers employed by single employer is less than five hundred, such employers may form a group and appoint a common safety officer for such group of employers, with prior permission of chief inspector of building and other construction works.

6.2 Toolbox Talks

The supervisors shall hold periodic toolbox talks. All workers are to attend the allocated toolbox talks. The attendees shall sign in on the attendance sheet, along with the subject of the talk.

Daily tool box shall be conducted by supervisors and weekly by Site HSE In-charge.

6.3 HSE Violation – Disciplinary Action

A HSE violation is a case of disregard for a HSE procedure, which caused or could have caused an incident.

HSE Officers shall immediately correct and report any such violations seen in the course of his duties in writing to BIDDER Site HSE Manager and Site In-charge.

These reports shall maintained giving details of the violation, work area, date and time, perpetrator, etc.

Disciplinary action will be considered for repeated offenders.

In the case of HSE violations, upon detecting the situation or upon verbal request from BIDDER, concerned sub-contractor shall immediately take necessary corrective action and provide a written report within 24 hours including root cause analysis and corrective actions taken to prevent reoccurrences.

6.4 HSE Inspection

Safety Officers shall conduct periodic site inspections. Any deviations observed shall be handled by the concerned immediately, with necessary corrective action. Where the situation exposes any individual, to injury or ill health, work shall be immediately suspended until the situation is rectified.

Site Office, Laboratory & Facility to Field Staff

The contractor shall provide a separate & independent site office of Semi permanent type structure with attached toilet & bathroom arrangement for consultants & EMPLOYER staff as well as laboratory for material testing, along with furniture & electric fittings as required, during the contract duration as specified. The space for the same shall be provided by **EMPLOYER**. Contractor shall maintain the structure during construction period inclusive of payment of electric & telephone (Landline) bills, security & daily upkeep of the premises. The designs and drawings shall be approved by **Engineer-in-Charge**. The area should be minimum 50 Sqm for site office of PMC etc. The list of furniture & gadgets is listed below. The contractor has to provide, maintain the facilities in good condition. The cost of providing & maintaining these facilities is incidental to work and deemed to have included in the offer given by the contractor, failing which non-refundable penalty of Rs. 1500/- (Rupees Fifteen hundred only) per day will be imposed on contractor. After completion contractor should demolish site office and remove furniture, fittings & etc as per direction of engineer.

The above facilities are to be provided and are incidental to work for each contract executed with EMPLOYER separately. EMPLOYER shall not permit to use provided facilities in one contract to be used as common facilities in another contract.

FACILITIES TO EMPLOYER'S ENGINEERS

Sr. No	(A) Providing & Maintaining Furnishing Items	Unit	Specification	Quantity
1	Executive Table- Godrej model T-108 type	Nos	B Clause 120 MoRT&H	1
2	Ex. Chair- Godrej model T108 type	Nos	'do'	1
3	Table- Godrej model T104 type	Nos	'do'	3
4	Ordinary chair- Godrej model CHR6 type	Nos	'do'	12
5	Table- Godrej model T101 type	Nos	'do'	1
6	Ordinary chair type II	Nos	'do'	6
7	Steel Almira 1980x915x485 mm - Godrej No1 Storewell type	Nos	'do'	2
8	Steel Almira 1270x765x440 mm - Godrej Minor plain type	Nos	'do'	2
9	Ceiling fans 48" make Orient / usha / khaitan or equivalent	Nos	'do'	4
10	Crockery set for Tea	Set	'do'	2
11	Computer - CPU Pentium 7 (3.0 Ghz +, 512 Mb memory), 21" Colour Monitor with 3.5" Floppy Drive, 56 Kbps Modem, DVD RW & CD RW device of approved make, Keyboard, mouse, multimedia speakers, UPS of APC make, A-3 size printer, approved software packages of Windows XP professional, latest antivirus software of Norton make with specialized computer table & wheel chair.	Unit	'do'	1
12	Laptop of IBM/ Compaq/acer make - CPU Pentium 7 (3 Ghz +, 256Mb memory), with 3.5" Floppy Drive, 56	Unit	'do'	2

Sr. No	(A) Providing & Maintaining Furnishing Items	Unit	Specification	Quantity
	Kbps Modem, DVD RW & CD RW device of approved make, Keyboard, mouse, multimedia speakers, approved software packages of Windows XP professional, latest antivirus software of Norton make etc.			
13	Photocopier A-3 size, Canon or equivalent	Unit	'do'	1
14	Fax Machine Modi / Canon / Ricoh or equivalent	Unit	'do'	1
15	Water Purifier – Aqua Guard Nova or equivalent	Unit	'do'	1

- (B) During the entire contract period till handing over, contractor shall provide & maintain mobile communication facility along with the 5 Nos. of approved phone equipment with charging device to the consultant's field staff within a fortnight of award of contract. In case of failure to do so, an amount of Rs. 3000/- (Rupees Three Thousand Only) per mobile per month shall be recovered from the contractor's due payment. The mobile phone bill upto Rs. 3000/- per phone per month (Rs. 15,000/- Fifteen thousand for group of five mobile phone per month) will be paid by contractor. In case of failure to provide this facility, the same amount of Rs. 15,000/- (Rupees Fifteen thousand only) per month shall be recovered from the contractor's due payment.
- (C) During the entire contract duration, the contractor shall provide Two nos new brand Tata Nexon / Maruti Suzuki Swift or equivalent with diesel, driver & maintenance for a running of at least 3000 Kms per month with in a fortnight from the date of award of the contract for the field engineering staff of Employer, In case of failure to provide the vehicle, an amount of Rs. 2000/- (Rupees Two Thousand Only) per day per vehicle shall be recovered from the contractor's due payment. The cost of these facilities is incidental to work and deemed to be included in the offer given by contractor.

5.3.4 Laboratory & Related Requirement

The contractor shall provide and maintain adequately equipped field laboratory as required for site control on the quality of materials and the works. It shall have 50 Sqm area and shall be located and equipped as directed by the Engineer in charge. It shall be provided with amenities like water supply, electrical supply etc. The contractor shall engage a well experienced Lab-in-charge (bio-data to be approved by Engineer-in-charge) for conducting day-to-day test as per MoRT&H, B.I.S. & PWD specifications. All necessary codes shall be kept in lab. These provisions shall be incidental to work & no separate payment will be made by EMPLOYER. After completion contractor should demolish laboratory structure and remove all the equipments as per directions of engineer.

5.4: Provision of software and allied tools:

The contractor has to provide internet data based software as suggested by EMPLOYER which can handle data of the work like progress of work, estimates, bills, deviations, minutes of progress review meeting and other such data incidental to work. This information will have to be up-linked on to EMPLOYER web site. The contractor has to employ data entry operator to work under Project Management Group. The data is to be updated under directions of EMPLOYER and Project Management Group. The contractor will have to provide broadband Internet connectivity at site office.

List of Equipment's required for site Laboratory are given below (To be provided as per requirement)

S. No.	Description	Unit	Specification	Qty.
	Site laboratory			
	A) General Equipment			
1	Oven- electrically operated thermostatically controlled up to 250° C	Nos		1
2	Platform balance 100 kg, Avon make or equivalent	Nos		1
3	Balance ordinary, 10 Kg with weights	Nos		2
4	Balance ordinary, 20 Kg with weights	Nos		2
5	Electronic Balance 5Kg	Nos		1

S. No.	Description	Unit	Specification	Qty.
6	Water bath	Nos		1
7	Thermometer (Dial Type)	Nos		2
8	LPG stove	Nos		2
9	Hot plate	Nos		2
10	Glassware, spatulas, wire glazes.... etc	Nos		1
11	Set of IS sieve			
a	GI Sieve, 450mm Dia. set of 20 Sieves.	Nos		1
b	Brass Sieves, 200mm Dia Set of 10 Sieves.	Nos		1
13	Water Testing kit for pH value, Sulphur etc.	Nos		1
14	First aid box	Nos		1
	B) For Soils and aggregate			
15	Rifle box	Nos		1
16	Atterberg limit apparatus	Nos		1
17	Compaction test equipment (Modified Proctor), 2250 cc mould & steel rammer	Nos		1
18	Dry bulk density test app.			
a	Sand replacement method, 100mm Dia. cylinder Tray with hole & calibration equipment	Nos		2
b	Sand replacement method, 200mm Dia. cylinder Tray with hole & calibration equipment	Nos		2
19	Speedy moisture meter,..	Nos		2
20	Core cutter apparatus with dolly & rammer	Nos		1

S. No.	Description	Unit	Specification	Qty.
21	Aggregate impact Value test app.	Nos		1
22	Flakiness and elongation gauge.	Nos		1
23	Standard measures of 30,15 and 3 liters..	Nos		1
24	CBR test apparatus load frame 5T capacity, electrically operated with 6 moulds, proving ring 1000 Kg, 2500 Kg & 5000 Kg, spacer disk, perforated plate, surcharge weights, soaking tank, gauge etc.	Nos		1
	C) For Bitumen & Bituminous Mixes			
25	Penetrometer with standard needles	Nos		1
26	Rifle box	Nos		1
27	Centrifuge type bitumen extractor....	Nos		1
28	Marshall stability test apparatus, electrically operated, compaction pedestal, breaking head assembly dial, Bracket, mould of 100mm Dia. with hammer 4.53 Kg.	Nos		1
29	Field density basket along with tools	Nos		1
30	3m Straight edge	Nos		1
31	Camber board -3m	Nos		1
32	Vacuum pump	Nos		1
33	Specific gravity - pycnometer 1 liter capacity	Nos		1
34	Specific gravity - 50ml Bottle	Nos		1
35	Air Conditioner 1.5 T capacity Carrier/Hitachi or equivalent	Nos		2
	D) For Cement and Cement Concrete			

S. No.	Description	Unit	Specification	Qty.
36	Vicat apparatus for testing setting time	Nos		1
37	Slump testing apparatus	Nos		3
38	Needle vibrator 40mm	Nos		1
39	Air meter	Nos		1
40	Sieve shaker, electrically operated for 20cms & 45cms sieves.	Nos		1
41	Concrete cube moulds..150 x 150 x 150	Nos		18
42	Mortar cube moulds...	Nos		3
43	Cylinder mould 150mm x 300mm	Nos		3
44	Core cutter for bituminous overlays and concrete members	Nos		1

The above listed equipment's confirming to relevant I. S. Specifications are required to be supplied by the contractor and installed at the field laboratory. The adequately qualified technical staff shall man the field laboratory. The field laboratory shall be provided with amenities like water supply, electric supply etc. The cost of the equipment and also the salaries of the personnel manning the laboratory shall be considered, as incidental to the work and no separate payment will be made for the same to the contractor. The contractor has to setup and establish the laboratory within 3 weeks from the date of work order, failing which non-refundable penalty of Rs. 5000/- per day will be imposed on contractor.

- (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 as specified by the Indian Road Congress (IRC) Standard Specification or M o R T & H , PWD Specification
 - (b) Code of Practice for Road and Bridges or
 - (c) I.S.I. Specifications (whichever and wherever applicable) or
 - (d) Such recognised specifications accepted to Engineer-in-charge as equivalent thereto or in absence of such recognised specifications.

- (e) 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 arrangement 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 & to such place or places may be directed by the Engineer & bear all charges & cost or testing. Such samples shall also be deposited with the Engineer-in-charge.
- (iii) The contractor shall if and when required submit at his cost the samples of materials to be tested or analysis 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. Testing and / or analysis of all material shall be as per the frequency specified out of which minimum 10% (Ten Percent) of the total tests / analysis shall be got done from the laboratory designated by engineer in charge and the cost of such testing will be reimbursed to the contractor as stated in Volume II.
- (iv) The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of & as a result of testing of the materials.
- (v) The contractor or his authorised representative will be allowed to remain present in the departmental laboratory while testing samples furnished by him. However the results of all the tests carried out in the departmental laboratory in the presence or absence of the contractor or his authorised representative will be binding on the contractor.
- (vi) Cost of routine day-to-day quality control testing charges for tests required as per specifications will be borne by contractor by sending the same to the concerned laboratories or by establishing laboratory at site. The cost required for inspection including conveyance of engineers shall be borne by the contractor, the cost of which is deemed to be included in the price bid. The 10% tests as per frequency decided by employer shall be conducted in COEP / GPP.

However the cost of testing of material as directed by Engineer-in-charge for approving a particular material as laid down in para 2.10 (i) to (vi) will have to be borne by the contractor.

If in the opinion of the engineer/Engineer-In-Charge, any additional field or laboratory test is important for fulfilling engineering criteria / for determination of suitability and same is required to be conducted from in-house or outside laboratory, the cost of such test shall be borne by the contractor and deemed to have been included in the offer given by the contractor.

SECTION 2

QUALIFICATION

INFORMATION

SECTION 2

QUALIFICATION INFORMATION

The information to be filled in by the Bidder in the following pages will be used for purposes of post qualification as provided for in Clause 4 of the Instructions to Bidders. This information will not be incorporated in the Contract.

1. For Individual Bidders

1.1. Constitution or legal status of Bidder

[Attach copy]

Place of registration:

Principal place of business:

Power of attorney of signatory of Bid

[Attach]

- 1.2.** Total value of Civil Engineering construction work performed in the last five years**
(in Rs.)
- 20.....20B
20.....20
20.....2000

1.3.1. Work performed as prime contractor, provided further that all other qualification criteria are satisfied (in the same name) on works of a similar nature over the last five years. **

Project Name	Name of the Employer*	Description of work	Contract No.	Value of Contract (Rs.crore)	Date of issue of work order	Stipulated period of completion	Actual date of completion*	Remarks explaining reasons for delay & work Completed

*Attach certificate(s) from the not below rank of Executive Engineer.

** immediately preceding the financial year in which bids are received.

B Attach certificate from Chartered Accountant.

#1.3.2. Quantities of work executed as prime contractor, provided further that all other qualification criteria are satisfied (in the same name and style) in the last five years: **

Year	Name of the work	Name of the Employer*	Name Quantity of work performed (cum)@ Remarks						
			Cement Concrete(including RCC& PCC)	Masonry	Earth Works	WBM	WM M	Bituminous Work	Remarks* (indicate contract Ref)
20....20....									

