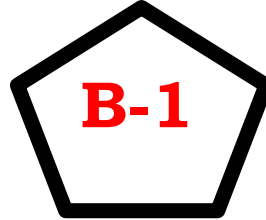


GOVERNMENT OF MAHARASHTRA

DIRECTORATE OF TOURISM

***DIRECTORATE OF TOURISM
NARIMAN PONT MUMBAI***



TENDER PAPERS

***e-Tendering System
FOR THE WORK OF***

NAME OF WORK: - Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna

Amount put to Tender. : Rs. 98,00,757/-

Earnest Money Deposit. : Rs. 99,000/-

<https://mahatenders.gov.in>

**EXECUTIVE ENGINEER
DIRECTORATE OF TOURISM,
MUMBAI.**

INDEX

NAME OF WORK : Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna

Sr. No.	Brief Description of Contents	Pages	
		From	To
1.	Work details and Brief Tender Notice	2	9
2.	Detailed Tender Notice	10	29
3.	Scope of work	30	30
4.	Agreement Form B-1 and Conditions of Contract	31	76
5.	Schedule 'A'	77	77
6.	Additional Condition for Material to be brought by Contractor	78	79
7.	Additional General Condition	80	129
8.	Additional Specifications	130	142
9.	Quality Assurance and Maintenance	143	143
10.	Anti-Corrosive treatment of CPCC type	144	152
11.	Specifications for Waterproofing work.	153	154
12.	Specifications for Polymer Mortar and Polymer Modified Concrete.	155	164
13.	Model Format of Bank Guarantee Bond for Security Deposit	165	167
14.	Model Format of PERFORMANCE BANK GUARANTEE and Bond for waterproofing treatment.	168	169
15.	Forms of Store	170	173
16.	PRICE VARIATION CLAUSE (Price Adjustment)	174	176
17.	Integrity Pact	177	182
18.	Schedule 'B' & Schedule 'C' (Item wise Specifications)	183	206
19.	Declaration of Contractor	207	207
20.	Bar Chart	208	211
21.	Drawings	212	212

Issued to _____

(2)

Contractor

No. of Corrections

Executive Engineer

(3)

Certificate to be incorporate with D.T.P.

CERTIFICATE

Name of work: **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna**

Certified that, all up-to date clauses along with amendments, have been incorporated in the Tender Book for the above work.

**Executive Engineer
Directorate of Tourism, Nariman Point,
Mumbai.**

Contractor

No. of Corrections

Executive Engineer

(4)

CERTIFICATE

Certified that, Estimate and the Plan on which the Tender are based have been carefully examined and the changes are called for.

**Executive Engineer
Directorate of Tourism, Nariman Point,
Mumbai.**

Contractor

No. of Corrections

Executive Engineer

(5)

Certificate to be incorporate with D.T.P.

1. Certified that, the site is approachable and there is no hindrance to start the work after fixation of agency.
2. Certified that, the necessary land required for alignment is in possession of the Executive Engineer and hence the question of land acquisition does not arise.
3. Certified that, the calculations have been checked 100% and found correct.
4. Certified that, the wording of items is as per sanctioned estimate and there is no deviation.
5. Certified that, the work will not be held up for want of design details.
6. Certified that, the shifting / removal of electric line, telephone line, water supply line, old structure, encroachments are not necessary.

**Executive Engineer
Directorate of Tourism, Nariman Point,
Mumbai.**

Contractor

No. of Corrections

Executive Engineer

CERTIFICATE

This is to Certify that all corrections slip and other Corrigendum as required for "B-1" Tender form for the work of **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswani District Jalna** are found to be attached modified as the case may be. Estimated cost put to Tender **Rs. 98,00,757/- (Rupees Ninety eight Lakh Seven Hundred Fifty seven only)** is arithmetically checked and found in order.

(7)

GOVERNMENT OF MAHARASHTRA
DIRECTORATE OF TOURISM

ORIGINAL AGREEMENT NO. B-1/.....

**NAME OF WORK: : Providing Basic Facilities For Tourist/Devotees at
= Wadgaon Shree Mahadev Mandir and Facilities and
cc road and solar light at Pardgaon Shree Bharav Nath
Mandir and at Shree Rokdeshwar Mahadev Mandir
and at Ramsagaon Ram Mandir and Compound wall
atDahegaon Renuka Devi MandirTaluka Ghanswangi
District Jalna**

- 1) Name of Contractor : _____
- 2) No. & Date of Work Order : _____
- 3) Amount put to Tender : **Rs. 98,00,757/-**
- 4) Percentage quoted : _____
- 5) Amount of Contract : _____
- 6) Date of commencement : _____
- 7) Time stipulated for completion of work from the date of written order to start work, which will include the monsoon period. : **270Days Including monsoon.**
- 8) Date of completion as per agreement : _____
- 9) Actual Date of Completion : _____
- 10) Reference to sanction of Extension of time : 1)
2)
3)

Certified that this original Agreement contains

Pages from 1 to 212

Fly Leaves _____ Nos.

Drawings _____ Nos.

Contractor

No. of Corrections

Executive Engineer

DETAILS OF WORK

NAME OF WORK: - : Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna .

Estimated Cost put to tender : **Rs. 98,00,757/-**

Earnest Money Deposit : **Rs. 99,000/-**

1. The EMD should be paid via online using payment gateway.
2. The EMD applicable amount shall be paid via Online mode only. Total Security Deposit **2 (Two) % Rs. 1,98,000/- (50% at the time of Agreement and 50% from R.A. bills).**
3. Time stipulated for completion is **270 Days Including monsoon** which will include the monsoon period.

Cost of Tender Form : **Rs. 1000+ GST**

Class of Contractor : **4A & above**

TO BE FILLED BY THE CONTRACTOR

I/We have quoted my/our offer in percentage rate in words as well as in figures. I/We further undertake to enter into contract in regular 'B-1' form in Public Works Department.

Name and signature of contractor / :
Power of Attorney holder

with complete address. :

**GOVERNMENT OF MAHARASHTRA
DIRECTORATE OF TOURISM**

INVITATION FOR TENDERS

2. DETAILED TENDER NOTICE

NAME OF WORK : Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Daheg Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna

1. Online percentage rate tenders in 'B-1' Form are invited by the Director of Tourism, 4th Floor Sakhar Bhvan Nariman Point Mumbai. for the following work from contractors registered in appropriate class of the public works Department of Maharashtra State. The name of work, estimated cost, earnest money, security deposit, time limit for completion etc. are as under.

Sr. No	Name of work	Estimated Cost (Rupees)	Earnest Money (Rupees)	Security Deposit (Rupees)	Class of Contractor	Time limit in Tender (Calendar Months)
1.	Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna	98,00,757/-	99,000/-	1,98,000/-	Class 4A & above	<u>270 Days</u> <u>Including</u> <u>monsoon</u>

2. Tender form, conditions of contract, specifications and contract drawings can be downloaded from <https://mahatenders.gov.in> after entering the details payment of Rs.1,000/- (Rupees Two Thousand only) + GST should be paid online using payment gateway. The fees of tender document will be non refundable.
3. Further information regarding the work can be obtained from the above office. EMD Exemption certificate will not be accepted. Affidavit on Rs. 100/- stamp paper in prescribed form given in Annexure I sworn before Executive Magistrate / Notary must be submitted online. **Only L1 bidder have to submit Additional Performance Security Deposit should be submitted in the form of FDR / Demand Draft / Bank Guarantee only after 8 days from financial opening to the Executive Engineer, Integrated Unit (P.W.) Division. Hard copy of all the documents is submitted within 72 hours from Bid lock period of tender is allowed.** Bids will be opened as per the Tender Schedule, in the presence of such intending Tenderers or his / their authorized representatives who may be present at that time.

TENDERING PROCEDURE:

1.1. Blank Tender Forms.

- 1.1.1 Tender Forms can be downloaded from the eTendering portal of Directorate of Tourism, Government of Maharashtra i.e. <https://mahatenders.gov.in> after entering the details of payment towards Tender Fees as per the Tender Schedule.
- 1.1.2 The tender submitted by the tenderer shall be based on the clarification, additional facility offered (if any) by the Department, and this tender shall be unconditional. Conditional tenders will be summarily REJECTED.
- 1.1.3 All tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as non responsive. The contractor should clearly mention in forwarding letter that his offer (in envelope No.1& 2) does not contain any condition, deviations from terms and conditions stipulated in the tender.
- 1.1.4 Tenderers should have valid Class II / III Digital Signature Certificate (DSC) obtained from any Certifying Authorities. In case of requirement of DSC, interested Bidders should go to <https://mahatenders.gov.in> and follow the procedure mentioned in the document; Procedure for application of Digital Certificate.
- 1.1.5 For any assistance on the use of Electronic Tendering System, the Users may call the below

Toll Free Ph. No. **1800 30702232/7878107985-86**

E-Mail: eproc.support@maharashtra.gov.in

1.2 Special Instructions to the Contractors/Bidders for the e-submission of the bids online through this tender site:

<https://mahatenders.gov.in>

- (1) Bidder must register themselves on <https://mahatenders.gov.in> portal by clicking “Online Bidder Enrollment” and then map Digital Signature certificate.
- (2) Bidder then login to the site giving user id / password chosen during registration.
- (3) The e-token that is registered should be used by the bidder and should not be misused by others.
- (4) The Bidders can update well in advance, the documents such as certificates, purchase order details etc., under **My Documents** option and these can be selected as per tender requirements and then attached along with bid documents during bid submission.
- (5) After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.
- (6) If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account of the corrigendum published before submitting the bids online.
- (7) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender schedule and they should be in PDF/xls/rar/dwf formats. If there is more than one document, they can be clubbed together.

- (8) Bidder should get ready the EMD as specified in the tender. The original should be posted/couriered/given in person to the Tender Inviting Authority, within the bid submission date & time for the tender.
- (9) The bidder reads the terms & conditions and accepts the same to proceed further to submit the bids.
- (10) The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process.
- (11) After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender.
- (12) The details of the Earnest Money Deposit document submitted physically to the Dept and the scanned copies furnished at the time of bid submission online should be the same otherwise the Tender will be summarily rejected
- (13) The **Tender Inviting Authority (TIA)** will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders.
- (14) The bidder may submit the bid documents either by online mode through the site (<https://mahatenders.gov.in>) as indicated in the tender.
- (15) The tendering system will give a successful bid updation message after uploading all the bid documents submitted & then a bid summary will be shown with the bid no, date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed using the e-token of the bidder and then submitted.
- (16) The bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date.
- (17) Bidder should log into the site well in advance for bid submission so that he submits the bid in time i.e on or before the bid submission end time. If there is any delay, due to other issues, bidder only is responsible.
- (18) The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.
- (19) The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
- (20) All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.
- (21) The confidentiality of the bids is maintained since the secured Socket Layer 128-bit encryption technology is used. Data storage encryption of sensitive fields is done.
- (22) The bidders are requested to submit the bids through online etendering system to the TIA well before the bid submission end date & time (**as per Server System Clock**).

- (23) The bidder should logout of the tendering system using the normal logout option available at the top right-hand corner and not by selecting the (X) option in the browser.
- (24) The bidder should upload the technical document in .rar format single file to upload in technical cover and then BOQ in .xls format single file to upload in Finance cover.
- (25) For any other queries, the bidders are asked to contact through Mail: etender.maha@nic.in

1.3 **PRE-TENDER CONFERENCE:**

1.3.1 ~~Pre tender conference open to all prospective tenderers who have purchased tender form before the date of Pre tender Conference, will be held on Date _____ at 15.00 Hrs. in the office of the Chief Engineer, Mumbai (P.W) Region, Bandhkam Bhavan, 4th Floor, 25 Marzban Road, Mumbai 400001, Phone No. (022) 22072510/ Fax No. (022) 22073467 wherein prospective Tenderers will have an opportunity to obtain clarifications regarding the work and the Tender Conditions.~~

1.3.2 ~~The prospective tenderers are free to ask for any additional information or clarification either in writing or orally concerning the work, and the reply to the same will be given by the Chief Engineer, and the same will be made available on eTendering portal of Public Works Department, Government of Maharashtra i.e. <https://pwd.maharashtra.etenders.in> and this clarification referred to as common set of conditions/deviations (C.S.D.), shall form part of tender documents and which will also be common and applicable to all tenderers. The point/points if any, raised in writing and/or verbally by the contractor in pre-tender conference and not finding place in C.S.D. issued after the pre bid conference, is/are deemed rejected. In such case the provision in NIT shall prevail. No individual correspondence will be made thereafter with the contractor in this regard.~~

1.3.3 The tender submitted by the tenderer shall be based on the clarification, additional facility offered (if any) by the Department, and this tender shall be unconditional. Conditional tenders will be summarily REJECTED.

1.3.4 All tenderers are cautioned that tenders containing any deviation from the contractual terms and conditions, specifications or other requirements and conditional tenders will be treated as non responsive. The tenderer should clearly mention in forwarding letter that his offer (in envelope No. 1 & 2) does not contain any conditions, deviations from terms and conditions stipulated in the tender.

1.4 **Manner of Submission of tender and its accompaniments:**

CIVIL WORKS

ENVELOPE NO.1: (Documents)

i) The following documents shall be submitted **online in “Envelope No.1”**:

1.4.1 The bidder must purchase the bidding documents via online mode by filing the cost of Tender.

1.4.2 The applicable EMD **Rs. 99,000/-** should be paid via online using payment gateway.

1.4.3 Scan copy of Valid certificate as a Registered Contractor with the Government of Maharashtra in appropriate class as may be applicable in original or attested copy thereof (Attested by a Gazetted Officer)

1.4.4 Scan Copy of Valid GST Registration Certificate.

- 1.4.5** Scan copy of **Abstract** of list of Machinery and plants immediately available with the tenderer for use on this work and list of machinery proposed to be utilized on this work, but not immediately available and the manner in which it is proposed to be procured. (information to be given in **FORM NO-II on page No. 24**)
- 1.4.6** **Scan copy** of Valid Professional Tax Registration certificate in form PT/R/& PT/E under section (I) & (II) of section 5 of Maharashtra Sales Tax on Profession, Trade, Callings and employment Act,1975, rule 3(2) & 4(4) from the Professional Tax Officer of the concerned District in Maharashtra.
- 1.4.7** Scan copy of **Abstract** of details of work done during last five years with the value of work unfinished. (Information to be given in **FORM NO. V on Page No.27**)
- 1.4.8** **Scan copy** of **Abstract** of details of work of similar type and carried out by the contractor. (Information to be given in proforma of **FORM NO. III on Page No. 25**) **(during last five years)**
- 1.4.9** Scan copy of **Abstract** of details of list of works in hand and works tendered for. (information to be given in proforma of **FORM NO. I on Page No.23**)

The Certificates Sr. No. 1.4.7 to 1.4.9 should be signed by the Authority with whom the contractor has executed the work not below the rank of Executive Engineer.