20....20...									
20....20....									
20....20....									
20....20....									

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

(A) Existing commitments and on-going works:

Description of works	Place & State	Contract No.	Name & Address of Employer	Value of Contract (Rs Cr)	Stipulated Period of Completion	Value of works*remaining to be completed (Rs Cr)	Anticipated date of completion
1	2	3	4	5	6	7	8

**Attach certificate) from the not below rank of Executive Engineer.*

@The item of work for which data is requested should tally with that specified in ITB clause 4.5A(c).

*** immediately preceding the financial year in which bids are received.*

Delete. if prequalification has been carried out

(B) Works for which bids already submitted:

Description of works	Place & State	Name & Address of Employer	Estimated value of works(Rs Cr)	Stipulated period of completion	Date when decision is expected	Remarks , if any
1	2	3	4	5	6	7

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1.5. Availability of key items of Contractor's Equipment essential for carrying out the Works [Ref. Clause 4.5(B)(a)]. The Bidder should list all the information requested below. Refer also to Sub Clause 4.3 (d) of the Instructions to Bidders.

Item of Equipment	Requirement		Availability proposals			Remarks (from whom to be purchased)
	No	Capacity	Owned/Leased to be procured	Nos./Capacity	Age/Condition	

1.6. Qualifications and experience of key personnel required for administration and execution of the Contract [Ref. Clause 4.5(B)(b)]. Attach biographical data. Refer also to Sub Clause 4.3 (e) of instructions to Bidders and Sub Clause 9.1 of the Conditions of Contract.

Position	Name	Qualification	Year of Experience (General)	Years of experience in the proposed position
Project Manager				

Etc.				

1.7. Proposed sub-contracts and firms involved. [Refer ITB Clause 4.3 (k)]

Attach copies of certificates on possession of valid license for executing water supply / sanitary work / building electrification works [Reference Clause 4.5(d) & Clause 4.5 (e)]

***1.8.** Financial reports for the last five years: balance sheets, profit and loss statements, auditors' reports (in case of companies/corporation), etc. List them below and attach copies.

1.9. Evidence of access to financial resources to meet the qualification requirements: cash in hand, lines of credit. etc. List them below and attach copies of support documents.

1.10. Name, address, and telephone, telex, and fax numbers of the Bidders' bankers who may provide references if contacted by the Employer.

1.11. Information on litigation history in which the Bidder is involved.

Other Party (items)	Employer	Cause of Dispute	Amount involved by each party		Remarks showing Present Status

1.12. Statement of compliance under the requirements of Sub Clause 3.2 of the instructions to Bidders.

1.13. Proposed work method and schedule. The Bidder should attach descriptions, drawings and charts as necessary to comply with the requirements of the Bidding documents. [Refer ITB Clause 4.1 & 4.3 (I)]

1.14. Programme

1.15. Quality Assurance Programme

2. Deleted

Additional Requirements

3.1 Bidders should provide any additional information required to fulfill the requirements of Clause 4 of the Instructions to the Bidders, if applicable.

(i) Affidavit

(ii) Undertaking

(iii) Declaration by bidder

(iv) Articles of Agreement in case of Hired Machinery required for this work

(v) Demand Draft / Bank Guarantee of Additional Performance Security Deposit.

(If Applicable)

**SAMPLE FORMAT FOR EVIDENCE OF ACCESS TO OR
AVAILABILITY OF CREDIT FACILITIES**

(CLAUSE 4.2 (i) OF ITB)

BANK CERTIFICATE

This is to certify that *M/s.* is a reputed company with a good financial standing.

If the contract for the work, namely is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. to meet their working capital requirements for executing the above contract during the contract period.

(Signature)

Name of Bank

Senior Bank Manager

Address of the Bank

AFFIDAVIT

1. I, the undersigned, do hereby certify that all the statements made in the required attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm *MIs* ----- have abandoned any work on National Highways in India / PWD nor any contract awarded to us for such works have been rescinded, during last five years prior to the date of this bid.

3. The undersigned hereby authorise(s) and request(s) any bank, person, firm or corporation to furnish pertinent information deemed necessary and requested by the Department to verify this statement or regarding my (our) competence and general reputation.
4. The undersigned understand and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the Department!
Project implementing agency.
5. I, certify that I am going to use the technology approved by the employer as stated appendix to ITB.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

UNDERTAKING

I, the undersigned do hereby undertake that our firm
M/s.would invest a minimum
cash up to 25% of the value of the work during implementation of the Contract.

(Signed by an Authorised Officer of the Firm)

Title of Officer

Name of Firm

DATE

SECTION 3

CONDITIONS OF

CONTRACT

Conditions of Contract

Table of Clauses

<p>A. General</p> <p>1. Definitions</p> <p>2. Interpretation</p> <p>3. Language and Law</p> <p>4. Engineer's Decisions</p> <p>5. Delegation</p> <p>6. Communications</p> <p>7. Subcontracting</p> <p>8. Other Contractors</p> <p>9. Personnel</p> <p>10. Employer's and Contractor's Risks</p> <p>11. Employer's Risks</p> <p>12. Contractor's Risks</p> <p>13. Insurance</p> <p>14. Site Investigation Reports</p> <p>15. Queries about the Contract Data</p> <p>16. Contractor to Construct the Works & do maintenance</p> <p>17. The Works to Be Completed by the Intended Completion Date</p> <p>18. Approval by the Engineer</p> <p>19. Safety</p> <p>20. Discoveries</p> <p>21. Possession of the Site</p> <p>22. Access to the Site</p> <p>23. Instructions</p> <p>24. Dispute Redressal System</p> <p>25. Procedure for disputes</p> <p>26. Replacement of dispute & Review Expert</p> <p>B. Time Control</p> <p>27. Programme</p> <p>28. Extension of the Intended Completion Date</p> <p>29. Deleted</p> <p>30. Delays Ordered by the Engineer</p> <p>31. Management Meetings</p> <p>32. Early Warning</p> <p>C. Quality Control</p> <p>33. Identifying Defects</p> <p>34. Tests</p>	<p>35. Correction of Defects</p> <p>36. Uncorrected Defects</p> <p>D. Cost Control</p> <p>37. Bill of Quantities</p> <p>38. Change in Quantities</p> <p>39. Variations</p> <p>40. Payments for Variations</p> <p>41. Cash Flow Forecasts</p> <p>42. Payment Certificates</p> <p>43. Payments</p> <p>44. Compensation Events</p> <p>45. Tax</p> <p>46. Currencies</p> <p>47. Price Adjustments</p> <p>48. Retention</p> <p>49. Liquidated Damages</p> <p>50. Bonus</p> <p>51. Advance Payments</p> <p>52. Securities</p> <p>53. Deleted</p> <p>54. Cost of Repairs</p> <p>E. Finishing the Contract</p> <p>55. Completion</p> <p>56. Taking Over</p> <p>57. Final Account</p> <p>58. Operating and Maintenance Manual</p> <p>59. Termination</p> <p>60. Payment upon Termination</p> <p>61. Property</p> <p>62. Release from Performance</p> <p>F. Special Conditions of Contract</p> <p>57. Labour</p> <p>58. Compliance with Labour Regulations</p> <p>59. Drawings and Photographs of the Works</p> <p>60. The Apprenticeship Act, 1961</p>
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CONDITIONS OF CONTRACT

A. GENERAL

1. Definitions

1.1. Terms which are defined in the Contract Data are not also defined in the Conditions of Contract but keep their defined meanings. Capital initials are used to identify defined terms.

Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.

The Completion Date is the date of completion of the Works as certified by the Engineer in accordance with Sub Clause 55.1.

The Contract is the contract between the Employer and the Contractor to execute, complete and maintain the Works. It consists of the documents listed in Clause 2.3 below.

The Contract Data defines the documents and other information which comprise the Contract.

The Contractor is a person or corporate body whose Bid to carry out the Works has been accepted by the Employer.

The Contractor's Bid is the completed Bidding document submitted by the Contractor to the Employer and includes Technical and Financial bids.

The Contract Price is the price stated in the Letter of Acceptance and there after as adjusted in accordance with the provisions of the Contract.

A "Rs." **Rupees** The official currency of the Republic of India.

"CSD" shall mean Common Set of Deviation. The amendment /addendum /clarifications / addition / deletion / modification / correction means information provided by the PCNTDA related to queries or its own there to facilitate to the tenderer.

Days are calendar days; months are calendar months.

The Defects Liability and Satisfactory Performance Certificate is the certificate issued by Engineer, after the Defect Liability and maintenance Period has ended and upon correction of Defects by the Contractor.

The Defects Liability Period is 1 Year excluding Road work (For Road Work 3 Year) and Maintenance Period is 2 Years.

The Employer is the party who will employ the Contractor to carry out the, Works. The expression **"Department/Client/Owner/Employer"** as used in the tender papers shall mean Pimpri Chinchwad New Town Dev. Authority, Nigdi.

"Chief Executive Officer" as used anywhere in the tender papers shall mean "Chief Executive Officer" of the Pimpri Chinchwad New Town Dev. Authority, Nigdi who is designated as such

for the time being in whose jurisdiction the work lies or the officer to whom the function of the Chief Executive Officer may be subsequently transferred.

“Chief Executive Officer’s representative” shall mean an assistant of the Chief Executive Officer notified in writing to the Contractor by the Chief Executive Officer.

The Engineer is the person named in the Contract Data (or any other competent person appointed and notified to the contractor to act in replacement of the Engineer) who is responsible for supervising the Contractor, administering the Contract, certifying payments due to the Contractor.

Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.

The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.

The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the Contract Data. The Intended Completion Date may be revised only by the Engineer by issuing an extension of time after the approval from Employer.

Materials are all supplies, including consumables, used by the contractor for incorporation in the Works.

Plant is any integral part of the Works which is to have a mechanical, electrical, electronic or chemical or biological function.

The Site is the area defined as such in the Contract Data.

Site Investigation Reports are those which were included in the Bidding documents and are factual interpretative reports about the surface and sub-surface conditions at the site.

Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Engineer.

The Start Date is given in the Contract Data. It is the date when the Contractor shall commence execution of the works. It does not necessarily coincide with any of the Site Possession Dates.

A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract which includes work on the Site.

Temporary Works are works designed, constructed, installed, and removed by the Contractor which are needed for construction or installation of the Works.

“Urgent works” shall mean any measures, which in the opinion of the Engineer, 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 persons working, thereon.

The Works are what the Contract requires the Contractor to construct, install,

and turn over to the Employer, as defined in the Contract Data.

“**Drawing**” shall mean the drawings referred to in specifications and any modifications of such drawings approved in writing by engineers and such other drawings as may from time to time be furnished or approved

Utility shall mean the services provided for the public.

2. Interpretation

2.1. In interpreting these Conditions of Contract, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Engineer will provide instructions clarifying queries about the Conditions of Contract.

2.2. If sectional completion is specified in the Contract Data, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion date for the whole of the Works).

2.3. The documents forming the Contract shall be interpreted in the following order of priority:

- (1) Agreement
- (2) Letter of Acceptance, notice to proceed with the works
- (3) Contractor's Bid
- (4) Contract Data
- (5) Conditions of Contract including Special Conditions of Contract
- (6) Specifications
- (7) Bill of quantities
- (8) Drawings and
- (9) any other document listed in the Contract Data as forming part of the Contract.

3. Language and Law

3.1. The language of the Contract and the law governing the Contract are stated in the Contract Data. However the correspondence by employer may be in local language. The court for the disputes shall be the District Court, Pune.

4. Engineer's Decisions

4.1. Except where otherwise specifically stated, the Engineer will decide contractual matters between the Employer and the Contractor in the role representing the Employer.

5. Delegation

5.1.The Engineer may delegate any of his duties and responsibilities to other people after notifying the Contractor and may cancel any delegation after notifying the Contractor.

6.Communications

6.1.Communications between parties which are referred to in the conditions are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

7. Sub-contracting

7.1.The Contractor may sub-contract any portion of work, upto a limit specified in Contract Data, with the approval of the Engineer but may not assign the Contract without the approval of the Employer in writing. Sub-contracting does not alter the Contractor's obligations.

8. Other Contractors

8.1.The Contractor shall co-operate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of other Contractors. The Contractor shall as referred to in the Contract Data, also provide facilities and services for them as described in the Schedule. The employer may modify the schedule of other contractors and shall notify the contractor of any such modification.

9. Personnel

9.1. The Contractor shall employ the key personnel named in the Schedule of Key Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Contract Data. If the personal stated in the contract data are not deployed on site by the contractor, it will be treated as breach of contract and action will be taken

9.2.If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

10.1. The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1.The Employer is responsible for the excepted risks which are (a) in so far as they directly affect the execution of the Works in India, the risks of war, hostilities, invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, riot commotion or disorder (unless restricted to the Contractor's employees), and contamination from

any nuclear fuel or nuclear waste or radioactive toxic explosive, or (b) a cause due solely to the design of the Works, other than the Contractor's design.

12. Contractor's Risks

12.1. All risks of loss of or damage to physical property and of personal injury and death which arise during and in consequence of the performance of the Contract other than the excepted risks, referred to in clause 11.1, are the responsibility of the Contractor.

13. Insurance

13.1. The Contractor at his own cost shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period and maintenance period, in the amounts and deductibles stated in the Contract Data for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage of property (except the Works, Plant, Materials and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.2. Insurance Policies and certificates for insurance shall be delivered by the Contractor to the Engineer for the Engineer's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred. Contractor shall provide Insurance policies from Director of Insurance, Govt. of Maharashtra, MHADA Bhavan, Bandra(E), Mumbai only.

13.3. If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

13.4. Alterations to the terms of an insurance shall not be made without the approval of the Engineer and Employer.

13.5. Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

14.1. The Contractor, in preparing the Bid, may not rely on any Site Investigation Reports if any referred to in the Contract Data, supplemented by any other information available to him, before submitting the bid. The soil investigation reports are enclosed in Volume II and they are for information purpose only. The most responsive bidder will have to conduct soil investigation (As directed by Engineer in Charge) and prepare structural design based on this investigation only.

15. Queries about the Contract Data

15.1. The Engineer will clarify queries on the Contract Data.

16. Contractor to Construct the Works

16.1. The Contractor shall construct and install the Works in accordance with the Specification and Drawings.

17. The Works to be Completed by the Intended Completion Date

17.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the programme submitted by the Contractor, as updated with the approval of the Engineer, and complete them by the Intended Completion Date.

18. Approval by the Engineer

18.1. The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Engineer, who is to approve them if they comply with the Specifications and Drawings.

18.2. The Contractor shall be responsible for design of Temporary Works.

18.3. The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

18.4. The Contractor at his own cost shall obtain approval of third parties to the design of the Temporary Works where required.

18.5. All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before their use.

18.6 The employer will offer land parcel against undertaking for construction of temporary structures like stock yard, labour camp, laboratory and site office etc. The contractor shall give undertaking that he will remove all the temporary structures on completion of the project or at the time of termination and bring the land parcel to original status and handover the same to the employer. The contractor shall erect fencing for this land parcel. The employer will not charge any deposit and rent against this land parcel

19. Safety

19.1. The Contractor shall be responsible for the safety of all activities on the Site.

20. Discoveries

20.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Employer. The Contractor is to notify the Engineer of such discoveries and carry out the Engineer's instructions for dealing with them.

21. Possession of the Site

21.1. The Contractor shall allow access to the Site and to any place where work in connection with the Contract is being carried out, or is intended to be carried out to the engineer and any person/persons/agency authorized by:

- a. The Employer
- b. The Engineer

22. Access to the Site

22.1. The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site, to any place where work in connection with the Contract is being carried out or is intended to be carried out and to any place where materials or plant are being manufactured / fabricated / assembled for the works.

23. Instructions

23.1. The Contractor shall carry out all instructions of the Engineer pertaining to works which comply with the applicable laws where the Site is located.

23.2. The Contractor shall permit the Employer to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by auditors appointed by the Employer, if so required by the Employer.

24. Disputes

24.1. Dispute resolution will be as per Cl. 25 below.

25. Procedure for Disputes

25.1. All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the work (whether during progress of the works or after their completion and whether before or after the determination, abandonment or breach of the contract) shall be referred to the Engineer. If the Contractor within 21 days of reference is not satisfied with the decision or non-decision by Engineer, he should refer such dispute as stated below.

The Contractor in writing shall refer the dispute along with the decision / non-decision of the Engineer to the Apex committee headed by the Chairman PCNTDA, CEO and Technical Member Appointed by PCNTDA and decision of this Apex committee will be final and binding to bidder/contractor

26. Replacement of Dispute Review Expert

26.1. Deleted

B. TIME CONTROL

27. Programme

27.1. The Engineer shall issue the indent of work in stages specifying the time limit for the same as and when required. The Contractor shall submit to the Engineer for approval a programme showing the general methods, arrangements, order, and timing for all the activities in the Works, along with monthly cash flow forecasts, using software programmes like MS Project / Primavera.

27.2. An update of the Programme shall be a programme showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work including any changes to the sequence of the activities.

27.3. The Contractor shall submit to the Engineer, for approval, an updated Programme at intervals no longer than the period stated in the Contract Data. If the Contractor does not submit an updated Programme within this period, the Engineer may withhold the amount stated in the Contract Data from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Programme has been submitted.

27.4. The Engineer's approval of the Programme shall not alter the Contractor's obligations. The Contractor may revise the Programme and submit it to the Engineer again at any time. A revised Programme is to show the effect of Variations and Compensation Events.

28. Extension of the Intended Completion Date

28.1. The Engineer shall extend the Intended Completion Date if a Compensation Event occurs or a Variations issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the Contractor to incur additional cost.

28.2. The Engineer shall decide whether and by how much to extend the Intended Completion Date within 35 days of the Contractor asking the Engineer for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to co-operate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28.3. **Dispute review expert under clause 24.1**

29. Deleted

30. Delays Ordered by the Engineer

30.1. The Engineer may instruct the Contractor to delay the start or progress of any activity within the Works. Delay/delays totalling more than 30 days will require prior written approval of the Employer

31. Management Meetings

31.1. The Engineer may require the Contractor to attend a management meeting. The business of a management meeting shall be to review the plans for the Works.

31.2. The Engineer shall record the business of management meetings and is to provide copies of his record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken is to be decided by the Engineer either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

32. Early Warning

32.1. The Contractor is to warn the Engineer at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price or delay the execution of works. The Engineer may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate is to be provided by the Contractor as soon as reasonably possible.

32.2. The Contractor shall cooperate with the Engineer in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer.

C. QUALITY CONTROL

33. Identifying Defects

33.1. The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities.

The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect

34. Tests

34.1. The contractor shall be solely responsible for :

- Carrying out the mandatory tests prescribed in the specification of Ministry of Shipping, Road Transport and Highways, State PWD, MJP and other Govt bodies and
- For the correctness of the test results, whether preformed in his laboratory or elsewhere.

34.2 If the Engineer instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples.

35. Correction of Defects

35.1. The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion and is defined in the Contract Data. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

35.2. Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Engineer's notice. If the contractor is in default the Engineer shall cause the same to be made good by other workmen and deduct the expense from any sums that may be due to the contractor.

36. Uncorrected Defects

36.1. If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer will assess the cost of having the Defect corrected, and the Contractor will pay this amount on correction of the Defect.

D. COST CONTROL

37. Bill of Quantities

37.1. The Bill of Quantities shall contain items for the construction, installation, testing, and commissioning work to be done by the Contractor.

37.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item for the work executed, with application of above / below % accepted by the employer to decide initial contract price.

38. Changes in the Quantities

38.1. If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 per cent provided the change exceeds 10% of initial Contract Price, the rate to allow for the change, duly considering, as mention in note below Shedule-B

38.1.1 If the final quantity of the work-done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent provided the change exceeds 10 % of initial Contract Price, the Engineer shall adjust the rate to allow for the change

38.2. Deleted

38.3. If requested by the Engineer, the Contractor shall provide the Engineer with a detailed cost breakdown of any rate in the Bill of Quantities.

39. Variations

39.1. The Engineer shall, having regard to the scope of the Works and the sanctioned estimated cost, have power to order only after approval from Employer, in writing, Variations within the scope of the Works he considers necessary or advisable during the progress of the Works. Such Variations shall form part of the Contract and the Contractor shall carry them out and include them in updated Programmes produced by the Contractor. Oral orders of the Engineer for Variations, unless followed by written confirmation, shall not be taken into account...

40. Payments for Variations

40.1 If rates for Variation items are specified in the Bill of Quantities, the Contractor shall carry out such work at the same rate. This shall apply for Variations only up to the limit prescribed in the Clause 37. If the Variation exceeds this limit, the rate shall be derived under the provisions of clause 40.2 and 40.3 for quantities (higher) exceeding the deviation limit.

40.2 If the rates for Variation are not specified in the Bill of Quantities, the Engineer shall derive the rate from similar items in the Bill of Quantities.

- 40.3** If the rate for Variation item cannot be determined in the manner specified in Clause 40.1 or 40.2, In the absence of similar rates in Bill of Quantities the rate shall be as per the then prevailing schedule of rates of the district public works division / Maharashtra JeevanPradhikaran/ MSEDCL without application of above / below % accepted for this contract.. The decision of the Employer on the rate so determined shall be final and binding on the Contractor.
If the rates are not available in above referred schedule of rates, the rate analysis shall be submitted by the contractor based on market prices.If the Contractor's quotation is unreasonable, the Engineer may order the Variation and make a change to the Contract Price which shall be based on Engineer's own forecast of the effects of the Variation on the Contractor's costs.
- 40.4** If the Engineer decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 40.5** The Contractor shall not be entitled to additional payment for costs which could have been avoided by giving early warning.

41. Cash Flow Forecasts

41.1. When the Programme is updated, the contractor is to provide the Engineer with an updated cash flow forecast.

42. Payment Certificates

42.1. The Contractor shall submit to the Engineer duly signed monthly statements of the estimated value of the work completed less the cumulative amount certified previously supported with detailed measurement of the items of work executed.

42.2. The Engineer shall check the Contractor's monthly statement within 14 days and certify the amount to be paid to the Contractor after taking into account any credit or debit for the month in question

42.3. The value of work executed shall be determined based on measurements by the Engineer.

42.4. The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.

42.5. The value of work executed shall include the valuation of Variations and Compensation Events.

42.6. The Engineer may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

42.7 The Contractor shall supply the Engineer with a detailed account of the total amount that the Contractor considers payable under the Contract after 12 months of completion but before the end of the Defects Liability and maintenance Period. The Engineer shall certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate within 56 days of receiving the Contractor's revised account.

43. Payments

43.1. Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of the contract and taxes at source, as applicable under the law. The Engineer will scrutinize the bill and after due verification certify the bill for the payment. The Employer may get the work verified, through some designated officer equivalent to the rank of Executive Engineer. Such designated officers shall verify the work to the extent of 5% and recommend the bill for payment. The Employer shall pay the Contractor the amounts certified by the Engineer within 28 days of the date of each certificate.

43.2. The Employer will appoint an officer and notify to the contractor, who shall make the payment certified by the Engineer

43.3. Items of the Works for which no rate or price has been entered in will not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

44. Compensation Events

44.1. Deleted

44.2. Deleted

44.3. Deleted

44.4. Deleted

45. Tax

45.1. All duties, taxes (**except GST**), royalties and other levies payable by the Contractor under the Contract, or for any other cause, shall be included in the rates, prices, and total Bid price submitted by the Bidder. The estimated cost put to tender does not include GST applicable to Government Contract. GST tax regime being new transformation in direct taxes system; it is likely that the prevailing tax rate percentage may undergo changes during contract period. The contractor will be paid for the GST at prevailing percentage as applicable based on Government of India notifications (applicable to Government contracts) over and above the amount payable as per the accepted contract price on bill to bill basis. However if there is valid refund of any duties, taxes, royalties and other levies is received by the contractor during entire period of the contract, (on account of exemption / reduction by the Government) the same shall be recovered by the employer and will be considered in releasing payment to the contractor. In no case such refund will belong to the contractor.

46. Currencies

46.1. All payments shall be made in Indian Rupees.

47. Price Adjustment

Deleted .

48. Retention

48.1. The Employer shall retain from each payment due to the Contractor the proportion stated in the Contract Data until Completion of the whole of the Works.

48.2. On Completion of the whole of the Work shall the total amount retained is repaid to the Contractor and when the Defects Liability Period has passed and the Engineer has certified that all Defects notified by the Engineer to the Contractor before the end of this period have been corrected.

48.3. On completion of the whole works, the contractor shall substitute retention money with an "on demand" Bank guarantee.

49. Liquidated Damages

49.1. The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the Contract Data for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestone as stated in the contract data). The total amount of liquidated damages shall not exceed the amount defined in the Contract Data. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages does not affect the Contractor's liabilities.

49.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Engineer shall correct any over payment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the over payment calculated from the date of payment to the date of repayment at the rates specified in Sub Clause 43.1.

49.3. If the contractor fails to comply with the time for completion as stipulated in the tender, then the contractor shall pay to the employer the relevant sum stated in the Contract Data as Liquidated damages for such default and not as penalty for everyday or part of day which shall elapse between relevant time for completion and the date stated in the taking over certificate of the whole of the works on the relevant section, subject to the limit stated in the contract data.

The employer may, without prejudice to any other method of recovery deduct the amount of such damages from any monies due or to become due to the contractor. The payment or deduction of such damages shall not relieve the contractor from his obligation to complete the works on from any other of his obligations and liabilities under the contract.

49.4. If, before the Time for Completion of the whole of the Works or, if applicable, any Section, a Taking - Over Certificate has been issued for any part of the Works or of a Section, the liquidated damages for delay in completion of the remainder of the Works or of that Section shall, for any period of delay after the date stated in such Taking-Over Certificate, and in the absence of alternative provisions in the Contract, be reduced in the proportion which the value of the part so certified bears to the value of the whole of the Works or Section, as applicable. The provisions of this Sub-Clause shall only apply to the rate of liquidated damages and shall not affect the limit thereof.

50. Bonus- Deleted

51. Advance Payment including Secured Advance- Deleted

52. Securities

52.1. The Performance Security equal to 5% (five percent)[(and additional security for unbalanced bids)]of the contract price and additional security for unbalanced bids shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the form given in the Contract Data and by a scheduled commercial bank. The Performance Security shall be valid until a date 30 days from the date of expiry of Defect Liability and maintenance Period and the additional security for unbalanced bids shall be valid until a date 30 days from the date of issue of the certificate of completion. The performance security also can be paid by demand draft at 2% of contract price against LOI and balance 3% will be recovered from R.A. Bills.

53. Deleted

54. Cost of Repairs

54.1. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. FINISHING THE CONTRACT

55. Completion

55.1. The Contractor shall request the Engineer to issue a Certificate of Completion of the Works and the Engineer will do so upon deciding that the Work is completed.

56. Taking Over

56.1. The Employer shall take over the Site and the Works within seven days of the Engineer issuing a certificate of Completion of defect liability and maintenance period as per NIT by the Employer.

57. Final Account

57.1. The Contractor shall supply to the Engineer a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Engineer shall issue a Defect Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. **If** it is not, the Engineer shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. **If** the Final Account is still unsatisfactory after it has been resubmitted, the Engineer shall decide on the amount payable to the Contractor and issue a payment certificate, within 56 days of receiving the Contractor's revised account.

58. Operating and Maintenance Manuals

58.1. AS built drawings and maintenance manuals are to be prepared by contractor final bills on or before the dates informed by Engineer. The Engineer shall modify the maintenance manuals if required and approve within 15 days of such submission by contractor.

58.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the Contract Data, or they do not receive the Engineer's approval, the Engineer shall withhold the amount stated in the Contract Data from payments due to the Contractor.