- 1.4.10** Scan copy of **Abstract** of details of Technical Personnel on the rolls of the tenderer. (Information to be given in proforma of **FORM NO. IV on Page No.26**)
- 1.4.11** **Scan copy** of Undertaking/ Declaration of contractor that he had studied all tender documents, conditions and especially work methodology on the stamp paper of Rs. 100/-. (as per format given on **page no. 207**)
- 1.4.12** **Scan copy** of Tentative program of work in the form of Bar Chart shall be submitted.
- 1.4.13** a) The contractor shall submit an affidavit in original (as per format given on **Page No.29**) regarding completeness, correctness and truthfulness through online in Technical Bid. **Affidavit shall be compulsorily Notarified. Affidavit not confirming to these conditions will not be accepted and Envelope No.2 will not be opened.**
- b) The Contractor shall submit accurate information on any litigation or arbitration resulting from contracts completed or under execution by him over the last five years. A consistent history of awards against the applicant may result in failure of the applicant.
- 1.4.14** Certified copy of Registration of Partnership Deed and Power of Attorney or copy of Company Registration from the Competent Authority in case of a firm tendering for work, Power of attorney shall be submitted. (True copy attested by a Gazetted Officer.)

1.4.15 QUALIFICATION CRITERIA

The applicant shall meet the following minimum criteria

- (a) To qualify for award of the contract, each tenderer in his name should have achieved an Maximum financial turnover of **75% of Given Work** during last

(14)

Five years at the price level of **2023-2024** information should be given in Performa given. This should be duly audited by Chartered Accountant. Year in which no turnover is shown would also be considered for working out the average turnover.

- (b) a) Satisfactorily completed as a contractor, **three (3)** similar work Consolidated value not less than **40% of Given work**. Or
b) Satisfactorily completed as a contractor, **two (2)** similar work Consolidated value not less than **50% of Given work** Or
c) Satisfactorily completed as a prime contractor, **one (1)** similar work Consolidated value not less than **80% of given work** at the price level of **2023-2024** during last five years (Information to be given only in **form No.III enclosed herewith on page No. 25**)

Similar Type of Work include Beautification work, internal pavement work, Building work and Tourism Related work.

- c) Satisfactorily executed as prime contractor in **any one year, out of last 5 years the following minimum quantities of work**. (Information to be given only on form No. VI enclosed herewith on **page No.28**)

Sr. No	Item	Minimum Qualification Quantity	Unit
1.		Providing and fixing heavy duty inter locking concrete Rubber mould glossy paving blocks	557.00 Sqm
2.		Providing and laying in situ cement concrete M-30 with tremix treatment	55.00 Cum
3.		Providing and laying Cast in situ/ Ready Mix cement concrete in Mix-10	56.00 Cum
4		Providing soling using 80 milimetre size trap metal	84.00 Cum
5.			

For these, a certificate from employer shall be submitted along with application incorporating clearly the name of the work, contract value, billing amount, date of commencement of works, satisfactory performance of the Contractor and any other relevant information.

Site inspection report with Geo tag photo duly signed by Dy. Engineer, Tourism Must also submitted with the tender in form give below. Geo Tag Photo should be clicked on or before last day of submission of bid.

Bidder should submit the site inspection report with signature of Dy. Engineer in following format: (Contact No. 9029581601)

This is to certify that M/s. visited Wadgaon Shree Mahadev Mandir and Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna , on and understood the general working condition and he knows the mode of operation of the Wadgaon Shree Mahadev Mandir and Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna .

Also Upload No Dues certificate acquired from Directorate of Tourism Office.

All the documents from Sr. No. 1.4.1 to 1.4.15 shall be correctly and completely submitted by contractor online, otherwise his Envelope No.2 will not be opened.

- d) Availability for the work of Project Manager with not less than five years experience in construction of similar work and other two qualified Engineers having three years experience in Structural Repair or Structural strengthening work. Out of the three mentioned above, minimum one Engineer shall have to be

available on site for full time (Working time)

- e) The tenderer shall have a proven track record of completing such work in stipulated time.
- f) The tenderer should preferably have own infrastructures for all activities for such works. The tenderer shall submit adequate documentation about their having construction machineries.
- g) The tenderer should list the details and provide relevant information regarding sub contractor to be employed by them.

Bid Capacity

- A) Applicant who meets 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:

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

Where,

A = Maximum value of works executed in any one year during the last seven years (updated to the current price level **of 2023-24**) rate of inflation may be taken as 10 percentage per year which will taking into account the completed as well as works in progress.

B = Value at current price level of the existing commitments and on going works to be completed during the next **300 Days** and

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

Note: Statement of Bid Capacity calculation should be necessarily submitted.

- (B) The form showing the value of existing commitments and ongoing works as well as the stipulated period of completion period of completion remaining for each of the works listed should be countersigned by the Officer not below the rank of Executive Engineer and bid capacity statement of the contractor should be got certified from the Chartered Accountant. Otherwise, his envelope No.2 will not be opened.

1.4.16 All these statements shall be filled in and signed properly. If these Statements are found incomplete, incorrect, kept blank or wrongly filled, Contractor's Envelope No.2 (financial bid) will not be opened and his offer will be summarily rejected.

Misleading or false representations in the Statements 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.

1.4.17 The Contractor should submit one hard copy of all the documents required to be submitted in Envelope No. 1 in sealed envelope, mentioning name of work. This sealed envelope should be addressed to The Executive Engineer, Integrated Unit (P.W.) Division, Fort, Mumbai and should be submitted within 72 hours of last date and time of submission of Bid in online form. This sealed envelope will be opened ONLY IF any technical difficulty is faced in e-tending procedure.

1.5 ENVELOPE NO.2: (Financial Bid)

The Tenderer should quote his offer only through online bidding processes in terms of percentage of estimated rates. He should not quote his offer anywhere directly or indirectly in Envelope No. 1. The contractor shall quote for the work as per details given in the main tender made available to him on eTendering portal of Directorate of Tourism, Government of Maharashtra through online from Director of Tourism. His tender shall be unconditional.

1.6 SUBMISSION OF TENDER:

Refer to Section “**Guidelines to Bidders on the operations of Electronic Tendering System of Directorate of Tourism**” for details.

1.7 OPENING OF TENDERS

On the date, specified in the Tender Notice, following procedure will be adopted for opening of the Tender

(A) ENVELOPE NO. 1: (Documents)

First of all, Technical documents submitted, will be opened online to verify its contents as per requirements. If the various documents contained in this envelope do not meet the requirements of the Department, a note will be recorded accordingly by the tender opening authority and the said tenderer's Envelope No.2 will not be considered for further action and the same will be recorded.

The decision of the tender opening authority in this regard will be final and binding on the contractors.

(B) ENVELOPE NO. 2 (Financial Bid):

This envelope shall be opened online immediately after opening of Envelope No. One, only if contents of Envelope No.1 are found to be acceptable to the Department. The tendered rates in percentage **above/below** to the Estimated rates shall then be read out in the presence of bidders who remain present at the time of opening of Envelope No. 2.

1.8 EARNEST MONEY:

- i) Earnest money of minimum **Rs.99,000/-** shall be paid via online using NEFT / RTGS or payment gateway mode. After Tender opening, the EMD of the unsuccessful bidder will be returned to account provided by the bidder during the bid preparation as given in challan under Beneficiary Account Number.
- ii) Earnest Money in the form of cheques or any other form except above will not be accepted.
- iii) The amount will be refunded to the unsuccessful tenderers on deciding about the acceptance or otherwise of the tender. In case of successful tenderer, it will be refunded on his paying initial Security Deposit and completing the tender documents in form B-1.

1.9 SECURITY DEPOSIT

The successful tenderer shall have to pay half the security deposit in approved security form (preferably in the form of National Saving Certificate) or Fixed Deposit Receipt or in the form of Bank Guarantee (in the form as prescribed by Government) from any Schedule Bank and balance Security Deposit will be recoverable through the bills at the percentage as shown in item(s) of the Memorandum in printed B-1 form or as may be decided by the Executive Engineer during course of execution of the work looking to the position and circumstances that may prevail, whose orders will be final and binding on the contractor.(No Cash allowed)

The security deposit for the due performance of the contract shall be as detailed in the Tender Documents elsewhere. Fifty percent of the security deposit will have to be deposited within **ten days** (including Government holidays) of the acceptance of the tender and the remaining fifty percent will be recovered from the Running Bills at the rate as specified in the tender form, on the cost of work as per SSR prevailing at the time of acceptance of tender. Amount of total security deposit to be paid shall be **1%** of the cost of work, worked out as per **SSR 2022 -23** for the respective District. Initial Security Deposit may be in Bank Guarantee form in format on **Page 165 to 167** of tender document for full period of completion of work and it should be extendable upto expiry of valid extension if any, as directed by Engineer-in-charge.

Payment of Security Deposit by Bank Guarantee and Online Bank Guarantee verification: If the contractor wishes to deposit security deposit by Bank Guarantee after tender approval, then it is mandatory for contractor to verify the Bank Guarantee by paying verification fees. ~~of Rs. 1000/- + GST through the link provided below:~~
~~<https://onlinebg.emahapwd.com>.~~

1.10 Additional Performance Security

- 1.10.1 If the Bidder quote his offer below by more than 1.00% of the Bid cost of the Department and found L-1 then the Bidder should submit Additional Performance Security Deposit in the form of **Demand Draft/ Fixed Deposit Receipt / Bank Guarantee** of any Nationalized or Scheduled bank **within 8 days after opening of Envelope No.2 to the Employer** as mentioned below.
- 1.10.2 If the Bidder quote his offer below by more than 1.00% upto 10% of the estimated cost put to bid then he should submit a Demand Draft or FDR / Bank Guarantee amounting to 1% of the Bid Cost of the Employer towards Additional Performance Security.
- 1.10.3 If the Bidder quote his offer below by more than 10.00% and upto 15% of the estimated cost put to bid then he should submit Additional Performance Security 1.00% for every additional percentage beyond 10.00% but upto 15% below percentage quoted, in addition to 1.00% Additional Performance Security mentioned in clause 1.10.2 above in the form of Demand Draft or FDR / Bank Guarantee. (e.g. if the Bidder quotes his offer 14.00% below the estimated cost put to Bid, then he should submit $14.00\% - 10.00\% = 4.00\% + 1.00\% = 5.00\%$ amount of cost put to Bid as total additional Performance Security).

If the Bidder quote his offer below by more than 15% of the estimated cost put to tender/bid, then he should submit Additional Performance Security 2% for every additional percent beyond 15% below percentage quoted, in addition to 1% + 5% Additional Performance Security mentioned in Clause 1.10.2 and 1.10.3 above in the form of Demand Draft or FDR / Bank Guarantee.

(e.g. if the bidder quotes his offer at 19% below the estimate cost put to tender/bid, then he should submit $(19\% - 15\%) \times 2 = 8\% + 1\% + 5\% = 14\%$ amount of cost put to bid as Total Additional Performance Security)

If the Additional Performance Security required above is not submitted by the L-1 Bidder **within 8 days to the Employer**, then the offer of L-2 Bidder will be considered, provided he agrees to complete the work at less than the cost of L-1 Bidder.

Note: For calculating amount of Additional Performance Security contractor's offer rounded upto two decimal points shall be considered.

- 1.10.12 The Additional Performance Security of the Successful Bidder shall be returned immediately upon satisfactory completion of work, the certificate of which shall be issued by the Engineer before releasing the Additional Performance Security.

1.11 ISSUE OF FORMS:

Information regarding contract as well as blank tender forms can be downloaded from the eTendering website upon providing the details of the payment of cost as detailed in the N.I.T.

1.12 TIME LIMIT

The work is to be completed within time limit as specified in the N.I.T. which shall be reckoned from the date of written order of commencing the work and shall be inclusive of monsoon period.

1.13 TENDER RATE

No alteration in the form of tender and the schedule of tender and no additions in the scope of special stipulation will be permitted. Rates quoted for the tender shall be taken as applicable to all leads and lifts.

1.14 TENDER UNITS

The tenderers should particularly note the unit mentioned in the Schedule "B" on which the rates are based. No change in the units shall be allowed. In the case of difference between the rates written in figures and in words, the correct rate will be the one which is lower of the two.

1.15 CORRECTION

No corrections shall be made in the tender documents. Any corrections that are to be made, shall be made by crossing the incorrect portion and writing the correct portions above with the initials of tenderer.

1.16 TENDER'S ACCEPTANCE

Acceptance of tender will reset with the Director Tourism, who reserves the right to reject any or all tenders without assigning any reason therefor. The tenderer whose tender is accepted will have to enter in to a regular B-1 agreement within 10 days of being notified to do so. In case failure on the part of the tenderer to sign the agreement within the stipulated time, the earnest money paid by him shall stand forfeited to the Government and the offer of the tenderer shall be considered as withdrawn by him.

1.17 CONDITIONAL TENDER

The tender which does not fulfill the condition of the notification and the general rules and directions for the guidance to contractor in the agreement form or are incomplete in any respect are likely to be rejected without assigning any reason therefore.

- 1.18 (a) The tenderers shall be presumed to have carefully examined the drawings conditions and specifications of the work and have fully acquainted themselves with all details of the site, the conditions of rock and its joints, pattern, tidal pattern and condition, whether characteristics, labour conditions and in general with all the necessary information and data pertaining to the work, prior to tendering for the work.
- (b) The data whatsoever supplied by the Department, alongwith the tender documents is meant to serve only as guide to the tenderers while tendering and the Department accepts no responsibility whatsoever either for the accuracy of data or their comprehensiveness.
- (c) The quarries for extraction of metal, stone etc. provided in the sanctioned estimates are as per survey conducted by the Department. The contractor should however, examine these quarries and see whether full quantity of materials required for execution of the work strictly as per specification are available in these sources before quoting the rates. In case the materials are not available due to reasons whatsoever, the contractor will have to bring the materials from any other sources with no extra cost to Government. The rates quoted should therefore be for all leads and lifts from wherever the materials are brought at site of work and inclusive of royalty to be paid to the Revenue Department by the Contractor.

1.19 **POWER OF ATTORNEY**

If the tenderers are a firm or company, they should in their forwarding letter mention the names of all the partners together with the name of the person who holds the power of attorney authorising him to conduct all transactions on behalf of the body, along with the tender as per scanned copy uploaded in envelope No.1.