59. Termination

59.1. The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.

59.2. Fundamental breaches of Contract include, but shall not be limited to, the following:

- a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Programme and the stoppage has not been authorized by the Engineer;
- b) the Contractor is declared as bankrupt or goes into liquidation other than for approved reconstruction or amalgamation;
- c) the Engineer/Employer gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer;
- d) the Contractor does not maintain a Security, which is required;
- e) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in clause 49;
- f) the Contractor fails to provide insurance cover as required under clause 13;
- g) if the Contractor, in the judgement of the Employer, has engaged in the corrupt or fraudulent practice in competing for or in executing the Contract. For the purpose of this clause, "corrupt practise" means the offering, giving, receiving, or soliciting of anything of value to influence the action of a public official in the procurement process or in Contract execution. "Fraudulent Practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid process at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
- h) if the Contractor has not completed at least thirty percent of the value of Work required to be completed after half of the completion period has elapsed;
- i) if the Contractor fails to set up a field laboratory with the prescribed equipment, within the period specified in the Contract Data; and
- j) any other fundamental breaches as specified in the Contract Data.
- k) The contractor misuses the land parcel offered by the employer.
- l) The Contractor falls to prepare insurance cover process within in time.

For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the

detriment of the Borrower, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Borrower of the benefits of free and open competition."

(i) any other fundamental breaches as specified in the Contract Data.

59.3. Deleted.

59.4. Notwithstanding the above, the Employer may terminate the Contract for convenience.

59.5. If the Contract is terminated the Contractor shall stop work immediately, make the Site safe, clean and secure and leave the Site, as soon as reasonably possible.

60. Payment upon Termination

60.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer shall issue a certificate for the value of the work done less advance payments received up to the date of the issue of the certificate, less other recoveries due in terms of the contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the Contract Data. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor the difference shall be a debt payable to the Employer.

60.2. If the Contract is terminated at the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Engineer shall issue a certificate for the value of the work done, the cost of balance material brought by the contractor and available at site, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works and less advance payments received up to the date of the certificate, less other recoveries due in terms of the contract and less taxes due to be deducted at source as per applicable law.

61. Property

61.1. All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Employer, if the Contract is terminated because of a Contractor's default.

62. Release from Performance

62.1. If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor the Engineer shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which commitment was made.

F. SPECIAL CONDITIONS OF CONTRACT

1. LABOUR:

The successful tenderer will be required to produce to the satisfaction of the specified concerned authority, valid and concurrent licence issued in his favour under the provisions of the Contract Labour (Regular and Abolition) Act, 1970, before starting the work. Failure to do so, acceptance of the tender shall be liable to be withdrawn and security deposit forfeited

The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. The Contractor shall, if required by the Engineer, deliver to the Engineer a return in detail, in such form and at such intervals as the Engineer may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Engineer may require.

2. COMPLIANCE WITH LABOUR REGULATIONS:

During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given below. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for nonobservance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK.

- a) Workmen Compensation Act 1923 :- The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) Payment of Gratuity Act 1972 :- Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more on death, the rate of 15 days wages for every

completed year of service. The Act is applicable to all establishments employing 10 or more employees.

c) Employees P.F. and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:

- (i) Pension or family pension on retirement or death, as the case may be.
- (ii) Deposit linked insurance on the death in harness of the worker.
- (iii) Payment of P.F. accumulation on retirement/death etc.

d) Maternity Benefit Act 1951:- The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

e) Contract Labour (Regulation & Abolition) Act 1970:- The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take licence from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer, if they employ 20 or more contract labour.

f) Minimum Wages Act 1948 :- The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act, if the employment is a scheduled employment.

Construction of Buildings, Roads, Runways are scheduled employments.

g) Payment of Wages Act 1936:- It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

h) Equal Remuneration Act 1979 :- The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

Payment of Bonus Act 1965 :- The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/- per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

j) Industrial Disputes Act 1947 :- The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out

becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

k) Industrial Employment (Standing Orders) Act 1946 :- It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to *SO*). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

l) Trade Unions Act 1926 :- The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.

m) Child Labour (Prohibition & Regulation) Act 1986 :- The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.

n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979 :- The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.

o) The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996 :- All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

p) Factories Act 1948 :- The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

3. ARBITRATION- Deleted.

4. Drawings and Photographs of the Works

The contractor shall do photography/video photography of the site firstly before the start of the work, secondly mid-way in the execution of different stages of work and lastly after the completion of the work. No separate payment will be made to the contractor for this. The Contractor shall not disclose details of Drawings furnished to him and works on which he is engaged without the prior approval of the Engineer in writing. No photograph of the works or any part thereof or plant employed thereon, except those permitted under clause 59.1, shall be taken or permitted by the Contractor to be taken by any of his employees or any employees of his sub-Contractors without the prior approval of the Engineer in writing. No photographs/ Video photography shall be published or otherwise circulated without the approval of the Engineer in writing.

5. The Apprentices Act 1961

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 said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities and penalties provided by the said Act and said Rules.

SECTION 4

CONTRACT DATA

CONTRACT DATA**Clause Reference with respect to section 3**

DEVELOPMENT OF OUTDOOR EXHIBITION AND PARK LAND IN SECTOR-5 AND SECTOR-8 AT MOSHI, PUNE-412105. AT MOSHI, PUNE-412105.

Items marked "N/A" do not apply in this Contract.

1. The Employer is [Cl. 1.1]
 Name: **The Chief Executive Officer Pimpri Chinchwad New Town Development Authority**
 Address: **New Administrative Building, Near Akurdi Railway station, Pune-411 044 .Tel :- 020-27652934 Fax : 020-27652935**
 Name of authorized Representative (Will be intimated later)
2. The Engineer is Executive Engineer PIECC
 Name of Authorized Representative:
4. The Defects Liability Period is 12 Months from the date of completion.[Cl. 1.1&35]
5. The Start Date shall be work order date for the work [Cl.1.1]
6. The Intended Completion Date for the whole of the Works is 15 (Fifteen) months after start of work with the following milestones: [Cl.1.1, 17&28]
 Milestone dates : Physical works to be completed Period from the start date [Cl.2.2 & 49.1]
 Milestone 1 i.e., 5 months. 25 % work.
 Milestone 2 i.e., 10 months. 60 % work.
 Milestone 3 i.e., 15 months. 100% work.
7. The Site is located at Sector 5 and 8, Moshi, PCNTDA.
 [Cl. 1.1]
8. The name and identification number of the Contract is: [Cl. 1.1]
9. The works consist of scope of work stated in Appendix to ITB
 And in Vol II & III of bid document [Cl. 1.11]

10. The following documents also form part of the Contract: [Cl. 2.3(9)]
- i) Letter of Acceptance
 - ii) Notice to proceed with the works;
 - iii) Contractor's Bid
 - iv) Condition of Contract: General and Special
 - v) Contract Data
 - vi) Additional condition
 - vii) Drawings
 - viii) Bill of Quantities and
 - ix) Any other documents listed in the Contract Data as forming part of the Contract.
11. The law which applies to the Contract is the law of Union of India
law of Jurisdiction, Pimpri Chinchwad, Pune. [Cl. 3.1]
12. The language of the Contract documents is English [Cl. 3.1]
For Correspondence Language English and Marathi.
14. Limit of subcontracting 20% of the Initial Contract Price
only for MEP work [Cl. 7.1]
14. The Schedule of Other Contractors [Cl. 8]
15. The Schedule of Key Personnel As per Annex-II to Section I [Cl. 9]
16. The minimum insurance cover for physical property, injury and death [Cl. 13]
is Rs.5 lakhs per occurrence with the number of occurrences limited to
four. After each occurrence, contractor will pay additional premium
necessary to make insurance valid for four occurrences always.
17. Site investigation report [Cl.14]
18. The Site Possession Dates shall be date of the work order.
[Cl. 21]
19. Fees and types of reimbursable expenses to be paid -Deleted [Cl.25]
Dispute Review Expert- Deleted.
20. Appointing Authority for the Dispute Review Expert - Deleted [Cl.26]
21. The period for submission of the programme for approval of Engineer [Cl. 27.1]
shall be 15 days from the issue of Work Order.
22. Deleted. [Cl. 27.3]
23. The amount to be withheld for late submission of an updated [Cl. 27.3]
programme shall be Rs. 2 lakhs.

24. The following events shall also be Compensation Events: - Deleted [Cl.44]

25. The currency of the Contract is Indian Rupees. [Cl. 46]

26 . Price Variation :
Deleted.

(NO Price Variation will be given as this project is having 100 % finance available.)

27. The proportion of payments retained (retention money) shall be 6 % [Cl. 48]
from each bill subject to a maximum of 5% of final contract price.

28. Amount of liquidated damages for Delay in completion of works	For whole of work minimum Rs. 1000/- per day Up to (1/2000) th of the Initial Contract Price, rounded Off to the nearest Thousand, per day For milestone completion (wherever specified, in item 6 of Contract data rounded off to the nearest thousand per day.	[Cl.49]
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29. Maximum limit of liquidated damages for delay in completion of work	10 per cent of the Initial Contract Price rounded off to the nearest thousand.	[Cl. 49]
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30 Amount of Bonus for early completion
of whole of the works Deleted [Cl.50]

31. Maximum limit of bonus for early
completion of work Deleted [Cl.50]

32. The amounts of the advance payment are

	Nature of Advance	Amount (Rs.) Conditions to be fulfilled
Mobilization	10% of the Contract price	Deleted
Equipment	90% for new and 50%	Deleted

	Of depreciated value for old equipment. Total amount will be subject to a maximum of 5% of the Contract price	
Secured advance for in non-Perishable materials brought to site	75% of Invoice value	Deleted
The advance payment will be paid to the Contractor no later than 28 days after fulfillment of the above conditions).- Not applicable to this contract		

32 The amounts of the advance payment are:- As stated above [Cl.51 & 52]

33 Repayment of advance payment for mobilization and equipment: - Deleted [Cl.51.3]

34. Repayment of secured advance: - Deleted [Cl.51]

35. The Securities shall be for the following minimum amounts equivalent as a percentage of the Contract Price: [CCI.52]

Performance Security for 5 per cent of contract price plus Rs .
..... (to be decided after evaluation of the bid) as additional security in terms of **ITB** Clause 29.5.

The standard form of Performance Security acceptable to the Employer shall be an unconditional Bank Guarantee of the type as presented in Section 8 of the Bidding Documents.

36. The Schedule of Operating and Maintenance Manuals: -within 30 days of completion [Cl.58]

37. The date by which "as-built" drawings (in scale as directed) in 2 sets are required is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be. [CCI.58]

38. The amount to be withheld for failing to supply "as built" drawings by the date required is Rs. 2 Lakhs. [CCI.58]

39. The following events shall also be fundamental breach of contract: [CCI.59.2]
"The Contractor has contravened Sub-clause 7.1 and Clause 9 of GCC."

40. The percentage to apply to the value of the work not completed [3, Cl. 60] representing the Employer's additional cost for completing the Works shall be 20 per cent.

SECTION 5
TECHNICAL SPECIFICATIONS
ENCLOSED IN VOLUME II

SECTION 6

FORM OF BID

FORM OF BID

Description of the Works:

.....
.....

BID

To :

Address :

1. We offer to execute the Works described above and remedy any defects therein in conformity with the conditions of Contract, specification, drawings, Bill of Quantities and Addenda for the sum(s) of

.....
(.....)

2. We undertake, if our Bid is accepted, to commence the Works as soon as is reasonably possible after the receipt of the Engineer's notice to commence, and to complete the whole of the Works comprised in the Contract within the time stated in the document.

3. We agree to abide by this Bid for the period of *..... days from the date fixed for receiving the same, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

4. Unless and until a formal Agreement is prepared and executed this Bid, together with your written acceptance thereof, shall constitute a binding contract between us.

5. We understand that you are not bound to accept the lowest or any tender you may receive.

Dated this,..... day of20.....

Signature.....in the capacity of.....
duly authorized to sign bids for and on behalf of.....

.....

(in block capitals or typed)

Address.....
.....

Witness.....
.....

Address.....
.....

Occupation

.....
.....

SECTION 7

BILL OF QUANTITIES

BILL OF QUANTITIES

Preamble

- 1)The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, Conditions of Contract, Technical Specifications and Drawings.
- 2)The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices tendered in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Engineer may fix within the terms of the Contract.
- 3)The rates and prices tendered in the priced Bill of Quantities shall, except in so far as it is otherwise provided under the Contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations set out or implied in the Contract.
- 4)The rates and prices shall be quoted entirely in Indian Currency.
- 5)A rate or price shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
- 6)The whole cost of complying with the provisions of the Contract shall be included in the items provided in the priced Bill of Quantities, and where no Items are provided the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
- 7)General directions and descriptions of work and materials are not necessarily repeated or summarized in the Bill of Quantities. References to the relevant sections of the contract documentation shall be made before entering rates or prices against each item in the Bill of Quantities.
- 8)The method of measurement of completed work for payment shall be in accordance with the specification for Road and Bridge Works published by the Ministry of Surface Transport (edition).
- 9)Errors will be corrected by the Employer for any arithmetic errors pursuant to Clause 29 of the Instructions to Bidders.

BILL OF QUANTITIES Enclosed in Volume - II

IMPRI-CHINCHWAD NEW TOWN DEVELOPMENT AUTHORITY, AKURDI, PUNE-44.

NAME OF WORK:PLOT DEVELOPMENT, ROAD WORK,(PART), COMPOUND WALL
--

AND OTHER ALLIED WORK FOR SECTOR 5 &8.AT MOSHI, PUNE-412105.						
Memorandum showing the approx. qty. of work to be carried out (Estimate based on PWD DSR year 2016-2017.)						
SCHEDULE-B						
Item No.	Qty. Estimated but may be more or less	Description of Item (with brief specification and reference to book of specification)	Unit	Rate in Fig Rs.	Rate in word	Amount.

Note:

- Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the bill of quantities (Refer: ITB Clause 13.2 and GCC Clause 43.3).
- Unit rates and prices shall be quoted by the bidder in Indian rupee [ITB Clause 14.1]
- Where there is a discrepancy between the rate in figures and words, the rates in words will govern. [ITB Clause 27.1(a)]

4. Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall

govern [ITB Clause 27.1(b)].

5. When quantities exceed more than 25%, the exceed quantities shall be paid by Existing DSR rate (DSR at time of Tender quoted) or rate quoted by the contractor which ever is less and as mention Clause No 38

6. For Section XV and XVI - Contractor shall not depend on whatever he has quoted rate in his offer. Payment shall be done at the rate given under this item only after producing documentary evidence.

7. Note for Royalties: - Section XVI

As per Government of Maharashtra, Revenue and Forest Departments Gazette No.67 Dtd.15 May 2015, States that the Royalty charges of Rs.400/ Per Brass(i.e. Rs.141.34/Cum.) are considered.

In DSR for items of supply of Rubble, Murum, soil, 60mm/40mm metal (Hand broken), royalty charges are not included in the rates. Royalty charges shall be separately considered while preparing estimate and shall be part of tender.

In Future if the Rates of Royalty charges are revised by the Revenue Department, The difference in Royalty charges shall be paid extra over the items to the contractor and shall be recovered, if these rates are reduced by Govt i.e. Revenue department .

4.6 As Royalty charges for bricks, sand and crushed metal are already paid by the quarry owner/manufacturer, same shall not be considered in the rate analysis while preparing the estimate.

Payment under this item shall be made to the contractor only when he produces documentary evidence to the concerned Executive Engineer. As regards payments made by the Contractor to appropriate Revenue Authority towards Royalty charges. If such documentary evidence is not produced, the component of Royalty Charges as contemplated in the items shall not be paid to the Agency.

For Section VII - Paying or not paying to the Contractor shall not depend on whatever he has quoted rate in his offer. Payment / not payment shall be done at the rate given under this item only. Any complication arising out payment and or non-payment shall be contractor's responsibility.

SECTION 8

SECURITIES AND OTHER

FORMS

FORM OF BANK GUARANTEE FOR PERFORMANCE SECURITY

To

118
Engineer

Contractor

**The Chief Executive Officer,
PCNTDA.**

WHEREAS..... (name and address of contractor) thereafter called “the contractor” has undertaken, in pursuance of Contract No. Dated to execute..... (name of Contract and brief description of Works) (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the Contractor shall furnish you with a Bank Guarantee by a Nationalised/Scheduled bank of India for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREOF we hereby affirm that we are the guarantor and responsible to you on behalf of the Contractor, up to a total of Rs..... (Amount of guarantee) (Rupees..... (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We agree to abide the stipulations by RBI to honor the demand of the said DEBT.

We further agree that no change or addition to or other modification of the terms of the contract or of the works to be performed there under or of any of the contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of issue of the Defects Liability and Satisfactory Performance Certificate.

Signature and seal of the Guarantor.....

Name of the Bank

Address.....

Date.....

In the presence of

1.....
(Name of Occupation)

2.....
(Name of Occupation)

An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalance bids, if any and denominated in Indian Rupees.

PERFORMANCE BANK GUARANTEE

To
..... [name of Employer]
.....[address of Employer]
.....

WHEREAS [.....name and address of Contractor] (hereafter called "the Contractor") has undertaken, in pursuance of Contract No. dated..... to execute [name of Contract and brief description of Works] (hereinafter called "the Contract").

AND WHEREAS it has been stipulated by you in the said Contract that the Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligation in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you on behalf of the Contractor, up to a total of [amount of guarantee] *(in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of[amount of guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between your and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of expiry of the Defect Liability Period.

Signature and Seal of the guarantor
Name of Bank
Address
Date.....

* An amount shall be inserted by the Guarantor, representing the percentage the Contract Price specified in the Contract including additional security for unbalanced Bids, if any and denominated in Indian Rupees.

Letter of Acceptance

(Letterhead paper of the Employer)

..... (Date)

To

.....(Name and address of the Contractor)
.....
.....

Dear Sirs,

This is to notify you that your Bid datedfor execution of the (name of the contract and identification number, as given in the Instructions to Bidders) for the Contract Price of Rupees(.....) (amount in words and figures), as corrected and modified in accordance with the Instructions to Bidders! is hereby accepted by our agency.

We accept / do not accept that..... be appointed as the Adjudicator", You are hereby requested to furnish Performance Security, in the form detailed in Para 34.1 of ITB for an amount equivalent to Rs.within 21 days of the receipt of this letter of acceptance valid up to 28 days from the date of expiry of defects Liability Period i.e. up toand sign the contract, failing which action as stated in Para 34.3 of ITB will be taken.

Yours faithfully,

Authorized Signature
Name and title of Signatory
Name of Agency

¹ Delete "corrected and" or "and modified" if only one of these actions applies. Delete as corrected and modified in accordance with the Instructions to Bidders, if corrections or modifications have not been affected. ?

² To be used only if the Contractor disagrees in his Bid with the Adjudicator proposed by the Employer in the "Instructions to Bidders".

Issue of Notice to proceed with the work
(Letterhead of the Employer)

.....(Date)

To

.....(Name and address of the Contractor)
.....
.....

Dear Sirs,

Pursuant to your furnishing the requisite security as stipulated in ITB Clause 34.1 and signing of the Contract for the construction of
.....
.....at a Bid Price of Rs.

You are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of signatory authorized to sign on behalf of Employer)

Agreement Form

Agreement

This agreement, made theday of..... between.....(name and address of Employer) [hereinafter

called "the Employer]
and
(name and address of contractor) hereinafter called "the Contractor" of the other part.

Whereas the Employer is desirous that the Contractor execute
.....
(name and identification number of Contract) (hereinafter called "the Works") and the Employer has accepted the Bid by the Contractor for the execution and completion of such Works and the remedying of any defects therein , at a cost of Rs.....
.....

NOW THIS AGREEMENT WITNESSETH as follows:

1. In this Agreement, words and expression shall have the same meanings as are respectively assigned to them in the conditions of contract hereinafter referred to and they shall be deemed to form and be read and construed as part of this Agreement.
2. In consideration of the payments to be made by the Employer to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Employer to execute and complete the Works and remedy any defects therein in conformity in all aspects with the provisions of the contract.
3. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying the defects wherein Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.
4. The following documents shall be deemed to form and be ready and construed as part of this Agreement viz.
 - i) Letter of Acceptance
 - ii) Notice to proceed with the works;
 - iii) Contractor's Bid
 - iv) Condition of Contract: General and Special
 - v) Contract Data
 - vi) Additional condition
 - vii) Drawings
 - viii) Bill of Quantities and
 - ix) Any other documents listed in the Contract Data as forming part of the Contract.

In witnessed whereof the parties there to have caused this Agreement to be executed the day and year first before written.

The Common Seal of
was hereunto affixed in the presence of :

Signed, Sealed and Delivered by the said

in the presence of :

Binding Signature of Employer

Binding Signature of Contractor

UNDERTAKING

I, the undersigned do hereby undertake that our firm
M/s.....agree to abide by this bid for a period

days for the date fixed for receiving the same and it shall be binding on us and may be accepted at any time before the expiration of that period.

.....
(Signed by an Authorised Officer of the Firm)

.....
Title of Officer

.....
Name of Firm

.....
DATE

FORM OF BANK GUARANTEE FOR PERFORMANCE SECURITY

To

**The Chief Executive Officer,
PCNTDA.**

WHEREAS..... (name and address of contractor) hereinafter called “the contractor” has undertaken, in pursuance of Contract No. Dated to execute..... (name of Contract and brief description of Works) (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said contract that the Contractor shall furnish you with a Bank Guarantee by a Nationalised/Scheduled bank of India for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee:

NOW THEREOF we hereby affirm that we are the guarantor and responsible to you on behalf of the Contractor, up to a total of Rs..... (Amount of guarantee) (Rupees..... (in words), such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of (amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Contractor before presenting us with the demand. We agree to abide the stipulations by RBI to honor the demand of the said DEBT.

We further agree that no change or addition to or other modification of the terms of the contract or of the works to be performed there under or of any of the contract documents which may be made between you and the Contractor shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until 28 days from the date of issue of the Defects Liability and Satisfactory Performance Certificate.

Signature and seal of the Guarantor.....

Name of the Bank

Address.....

Date.....

In the presence of

1.....
(Name of Occupation)

2.....
(Name of Occupation)

An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract including additional security for unbalance bids, if any and denominated in Indian Rupees.

DESCRIPTION OF BIDDER

Details of Bidding Company:

Name of the Bidding Company	
-----------------------------	--

Address of the Registered/Head Office of the Bidding Company	
Contact Number and mail id of Authorised Representative:	
Certificate of Incorporation/Commencement Certificate(if any)	Submission of copy of the Certificate of Incorporation/Commencement Certificate (if any)

Company to be considered for Evaluation

For Financial Capability	Bidding Company OR The key person
--------------------------	--

**FORMAT OF POWER OF ATTORNEY FOR DESIGNATING
LEAD CONSORTIUM MEMBER**

(Deleted)

FORMAT FOR JOINT DEED AGREEMENT

(Deleted)

SECTION 9

DRAWINGS ENCLOSED IN

VOLUME III

SECTION 10
DOCUMENTS TO BE
FURNISHED BY BIDDER

(SECTION-IV)
CONDITIONS OF CONTRACT
(PART-II SPECIAL CONDITIONS OF CONTRACT)

Section IV. Special Conditions of Contract

(These conditions are to be read with the Conditions of Contract set out in Section-IV)

2.3 Amended as under

The documents forming the Contract shall be interpreted in the following order of priority.

- (1) Agreement,
- (2) Notice to Proceed with the Work,
- (3) Letter of Acceptance,
- (4) Contractor's Bid,
- (5) Contract Data,
- Implementation Manual & Maintenance Intervention level
- Part II, Special Conditions of Contract
 - (8) Part I, General Conditions of Contract
 - (9) Specifications,
 - (10) Bill of Quantities,
 - (11) Drawings, and
 - (12) Any other document listed in the Contract Data.

7.2 The Contractor shall not be required to obtain any consent from the Employer for:

- a. The sub contracting of any part of the Works for which the Sub- Contractor is named in the Contract;
- b. The provision for labour, or labour component.

e.g. the purchase of Materials which are in accordance with the standards specified in the Contract.

7.3 Beyond what has been stated in clauses 7.1 and 7.2 if the Contractor proposes sub contracting any part of the work during execution of the Works, because of some unforeseen circumstances to enable him to complete the Works as per terms of the Contract, the Employer will consider the following before according approval:

- a. The Contractor shall not sub contract the whole of the Works.
- b. The Contractor shall not sub contract any part of the Work without prior consent of the Employer. Any such consent shall not relieve the Contractor from any liability or obligation under the Contract and he shall be responsible for the acts, defaults and neglects of any his sub contractor, his agents or workmen as fully as if they were the acts, defaults or neglects of the Contractor, his agents and workmen.

7.4 The Engineer should satisfy himself before recommending to the Employer whether:

- a. The circumstances warrant such sub contracting; and

- b. The sub contractor so proposed for the Work possess the experience qualifications and equipment necessary for the job proposed to be entrusted to him in proportion to the quantum of Works to be sub contracted.
- Added new clause as under

The Contractor should take up the works in convenient reaches as decided by the Engineer to ensure there is least hindrance to the smooth flow of traffic including movement of vehicles and equipment of other Contractors till the completion of the Works.

ARBITRATION – Deleted.

6. SECURITY DEPOSIT AND INDEMNITY BOND:

6.1 Security Deposit

The security deposit shall be returned to the contractor without any interest when the contractor ceases to be under any obligations under the contract i.e. after completion of defect liability and maintenance period of 3 years.

6.2 Loss or Damage Indemnity Bond

The contractor shall be responsible during the progress as well as during maintenance period for any liability imposed by law for any damage to the work or any part thereof or to any of the materials or other things used in performing the work or for injury to any person or persons or for any property damaged in or outside the work limit. The contractor shall indemnify and declare that the owner and the ENGINEER are in no way responsible against any and all liability, claims, loss or injury, including costs, expenses, and attorney's fees incurred in the defense of same, arising from any allegation/ litigation, whether groundless or not, of damage or injury to any person or property resulting from the performance of the work or from any material used in the work or from any condition of the work or work site, or from any cause whatsoever during the progress of the work & during defect liability and maintenance period of 3 years.

7. SUPERVISION AND SUPERINTENDENCE

7.1 Contractor's Supervision

The Contractor shall supervise & direct the works efficiently & with his best skill & attention. He shall be solely responsible for means, methods, techniques, procedures & sequences of construction. The Contractor shall co-ordinate all parts of the work and shall be responsible to see that the finished work complies fully with the contract documents, & such instructions & variation orders as the ENGINEER may issue during the progress of the works.

7.2 Resident Engineer of the Contractor (RE)/ Project Manager (PM)

The Contractor shall keep on the work at all times during its progress a competent Resident Engineer (RE) to the satisfaction of ENGINEER, who shall not be replaced without ten (10) days written notice to the ENGINEER except under extra-ordinary circumstances. The Resident Engineer (RE)/Project Manager (PM) shall be the Contractor's representative at the site and shall have authority to act on behalf of the contractor. All communications, instructions and directions given to the RE/Project Manager (PM) shall be binding as if given to the Contractor by the ENGINEER not otherwise required to be in writing will be given or confirmed in writing upon request of the Contractor. The Resident Engineer (REC)/Project Manager (PM) shall be experienced and shall have executed similar type of work. Resident Engineer (REC)/Project Manager (PM) shall be B.E. and have experience of Civil Engineering work for 20 years out of which 5 years shall be in Road / Highway Works.

The contractor shall keep on the work at all times the other personnel named in contract data.

8. CARE AND USE OF SITE

The Contractor shall not commence operations on land allotted for work except without prior approval of the ENGINEER. If these lands are not adequate the Contractor may have to make his own arrangements for additional lands required for his use.

The contractor shall not demolish, remove or alter any of the structures, trees or other facilities on the site without prior approval of the ENGINEER. All the area of Contractor's operations shall be cleared before returning the same to the ENGINEER.

9. OVERLOADING

No part of the work or new & existing structures, scaffolding, shoring, sheeting, construction machinery and equipment, or other permanent & temporary facilities shall be loaded more than its capacity. The Contractor shall bear the cost of correcting damage caused by loading or abnormal stresses or pressures.