- 1.20 The tenderer may in the forwarding letter, mention any points he may wish to make clear but right is reserved to reject the same or the whole of the tenders if the same become conditional tender thereby.
- 1.21 The contractor or the firms tendering for the work shall inform the Department if they appoint their authorised agent on the work.
- 1.22 No foreign exchange will be released by the Department for the purchase of plants and machinery for the work by the Contractor.
- 1.23 Any dues arising out of contract will be recovered from the contractor as arrears of Land Revenue if not paid amicably Moreover, recovery of Government dues from the Contractors will be affected from the payment due to the Contractor from any other Government works under execution with them.
- 1.24 All scanned pages of tender documents, conditions, specifications, correction slips etc. shall be initialed by the tenderer. The tender should bear full signature of the tenderer, or his authorized power of Attorney holder in case of a firm.
- 1.25 The Income Tax at prevailing rate including surcharges or percentages in force from time to time or at the rate as intimated by the competent Income Tax authority shall

be deducted from bill amount whether measured bill, advance payment or secured advance.

1.26 The successful tenderer will be required to produce to the satisfaction of the specified concerned authority a valid concurrent license issued in his favour under the provisions of the Contract Labour (Regulation and Abolition) Act 1970 for starting the work. On failure to do so, the acceptance of the tender shall be liable to be withdrawn and also liable for forfeiture of the earnest money.

1.27 The tenderer shall submit the List of apprentices engaged by the Contractor under Apprentice Act.

1.28 **VALIDITY PERIOD**

The offer shall remain open for acceptance for minimum period of **90 days** from the Date of opening of Envelope No. 2 (Financial Bid) and thereafter until it is withdrawn by the contractor by notice in writing duly addressed to the authority opening the tender and sent by Registered Post, acknowledgement due. (ref. to memorandum on **Page 37, para 2** of B-1 Form Chapter)

1.29 **TESTING CHARGES**

All the materials shall be tested from time to time according to frequency chart attached in the tender. Necessary items regarding testing charges of various construction materials are included in the tender. After producing satisfactory test reports, contractors shall be entitled to get the necessary payment which is shown in Schedule-B.

1.30 Contractor shall submit a certificate to the effect that **“All the payments to the labour/staff are made in bank accounts of staff linked to Unique Identification Number (AADHAR CARD)”** The certificate shall be submitted by the contractor within 60 days from the commencement of contract. If the time period of contract is less than 60 days then such certificate shall be submitted within 15 days from the date of commencement of contract.

1.31 The contractor shall make all necessary arrangement required for supervising control and data acquisition for concrete works / all cement works / masonry / plaster / Testing Equipments items, well in advance before starting of the related items of works and activities. All necessary arrangements be made shall be offered for inspection to Engineer in-charge/PMC/Officer appointed by the Engineer in-charge one month prior to the start of the related items of work. Changes if any, after his inspection suggested by the Engineer in-charge/PMC/Officer appointed by the Engineer in-charge shall be carried out at no extra cost and within the period of Three days. A fresh request for inspection of Engineer in-charge/PMC/Officer appointed by the Engineer in-charge after such rectifications shall be requested by the Contractor and final approval to the arrangements of SCADA and submission and approval of bills/s shall be obtained.

1.32 **Payment of stamp duty:**

As per articles 63 Bombay stamp (Amendment) Act, 2006 and further Act, 2006 amendments in April, 2015, the contractor will have to pay stamp duty on the value of accepted tender amount as per prevailing rate declared by the Government of Maharashtra from time to time before work order. **The stamp duty has to be paid on GRAS online/eSBTR through net banking or any other medium as per the direction of the Government in this regard.**

1.31 An Integrity pact as profoma in page No 177 to 182 will have to be signed by the Department and successful bidder.

FORM NO. - I
Ref: Page No. 14 Clause 1.4.9

DETAILS OF LIST OF WORKS IN HAND AND WORKS TENDERED FOR AS ON
(Date of Submission of Bid)

NAME OF THE CONTRACTOR:

(I) WORKS IN HAND

Sr. No.	Name of the work	Agreement No.	Tendered Amount (Rs. in lakhs)	Date of commencement	Stipulated date of Completion	Value of work already done (Rs. in lakhs)	Value of balance work (Rs. in lakhs)	Probable Date of Completion	Remarks
1	2	3	4	5	6	7	8	9	10

(II) WORKS TENDERED FOR

Sr No.	Name of work	Name and address of client	Tendered Amount (Rs. in lakhs)	Time Limit	Probable Date when decision is expected	Other relevant details if any
1	2	3	4	5	6	7

Note: This is only a standard form Details are to be furnished in this format in the form of typewritten statements which shall be enclosed in envelop No. 1.

FORM NO. - II
Ref: Page No. 14 Clause 1.4.5

List of Plant and Machinery immediately available with the Tenderer
for this work

Sr. No.	Name of equipment	No. of Units	Kind and make	Capacity	Age and Condition	Present location	Remarks

1. Regarding use of Machinery:

- 1.1 The life of new machinery will be considered as 15 years.
- 1.2 There will no need of fitness certificate from SE (Mechanical) for first 6 years.
- 1.3 After 6th year, the machinery shall be checked and certified for its fitness by SE Mechanical/ACE (Mechanical) every 3rd year till the 15th year.
- 1.4 After the 15th year, the contractor will get machinery certified every year from SE/ACE (Mechanical) and produce the certificate of fitness. The certificate will be required for machinery where it is necessary and not issued by RTO.

FORM NO. - III
Ref: Page No. 14 Clause 1.4.8

**DETAILS OF WORK OF SIMILAR TYPE AND MAGNITUDE CARRIED
OUT BY CONTRACTOR**

(During last five years) (2017-18) (2018-19) (2019-20) (2020-21) (2021-2022)

Name of the contractor: -

Sr. No	Name of work	Name and Address of the organisation for whom the work was done	Place and Country	Agreement No.	Date of commencement	Tendered cost (Rs. in lakhs)	Total cost work done (Rs. in lakhs)	Date of Completion	Principle Features in brief.
1	2	3	4	5	6	7	8	9	10

Note: This is only a standard form Details are to be furnished in this format in the form of typewritten statements which shall be enclosed in envelop No. 1.

FORM NO. - IV

Ref: Page No. 14 Clause 1.4.10

Details of Technical Personnel available with the Contractor

Sr. No	Name of Person	Designation	Qualifications	Whether working in field or office	Experience of execution of similar work	Period for which the person is working with the tenderer	Remarks
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Contractor

No. of Corrections

Executive Engineer

FORM NO. V
Ref : Page No. 14 Clause 1.4.7

Statement showing work done in all classes of Civil Engineering works during last five years

Name of Contractor: -

Sr. No	Name of Work	Amount put to tender / tendered cost.	Agreement No.	Date of Commencement.	Amount of work done during each of last Five years.					Amount of work still remaining to be executed.
					2017-18	2018-19	2019-20	2020-21	2021-22	
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Grand Total										

Outward No. and date of Certificate issuing authority

(Executive Engineer)

(27)

FORM NO. VI
Page 15 (1.4.15) (c)

Statement showing Quantities of Work Executed in any one year during last five years.

Name of Contractor: -

Year	Name of the work	Name of the Employer	Quantity of work performed					Remarks* (indicate Ref.)	
			Providing and fixing heavy duty inter locking concrete Rubber mould glossy paving blocks	Providing and laying in situ cement concrete M-30 with tremix treatment	Providing and laying Cast in situ/ Ready Mix cement concrete in Mix- 10	Providing soling using 80 milimetre size trap metal			
			557.00 Sqm	55.00 Cum	56.00 Cum	84.00 Cum			
2017-18									
2018-19									
2019-20									
2020-21									
2021-22									

FORM NO. VII
Page 15 (1.4.15) (c)

Information of litigation history in which the bidder is involved.

Name of Contractor: -

Other Party	Employer	Cause of Dispute	Amount involved	Remarks showing present status

Contractor

No. of Corrections

Executive Engineer

Affidavit
(on Rs.100/- Stamp Paper)

NAME OF WORK : **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswagi District Jalna**

I age address

..... (Authorized signatory to sign the contract), hereby submit, vide this affidavit in truth, that I am the owner of the contracting firm

authorized signatory and I am submitting the documents in envelope no.1 for the purpose of scrutiny of the contract. I hereby agree to the conditions mentioned below: -

1. I am liable for action under Indian Penal Code for submission of any false / fraudulent paper / information submitted in envelope No.1.
2. I am liable for action under Indian Penal Code if during contract period and defect liability period, any false information, false bill of purchases supporting proof of purchase, proof of testing submitted by my staff, subletting company or by myself, I will be liable for action under Indian Penal Code.
3. I am liable for action under Indian Penal Code if any papers are found false / fraudulent during contract period and even after the completion of contract (finalisation of final bill).

(Signature of contractor)

(seal of company)

3. SCOPE OF WORK and SITE CONDITIONS

NAME OF WORK : **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna**
Scope Of Work

4. AGREEMENT FORM B-1

FORM B-1

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS

DEPARTMENT : **DIRECTORATE OF TOURISM**
REGION :
CIRCLE :
DIVISION : **Directorate of Tourism, Nariman Point, Mumbai.**

NAME OF WORK : **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna**

General Rules and Directions for the Guidance of Contractors.

1. All works proposed to be executed by contract shall be notified in a form of invitation to tender pasted on a board hung up in the office of the Executive Engineer and signed by the Executive Engineer, **Directorate of Tourism, Nariman Point, Mumbai**

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

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

2(A) (i) The Contractor shall pay alongwith the tender the sum of **Rs. 99,000/- (Rupees Ninty Nine Thousand only)** as and by way of earnest money. Earnest Money shall be paid via Net Banking. The said amount of earnest money shall not carry any interest whatsoever.

(ii) In the event of his tender being accepted, subject to the provision of sub clause (iii) below, the said amount of earnest money shall be appropriated towards the amount of security deposit payable by him under conditions of General Conditions of Contract.

(iii) If, after submitting the tender, the contractor withdraws his offer, or modifies the same or if after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other rights and powers of the Government, hereunder, or in law, Government shall be entitled to forfeit the full amount of the earnest money deposited by him.

In the event of his tender not being accepted, the amount of earnest money deposited by the contractor shall, unless it is prior there to forfeited under the provisions of sub-clause (iii) above, be refunded to him on his passing receipt therefore.

3. Receipts for payments made on account of any work, when executed by a firm, should also be signed by all the partners except where the contractors are described in their tender as a firm, in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.

4. Any person who submits a tender shall fill up the usual printed form stating at what percentage above or below the rates specified in schedule 'B' (memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate or such percentage on all the Estimated rates/Schedule rates shall be named. Tenders which propose any alteration in the works specified in the said form of invitation to tender, or in the time allowed for carrying out the work, or which contain any other conditions, of any sort will be liable to rejection.
5. The Executive Engineer or his duly authorised Assistant shall open tenders in the presence of contractors who have submitted tenders or their representatives who may be present at the time, and he will enter the amounts of several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the contractor shall for the purpose of identification sign copies of the specifications and other documents mentioned in rule 1. In the event of tender being rejected, the competent officer shall authorise the Scheduled Bank concerned to refund the amount of the earnest money deposited to the contractor making the tender, on his giving a receipt for the return of the money.
6. The officer competent to dispose of the tenders shall have the right of rejecting all or any of the tenders.
7. No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on Government unless it is signed by the Executive Engineer.
8. The memorandum of work to be tendered for and the schedule of materials to be supplied by the Department and their rates shall be filled in and completed by the office of the Executive Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed, he shall request the said office to have this done before he completes and delivers his tender.

9. All work shall be measured net by standard measure and according to the rules and customs of the Department and without reference to any local custom.
10. Under no circumstances shall any contractor be entitled to claim enhanced rates for items in this contract.
11. Every registered contractor should produce alongwith his tender valid certificate of registration as approved contractor in appropriate class.
12. All corrections and additions or pasted slips should be initialed.
13. The measurements of work will be taken according to the usual method in use in the Department and no proposal to adopt alternative methods will be accepted. The Executive Engineer's decision as to what is the usual method in use in the Department will be final.
14. The tendering contractor shall furnish a declaration along with the tender showing all works for which he has already entered into contract, and the value of work that remains to be executed in each case on the date of submitting the tender.
15. In view of the difficult position regarding the availability of foreign exchange no foreign exchange would be released by the Department for the purchase of plant and machinery required for the execution of the work contracted for (GCB/PWD/CFM/1058-62517 dt. 26.9.59)
16. The contractor will have to construct shed for storing controlled and valuable materials at work site, having double locking arrangement. The materials will be taken for use in the presence of the Departmental person. No materials will be allowed to be removed from the site of works.

17. Successful Contractor should produce license/attested copy of license duly attested by Gazetted officer having registered with Assistant Commissioner of labour as required as per contract labour (Regulation and abolition) Act 1973 and the Maharashtra Contract Labour (Regulation and Abolition) Rules 1973.
18. The contractor shall comply with the provision of the Apprentices Act 1961 and the rules and orders issued there under from time to time if he fails to do so his failure will be breach of contract and Executive Engineer may in his discretion cancel the contract. The contractor shall also will be liable for any pecuniary liability arising on account of any variation by him of the provisions of the Act.

Tender for Works

1. I/We hereby tender for the execution, for the Governor of Maharashtra (hereinbefore and hereinafter referred to as 'Government') of the work specified in the under written memorandum within the time specified in such memorandum at (*.....) percent **below/above** (on part 'A' only, i.e. work portion) the estimated rates entered in Schedule 'B' showing items of work to be carried out and in accordance in all respects with the specifications, additional specifications, designs, drawings and instructions in writing referred to in Rule 1 hereof and in clause 12 of the annexed conditions of the contract and agreed that when materials for the work are provided by the Government, such materials and the rate to be paid for them shall be as provided in Schedule 'A' hereto.
** The tenderer shall quote his offer through online bidding process only*

MEMORANDUM

If several subworks are included they should be detailed in a separate list.

(a) **General description Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeswar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna**

(b) **Estimated Cost** Rs. **98,00,757 /-**

The amount of earnest-money to be deposited shall be in accordance with the provisions of para 207 of the P.W.D. Manual

(c) **Earnest money** Rs. **99,000/-**

(d) **Security Deposit -**

This deposit shall be in accordance with paras 213 and 214 of the P.W.D. Manual

(i) Cash (not less than the amount of earnest-money) Rs. **99,000/-**

(ii) To be deducted from current bills Rs. **99,000/-**

Total Rs. 1,98,000/-

This percentage where no security deposit is taken will vary from 5 % to 10 % according to the requirement of the case where security deposit is taken see note 1 to clause 1 of conditions of contract.

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

**2%
(Two percent)**

Give schedule where necessary by which the various items are to be completed.