10. USE OF EXPLOSIVES

No blasting is permitted under this document.

11. MANUFACTURER'S INSTRUCTIONS

The Contractor shall compare the requirements of the various manufacturer's instructions with requirements of the contract documents, shall promptly notify to the ENGINEER in writing of any difference between such requirements and shall not proceed with any of the works affected by such difference until an interpretation or clarification is issued

pursuant to article. The contractor shall bear all costs for any error in the work resulting from his failure to the various requirements and notify the owner of any such difference.

12. PROTECTION

The contractor shall note that traffic will be playing on adjoining roads during construction and special precautions are required to be taken. The contractor shall take all precautions and furnish and maintain protection to prevent damage, injury or loss to other persons who may be affected thereby, all the works and all materials and equipment to be incorporated therein whether in storage on or off the site, under the care, custody or control of the contractor or any of his sub-contractors and other improvements and property at the site or where work is to be performed including building, trees and plants, pole lines, fences, guard rails, guide posts, culvert & project markers, sign structures, conduits, pipelines & improvements within or adjacent to streets, right-of-way, or easements, except those items required to be removed by the Contractor in the contract documents. The Contractors protection shall include all the safety precautions and other necessary forms of protection, and the notification of the owners of utilities and adjacent property.

The contractor shall protect adjoining site against structural, decorative and other damages that could be caused by the execution of works and make good at his cost any such damages that could be caused by the execution of works and make good at his cost any such damages within reasonable time. Contractor shall take necessary insurance policy to cover the risk of accident and loss to work, or any other persons or properties and indemnify the employer.

13. UTILITIES AND SUB-STRUCTURES

The contractor has to carry out shifting of utilities and services as per direction of ENGINEER. If any utility of service is found not covered under BOQ, the contractor has to carry out the work as per direction of ENGINEER including necessary co-ordination with concerned services provider, payment for the same will be made as per provision in this contract. EMPLOYER will assist him in the matter. Some of the utilities to be shifted are included in the Schedule-B some of utilities are unknown, with permission of EMPLOYER & user department Contractor may be asked to remove the services at accepted rate.

14. WORKMEN

The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the works any unfit person or anyone not skilled and

experienced in the assigned task. The Contractor shall in respect of labour employed by him comply with or cause to be complied with the provisions of various labour law and rules and regulations as applicable to them in regard to all matters provided therein and shall indemnify the owner in respect of all claims that may be made against the owner for non-compliance thereof by the Contractor. In the event of the contractor committing a default or breach of any provisions of labour laws and rules and regulations, the Contractor shall without prejudice to any other liability under the acts pay the owner a sum as decided by the ENGINEER.

14.1 Work During Night Or On Sundays And Holidays

Unless otherwise provided, none of the permanent works shall be carried out during night, Sunday or authorized holidays without permission in writing. However, when work is unavoidable or necessary for the safety of life, priority of works, the Contractor shall take necessary permission immediately & advice the ENGINEER accordingly. While working at night sufficient lighting arrangements should be on site, special care & precautions should be taken to avoid accidents.

14.2 Workmanship

14.2.1 The quality of workmanship produced by skilled knowledgeable and experienced workmen, machines and artisans shall be excellent. Particular attention shall be given to the strength, appearance and finish of exposed work. All concrete work shall be form finished.

14.2.2 Contractor shall appoint experienced structural engineer for preparing design and detailing of formwork, centering etc. and shoring and strutting etc. and supervise the work of preparation and providing formwork, centering, shoring strutting etc. All designs shall be got approved from the Engineer. The structural engineer C.V. shall be got approved. Structural engineers shall have experience of minimum 10 years and have carried out such work in the field and design office.

14.3 Aesthetics - Deleted

15. MATERIALS AND EQUIPMENT

All materials and equipment incorporated in the work shall be new and of best quality. Materials and equipment not covered by detailed requirements in the contract documents shall be of the best commercial quality suitable for the purpose intended and approved by the owner prior to use in the work. The cement provided shall be of 43 / 53 grade cement from Rajashree/ L&T / Gujarat Ambuja / Birla Super / and ACC Cement. All materials shall be got tested from laboratory and got approved from Engineer.

15.1 Optional Materials

Only one brand, kind or make of material and equipment shall be used for each specific purpose through-out the works, notwithstanding that similar material or equipment of two or more manufacturers or proprietary items may be specified for the same purpose.

16. Use of approved substitutions or equals : Deleted

17. LAWS AND REGULATIONS:

a. Governing Law

The contract documents shall be governed by the laws and by-laws of India, the State of Maharashtra and the local bodies in this region.

b. Resolving the disputes:

In case of disputes, between a Contractor and the field officers and ENGINEER, regarding this tender, decision of the Chief Executive Officer of PCNTDA shall be the final and binding. No arbitration shall be allowed.

18. PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all duties including excise duty, sales tax, works contract tax, local taxes, income tax, octroi and other taxes Govt. Royalties and any other levies required by law including all taxes. The Employer will not take any responsibility of refund of such taxes/fees and in case of disputes between taxing authority and the contractor, the EMPLOYER & Engineer and its officers shall be indemnified by the Contractor. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

19. BURIED AND CONCEALED WORK

The contractor shall help in recording the precise location of all piping, conduits, ducts cables and any other work that is buried, embedded in earth or concrete or masonry, or concealed in wood or metal frame walls and structures at the time such work is installed and prior to concealment. If the contractor should cover or bury such work before such recording takes place, he shall uncover the unrecorded work to the extent required by the ENGINEER and shall satisfactorily restore and reconstruct the removed work with no change in the contract price or the contract time without any extra cost to EMPLOYER.

20. INSPECTION

- i) The contractor shall inform the ENGINEER 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 shall have certified in writing to that effect. No approval of materials or workmanship or approval of part of the work during the progress of execution shall bind the ENGINEER 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 alternations and modifications or reconstruction have been affected at the cost of the contractor as shall enable him to certify that the work has been completed to his satisfaction.
- ii) The contractor shall provide at his cost necessary ladders and such arrangement as to provide necessary facilities and assistance for proper inspection of all parts of the work at his own cost.

The contractor after completion of work shall have to clean the site of all debris and remove all unused materials other than those supplied by the Employer and all plant and machinery, equipment, tools etc. belonging to him within one month from the date of completion of the work, or otherwise the same shall be removed by the Department at his cost and contractor shall not be entitled for payment of any compensation for the same.

21. SAFETY PRECAUTIONS AND EMERGENCIES AND PROTECTION OF ENVIRONMENT

21.1 Contractor's Responsibility for Safety

The contractor shall be solely responsible notwithstanding any stipulations by owner or ENGINEER for initiating, maintaining and supervising all safety precautions and programmes, in connection with the work and shall comply with all laws, ordinance, code rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damages, injury or loss during the entire contract period including non-working hours.

On the occurrence of an accident arising out of the works which result in death or which is so serious as to be likely to result in death, the contractor shall within one hour of such accident intimate in writing to the ENGINEER the facts stating clearly and with sufficient details the circumstances of such accidents and subsequent action taken by him. The matter should also to be reported to the local police station immediately. All other accidents on the works involving injuries to the persons or property other than that of the contractor shall be promptly reported to the ENGINEER clearly and with sufficient details the facts of such accidents and the action taken by the contractor.

21.2 The Contractor shall, throughout the execution and completion of the works and the remedying of any defects therein:

- a) Have full regard for the safety of all persons entitled to be upon the site and keep the site (so far as the same is under his control) and the works (so far as the same are not completed or occupied by the Employer) in an orderly state appropriate to the avoidance of danger to such persons.
- b) Provide and maintain at this own cost all lights, guards, fencing, warning signs and watching, when and where necessary or required by the ENGINEER or by any duly constituted authority, for the protection of the works or for the safety and convenience of the public or others, and
- c) Take all reasonable steps to protect the environment on and off the site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other causes arising as a consequence of his methods of operation.

21.3 Care of Works

The Contractor for his liability

During the Defects Liability and Maintenance Period of 3 years for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability and Maintenance Period of 3 years, and

For loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under this agreement and during defect liability and Maintenance Period of 3 years.

Responsibility for amount not recovered

Any amounts not insured or not recovered from the insurers shall be borne by the Contractor in accordance with their responsibilities under Clause – 21.3.

The Contractor shall, without limiting his or the Employer's obligation and responsibilities under Clause – 21.3 ensure -

- a) The works, together with materials and plant for incorporation therein, to the full replacement cost (the term "cost" in this context shall include profit).
 - b) An additional sum of 15 per cent of such replacement cost, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and the cost of demolishing and removing any part of the works and of removing debris of whatsoever nature, and
- The Contractor's Equipment and other, things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site,

21.4 Scope of Cover

The insurance in paragraphs (a) and (b) of Clause – 21.3 shall be in the joint names of the Contractor and the Employer and shall cover;

- a) The Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided in Clause – 21.6, from the start of work at the Site until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and
- b) The Contractor for his liability
During the Defects Liability and Maintenance Period of 3 years for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability and Maintenance Period of 3 years, and
For loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under this agreement and during defect liability and Maintenance Period of 3 years.
Responsibility for amount not recovered
Any amounts not insured or not recovered from the insurers shall be borne by the Contractor in accordance with their responsibilities under Clause – 21.3.

21.6 Exclusions

There shall be no obligation for the insurance in to include loss or damage cause by (accepted risk)

War, hostilities (whether was be declared or not), invasion, act of foreign enemies, Rebellion, revolution, insurrection, or military or usurped power, or civil war, Ionising radiations, or contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof, or Pressure waves cause by aircraft or other aerial devices traveling at sonic or supersonic speeds.

Damage to persons and properties

The Contractor shall, indemnify the Employer against all losses and claims in respect of :

- a) Death of or injury to any person, or
- b) Loss of or damage any property (other than the works).

Which may arise out of or in consequence of the execution and completion of the works & the remedying of nay defects therein, & against shall claims, proceedings, damages, costs, charges & expenses whatsoever in respect thereof or in relation thereto, subject to the exceptions defined in Clause–22.2.

21.7 Third party insurance including employers property

The Contractor shall, without limiting his or the Employer’s obligations and responsibility under Clause –21.7, insure, in the joint names of the Contactor and the Employer,

against liabilities for death of or injury to any person (other than the works) arising out of the performance of the Contract.

21.8 Minimum amount of insurance

Minimum amount of third party insurance of y) minimum per occurrence with number of occurrence shall not be less than (5) five. After each occurrence the number of occurrence to be brought back to minimum of (5) five.

21.9 Cross liability

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer & Engineer as separately insured.

21.10 Accident or injury to work man

The employer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any Sub-contractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

21.11 Insurance against accident to work man

The Contractor shall insure against such liabilities and shall continue such insurance during the whole of the time that any persons are employed by him on the works, provided that in respect of any persons employed by any Sub-contractor, the Contractor's obligations to insure as aforesaid under this sub-clause shall be satisfied if the Sub-Contractor shall have insured against the liability in respect of such persons in such manner that the Employer & Engineer are indemnified under the policy, but the Contractor shall require such Sub-contractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

21.12 Evidence and Terms of Insurance

The Contractor shall provide evidence to the Employer prior to the start of work at the Site that the insurances required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Employer, the Contractor shall notify the ENGINEER of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer.

21.13 Adequacy of Insurance

The Contractor shall notify the insurers of charges in the nature, extent or programme for the execution of the works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premiums.

21.14 Remedy on Contractor's failure to insurance

If the Contractor fails to effect and keep in force any of the insurance required under the Contract, or fails to provide the policies to the Employer within the period required by clause – 21.16 then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

21.15 Compliance with policy conditions

In the event that the Contractor fails to comply with conditions imposed by the insurance policies affected pursuant to the Contract shall indemnify the employer & Engineer all losses and claims arising from such failure.

21.16 Compliance with Statutes, regulations

The Contractor shall conform in all respects, including by the giving of all notices and the paying of all fees, with the provisions of:

- a) Any National or State Statute, Ordinance, or other law, or any regulations, or bye-law of local or other duly constituted authority in relation to the execution and completion of the works and remedying of any defects therein, and
- b) The rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the works.

and the Contractor shall keep the Employer indemnified against all penalties and liability of every kind for breach of any such provisions. Provided always that the Employer shall be responsible for obtaining any planning, zoning or other similar permission required for the works to proceed and shall indemnify the Contractor in accordance with clause – 22.3.

21.17 In all cases, the contractor shall indemnify the ENGINEER against all losses or damages, resulting directly from the contractor's failure to report in the manner aforesaid. This includes the penalties or fines, if any, payable by the owner as a consequence of failure to give notice under Workmen's Compensation Act or otherwise to conform to the provisions of the said Act in regard to such accidents.

21.18 In the event of an accident in respect of which compensation may become payable by the contractor, such sum of money as may, in the opinion of the ENGINEER, be sufficient to meet

such liability will be kept in deposit. On the receipt of award from the Labour Commissioner in regard to the quantum of compensation, the difference in the amount will be adjusted.

The contractor shall take a Contractors All Risk Insurance Policy (CAR) from the Govt. of Maharashtra approved Insurance company for the works and keep it in force throughout the work period. The CAR policy shall also cover accident that may occur to the vehicle plying on the adjoining bridge / approach road, cross road and slip roads etc.

22. WARNINGS AND BARRICADES

Widening & construction of road shall be done in half width. Proper traffic diversion is the responsibility of the contractor.

The contractor shall provide and maintain MS sheet barricades as per drawing, guards, guard rails, temporary bridges and walkways, watchmen, headlights and danger signals illuminated from sunset to sunrise and all other necessary appliances such as blinkers, signals, red light and safeguards to protect the work, life, property, the public, excavations, equipment and materials. Barricades shall be substantial construction and shall be painted such as to increase their visibility at night. For any accident arising out of the neglect of above instructions, the contractor shall be bound to bear the expenses of defense of every suit, action or other legal proceedings, at law, that may be brought by any person for injury sustained owing to neglect of the above precautions & to pay all damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the contractor be paid in compromising any claim by any such person.