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

**270 Days
including monsoon**

2. I/We agree that the offer shall remain open for acceptance for a minimum period of **75 days** from the date fixed for opening the same and thereafter until it is withdrawn by me/us by notice in writing duly addressed to the authority opening the tenders and sent by registered post AD or otherwise delivered at the office of such authority. The sum of **Rs.99,000/- (Rupees Ninty Nine Thousand only)** representing the earnest money is submitted online. The amount of earnest money shall not bear interest and shall be liable to be forfeited to the Government should I/We fail to (i) abide by the stipulation to keep the offer open for the period mentioned above or (ii) sign and complete the contract documents as required by the Engineer and furnish the security deposit as specified item (d) of the memorandum contained in paragraph (i) above within the time limit laid down in clause (i) of the annexed General Conditions of Contract. The amount of earnest money may be adjusted to me/us if so desired by me/us in writing, unless the same or any part thereof has been forfeited as aforesaid.
3. Should this tender be accepted I/We hereby agree to abide by and fulfill all the terms and provisions of the conditions of contract annexed hereto so far as applicable and in default there of to forfeit and pay to Government the sums of money mentioned in the said conditions.

Receipt No..... dated from the Scheduled Bank at in respect of the sum of **Rs. 99,000/-** is herewith forwarded representing the earnest money(s) the full value of which is to be absolutely forfeited to Government should I/We not deposit the full amount of security deposit specified in the above memorandum in accordance with clause 1 (A) of the said conditions, otherwise the said sum of **Rs. 99,000/- (Rupees Ninty Nine Thousand only)** shall be refunded.

- * Amount to be specified in words and figures.
- * Strike out (a) if no cash security deposit is to be taken.

(37)

Contractor

Signature of contractor
before submission of
tender.

Address:

Dated the day of 2022.

(Witness)

Signature of witness
to contractor's signature

Address:

(Occupation)

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

Dated the day of 2023

**Executive Engineer,
Directorate of Tourism, Nariman
Point, Mumbai.**

Contractor

No. of Corrections

Executive Engineer

CONDITIONS OF CONTRACT

Clause 1 : The person/persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators, and assigns) shall (A) within 10 days (which may be extended by the Superintending Engineer concerned upto 15 days if the Superintending Engineer thinks fit to do so) of the receipt by him of the notification of the acceptance of his tender deposit with the Executive Engineer in cash or Govt. securities endorsed to the Executive Engineer (if deposited for more than 12 months) of sum sufficient which will made up the full security deposit specified in the tender or (B)(permit Government at the time of making any payment to him for work done under the contract to deduct such as will amount to **One percent** of all moneys so payable such deductions to be held by Government by way of security deposit.) Provided always that in the event of the contractor depositing a sum by way of security deposit as contemplated at (A) above, then and in such case, if the sum so deposited shall not amount to **One percent** of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment to the contractor for work done under the contract to make up the full amount of **One percent** by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to Government under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising therefrom, or from any sums which may be due or may become due by Government to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall, within ten days hereafter, make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. The security deposit referred to, when paid in cash may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

Security deposit

P W D

Resolution

No.CAT/1087/

CR-94/Bldg. 2

dt. 14.6.89 &

dated

21.6.2004

The security deposit will not be accepted in the form of Insurance Company bonds (As per Govt. Orders contained in CCM/PWD/CAT/ 4250 dt. 27.2.1956)

If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid the tender/contractor already accepted shall be considered as cancelled and legal steps taken against the contractor for recovery of the amounts. The amount of the security deposit lodged by a contractor shall be refunded along with the payment of the final bill, if the date upto which the contractor has agreed to maintain the work in good order is over. If such date is not over, only 50 % amount of security deposit shall be refunded along with the payment of the final bill. The amount of security deposit retained by the Government shall be released after expiry of period upto which the contractor has agreed to maintain the work in good order is over. In the event of the contractor failing or neglecting to complete rectification work within the period upto which the contractor has agreed to maintain the work in good order, then, subject to provisions of clauses 17 and 20 hereof the amount of Security Deposit retained by Government shall be adjusted towards the excess cost incurred by the department on rectification work.

Compensation for delay

Clause 2: The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall through out the stipulated period of the contract be proceeded with , with all due diligence (time being deemed to be the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the Superintending Engineer (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tenderer for every day that the work remains uncommenced, or unfinished after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month to complete.

(40)

30%	Of the work in	1/4 th of the time	} As indicated in bar chart on Page No. 208-211
55%	Of the work in	1/2 th of the time	
80%	Of the work in	3/4 th of the time	
100%	Of the work in	Full work to be completed in <u>270 Days</u> <u>including monsoon</u>	

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

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

Action when whole of security deposit is forfeited

(A) To rescind the contract (for which rescission notice in writing to the contractor under the head of Executive Engineer shall be conclusive evidence) and in that case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of Government.

- (B) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant, and charges on additional supervisory staff including the cost of work-charged establishment employed for getting the un-executed part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to the costs and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.
- (C) To order that the work of the contractor be measured up and to take such part thereof as shall be un-executed out of his hands, and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and the value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Executive Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the un-executed work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

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

Clause 4: If the progress of any particular portion of the work is unsatisfactory the Executive Engineer shall notwithstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3(b) after giving the contractor 10 day's notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

*Action when
the progress
of any
particular
portion of the
work is
unsatisfactory*

*Contractor
remains liable to
pay compensation
if action not taken
under clause 3
and 4*

*Power to take
possession of or
require removal of
or sell
contractor's plant*

Clause 5 : In any case in which any of the powers conferred upon the Executive Engineer by clauses 3 and 4 hereof shall have become exercisable and the same shall not have been exercised the non-exercise thereof shall not constitute a waving of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which under any clause hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Executive Engineer taking action under sub-clause (a) or (c) of clause 3, he may, if he so desires, take possession of all or any tools and plant materials and stores in or upon the work of the site thereof or belonging to the contractor, or procured by him and intended to be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case of contract rates not being applicable at current market rates to be certified by the Executive Engineer may, after giving notice in writing to the contractor or his clerk of the work, foreman or other authorised agent require him to remove such tools and plant, materials, or stores from the premises within a time to be specified in such notice, and in the event of the contractor failing to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Executive Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale be final and conclusive against the contractor.

Clause 6 : If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground he shall apply in writing to the Executive Engineer before the expiration of the period stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Executive Engineer, or in the opinion of Superintending Engineer or Chief Engineer as the case may be if in his opinion there were reasonable grounds for granting an extension, grant such extension as he thinks necessary or proper. The decision of the Executive Engineer in this matter shall be final.

*Extension of
time*

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

*Final
Certificate*

Payment on intermediate certificate to be regarded as advances

Clause 8: No payment shall be made for any work estimated to cost less than rupees one thousand till after the whole of work shall have been completed and a certificate of completion given. But in the case of works estimated to cost more than rupees one thousand the contractor shall on submitting a monthly bill therefore be entitled to receive payment proportionate to the part of the work than approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the Engineer-in-charge from requiring any bad, unsound imperfect or unskillful work to be removed or taken away and reconstructed or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the occurring of any claim nor shall it conclude, determine or effect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or effect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

Payment at reduced rates on account of items of work not accepted as completed, to be at the discretion of the Engineer-in-charge

Clause 9: The rates for several items of work estimated to cost more than Rs. 1000 agreed to within, shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are not accepted as so completed by the Engineer-in-charge may make payment on account of such items at such reduced rates as he may consider reasonable in the preparation of the final or on account bills.

Clause 10 : A bill shall be submitted by the contractor in each month or before the date fixed by the Engineer-in-charge for all work executed in the previous month, and the Engineer-in-charge shall take or cause to be taken the requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor or his duly authorised agent whose countersignature to the measurement list shall be sufficient warrant, and Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

*Bill to be
submitted
monthly*

Clause 11: The contractor shall submit all bills on the printed forms to be had on application at the office of the Engineer-in-charge. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

*Bills to be on
printed form*

Clause 12: If the specification or estimate of the work provides for the use of any special description of material to be supplied from the store of the Dept. store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-charge. (such material and stores and the prices to be charged therefor as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due,

*Stores supplied
by Government*

or thereafter to become due to the contractor under the contract, or otherwise, or from security deposits or proceeds of sale therefore if the security deposit is held in Government securities, the same or a sufficient portion thereof shall in that case be sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government and shall on no account be removed from the site of the work, and shall at all times be open for inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or termination of the contract shall be returned to the Department store of the Engineer-in-charge so requires by a notice in writing given under his hand but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.

Clause 12(A): All stores of controlled materials such as cement, steel, etc., supplied to the contractor by Government should be kept by the contractor under lock and key and will be accessible for inspection by the Executive Engineer or his agent at all the times.

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

Clause 13: The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and every other respect in strict accordance with specifications. The contractor shall also conform exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of work during office hours. The contractor shall be entitled to receive three sets of contract drawings and working drawings as well as one certified copy of the accepted tender alongwith the work order free of cost. Further copies of contract drawings and working drawing if required by him, shall be supplied at the rate of Rs. 100/- per set of contract drawings and Rs.300/- per working drawing except where otherwise specified.

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

Alterations in specifications and designs not to invalidate contracts.

Rates for works not entered in estimates for schedule of rate of the contract

Extension of time in consequence of additions or alterations.

Where, however, the work is to be executed according to the designs, drawings and specifications recommended by the contractor and accepted by the competent authority the alterations above referred to shall be within the scope of such designs, drawings and specifications appended to the tender.

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

Clause 15:

No claim to any payment or compensation for alteration in or restriction of work.

(1) If at any time after the execution of the contract documents the Engineer shall for any reason whatsoever (other than default on the part of the contractor for which the Government is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be suspended for any period or that the whole or part of the work should not be carried out, at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part as required, after having due regard to the appropriate stage at which the work should be stopped or suspend so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Engineer as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

- (2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under the contract so far as it pertains to the un-executed part of the work by giving a 10 days' prior notice in writing to the Engineer, within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineer to record the final measurement of the work already done and to pay final bill. Upon giving such notice the contractor shall be deemed to have been discharged from his obligations to complete the remaining unexecuted work under his contract. On receipt of such notice the Engineer shall proceed to complete the measurements and make such payment as may be finally due to the contractor within a period of 90 days from the receipt of such notice in respect of the work already done by the contractor. Such payment shall not in any manner prejudice the right of the contractor to any further compensation under the remaining provisions of this clause.
- (3) Where the Engineer required to contractor to suspended the work for a period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply to the Engineer within 30 days of the resumption of work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in respect of working machinery remained idle on the site of on the account of his having and to pay the salary or wages of labour engaged by him during the said period of suspension provided always that the contractor shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate or such suspension or in respect or any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the Engineer in this regard shall be final and conclusive against the contractor.

(4) In the event of --

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

OR

- (iii) Curtailment in the quantity of item originally tendered on account of any alteration, omission or substitution in the specifications, drawings, designs or instructions under clause 14(1) where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25 per cent at the rates for the item specified in the tender is more than Rs.5000/-.

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work or (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under the clause 14 (1) resulting in such curtailment to produce to the Engineer satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage, suspension or curtailment and require the Government to take over on payment such material at the rates determined by the Engineer, provided, however, such rates shall in no case exceeds the rates at which the same was acquired by the contractor. The Government shall thereafter take over the material so offered, provided the quantities offered, are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved by the Engineer.

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

- (i) Difficulties relating to the supply of railway wagons.
- (ii) Force Majeure
- (iii) Act of God.
- (iv) Act of enemies of the State or any other reasonable cause beyond the control of Government.

No Claim to compensation on account of loss due to delay in supply of material by Government.

In the case of such delay in the supply of materials. Government shall grant such extension of time for the completion of the work as shall appear to the Executive Engineer to be reasonable in accordance with the circumstances of the case. The decision of the Executive Engineer as to the extension of time shall be accepted as final by the contractor.

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

The limit for unforeseen claims

*Action and
compensation payable in
case of bad
work*

*PWD Resolution
No. CAT-1087/CR-
94/ Bldg.2 dt.
14.6.89.*

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

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

Work to be open to inspection

Contractor or responsible agent to be present

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

Notice to be given before work is covered up

*Contractor
liable for
damage done
and for
imperfections*

*PWD
Resolution
No. CAT-
1087/CR-94/
Bldg.2 dt.
14.6.89.*

Clause 20 : If during the period of 2 Years from the date of completion as certified by the Engineer-in-charge after commissioning the work whichever is earlier in the opinion of the Executive Engineer, the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the Executive Engineer, duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying and setting right the defects specified therein including dismantling and reconstruction of unsafe portions strictly in accordance with and in the manner prescribed and under the supervision of the Executive Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice and / or to complete the same as aforesaid as required by the said notice, the Executive Engineer get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the Government the amount of such costs, charges and expenses sustained or incurred by the Government of which the certificate of the Executive Engineer shall be final and binding on the contractor. Such costs, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the Government, the same may be recovered from the contractor as arrears of land revenue. The Government shall also be entitled to deduct the same from any amount which may then be payable or which may thereafter become payable by the Government to the contractor either in respect of the said work or any other work whatsoever or from the amount of security deposit retained by Government. The defect liability period in particular for waterproofing treatment (Bldg. works) shall be Five years.

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

*Contractor to supply
plant, ladder,
scaffolding etc.*

*And is liable for
damages arising
from non provisions
of lights, fencing etc.*

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

Clause 21 (A): The contractor shall provide suitable scaffolds and working platforms gangways and stairways and shall comply with the following regulations in connections herewith -

- (a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- (b) A Scaffold shall not be constructed, taken down or substantially altered
except -
 - (i) under the supervision of a competent and responsible person; and
 - (ii) as far as possible by competent workers possessing adequate experience in this kind of work.
- (c) All scaffolds and appliances connected therewith and ladders shall-
 - (i) be of sound material.
 - (ii) be of adequate strength having regard to the loads and strains to which they will be subjected.
 - (iii) be maintained in proper condition.
- (d) Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.
- (e) Scaffolds shall not be over-loaded and so far, as practicable the load shall be evenly distributed.
- (f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffold.
- (g) Scaffold shall be periodically inspected by the competent person.
- (h) Before allowing a scaffold to be used by his workmen the contractor shall, whether the scaffold has been erected by his workmen or not, take steps to ensure that it complies fully with the regulation here-in-specified.

- (i) Working platform, gangways stairways shall -
 - (i) be so constructed that no part thereof can sag unduly or unequally.
 - (ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping.
 - (iii) be kept free from any unnecessary obstruction.
- (j) In the case of working platform, gangways, working places and stairways at the height exceeding 3 meters
 - (i) every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
 - (ii) every working platform and gangway shall have adequate width.
 - (iii) every working platform, gangway, working place and stairway shall be suitably fenced.
- (k) Every opening in the floor of a building or in a working platform shall except for the time and to the extent required to allow the excess of persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.
- (l) When persons are employed on roof where there is a danger of falling from a height exceeding 3 meters suitable precautions shall be taken to prevent the fall of persons or materials.
- (m) Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffold or other working places.
- (n) Safe means of access shall be provided to all working platform and other working places.
- (o) The contractor(s) will have to make payments to the labourers as per Minimum Wages Act 1948.