23. ENGINEER'S STATUS DURING CONSTRUCTION AND AUTHORITY OF THE ENGINEER:

The ENGINEER shall have the authority to enforce compliance with the contract documents. On all questions relating to quantities, the acceptability of materials, equipment, or works, the adequacy of the performance of the work and the interpretation of the drawings and specifications, the decision of the ENGINEER shall be final and binding and shall be precedent to any condition under the contract agreement unless otherwise provided in the contract documents. The ENGINEER shall have the authority to stop / suspend the work or any part thereof as may be necessary to ensure the proper execution of the work, disapprove or reject the works which is defective, to require the uncovering and inspection or testing of the works to require re-examination of the works, to issue interpretations and clarifications, to order changes or alterations in the works, and other authority as provided elsewhere in the contract documents.

The ENGINEER shall not be liable for the results of any ruling, interpretation or decision rendered, or request, demand, instruction, or order issued by him in good faith. The contractor shall promptly comply with requests, demands, instructions and order from the ENGINEER.

The whole of the works shall be under the directions of the ENGINEER, whose decision shall be final, conclusive & binding on all parties to the contract, on all questions relating to the

construction & meaning of plans, working drawings, sections & specifications connected with the work. The ENGINEER shall have the power & authority from time to time & at all times make and issue such further instructions and directions as may appear to him necessary or proper for the guidance of the contractor and the good and sufficient execution of the works according to the terms of specifications and the contractor shall receive, execute, obey and be bound by the same according to the true intent and meaning thereof; fully and effectually. ENGINEER may order any of the works contemplated thereby to be omitted, with or without the substitution of any other works in lieu thereof, or may order any works or any portion of works executed or partially executed, to be removed, changed or altered and if needful, may order that other works shall be substituted instead thereof and the difference of expenses occasioned by any such diminution or alteration so ordered and directed shall be deducted from or added to the amount of this contract.

In case the progress of the Contractor is found to be less than the programme given by him at any point of time and if the ENGINEER is convinced that the Contractor cannot execute the balance work within the balance period of time, a notice of 30 days will be issued to improve the progress. In case there is no improvement a further notice of seven days will be given and thereafter a part or whole of the work will be withdrawn from the Contractor and will be got done at the risk and cost of the Contractor. The right of ENGINEER in this respect shall be unquestionable. On expiry of the seven days notice, as above, the Contractor shall remove his materials, men, equipment's, plant and management from the site, within seven days so that the new agency can take over immediately. Failing to this, the Employer will remove the aforesaid things at the risk and cost of the Contractor.

24. DUTIES OF ENGINEER'S REPRESENTATIVE

The Engineer's representative is the person notified by the Engineer to carry on his duties and obligation stated in this contract. The duties of the representative of the ENGINEER are to check, inspect and supervise the work and to get testing of any materials to be used or workmanship employed in connection with the works. He shall furnish the drawings and information to the contractor, approve the contractor's drawings recommend and approve the interim certificates and taking over certificates after thorough checking and inspection and recommend extra work required and extension of time.

Approval for or acceptance of any work or material or failure to disapprove any work or material by the representative of the ENGINEER shall not prejudice the power of the ENGINEER thereafter to disapprove such work or material and to order removal or modification thereof. If the contractor shall be dissatisfied with any decision of the representative of the ENGINEER, he shall be entitled to refer the matter to the technical committee headed by District Collector, who shall thereupon confirm, reverse or vary such decision.

25. DEFECTS AND RECTIFICATION

For period specified as the “Defect Liability and Maintenance Period of 3 years” for the work starts from the date of issuance of the completion certificate or issuance of completion certificate for the project work whichever is later in accordance with para "Final Inspection and Acceptance" contractor shall remain liable for any of the works or parts thereof or equipment and fittings supplied which in the opinion of the ENGINEER fail to comply with the requirements of the contract or are in any way unsatisfactory or defective.

To the extent that the works and each part thereof shall at or as soon as practicable after the expiry of the above period be taken over by the ENGINEER in the condition required by the contract to the satisfaction of the ENGINEER. The contractor shall finish the work (if any) outstanding at the date of completion as soon as may be practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good of defects imperfections, shrinkages or other faults as may during the period of maintenance or after its expiry be required of the contractor in writing by the ENGINEER as a result of an inspection made by or on behalf of the ENGINEER prior to the expiry of the period. All such work shall be carried out by the contractor at his own expenses if the necessity thereof shall in the opinion of the ENGINEER be due to the use of materials or to the neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract. If the contractor fails to do any such work as entitled to carry out such work in which the contractor should have carried out at the contractor's own cost, the ENGINEER shall be entitled to recover from the contractor the cost thereof or may deduct the same from the moneys that become due to the contractor. Notwithstanding the aforesaid, if the contractor remains in default, one calendar month after the ENGINEER has given written instructions in writing, the Security Deposit shall become payable to the Employer who will deduct the cost plus overhead expenses of such works as have been necessary to rectify the contractor's default and the balance, if any, shall be disbursed. The Contractor shall submit the operation and maintenance manual for the fruitful operation of the works. The Contractor will have to carry out the inspection as per given frequency in the contract and maintenance within a specified time as stated in the contract during the defect liability and Maintenance Period of 3 years and as stated in Schedule L of this document.

The roughness index of the road work shall not exceed 2500mm / lane /km during defect liability and Maintenance Period of 3 years. If during authorized inspection as stipulated in this document the roughness index exceeds this limit, the contractor shall rectify the wearing surface in such a way that the roughness index is below 2000mm / lane/km, at his own cost. If the contractor fails to rectify this defect of roughness index, within 7 days of intimation from ENGINEER, EMPLOYER is free to execute such required rectification from other agencies at the contractor's expense which is recoverable from performance security and any other payment for any work due to the contractor from EMPLOYER and the State of Maharashtra.

26. RIGHT TO WITHHOLD

The ENGINEER may refuse to approve to any payment, or because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously approved and paid to such extent as may be necessary in the opinion of the ENGINEER to protect him from loss because (a). The work is defective, (b) Third party claims have been filed or there is reasonable evidence indicating probable filing of such claims, (c) of the Contractor's failure to make payment properly to sub-contractors or for labour, materials or equipment, (d) of damage to another Contractor, or to the property of other caused by the Contractor, (e) of reasonable doubt that the work cannot be completed for the unpaid balance of the contract price, (f) of reasonable indication that the work will not be completed within the contract time, (g) of the Contractor's neglect or unsatisfactory prosecution of the work including failure to clean up, (h) to carry out the duties and responsibilities during defect liability and Maintenance Period of 3 years. Once the reasons that enable or require the ENGINEER to withhold such payments are removed, payment will be made for amounts withheld because of them to the extent the contractor is entitled to.

27. FINAL INSPECTION AND ACCEPTANCE

Upon written notice from the contractor, that the entire work required by the contract documents is complete and that all submittals required by him are made, and after the Contractor has delivered the bonds, certificates of inspection, guarantees, warranties, releases and other documents, as required by the contract documents or by law, the ENGINEER will make a final inspection, and he will notify the Contractor in writing of any particulars in which this inspection reveals that the work is defective, and will also notify the Contractor in writing of any deficiencies in the submittals and the document required from him.

The Contractor shall promptly make such corrections as are necessary to remedy all defects or deficiencies. After the Contractor has completed any such corrections to the satisfaction of the owner, the ENGINEER will issue a written Taking-Over certificate of the work and file any notice and completion required by law or otherwise.

28. CONTINUING OBLIGATION OF THE CONTRACTOR

The Contractor's obligation to perform and complete the work in accordance with the contract documents is and shall be absolute. Neither the observation during construction and final inspection of the work by the ENGINEER, nor any payment to the Contractor under the Contract documents, nor any use or occupancy of the work or any part thereof by the ENGINEER, nor any act of acceptance of the defective work by the ENGINEER shall constitute acceptance of work not in accordance with the contract documents.

29. INCOME TAX AND WORK CONTRACT TAX

Income Tax and Work Contract Tax as applicable on gross value of each running account bill shall be deducted towards income tax and Work Contract Tax and a certificate to that extent shall be issued by EMPLOYER.

30. FORCE MAJEURE

Neither party shall be liable to the other for any loss or damage occasioned by or arising out of the acts of God and in particular unprecedented floods, volcanic eruptions, earthquake or other conclusion of nature and other acts such as, but not restricted to, invasion, act of foreign countries, hostilities or warlike operations before or after declaration of war, rebellion, military or unsurpassed power which prevent performance of the contract and which could not have been foreseen or avoided by a prudent person, such as Earthquake of magnitude more than for which the structures are designed.

31. RECORDS AND MEASUREMENTS

The ENGINEER, shall except stated therein, determine by measurement the value in accordance with the contract of works done in accordance therewith.

All items having a financial value shall be entered in a measurement book, level book, computerized systems etc. as prescribed by the ENGINEER so that a complete record is obtained of all work performed under the contract. Measurements shall be checked & confirmed by the ENGINEER or his authorized representative and by the Contractor or his authorized representative. Before taking measurement of any work the ENGINEER or the person deputed by him for the purpose shall give reasonable notice to the contractor. If the contractor fails to attend or send an authorized representative for measurement after such notice or fails to countersign or record the objection within a week from the date of measurement, then in any such event measurements will be taken by the ENGINEER, or by the person deputed by him shall be taken to be correct measurements of the works and shall be binding on the contractor. There shall be absolutely no doubt regarding measurements, the contractor must know the departmental practices developed as per the manuals and standard specifications. The Contractor shall, without any extra charge, provide assistance with every appliance and other things necessary for measurements, such as levelling instruments (Auto setting), Total Station of approved make. The Total Station shall be made available by the Contractor from the beginning of the work till the completion of the work, along with tapes, staves, video cameras/camera, paints, brushes and required labour etc.

Measurements shall be signed and dated by both the parties each day (for taking measurement) on the site on completion of measurements. The Contractor shall take up still colour photographs and video graphs at intervals during the execution of works so that a history of development and each activity of the project is maintained.

Set of dated photographs and video graphs, in three copies of each photographs, shall be submitted to the Engineer every month. This generation of record shall provide the used methodology of working and highlight the quality of material and workmanship. The cost of the said work shall be borne by the Contractor. It shall be the property of the Corporation and shall not be used for campaigning, advertising without the permission of the Corporation.

The contractor shall submit the following before any part of the work is started.

- i) Cross section of road as directed by the ENGINEER.
- ii) All levels along the L-section & cross section as directed & duly verified by ENGINEER.
- iii) Methodology of construction for each part of work.
- iv) Bar bending schedules for each component of the work and get the same approved.
- v) Detailed measurement of concrete & steel quantities shall be given on weekly basis.
- vi) Detail measurement of excavation in each strata,
 - Test reports of materials to be used for each part of work in the prescribed format.
 - Cement consumption statement
 - Quarried material such as metal, sand, murum etc.

Contractor has also maintain and to update information / records of site and work progress on website as

- The Contractor shall maintain and update all the project work and work process related information (in website format) at a location specified by the Employer.
- The contractor shall arrange for separate space on the Server for all the EMPLOYER data (for all ongoing projects) as specified by the Engineer.
- The contractor shall arrange for maintenance of the entire EMPLOYER project data of all ongoing projects (hardware, Software personnel) on the Server connected to EMPLOYER website for the entire contract period of xxx months and additional 3 months (Total of xxx months).
- The Contractor shall be responsible for updating of all project related information (specific to this work) on the website daily until 11.00 am of the next working day with due authentication from Engineer.
- All the costs for hardware, software and Server space shall be borne by the Contractor and no separate payment shall be made for the same.

32. WRITTEN NOTICE

Written notice shall be deemed to have been duly served or delivered in person to the individual or member of the firm or to an officer of the corporation for whom it was intended, or if delivered at or sent by registered or certified mail to the last business address known to him who gives the notice. The notice on the Fax Message/E-Mail shall be deemed to have been duly served. The address given in the contractor's tender on which all notices,

letters & other communications to the contractor shall be mailed or delivered, except that said address may be changed by the Contractor by notifying the owner in writing. This shall not preclude the service of any notice, letter or other communication upon the Contractor personally.

33. USE OF COMPLETED PORTIONS

The owner shall have the right, upon written notice to the Contractor, to take possession or occupancy of, & use any completed or partially completed portions of the work, notwithstanding that the time for completing the entire work or such portions may not have expired but such taking possession or occupancy and use shall not be deemed to waive of any requirement of the contract documents or a waiver or acceptance of any work not completed in accordance with the contract documents.

34. CLEANING UP

The contractor shall at all times during the work keep the site and premises, adjoining property and public property free from accumulations of waste materials, rubbish, and other debris resulting from the works, and at the completion of the work shall remove all waste materials, rubbish and debris from and about the site and premises as well as all tools, construction equipment and machinery and surplus materials, and shall leave the site and premises, clean, tidy and ready for occupancy by the owner. The Contractor shall restore to their original condition those portions of the site not designated for alteration by the contract documents paved ways, parking areas and roadways disturbed by the construction shall be redone by filling the excavation, if any, by sand compacted material and bringing it to its original shape as directed and approved by the ENGINEER. No waste material shall be buried or disposed off on the owner's property unless so approved in writing by the Engineer. Before the Contractor applies for final inspection and acceptance of the work, all items of work shall be complete, ready to operate, and in a clean condition as determined by the ENGINEER. All slip roads and adjoining area must be kept free of metal / sand and to that extent regular sweeping of the road shall be done by the contractor at his cost.

35. OWNER'S RIGHT TO CLEAN UP

If the Contractor fails to satisfactorily clean up or if a dispute arises between the Contractors or in several Contractors as to their responsibility for cleaning up, the ENGINEER may get the same cleaned up and charge the cost thereof to the Contractor for his failure, as the ENGINEER shall determine to be just.

36. FOSSILS ETC

All fossils, coins, articles of value of antiquity and structures or other remains or things of geological or archaeological interest discovered on the site shall be deemed to be the property of the owner and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the ENGINEER of such discovery and carry out at the expenses of the ENGINEER's order as to the disposal of the same.