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

- (a) Hoisting machine and tackle, including their attachments, anchorage's and supports shall -
 - (i) be of good mechanical construction, sound material and adequate strength and free from potent defect,
and
 - (ii) be kept in good repair and in good working order.
- (b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from potent defect.
- (c) Hoisting machine and tackle shall be examined and adequately tested after erection on the site and before use and be re-examined in position at intervals to be prescribed by the Government.
- (d) Every chain, ring, hook, shackle swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- (e) Every crane driver or hoisting appliance operator shall be properly qualified.
- (f) No person who is below the age of 21 years shall be in control of any hoisting machine, including any scaffold which, or give signals to the operator.
- (g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel pulley block used in hoisting or lowering or as means of suspension, the safe working load shall be ascertained by adequate means.

- h) Every hoisting machine and all gear referred to in presiding regulation shall be marked with the safe working load.
- (i) In the case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated.
- (j) No part of any hoisting machine or of any gear referred to in regulation (g) above shall be loaded beyond the safe working load except for the purpose of testing.
- (k) Motors, gearing transmissions, electric wiring and other dangerous part or hoisting appliances shall be provided with efficient safeguards.
- (l) Hoisting appliances shall be provided with such means as will reduce to minimum and the risk of the accidental descent of the load.
- (m) Adequate precaution shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

Clause 22: The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the Executive Engineer.

Measure for prevention of fire

When such permit is given, and also in all cases when destroying cut or dug up tree's brushwood, grass etc. by fire, the contractor shall take necessary measure to prevent such fire spreading to or otherwise damaging surrounding property.

The Contractor shall make his own arrangements for drinking water for the labour employed by him and provide sanitary and other arrangements.

Clause 23 : Compensation for all damages done intentionally, or unintentionally by contractor's labour whether in or beyond the limits of Government property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he may appoint and the estimate of the Engineer - in - charge subject to the decision of the Superintending Engineer on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by the Engineer-in-charge from any sums that may be due or become due from Government to contractor under this contract or otherwise.

Liability of contractor for damage done in or outside work area

The contractor shall bear the expenses of defending any action or other legal proceeding that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.

Clause 24: The Employment of female labours on works in neighborhood of soldier's barracks should be avoided as far as possible.

Employment of female labour

Clause 25: No work shall be done on Sunday without the sanction in writing of the Engineer-in-charge.

Work on Sunday

Clause 26: The contract shall not be assigned or sublet without the written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent or commence any proceeding to get himself adjudicated and insolvent or make any composition with his creditors, or attempt so to do or if bribe, gratuity, gift, loan, perquisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the

Work not to be sublet

Contract may be rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent

contractor or any of his servants or agents to any public officer or person in the employ of Government in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-charge may thereupon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as if the contract had been rescinded under Clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

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

Clause 27: All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained.

Change in the constitution of a firm to be notified.

Clause 28: In the case of tender by partners, any change in the constitution of a firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

Direction and control of the Superintending Engineer.

Clause 29: All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the Circle, for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

Clause 30:

- (1) Except otherwise specified in the contract and subject to the powers delegated to him by Government under the Code, rules then in force, the decision of the Superintending Engineer of the circle for the time being shall be final, conclusive, and binding on all parties to the contract upon all questions relating to the meaning of the specifications, designs, drawings and instructions hereinbefore mentioned and as to the quality or workmanship or materials used on the work, or as to any other question, claim, right matter, or thing whatsoever, if any way arising out of, or relating to the contract, designs, drawings, specifications, estimates, instructions, orders, or these conditions, or otherwise concerning the works, or the execution, or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment thereof. *Direction and control of the Superintending Engineer.*
- (2) The Contractor may within thirty days of receipt by him of any order passed by the Superintending Engineer of the Circle as aforesaid appeal against it to the Chief Engineer concerned with the contract, Work or Project provided that
- (a) The accepted Value of the Contract exceeds Rs. 10.00 Lakhs (Rupees Ten Lakhs)
 - (b) Amount of claim is not less than Rs. 1.00 Lakh (Rupees One lakh)

- (3) If the contractor is not satisfied with the order passed by the Chief Engineer as aforesaid, the contractor may, within thirty days of receipt by him of any such order, appeal against it to the concerned Secretary, Public Works Department/Irrigation Department who if convinced that prima-facie the contractor's claim rejected by Superintending Engineer / Chief Engineer is not frivolous and that there is some substance in the claim of the contractor as would merit a detailed examination and decision by the Standing Committee shall put up to the Standing Committee at Government level for suitable decision. (Vide PWD circular No.CAT/1086/CR110/Bldg. 2 dt. 7.5.1988)

Stores of European or American manufacture to be obtained from Government.

Clause 31: The contractor shall obtain from the Departmental stores, all stores and articles of European or American manufacture which may be required for the work, or any part thereof or in making up any articles required therefor or in connection therewith unless he has obtained permission in writing from the Engineer-in-charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-charge will be debited to the contractor in his account at the rates shown in the schedule, in Form A attached to the contract and if they are not entered in the said schedule, they shall be debited to him at cost price which for the purpose of this contract shall include the cost of carriage and other expenses whatsoever which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

Clause 32 : When the estimate on which a tender is made includes lump sums in respect of parts of the work the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of work in question is not in the opinion of the Engineer-in-charge capable of measurement, the Engineer-in-charge may as his discretion pay the lump sum amount entered in the estimate and the certificate in writing of the Engineer-in-charge shall be final and conclusive against the contractor with regard to any sum or sums payable to him under the provision of this clause.

Lumpsums in estimates

Clause 33: In the case of any class of work for which there is no such specification as is mentioned in rule 1 such work shall be carried out in accordance with the specifications, and in the event of there being no specification, then in such case the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer-in-charge.

Action where no specifications

Clause 34: The expression 'work' or 'works' where used in these conditions shall unless there be something in the subject or context repugnant to such construction, be constituted to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original altered substituted or additional.

Definition of work

Clause 35: The percentage referred to in the tender shall be deducted from/added to the gross amount of the bill before deducting the value of any stock issued.

Contractor's percentage whether applied to net or gross amount of bill.

Clause 36: All quarry fees, royalties, octroi dues and ground rent for stacking materials, if any, shall be paid by the contractor.

Refund of quarry fees and royalties.

(Govt. P.W.D. resolution No.Misc.02/05/(291)/ Bldg.2 dt. 11.9.2003)

*Compensation
under
Workmen's
Compensation
Act*

Clause 37: The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workman's Compensation Act 1923 (VIII of 1923) (hereinafter called the said Act) for injuries caused to the workmen. If such compensation is payable paid by the Government as principal under Sub-section (1) of section 12 of the said Act on behalf of the contractor, it shall be recoverable by Government from the contractor under sub-section (2) of the said section. Such compensation shall be recovered in the manner laid down in Clause 1 above.

Clause 37 (A): The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workmen who may suffer a bodily injury as a result of an accident. If such expenses are incurred by Government the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of Government from any amount due or that may become due to the contractor.

Clause 37 (B): The Contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

- (a) The workers shall be required to use the equipment so provided by the contractor and the contractor shall take adequate steps to ensure proper use of the equipment by those concerned.
- (b) When work is carried on in proximity to any place where there is a risk or drawing all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- (c) Adequate provision shall be made for prompt first-aid treatment of all injuries likely to be sustained during the course of the work.

Clause 37 (C) : The contractor shall duly comply with the provisions of 'The Apprentices Act, 1961' (III of 1961 of 1961) the rules made there under and the orders that may be issued from time to time under the Act, the said rules and on his failure or neglect to do so, he shall be subject to all the liabilities and penalties provided by the said Act and said Rules.

Clause 38: (1) Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender or estimate.

(2) Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rates shall be permitted in respect of any of the items so long as subject to any special provision contained in the specifications prescribing a different percentage of permissible variation in the quantity of the item does not exceed the tender quantity by more than 25 percent and so long as the value of the excess quantity beyond this limit at the rate of the items specified in the tender, is not more than Rs.5,000/-

(3) The Contractor shall if ordered in writing by the Engineer so to do also carry out any quantities in excess of the limit mentioned in sub clause (i) hereof on the same conditions as and in accordance with the specifications in the tender and at the rates (i) derived from the rates entered in the current schedule of rates and in the absence of such rates (ii) at the rates prevailing in the market. The said rates increased or decreased as the case may be, by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the schedule of rates applicable to the year in which the tenders were accepted (For the purpose of operation of this clause, this cost shall be as worked out from DSR prevailing at the time of acceptance of tender.)

(4) claims arising out of reduction in the tendered quantity of any item beyond 25 percent will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 percent at the rate of the item specified in the tender is more than Rs.5,000/- (This clause is not applicable to extra items)

Clause 39: The contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the Engineer-in-charge.

*Employment
of famine
labour etc.*

Clause 40: No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or in the case of clearance works, on account of any delay in according to sanction of estimates.

Claim for compensation for starting of work.

Clause 41: No Compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil excavation in mud sub-soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Claim for compensation for delay in execution of work.

Clause 42: The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of Engineer-in-charge or his subordinates incharge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.

Entering upon or commencing any portion of work.

Clause 43:

(i) No contractor shall employ any person who is under the age of 18 years.

Minimum age of person employed, the employment of

(ii) No contractor shall employ donkeys or other animals with breaching of string or thin rope. The breaching must be least three inches wide and should be of tape (Newer).

donkeys and or other animals and the payment of fair wages

(iii) No animal suffering from sores, lameness or emaciation or which is immature shall be employed on the work.

(iv) The Engineer-in-charge or his Agent is authorised to remove from the work any person or animal found working which does not satisfy these conditions and no responsibility shall be accepted by Government for any

delay caused in the completion of the work by such removal.

- (v) The Contractor shall pay fair and reasonable wages to the workmen employed by him, in the contract undertaken by him in the event of any dispute arising between the contractor and his workmen on the ground that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Executive Engineer who shall decide the same. The decision of the Executive Engineer shall be conclusive and binding on the contractor but such decision shall not in any way affect the conditions in the contract regarding the payment to be made by Government at the sanctioned tender rates.
- (vi) Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged on large work in urban areas.
- (vii) Contractor to take precaution against accidents which takes place on account of labour using loose garments while working near machinery.

Method of payment.

Clause 44: Payment to contractors shall be made by cheque drawn on any treasury within the division convenient to them provided the amount exceeds Rs. 10/- Amount not exceeding Rs. 10/- will be paid in cash.

Acceptance of conditions compulsory before tendering the work

Clause 45: Any contractor who does not accept these conditions shall not be allowed to tender for works.

Clause 46 : If Government declares a state of scarcity or famine to exist in any village situated within 10 miles of the work, the contractor shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Executive Engineer, or be any person to whom the Executive Engineer may have delegated this duty in writing to be in need of relief and shall be bound to pay to such person wages not below the minimum which Government may have fixed in this behalf. Any disputes which may arise in connection with the implementation of this clause shall be decided by the Executive Engineer whose decision shall be final and binding on the contractor.

*Employment to
scarcity labour.*

Clause 47 : The price quoted by the contractors shall not in any case exceed the control price, if any, fixed by Govt. or reasonable price which it is permissible for him to charge a private purchaser for the same class and description, the controlled price or price permissible under Hoarding and Profiteering Ordinances, 1948 as amended from time to time, if the price quoted exceeds the controlled price or the price permissible under Hoarding and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to conform with the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

Clause 47 (A):

- a) The Bidder shall quote his rate considering the provisions contained under GST Act 2017.
- b) Provisional amount of GST 2% i.e. CGST 1% + SGST 1% will be deducted at source (T.D.S.) after enforcement of section 51 of Maharashtra Goods and Service Act-2017.
- c) Bidder shall quote his rate excluding GST
- d) GST shall be paid on the amount of bill of the work done as per prevailing guidelines rate of GST during the period of work done as applicable.
- e) The rates quoted by the contractor shall be deemed to be inclusive of the labour welfare cess and other taxes excluding GST that the contractor will have to pay for the performance of this contract. The Employer will perform such duties in regard to the deduction of such taxes at sources as per applicable law.

Clause 48: Deleted

Clause 49: In case of materials that may remain surplus with the contractor from those issued for the work contracted for, the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of sales tax and the sales tax will be recovered on such sale.

Clause 50:

The contractor shall employ the unskilled labour to be employed by him on the said work only from locally available labours and shall give preference to those persons enrolled under Maharashtra Government Employment and Self Employment Department's Scheme.

Provided, however, that if the required unskilled labours are not available locally, the contractor shall in the first instance employ such number persons as is available and thereafter may with previous permission, in writing of the Executive Engineer, in charge of the said work, obtain the rest of requirement of unskilled the labour from outside the above scheme.

Clause 51: Wages to be paid to the skilled and unskilled labourers engaged by the Contractor.

The contractor shall pay the labourers (skilled and unskilled) according to the wages prescribed by the Minimum Wages Act of 1948 applicable to the area in which the work of the contract is located.

The contractor shall comply with provisions of Apprentice 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 Superintending Engineer may at his discretion cancel the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the Provisions of Act.

The contractor shall pay labourer, skilled and unskilled according to prescribed wages by Minimum Wages Act applicable to the area in which work of the contractor is in progress.

The contractor to take precautions against accidents which take place on account of labour using loose garments while working machinery.

Clause 52: All amounts whatsoever which the contractor is liable to pay to the Government in connection with the execution of the work including the amount payable in respect of (i) materials and or stores supplied/issued hereunder by the Government to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire by the Government to the contractor for execution by him of the work and / or on which advances have been given by the Government to the contractor shall be deemed to be arrears of the Land Revenue and the Government may without prejudice to any other rights and remedies of the Government recover the same from the contractor as arrears of land revenue.

P.W.Dept.
No.CAT/1284(12
0)/ Building-2 dt.
14.8.85

Clause 53: The contractor shall duly comply with all the provisions of the Contract Labour (Regulation and Abolition) Act, 1970 (37 of 1970) and the Maharashtra Contract Labour (Regulation and Abolition) Rules, 1971 as amended from time to time and all other relevant statutes and statutory provisions concerning payment of wages particularly to workmen employed by the contractor and working on the site of the work. In particular the contractor shall pay wages to each worker employed by him on the site of the work at the rates prescribed under the Maharashtra Contract Labour (Regulation and Abolition) Rules 1971. If the contractor fails or neglects to pay wages at the said rates or makes short payment and the Government makes such payment of wages in full or part thereof less paid by the contractor as the case may be, the amount so paid by the Government to such workers shall be deemed to be arrears of Land Revenue and the Government shall be entitled to recover the same as such from the contractor or deduct same from the amount payable by the Government to the contractor hereunder or from any other amount/s payable to him by the Government.

Clause 54: The contractor shall engage apprentices such as brick layer, Carpenter, Wireman, Plumber, as well as blacksmith recommended by the State Apprenticeship Advisor, Director of Technical Education, Dhobi Talao, Mumbai - 400 001 in the construction work.

(As per Govt. in Education Deptt's. No. TSA/5170/T/5689 dt. 7.7.72)

Clause 55: Government of Maharashtra, Directorate of Tourism.
Resolution No. CAT/1086/CR/243 K/Bldg.32 dt. 11.8.1987

*Conditions for
malaria
eradication, Anti
Malaria and other
health measures.*

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

E) Relations with Public Authorities

The contractor shall make sufficient arrangements for draining away the sullage water as well as water coming from the bathing and washing places and shall dispose of this water in such way as not to cause any nuisance. He shall also keep the premise clean by employing sufficient number of sweepers.

The contractor shall comply with all rules, regulations, bye-laws and directions given from time to time by any local or public authority in connection with this work and shall pay fees charges which are leviabale on him without any extra cost to Government.

(Government of Maharashtra Directorate of Tourism,
Resolution No. CAT-1086/CR/243/D-Bldg. 2 dated

11.9.1987.)

Clause 56: The Contractor is fully responsible for the life of person entering in the construction premise from any accident occurred due to inadequate safety measures. He is responsible for any of the FIR lodged against any accident occurred on the site of work during execution of the work for 24/7. No Person shall be allowed to enter either Government staff of contactors without helmet and other proper safety measures in the premises. The Contractor shall employ proper watch & Guard to take the precautionary safety measures of person entering in the premises of the construction of Building work

if it is observed and noted by the Government site engineer that no one available for watch and guard of safety measures the contractor will be heavily penalized as for such negligence.

Clause 57: CONDITION RELATING TO INSURANCE OF CONTRACT WORK

Contractor shall take out necessary Insurance Policy / Policies so as to provide adequate insurance cover for execution of the awaited contract work for total contract value and complete contract period from the : Directorate of Insurance, Maharashtra State, Mumbai "Its postal address for correspondence is 264, MHADA, First floor, Opp. Kalanagar, Bandra (E) Mumbai 400051" (Telephone No.2659 0403/2659 0690 and Fax Nos. 2659 2461/ 2659 0403) Similarly all workmen's appointed to complete the contract work are required to be insured under workmen's compensation Insurance Policy, Insurance Policy/ Policies taken out from any other company will not be accepted. if any contractor has affected Insurance with any Insurance Company, the same will not be accepted and the amount of premium calculated by the Government Insurance fund will be recovered directly from the amount payable to the Contractor for the executed contract work and paid to the Directorate of Insurance Fund, Maharashtra State, Mumbai. The Director of Insurance reserves the right ot distribute the risks of insurance among the other insures.

Clause 58: As per Bldg and other construction workers (Regulation of employment and condition of service) Act 1996 and The Bldg and others construction workers welfare cess Act 1996 and Government of Maharashtra GR. No.BCA 2009/C.No.108/Labour 7A dt.17/06/2010 Cess of 1% on Cost of work shall be recovered from bills payable to the contractor

5. SCHEDULE – A

NAME OF WORK : Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna

"SCHEDULE - A"

Schedule showing (approximately) materials to be supplied from the Public Works Stores for the work contracted to be executed and preliminary and ancillary works and the rates at which they are to be charged for.

Sr. No.	Particulars	Quantity	Unit	Rate at which the material will be charged to contractor		Place of delivery
				In Figures	In Words	
----- NIL -----						
Conditions of Schedule 'A' attached separately						
Note:	1. Material such as steel, cement required for work shall be brought by the contractor.					

6. ADDITIONAL CONDITIONS FOR MATERIALS

(CEMENT, MILD STEEL, H.Y.S.D./TMT BARS, ETC) BROUGHT BY CONTRACTOR

1. The materials such as Steel, Cement etc. required for execution of work shall be brought by contractor at his own cost.
2. The contractor shall maintain the record of these materials (Cement, Steel) in the prescribed proforma and registers as directed by Engineer in charge. The sample of prescribed proforma is attached at the end **(Page No. 170 to 173)** These registers shall be signed by both contractors and representative of Engineer in charge. These registers shall be made available for inspection, verification for the department as and when required. These registers shall be in the custody of department and shall be maintained by the department.
3. The material required only for this work shall be kept in the godown at site. No material shall be shifted out side of the godown except for the work for which this agreement is entered. Without prior approval of the Engineer in charge.
4. The material i.e. cements, steel etc brought on the work site shall be accompanied with the necessary company / Manufacturing firm's test certificates. In addition, this material shall be tested as per frequency prescribed by the department and the cost of such testing shall be borne by the contractor. If the test results are satisfactory, then and then only the material shall be allowed to be used on the work. If the test results are not as per standards, these materials shall be immediately removed from the work site at contractor's cost. In case of cement if so, requested by the contractor in writing, material will be allowed to be used before receipt of test results but this will be entirely at the risk and cost of the contractor.
5. All these materials i.e. cement, steel etc. shall be protected from any damages, rains etc. by the contractor at his own cost.
6. The contractor will have to erect temporary shed of approved specifications for storing of above materials at work site at contractors' cost having double lock arrangements (By Double lock it is meant that godown shall always be locked by two locks, one lock being owned and operated by Contractor & other by Engineer in charge or his authorised representative and the door shall be openable only after both locks are opened.)

7. If required, the weighment of cement bags / steel etc. brought by the contractor shall be carried out by the contractor at his own cost.
8. The contractor shall not use cement and other material for the item to be executed outside the scope of this contract except for such ancillary small items as are connected and absolutely necessary for execution of this work as may be decided by the Engineer in charge.
9. The Government shall not be responsible for the loss in cement, steel etc during transit to work site. The cement brought by the contractor at the work site shall mean 50 kg. Equivalent to 0.0347 cubic meter per bag by weight. The rate quoted should correspond to this method of reckoning in case of ordinary / controlled concrete, if cement is found short the shortage / surplus will be made good by the contractor at his cost.
10. The Contractor shall produce sufficient documentary evidence i.e. Bill for the purchase, Octroi receipt, etc. for the purchase of the material brought on the work site at once if requested by the department.

11. **INDEMNITY:**

The condition regarding indemnity as defined on **page 103 At Sr. No. 8.6** will apply in case of material brought by contractor at the site for the execution of the work being executed under this contract.

12. In case the materials brought by the contractor become surplus owing to the change in the design of the work, the materials should be taken back by the contractor at his own cost after prior permission of Engineer in charge.
13. For another chemical required for concerned item, make and quality shall be got approved from Engineer-in-charge. Sufficient stock considering likely used and its shelf life of products shall be procured. Procurement of polymer shall be intimated to Deptt. for record and verification. Register of stock and its day to day to consumption shall be maintained jointly. The register of stock and its day-to-day consumption shall be maintained jointly. The register shall be maintained in form 1,2, and 3 for consumption of polymer.

7. ADDITIONAL GENERAL CONDITIONS.

1. COMPETANCY OF TENDER:

The work will be awarded only to those contractors who are considered to be substantially responsive bidders, capable of performing the class of work to be completed. Before passing the final award any or all bidders may have to show that they have the necessary experience, facilities, ability and financial resources to execute the work in satisfactory manner and also within the stipulated time.

2. PAYMENTS:

The tenderers must understand clearly that the rates quoted are for completed work and include all costs due to labour, all leads and lifts involved and if further necessitated, scaffolding plant, supervision, service works, power, royalties, octroi taxes etc. and to include all to cover the cost of lighting on night work if any and round the clock work as and when required and no claim for additional payment beyond the prices or rates quoted will be entertained and the tenderers shall not be entitled subsequently to make any claim on the ground of any representation or on any promise by any person (whether member in the employment of any Public Works Department or not) or on the ground of any failure on his part to obtain all necessary information for the purpose of making his tender and fixing the several prices and rates therein relieve him from any risks or liabilities arising out of the tender. The Engineer shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions stipulated as per prevailing conditions.

(a) RUNNING BILLS:

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

b) FINAL BILL:

The contractor should submit final bill within one month after completion of the work and the bill will be paid within 5 months if it is in order. Disputed item and claims if any shall be excluded from the final bill and settled separately later on.

c) Additional condition about availability of Funds

“The budget provision for this work is less at present. The payment of bills will be made as per the availability of funds. No claims will be entertained for delayed payments.”

“If situation arises, the work will be stopped at safe stage and will be withdrawn under Clause 15 for which no compensation will be allowed”

3. **ERASER:**

Person's tendering is informed that no erasers of any alterations by them in the text of the documents set herewith will be allowed and any such eraser or an alteration will be disregarded. If there is any error in writing, no overwriting should be done but the wrong words or figures should be struck out and the correct one written above or near it in an unambiguous way. Such correction should be initialed and dated.

4. **ACCEPTANCE:**

Intimation of acceptance of tender will be given by a telegram or a letter sent by Registered Post to the address given below the signature of the tenderer in the tenders. The tenders which do not fulfill any of the above conditions or those in the form and which are incomplete in any respect shall be liable for rejection.

5. PRECAUTIONS TO BE TAKEN BY THE CONTRACTOR TO PREVENT ACCIDENT:

- i) No live electric lines should be allowed to run along the ground in the blasting zone and they should be at least about 10 ft. above ground if not more.
- ii) The wiring cable should not be taken near the live electric line and it should be preferably shot firing cable as supplied by the supplier of explosives. If such a cable is not available a substitute cable recommended by the explosive suppliers should only be used. Under no circumstances should cable made up of several pieces jointed and tapped be used.
- iii) The blasting shed from where the exploder is to finally operated should be at least 150 metres away from the area to be blasted. It should have a strong roof which can with stand the impact of flying stones at this range.
- iv) Only trained hands should be allowed to handle explosives, cable detonators etc.

6.1 CONTRACTOR TO INFORM HIMSELF FULLY:

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

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

6.2 ERROR, OMISSIONS AND DISCREPANCIES:

- (A) In case of errors, omissions and /or disagreement between written and scaled dimensions in the drawing or between the drawings and specifications etc., The following order of preference shall apply.
- (I) Between actual scaled and written dimensions or descriptions on a drawing, the latter shall be adopted.
 - (II) Between the written or shown description of dimensions in the drawing and corresponding one in the specifications, the latter shall apply.
 - (III) Between the quantities shown in schedule of quantities and those arrived at from the drawings, the latter shall be preferred.
- (B) In all cases of omission and / or doubts of discrepancies in the dimensions or description of any item or specifications, a reference shall be made to the Engineer, whose elucidation, elaboration or decision shall be considered as authentic. The contractor shall be held responsible for any errors that may occur in the work through lack of such reference and precaution.

6.3 **WORKING METHODS AND PROGRESS SCHEDULES:**

- (a) The Contractor shall submit within the time stipulated by the Engineer-in-charge in writing the details of actual methods that would be adopted by the Contractor for the execution of any item as required by Engineer at each of the location, supported by necessary detailed drawing and sketches including those of the plant and machinery that would be used, their locations, arrangement for conveying and handling materials etc. and obtain prior approval of the Engineer-in-charge well in advance of starting of such item of work. The Engineer-in-charge reserves the right to suggest modifications or make corrections in the method proposed by the contractor, whether accepted previously or not, at any stage of the work to obtain the desired accuracy, quality and progress which shall be binding on the contractor. No claim on account of such change in method of execution will be entertained by Government so long as specifications of the item remain unaltered. The full responsibility for the safety and adequacy of the methods adopted by the contractor shall however, rest on the contractor, irrespective of any approved given by the Engineer.

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

PROGRESS SCHEDULE

- (b) The Contractor shall furnish within the period stipulated in writing by the Engineer-in-charge of the order to start the work, progress schedule using PERT/CPM technique in quadruplicate indicating the date of actual start, the monthly progress expected to be achieved and anticipated completion date of each major item of work to be done by him, also indicating and setting up materials, plants and machinery. The schedule is to be such as is practicable of achievement towards the completion of the whole work in the time limit and of the particular items, if any on the due date specified in the contract and shall have the approval of the Engineer-in-charge. No revised schedule shall be operative without such acceptance in writing. The Engineer is further empowered to ask for more detailed schedule or schedules in weekly form, for any item or items, in any case of urgency of work as will be directed by him and the contractor shall supply the same as and when asked for.

- (c) The Contractor shall employ sufficient plant, equipment and labour as may be necessary to maintain the progress schedule. The working and shift hours restricted to one shift a day for operations to be done under the Government supervision shall be such as may be approved by the Engineer-in-charge. They shall not be varied without the prior approval of the Engineer. Night work requiring supervision shall not be permitted except when specifically allowed by Engineer on each item, if requested by Contractor. The Contractor shall provide necessary lighting arrangements etc. for night work as directed by the Engineer without extra cost to Government.

Further, the contractor shall submit the progress of work in prescribed forms and charts etc. at periodical intervals, as may be specified by the Engineer-in-charge. Schedule shall be in the form of progress charts, forms, progress statement and/or reports as may be approved by the Engineer. The contractor shall maintain proforma, charts, details regarding machinery, equipment, labour, materials, personnel etc. as may be specified by the Engineer and submit periodical returns thereof as may be specified by the Engineer-in-charge.

(d) **CONSTRUCTION EQUIPMENT AND LOCATION:**

The Contractor shall be required to give a trial run of the equipment's for establishing, their capability to achieve the laid down specifications and tolerance to the satisfaction of the Engineer before commencement of the work. All equipment provided shall be of proven efficiency and shall be operated and maintained at all times, in a manner acceptable to the Engineer and no equipment or personnel will be removed from site without permission of the Engineer.

6.4 TREASURE TROVE:

In the event of discovery by the Contractor or his employees, during the progress of the works of any treasure, fossils, minerals or any other articles or value of interest, the Contractor shall give immediate intimation thereof to the Engineer such treasure of things which shall be the property of the Government.

6.5 QUARRIES:

6.5.1 The Contractor (s) shall have to arrange himself / themselves to procure the quarry. However necessary assistance without any extra cost to Government will be rendered by the Department for procuring the quarries if required by the Contractor.

6.5.2 The quarrying operation shall be carried out by the Contractor with proper equipment such as compressor, jack-hammers, drill bits, explosives etc. and sufficient numbers of workmen shall be employed so as to get the required out-turn.

6.5.3 The Contractor shall carry out the works in the quarries in conformity with all the rules and regulations already laid down or that may be laid down from time to time by the Government. Any cost incurred by the Government due to noncompliance of any rules or regulations or due to damages by the Contractor shall be the responsibility of the Contractor. The Engineer-in-charge or his representative shall be given full facility by the Contractor for inspection at all times of the working of the quarry, records maintained, the stocks of the explosives and detonators etc. So as to enable him to check that the working records and storage are all in accordance with the relevant rules. The Engineer-in-charge or his representative shall at any times be allowed to inspect the work, building and equipment at the quarters.