37. LABOUR RULES

The contractor will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Labour (Regulation and Abolition) Act 1970, before starting the work, otherwise the Contractor shall have to face the further consequences.

The contractor shall have to comply with 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 breach of contract and the Employer, may in his discretion, cancel the contract, the Contractor shall also be liable, for any pecuniary liability arising on account of any violation of the provisions of this act, by him.

38. STATUTORY INCREASE IN DUTIES, TAXES ETC

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and shall not be reimbursed to him on any account. The tender shall be inclusive of all taxes levies, octroi etc. including the tax leviable in respect of work contract under the provision of Maharashtra Sales Tax as transfer of property in goods involved in the execution of Work Contract Act 1985 and its further amendments (Maharashtra ACT XIX of 1985) to be paid by the Contractor.

Further EMPLOYER shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. as the same are inter-alia covered under the Price Variation Clause. At the time of quoting/bidding contractor should bear the above fact in mind.

39. INSPECTION, TESTING FEES

As specified in this document.

40. SITE TEST

The various works envisaged in the tender needs to be tested at site during/after completion of the individual work. This testing is to be done as per the standard

procedure laid down in the relevant IRC / MORTH / I.S. or any other standard being followed. The detailed specification shall also be taken into consideration while carrying out the testing. The frequency and type of test on various material and completed item shall be as per MORTH specifications for road and bridge latest edition. The sub-work wise testing required is given in Note shall be as below, which is only indicative:

SITE TESTING

Sr. No.	Materials	Type of Test
1.	Cement	Physical and chemical tests, Adulteration in Cement, Setting property and Compressive test ,chemical analysis etc.
2.	Coarse aggregate	Sieve Analysis, Density, water absorption etc. moisture content. Flakiness Index
3.	Fine Aggregates	Sieve Analysis, Silt Content, Organic impurities etc. and moisture content.
4.	Reinforcement for R.C.C. work	Cold bend test, tension, elongation, Bond etc.
5.	Cement Concrete	Slump test, Compression test, permeability test.
6.	Other site tests	As when required by the ENGINEER/E-I-C

Note : Coarse & Fine Aggregates should also be tested for Aggregate – Alkali reactivity from an approved laboratory.

Contractor shall provide all facilities to conduct various test as per MoRT&H / IS on site as specified at per his own cost &no extra payment shall be maid.

41. IMPORT LICENSE AND PROCUREMENT OF IMPORTED MATERIALS

The Contractor shall quote for the indigenous equipment only, as far as possible for the work contracted. Foreign exchanges and import licenses, if any, required shall have to be arranged by the Contractor himself, independently. Delay in getting any material, will not be entertained for neither extension of time limit nor the risk of foreign exchange variation will be covered by the Employer.

42. MACHINERY REQUIRED

All machinery required for erection / execution purposes such as concrete batching plant, hot-mix plant, excavator with rock breaker unit, cranes, trucks, etc. shall be arranged by the Contractor. Employer / P M C will not take any responsibility for providing such machinery

even on rental basis. Execution of any item will be allowed only after the required machinery as directed by the ENGINEER is made available in working condition.

43. DISCREPANCIES AND OMISSIONS

The tender drawings and specifications, shall be considered as complimentary and explanatory, of each other and together shall form the technical requirements and stipulations of tender documents. Detailed drawings shall have preference over small-scale drawings. Similarly, detailed specifications shall have preference over general specifications. Should any discrepancy arise as to the meaning, intent or interpretation of any specification or drawing the decision of the ENGINEER shall be final and binding on the Contractor.

44. NO INTEREST ON DUES

No interest shall be payable by the Corporation on amounts, due to contractors pending final settlement of claim. Further, no interest shall be payable by EMPLOYER on any delayed amount / payment. No interest shall be payable on security deposit or withheld amount.

45. Note for Leveling: -

For Leveling Contractor should arrange for Total Station for all leveling items in this contract. He should submit soft copy along with hard copy of the results. Contractor shall arrange soft or hard copy of Longitudinal Section, Cross Section required for calculation of quantities after carrying out leveling works. Cost of hiring of Total Station and taking levels along with PCNTDA Engineers shall be borne by the Contractor. If PCNTDA Engineer is required to be trained for Total Station it should be borne by the Contractor.

50 Inauguration

The Contractor should make provisions for Inauguration ceremony. He should clean the site before ceremony. The contractor should provide for advertisement and invitation of Inauguration ceremony. Other provisions like temporary pandol, seating arrangement etc, as directed by Executive Engineer should be made. The contractor should also prepare and provide a granite or marble plaque, with such inscriptions, which are provided by or as directed by The Executive Engineer, PCNTDA

(SECTION-V)

TECHNICAL SPECIFICATIONS

Note: The detail technical specifications are stated in CSD Volume II of bid document.

- **PREAMBLE:**

The Technical Specifications contained herein shall be read in conjunction with the other Bidding Documents as specified.

6.2 GENERAL REQUIREMENTS

The Technical Specifications in accordance with which the entire work described hereinafter shall be executed and completed by the Contractor shall comprise of the following :

6.2.1 PART – I – GENERAL TECHNICAL SPECIFICATIONS

The General Technical Specifications shall be the “SPECIFICATIONS FOR ROAD AND BRIDGE WORKS” (FOURTH REVISION, August 2001) issued by the Ministry of Road Transport & Highways, Government of India and published by the Indian Roads Congress, hereinafter referred to as MORT&H Specifications and the Standard Specifications published by PWD, Maharashtra and Maharashtra Jeevan Pradhikaran in conjunction to the specifications stated in Volume II of the bid document.

6.2.2 PART – II – SUPPLEMENTARY TECHNICAL SPECIFICATIONS

LINE OUT

The contractor shall carry out the marking of the centerline of the road, closed box type subways and various other components and complete the lining out the work in the presence of the representative of the corporation. The contractors shall be responsible for accuracy of the same. The contractor shall construct required masonry and concrete pillars for marking of proper lines and levels with precision “Total Station “ instrument and establish locations of piers, abutments and bench marks etc. as directed. The contractor shall make available at site the “Total Station “instrument for full time from starting till completion of the work. The contractor shall employ a qualified Engineer for the line out of the project and for complete survey work before taking up the work in hand and till completion of the work. The Total station shall be kept in custody of ENGINEER.

3. PROGRAMME AND PROGRESS SCHEDULE

A broad mile stone oriented programme, in the form of Bar chart, is given in the Tender Document. This Bar Chart takes into consideration the priority of works, desired by EMPLOYER, as well as the programme felt necessary to complete the work. The Contractor shall submit his own programme with the tender, in the form of Bar Chart, indicating critical activities and PERT programme including phase wise deployment of man and machinery, power, cash flow etc. in Envelope No. I. This programme shall, nowhere, be less than the programme proposed by EMPLOYER. The programme shall be based on latest software like Primavera/MS Project and taking into account the available resources and allocation etc. Simultaneous with the execution of the Contract Agreement, the Contractor shall submit to the Engineer his item-wise monthly programme, which shall be program based on latest software like primavera / Microsoft projects & taking into account resource allocations, nothing but detailing of the programme/Bar Chart submitted during the Tender. The programme shall also provide the information as to required approvals to methodology, drawing, samples, materials, equipments & their time of submissions to the Corporation. The adequate commissioning & trial run period shall be incorporated in the programme/Bar Chart. The progress report shall be submitted by the Contractor vis-à-vis programme every month. The project team of the Contractor shall be so motivated to know the balance work at the end of each week & the rate required in the balance period to complete the work & therefore, shall endeavor to complete the task assigned for each week timely. In case, where the updated programme & revised schedule is required, the same shall be submitted to the owner for approval.

The programme shall indicate and give details of physical and financial implication including men, materials and machinery requirements.

In case the progress is less than the stipulated progress, contractor shall increase the resources i.e. machinery and labour to achieve the targeted progress at no extra cost.

4. INTENT AND INTERPRETATION OF CONTRACT DOCUMENTS

4.1 The contract documents are complementary and what is called for by one is as binding as if called for by all. Any work that may be reasonably inferred from the drawings or specifications as being required to produce the intended result shall be provided by the contractor whether or not it is specifically called for.

The contractor shall furnish and pay for all labour, supervision, materials, equipment, transportation, construction, equipment and machinery tools, appliances, water, fuel, power, energy, light, heat, utilities, telephone, storage, protections, safety provisions, and all other facilities, services and incidentals of any nature whatsoever necessary for the satisfactory and acceptable execution, testing, initial operation (two months) and completion of the work in accordance with the contract documents, ready for use and operation by the owner. The cost of all these arrangements shall be deemed to be included in the contract offer and no separate payment shall be admissible therefore.

4.2 Interpretations

Written clarifications or interpretations necessary for the proper execution or progress of the work, in the form of drawings or otherwise, will be issued with reasonable promptness by the ENGINEER and in accordance with any schedule agreed upon. Such clarifications or interpretations shall be consistent with or reasonably inferable from the intent of the contract documents and shall become a part thereof. Where, there is a discrepancy between the drawings and the specifications, the contractor shall obtain the ENGINEER's interpretation, which shall be binding on the Contractor.

4.3 Drawings

The contract drawings (G.A.D) provided are for tendering purpose only. This tender document shall be used for reference and guidance only. Figured dimensions on drawings shall only be followed and detailed drawings shall govern over general drawings. The structural drawings for execution will be supplied by the Engineer in duplicate progressively. The contractor shall keep approved set of drawings at site of work and copies of the approved drawings shall be made available to ENGINEER or his representative for checking record etc.

4.3.1 Signed Drawings

Signed drawings alone shall not be deemed to be in order for work unless it is entered in the agreement or schedule of drawings under proper attestation of the Contractor and the ENGINEER or unless it has been sent to the contractor by the ENGINEER with a covering letter confirming that the drawing is an authority for work in the contract.

4.3.2 Technical Words

Work, materials or equipment described in works, which so applied, have a well-known trade or technical meaning shall be deemed to refer to such recognized meanings.

4.3.3. Mistakes in Drawings

The Contractor shall be responsible for any discrepancies, errors or omissions in the drawings and other particulars, supplied by him, whether such drawings and particulars have been approved by the ENGINEER or not, provided that such discrepancies, errors or omissions be not due to inaccurate information or particulars furnished in writing to the contractor by the ENGINEER.

4.3.4 The work specified in this contract shall include all general work, preparatory to the construction of said road like constructing temporary approach roads etc. & any kind of work necessary for the due & satisfactory construction and completion of the captioned road.

4.3.5 Being semi urban roads, many structures like box type subways, culverts & other concrete works are part of the project. The design for centering & form work with material shall be prepared by the contractor from an expert & to get approved from the ENGINEER in charge well in advance.

4.3.6 Contractor shall appoint an experienced structural engineer for preparing the design of centering and various formwork and getting it approved from Engineer. He shall also prepare design of shoring and strutting etc. required for excavation work. The work of centering and formwork, shoring and strutting shall be done under supervision of the structural engineer of the contractor and get it approved from the ENGINEER. The cost of such structural engineer is incidental to work and deemed to be included in the rate. No claim in this regard shall be paid by employer.

5. LAND, CONDITIONS AND LAYOUT

5.1 No land is available with the EMPLOYER to be given to contractor for his establishment. The contractor has to make his own arrangements. The contractor shall obtain consent from property owners, make all arrangement and pay all costs for the land, areas of access and right of way without any liability to the EMPLOYER. The owner will furnish and pay for the land, easements and right of way for the land required for the grade separator work.

5.2 Sub-Surface Conditions

The Contractor shall promptly notify the owner in writing of any surface or latent physical conditions at the site differing materially from those indicated in the contract documents or of any unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in constructions of the character provided for in the contract documents. The ENGINEER will investigate those conditions and obtain such additional tests and surveys, as he may deem necessary. If the ENGINEER finds that the conditions differ significantly from those indicated in the contract documents or from those inherent in the construction, a variation order may be issued to incorporate the necessary revisions unless otherwise provided in the contract documents. Contractor shall satisfy himself about strata conditions before submission of detailed proposal and methodology of construction.

5.3 Line out of the Work

5.3.1 Surveys and Measurements

The contractor shall provide free of charge all labour and material required & total station equipment for lining out, surveying, inspection decided by the ENGINEERs as considered

necessary for the proper and systematic execution of the work. The Department will only show the changed points on the alignment of road. It will be the responsibility of the contractor to correctly align the road straight between points including setting out curves by total station equipment though the Department will render necessary assistance. Likewise, only one Bench Mark with definite value of R.L. will be shown to contractor who shall have to provide for a network of temporary benchmark all along the road and near C.D. Works for executing the work. The contractor shall be responsible for the provision, accuracy and maintenance of such temporary Bench Mark. He shall be responsible for the correctness of the position, levels, dimensions & alignments of all parts of the works & provision of necessary instruments & labour in connection with it, suitably pointed bamboo or wooden stack shall be provided at his cost and firmly fixed at every 50 meters on both sides of embankment to indicate final as well as intermediate height of the embankment. Any errors in position levels, dimensions & all alignment etc. shall be rectified by contractor at his expenses. If such error is due to incorrect data supplied in writing by the ENGINEER or his authorised representative, the cost of rectification shall be borne by Employer. The checking or inspection of any setting out of any line or level or work by ENGINEER or his representative shall not in any way relieve the contractor of his responsibility or correctness thereof. The contractor shall carefully protect and preserve all Bench Marks, site rails, pegs and stones etc used in setting out the works. Marking out the centerlines of C.D. Works necessary approaches etc. shall be done by the Contractor at his own cost as directed by the ENGINEER.

5.3.2 Contractor's Verification

The Contractor will establish at the work site temporary bench marks (TBM) as per requirement & as directed by Engineer & connect it to a permanent B.M. available in the area with known value. The contractor will then carry out necessary surveys & leveling, covering his work, in verification of the survey data on the working drawings furnished by the ENGINEER and he will be responsible for establishing the correct lines and levels and verification of the lines and level furnished on the working drawings. If any error has erupted in the work due to non-observance of this clause, the contractor will be responsible for the error and bear the cost of corrective work.

5.3.3 Deleted.