- 6.5.4** The Contractor shall maintain at his own cost the books, registers etc. required to be maintained under the relevant rules and regulations and as directed by the Engineer-in-charge. These books shall be open for inspection at all times by the Engineer-in-charge or his representative and the Contractor shall furnish the copies or extract of books or registers as and when required.
- 6.5.5** All quarrying operations shall be carried out by the Contractor in organized and expeditious manner, systematically and with proper planning. The Contractor shall engage licensed blasters and adopt electric blasting and / or any other approved method which would ensure complete safety to all the men engaged in the quarry and its surroundings. The Contractor shall himself provide suitable magazines and arrange to procure and store explosives etc. as required under the rules at his own cost. The designs and the location of the magazine shall be got approved in advance from the Chief Inspector of Explosives and the Rules and Regulations in this connection as laid down by the Chief Inspector of Explosives from time to time shall be strictly adhered to by the Contractor. It is generally experienced that it takes time to obtain the necessary license for blasting and license for storage of materials from the concerned authorities. The Contractor must therefore, take timely advance action for procuring all such licenses so that the work progress may not be hampered.
- 6.5.6** The approaches to the quarrying place from the existing public roads shall have to be arranged by the Contractor at his own cost and the approaches shall be maintained by the Contractor at his own cost till the work is over.

- 6.5.7** The Quarrying operations shall be carried out by the Contractor to the entire satisfaction of the Engineer-in-charge and the development of the quarry shall be made efficiently so as to avoid wastage of stones. Only such stones as are of the required quality shall be used on the work. Any stone which is in the opinion of the Engineer-in-charge, not in accordance with the specifications or of required quality will be rejected at any time, at the quarry or at the site of work. The rejected stones shall not be used on the work and such rejected materials shall be removed to the place shown at the Contractor's cost.
- 6.5.8** Since all stones quarried from Government quarry (if made available) by the Contractor including the excavated over burden are the property of the Government, no stones or earth shall be supplied by Contractor to any other agencies or works and are not allowed to be taken away for any other works. All such surplus quarried materials not required for work under this contract shall be the property of the Government and shall be handed over by the Contractor to the Government free of cost at the quarry site duly heaped at the spots indicated by the Engineer-in-charge.
- 6.5.9** Quarrying permission will have to be directly obtained by the Contractor, from the Collector of the District concerned for which purpose the Department will render necessary assistance. All quarry fees, royalty charges, Octroi duties, ground rent for staking material etc. if any to be paid, shall be paid directly by the contractor as per prevailing rules in force.
- 6.5.10** The Contractor will be permitted to erect structures such as stores, office, huts for the labours at his own risk and cost at the quarry site, if suitable vacant space in Government area is available for the purpose at places approved by the Engineer-in-charge. On completion of the work the Contractor shall remove all the structures erected by him and restore the site to its original condition.

6.5.11 The Contractor shall not use any land in the quarry for cultivation or for any other purpose except, that required for breaking or stacking or transporting stones.

6.6 **COLLECTION OF MATERIALS: -**

- (I)** Where suitable and approved P.W. Department's quarries exist the Contractor or piece worker will be allowed if otherwise there is no objection to obtain the materials to the extent required for the work from the quarry. He will be, however, liable to pay compensation, if any damage caused to the quarry either deliberately or through negligence or for wastage of materials by himself or his staff or labour. The Contractor shall pay necessary royalty in advance and claim refund according to rules, if admissible and shall submit detailed accounts of materials quarried as directed.
- (II)** Where no suitable P.W. Department's quarries exist or when the quantity of the material required cannot be obtained from a P.W. Department quarry, the Contractor or piece worker shall make his own arrangements to obtain the material from existing or a new quarry in Government waste land, private land or land belonging to other States or Talukas etc. After opening the quarry but before starting collection, the quarry shall be got approved from the Engineer-in-charge or his representatives. The Contractor or piece worker shall pay all royally charges, compensation etc. No claims or responsibility on account of any of obstructions caused to execution of the work by difficulties arising out of private owners of the land will be entertained.

- (III)** The rates in the tender, include all incidental charges such as opening of a new quarry, opening out a new portion in an existing quarry, removing top soil and the unsuitable material, dewatering, quarry, cost of blasting powder and fuse, lift and lead, repairs to existing cart tracks, making new cart tracks, control charges, Central/State Government or Municipal Taxes, etc.
- (IV)** The rates in the tender are for the delivery of the approved material on road side, properly stacked at the places specified by the Engineer-in-charge and are inclusive of conveyance charges in respect of the leads and lifts. No claims on account of changes in lead will be entertained.
- (V)** No material shall be removed from the land within the road boundary or from the land touching it without the written permission of the Engineer-in-charge or his authorised agent. If any material is unauthorisely obtained from such places, the Contractor or piece worker shall have to make good the damages and pay such compensation, in addition as may be decided by the Executive Engineer and will have to stop further collection.
- (VI)** Any material that falls on any P.W.D. Road from the cart etc. during conveyance shall be immediately picked up and removed by the Contractor or piece worker, failing which it will be got removed departmentally at his cost. No heap shall be left prior to stacking even temporarily on the road surface or in any way so as to cause any obstruction or danger to the traffic. The Contractor or the piece worker shall be liable to pay for any claims of compensation etc. arising out of any accident, etc. Any such materials causing obstruction or danger etc. will be got removed departmentally at his cost and no claim for any loss or damage to the material, thus removed will be entertained. The Contractor shall also be responsible for the damage or accident etc. arising out of any material that falls on the road or track, not in charge of the Department and shall attend to any complaints which may be received.

- (VII)** The materials shall not be stacked in place where it is liable to be damaged or lost due to traffic passing over it, to be washed away by rain or floods, to be buried under the land slides etc. or the slip down an embankment or hill side etc. No claims for any loss due to these and similar causes will be entertained.
- (VIII)** Before stacking, the materials shall be free from all earth, rubbish, vegetable matter and other extraneous substance and in the case of metal, screened to gauge if so directed when ready. It shall be stacked entirely clear of the road way on ground which has been cleaned of vegetation and levelled. On high banks, ghat roads etc. where it may not be practicable to stack it entirely clear of the roadway, it may be stacked with the permission of the Engineer-in-charge on terms in such a way as to cause minimum danger and obstruction to the traffic or as may be directed by him.
- (IX)** The size of the stack of the materials other than rubble shall be 3 x 1.5 x 0.60 metre or such other size as may be directed by the Engineer-in-charge and all but one stack in 200 metres shall be of the same uniform size and shall be uniformly distributed over whole lengths. One stack (at the end) in each 200 metres may be of length different from the rest in order to adjust total quantity to be required but its width and height will be the same as those of the rest.
- (X)** The Engineer in charge or his authorised representative shall supply the Contractor with statement showing 200 metres wise quantities that will be required and the order in which the collection is to be done. No materials in excess of requirements in that 200 metres shall be stacked. Any excess quantity shall be removed at the expense of the Contractor or piece worker to where it is required before the material in that 200 metres is finally measured.

- (XI) All materials shall be examined and measured before it is spread. The labour for measurements (and check measurements wherever carried out) shall be supplied by the Contractor or piece worker. Immediately after the measurements are recorded, the stacks shall be marked by the contractor or piece worker by white wash or otherwise as may be directed by the Executive Engineer to prevent from any possibility of the same material being measured and recorded over again and to prevent any unauthorized tampering with the stacks. If the contractor or the piece worker fails to attend the measurements of materials after receiving the notice from the Sub Divisional Officer or his subordinate stating date and time of the intention to measure the work, the same shall be measured nevertheless and no complaint in this respect will be entertained later-on. If the contractor or piece worker fails to supply sufficient labour or the materials required at the time measurements or check measurements, after due notice has been given to him, the expenses incurred on account of employing departmental labour or material etc. shall be charged against his account.

6.7 AGENT AND WORK ORDER BOOKS: -

The contractor shall himself engaged an authorised all time agent on the work capable of managing and guiding the work and understand the specifications and contract condition. A qualified and experienced, Engineer shall be employed by the contractor as his agent for technical matters in case the Engineer-in-charge considers this as essential for the work and so directs contractors. He will take orders as will be given by the Executive Engineer or his representative and shall be responsible for carrying them out.

This agent shall not be changed without prior intimation to the Executive Engineer and his representative on the work site. The Engineer-in-charge have the unquestionable right to ask for change in the quality and strength of contractor's supervisory staff and to order removal from work of any of such staff. The contractor shall comply with such orders and effect replacements to the satisfaction of the Engineer-in-charge.

A work order book shall be maintained on site and it shall be the property of the Government and the contractor shall promptly sign orders given therein by the Executive Engineer or his representative and his superior officers and comply with them. The compliance shall be reported by the Contractor to the Engineer in good time so that it can be checked. The blank work order with machine numbered pages will be provided by the Department free of charge for this purpose. The contractor will be allowed to copy out instructions therein from time to time. The order issued by the Government in P.W. Department from time to time regarding Construction procedure shall be binding on the contractor in addition to the specifications contained in P.W.D. hand book Volume I and II and book of standard specification of P.W. Department and the specifications enumerated above.

6.8 INITIAL MEASUREMENTS FOR RECORD: -

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

6.9 HANDING OVER OF WORK:

All the works and materials before finally taken over by Government it will be the entire liability of the Contractor to guard, maintain and make good any damage of any magnitude. Interim payments made for such work will not alter this position. The handing over by the Contractor and taking over by the Executive Engineer or his authorised representative will be always in writing copies of which will go to the Executive Engineer or his authorised representative and the Contractor. It is however, understood that before taking over such work, Government will not put it into regular use as distinct from casual or incidental one, except as specifically mentioned elsewhere in this contract, or as mutually agreed to.

6.10 ASSISTANCE IN PROCURING PRIORITIES, PERMITS ETC:

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

The Contractor shall have to make his own arrangement for machinery required for the work. However, if the same is conveniently available with the Department it may be spared as per the rules in force on recovery of necessary Security Deposit and rent at the rate approved from time to time by the independent agreement to this contract and the supply or non supply of machinery shall not form a ground for any claim or extension of time for this work.

7. SAMPLES AND TESTING OF MATERIALS:

- i)** All materials to be used on work, such as cement, lime, aggregates, stone, asphalt, etc. shall be got approved in advance from the Engineer-in-charge and shall pass the tests and analysis required by him, which will be:

 - (a) as specified in the specifications of the items concerned and / or
 - (b) Red book
 - (c) as specified by the Indian Road Congress Standard Specification and code of practice for Road and Bridges or
 - (d) I.S.I. Specifications (whichever and wherever applicable) or
 - (e) As per M.O.R.T. & H specifications for Roads and Bridges latest edition Section 900 quality control for road work.
 - (f) Such recognized specifications acceptable to the Engineer-in-charge as equivalent there to or in the absence of such authorised specifications.
 - (g) Such requirements test and/or analysis as may be specified by the Engineer-in-charge in the order of procedure 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 test or analysis at such time and to such places as may be directed by Engineer and bear all such charges, such samples shall also be deposited with Engineer-in-charge.

- iii) The Contractor shall as and when required submit at his cost the samples of materials to be tested or analyzed and if, so directed, shall not make use of or incorporate in the work any material represented by the samples until the required test or analysis have been made and after the test of the materials, finally accepted by the Engineer-in-charge.
- iv) The contractor shall not be eligible for any claim or compensation either rising out of any delay in the work or due to any corrective measure required to be taken on account of and as a result of testing of the materials.
- v) The contractor or his authorised representative will be allowed to remain present in the Department laboratory which testing the samples furnished by him. However, the results of all the tests carried out in the Departmental laboratory whether in the presence or in absence of the contractor or his authorised representative will be binding on the contractor.

vi) **Quality Control Tests:-**

The contractor shall at his own cost set up Laboratory at site of work to carry out the testing of materials which are to be used for the work. This laboratory shall be approved by the Engineer-in-charge. The testing shall be done as per frequencies mentioned in the specification/additional specification of each item of Schedule 'B'. The 30% of the test included in **Annexure 'A' (On Page No. 127)** shall be carried out in Vigilance and Quality Control Laboratory at the cost of contractor and balance 70% in the site laboratory. The test which are not included in Annexure 'A' 50% test shall be carried out each in Vigilance and Quality Control laboratory and site laboratory. The frequency of testing of construction materials is mentioned in **Annexure-B on Page No. 128 to 129.**

- vii) In case of material procured by the contractor, testing as required by the Codes and Specifications shall be arranged by him at his own cost. Testing shall be done in the presence of authorized representative of the **Engineer in charge**, at the nearest approved laboratory. If additional testing other than as required by specification is ordered, the testing charges, shall be borne by the Department, in case the test results are satisfactory and by the contractor if the same are not satisfactory.
- viii) In case of materials specified by the Government, if the contractor demands certain testing, the charges thereof shall be paid by the contractor if the testing results are satisfactory and the Department if the same are not satisfactory.
- ix) Contractor shall have tested machinery/apparatus in his possession as mentioned on **Page 142**.

7.1 QUALITY CONTROL ON WORKS AND MATERIALS:

The Contractor shall be responsible for the quality of the work in the entire construction work within the contract. He shall, therefore, have his own independent and adequate set up for ensuring the same. This shall include establishing field laboratory for testing required for works. The laboratory shall be equipped with the equipment's and apparatus required for the testing. The list of various equipment's/apparatus is enclosed on **Page 142** for information and guidance of the Contractor. These equipment's shall be in working condition. The Engineer in charge of the work will verify these equipment's in the laboratory at site. The work shall not be started unless and until the laboratory is equipped with equipment's. (Ref. **Page 142**).

7.2 **CO-ORDINATION:**

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

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

7.3 **TEMPORARY QUARTER AND SITE OFFICE**

D) The Contractor shall at his own expense maintain sufficient experienced supervisory staff etc. required for the work and shall make his own arrangements for housing such staff with all necessary amenities. General layout plan for such structures shall be got approved from the Engineer-in-charge. It will be the responsibility of the Contractor to get his lay out plan of temporary structure approved from the local competent authority.

- II) The contractor shall provide furnish, maintain and remove on completion of the work; a suitable office on the work site for the use of Executive Engineer or his representative. The covered area exclusive of verandah should not be less than 40.00 sqm. It may have brick walls and asbestos or corrugated iron roof; paved floor should be 45 cm. above ground level. He should provide latrines, urinals and keep them clean daily. This will be supposed to be included in his offer.

~~**Provide Site Vehicle for the Engineer in Charge for period of work in progress of make SUV of any reputed brand like Inova Crysta/ XUV 700. If contractor fails to provide the Vehicle then penalty of Rs. 50,000 per month will be deducted from the bill.**~~

7.4 PATENTED DEVICES, MATERIALS AND PROCESSES:

When the Contractor desires to use any designed device, materials or process covered by letter of patent or copy right, the right for such use should be secured by suitable legal arrangement and agreement with patent owner and a copy of their agreement shall be filed with the Engineer-in-charge if so desired by the latter.

7.5 WATER SUPPLY:

Availability of adequate water for works and sources thereof shall be confirmed by the Contractor before submitting the tender.

The Contractor shall make his own arrangements at his own cost for entering into contract with concerned authorities for obtaining the connection and carry the water upto the work site as required by him. The location of the pipe line with respect to the road shall be decided by Engineer-in-charge and shall be binding on the Contractor.

The Contractor is advised to provide water storage tank of adequate capacity to take care of possible shutdown of water supply system.

The Contractor shall have to supply water required by the Department for its establishment at work site. The water consumed by the Department will be metered. For providing the meter permission, if necessary, will be arranged by the Department. Charges for the water consumed by the Department will be paid to the Contractor at the rates of 125% of the recurring costs or actually charged to him by concerned authorities and no other charges would be payable by the Department.

7.6 ELECTRICITY:

The Contractor will have to make his own arrangement at his own cost for obtaining or providing electric supply at work site.

Electrical supply for the Departments uses at work site shall be provided by the contractor. No charges would be payable by the Department.

8. SAFETY MEASURES AND AMENITIES:

8.1 SAFETY MEASURES:

The Contractor shall take all necessary precautions for the safety of the workers and preserving their health while working on such job as require special protection and precautions wherever required. The following are some of the requirements listed, through not exhaustive. The contractor shall also comply with the directions issued by the Engineer in this behalf from time to time and at all times.

- (i) Providing protective foot-wear to workers, in situations like mixing and placing of mortar or concrete, in quarries and place where the work is to be done under too much wet conditions as also for movements over surfaces infected with oyster growth etc.
- (ii) Providing protective head wear to workers, working in quarries etc. to protect them against accidental fall of materials from above.

- (iii) Taking such normal precautions like providing hand rails to the edges of the floating platform or barges, not allowing nails or metal parts or useless timber to spread around etc.

8.2 AMENITIES:

- (i) Supporting workmen with proper belts, ropes etc. when working on any masts, cranes, grabs, hoist, dredger etc.
- (ii) Taking necessary steps towards training the workers concerned of the use of machinery before they are allowed to handle it independently and taking all necessary precautions in and around the areas where machines, hoists and similar units are working.
- (iii) Avoiding bare live-wires etc. as would electrocute workers.
- (iv) Making all platforms, stagings and temporary structures sufficiently strong and not causing the workmen and supervisory staff to take undue risks.
- (v) Providing sufficient first aid trained staff and equipment to be available quickly at the work site to render immediate first aid treatment in case of accidents due to suffocation, drowning and other injuries.
- (vi) Providing full length gum boots, leather hand gloves, leather jackets with fireproof aprons to cover the chest and black reaching upto knees plain goggles for the eyes to the labour working with hot asphalt handling vibrators in cement concrete and also where use of any or all these items is, essential in the interest of health and well being of the labourers in the opinion of the Engineer.

8.3 EXPLOSIVE:

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

8.4 DAMAGE BY FLOODS OR ACCIDENTS:

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

8.5 RELATION WITH PUBLIC AUTHORITIES:

- (i) The Contractor shall comply with all rules, regulations, bye-laws and directions given from time to time by any local or public authority in connection with this work and shall himself pay all charges which are leviable on him without any extra cost to the Government.

(ii) **POLICE PROTECTION:**

For the Special Protection of camp of the Contractor's works, the Department will help the Contractor as far as possible to arrange for such protection with the concerned authorities, if so, required by the contractor in writing. The full cost of such protection shall be borne by the Contractor.

8.6 INDEMNITY:

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

The Government may at its discretion and entirely at the cost of the contractor defend such suit, either jointly with the Contractor or single in case the latter chooses not to defend the case.

8.7 MEDICAL AND SANITARY ARRANGEMENTS TO BE PROVIDED FOR LABOUR EMPLOYED IN THE CONSTRUCTION BY THE CONTRACTOR

- a) The Contractor shall provide an adequate supply of pure and wholesome water for the use of labourers on work and in camps.
- b) The Contractor shall construct trench or semipermanent latrines for the use of the Labours. Separate latrines shall be provided for men and women.

c) The Contractor shall build sufficient number of huts on a suitable plot of land for use of the labourers according to the following specifications: -

1. Huts with Bamboo's and Grass may be constructed.
 2. A good site not liable to submergence shall be selected on high ground remote from jungle but well provided with tress, shall be chosen wherever it is available. The neighborhood of tank, jungle, trees or wood should be particularly avoided, Camps should not be established close to large cutting of earth work.
 3. The lines of huts shall have open space of atleast ten metres between rows. When a good natural site cannot be procured, particular attention should be given to the drainage.
 4. There should be no over crowding. Floor space at the rate of 3 Sq. metre per head shall be provided. Care should be taken to see that the huts are kept clean and in good order.
 5. The Contractor must find his own land and if he wants Government land, he should apply for it. Assessment for it, if demanded will be payable by Contractor. However, the Department does not bind itself for making available the required land.
- a) The Contractor shall construct a sufficient number of bathing places, washing places should also be provided for the purpose of washing cloths.

- b) The Contractor shall engage a Medical Officer with a travelling dispensary for a Camp containing 500 or more persons if there is no Government or other private dispensary situated within 8 Kms. from the camp. In case of emergency the Contractor shall arrange this cost of transport for quick medical help to his sick worker.
- c) The Contractor shall provide the necessary staff for effecting satisfactory conservancy and cleanliness of the camp to the satisfaction of the Engineer-in-charge. At least one sweeper per 200 persons should be engaged.
- d) The Assistant Director of Public Health shall be consulted before opening a labour camp and his instruction on matters such as water supply, sanitary conveniences, the camp site accommodation and food supply shall be followed by the Contractor.
- e) The Contractor shall make arrangements for all antimalarial measures to be provided for the labours employed on the work. The antimalarial measures shall be provided as directed by the Assistant Director of Public Health.
- f) The anti-malaria and other health measures shall be as directed by the Joint-Director (Malaria and Filariasis) Health Services, Pune.
- g) Contractor shall see that mosquito breeding conditions are not created so as to keep vector populations to minimum level.

- h) Contractor shall carry out anti-malaria measures in the area as per guidelines prescribed under National Malaria Eradication Programme and as directed by the Joint Director, (M & F) of Health Services Pune.
- i) In case of default in carrying out prescribed antimalaria measures resulting in increase in Malaria incidence, contractor shall be liable to pay to Government the amount spent by Government on anti-malaria measure to control the situation in addition to fine.
- j) The Contractor shall make sufficient arrangements for draining away the surface and sullage water as well as water coming from the bathing and washing places and shall dispose off this waste water in such way as not to cause any nuisance. He shall also keep the premise clean by employing sufficient number of sweepers.
- k) The Contractor shall comply with all rules, regulation bye-law and directions given from time to time by any local or public authority in connection with this work and shall pay fees or charges which are leviable on him without any extra cost to Government.
- l) In addition to above all provisions of the relevant labour act pertaining to basic amenities to be provided to the labourer shall be applicable which will be arranged by the Contractor.

9. MISCELLANEOUS:

- 9.1** For providing electric wiring or water lines etc. recesses shall be provided, if necessary, through walls, slabs, beams etc. and later on refilled it with bricks or stones, chipping cement mortar without any extra cost.
- 9.2** In case it becomes necessary for the due fulfillment of contract for the Contractor to occupy land outside the Department limits, the Contractor will have to make his own arrangements with the land owners and pay such rents, if any, are payable as mutually agreed between them.
- 9.3** The Contractor shall duly comply with the provision of the Apprentices Act 1961 (iii of 1961) and the rules and orders made thereunder from time to time under the said Rules and on his failure or neglect to do so he shall be subject to all the liabilities and penalties provided by the said Act and Rules.
- 9.4** It is presumed that the Contractor has gone carefully through the Standard Specification (Vol. I & II 1981 Edition) M.O.R.T. & H specifications (edition 2001) and Schedule of Rate of the division, and studied the site conditions before arriving at rates quoted by him. The special provisions and detailed specification of wording of any item shall gain precedence over the corresponding contrary provisions (if any) in the standard specification given without reproducing the details in contract. Decision of Engineer-in-charge shall be final in case of interpretation of specification.

9.5 If the standard specifications fall short for the items quoted in the schedule of this contract reference shall be made to the latest Indian Standard specifications, I.R.C. codes. If any of items of this contract do not fall in reference quoted above, the decision and specifications as directed by the Engineer-in-charge shall be final.

9.6 The stacking and storage of building materials at site shall be in such a manner as to prevent deterioration or inclusion of foreign materials and to ensure the preservation of the quantity, properties and fitness of the work. Suitable precautions shall be taken by Contractor to protect the materials against atmospheric action fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likelihood of subsidence of soil, heavy materials shall be stored on paved platforms. Suitable separating barricades and enclosure as directed shall be provided to separate materials brought by contractor and from different sources of supply.

10. DEFINITIONS:

Unless excluding by or repugnant to the context:

- a)** The expression "Government" as used in the tender documents shall mean the Directorate of Tourism of the Government of Maharashtra.
- b)** The expression "The Chief Engineer" as used anywhere in the tender papers shall mean officer for the time being of the Government of Maharashtra who is designated as such.
- c)** The expression "Superintending Engineer" as used in the tender papers shall mean the officer of Superintending Engineer rank (by whatever designation he may be known) under whose control the work lies for the time being.

- d)** The expression “Engineer” or “Engineer-In-Charge” as used in the tender papers shall mean the Executive Engineer-in-charge of the work.
- e)** The expression "Contractor" as used in the tender papers shall mean the successful tenderer that is the tenderer whose tender has been accepted, and who has been authorised to proceed with the work.
- f)** The expression "Contract" as used in the tender papers shall mean the deed of contract together with or its original accompaniment and those later incorporated in it by mutual consent.
- g)** The expression "Plant" as used in the tender papers shall mean very temporary and necessary means necessary or considered necessary by the Engineer to execute, construct, complete and maintain the works and used in altered, modified, substituted and additional works ordered in the time and in the manner herein provided and all temporary materials and special and other articles of appliances of every sort, kind and description whatsoever intended or used therefore.
- h)** The expression “Department” as used in the tender papers shall mean Directorate of Tourism of Government of Maharashtra.
- i)** The “Accepting authority” shall mean the officer competent to accept the tender.
- j)** The “Site” shall mean the land and/or other places where the work is to be executed under the contract including any other land or places which may be allotted by the Government or use for the purpose of contract.

11. TESTING ETC.:

The Contractor shall be responsible for the quality of the work in the entire construction work within the contract. He shall, therefore, have his own independent and adequate setup for ensuring the same. This shall include establishing field laboratory for testing required for concrete works.

12. AUTHORITIES OF THE ENGINEER IN CHARGE:

Save in so far as it is legally or physically impossible the Contractor shall execute, complete and maintain the works in strict accordance with the contract under the directions and to the entire satisfaction of the Engineer in charge and shall comply with and adhere strictly to the Engineer-in-charge's instructions and directions on any matter (Whether mentioned in the contract or not) pertaining to this works.

The Engineer in charge shall decide all questions which may arise as to quality and acceptability of materials furnished and work executed, manner of execution, rate of progress of the works, interpretation of the plans and specifications and acceptability of fulfillment of the contract on the part of the Contractor. He shall determine the amount and quantity of work performed and materials furnished and his decision shall be final. In all such matters, and in any technical questions which may arise touching the contract, his decision shall be binding on the Contractor.

The Engineer in charge shall have the power to enforce such decisions and orders if the Contractor fails to carry them out promptly. If the Contractor fails to execute the work ordered by the Engineer-in-charge. The Engineer in charge may give notice to Contractor specifying a reasonable period therein and on the expiry of that period proceed to execute such work as may be deemed necessary and recover the cost there of from the Contractor.

12.1 AUTHORITIES OF THE ENGINEER-IN-CHARGE'S REPRESENTATIVE

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

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

- a) Failure of the representative of the Engineer-in-charge to disapprove any work or material shall not prejudice the power of the Engineer-in-charge there after to disapprove such work or materials and to order to pulling down, removal or breaking up thereof.
- b) If the Contractor is dissatisfied with any decision of the Representative of the Engineer-in-charge he shall be entitle to refer the matter to the Engineer-in-charge, who shall there upon confirm/reverse or vary such decision.

13. LAY OUT OF WORK:

Layout of the work will be done by the Contractor in consultation with the Executive Engineer of the Department or his representative, some permanent marks should however be established to indicate the demarcation of the structure or any component there of made to this permanent marks in measurement books and drawing signed by the contractor and the departmental officer, Responsibility regarding layout will be joint.

14. SETTING OUT**14.1 BUILDING WORKS: -**

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

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

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

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

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

14.2 RESPONSIBILITIES FOR LEVEL AND ALIGNMENT:

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

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

16. STACKING AND STORAGE AND GUARDING OF MATERIALS:

- 16.1** The stacking and storage of material at site shall be in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality, properties and fitness for the work. Suitable precautions shall be taken by the Contractor to protect the materials against atmospheric action, fire and other hazards. The materials likely to be carried away by wind shall be stored in suitable stores or with suitable barricades and where there is likely hood of subsidence of soil, heavy materials shall be stored on paved platforms.

Suitable separating barricades and enclosures as directed shall be provided to separate materials brought by Contractor and materials issued by Government to Contractor under Schedule "A" Same applies for the material obtained from different sources of supply.

16.2 The Contractor shall at his own expense engage watchman for guarding the materials and plant and machinery and the work during day and night against any pilferage or damage and also for prohibiting trespassers.

16.3 No materials brought to the site shall be removed from the site without the prior approval of the Engineer-in-charge.

17. INSPECTION OF WORKS

17.1 The Contractor shall inform the Engineer-in-charge in writing when any portion of the work is ready for inspection giving him sufficient notice to enable him to inspect the same without affecting the further progress of the work.

17.2 The Contractor shall provide at his cost necessary ladders and such arrangements as are considered safe by the Engineer-in-charge for proper inspection of all parts of the work.

17.3 Contractor shall extend his full co-operation and make all necessary arrangements when needed for carrying out inspection of the work or any part of the work by the local representatives, M.L. As, M. Ps and officers and dignitaries / delegates of various Government departments, local bodies, private sectors etc. No compensation shall be paid to the contractor on this account.

17.4 The work shall be carried out by the Contractor without causing damage to the existing Government property and / or private property. If any such damage is caused, the Contractor shall pay for restoration of the property to the original conditions, and any other consequent damages.

- 17.5 In the event of the occurrence of an accident involving serious injuries or death of any person, at site of work or quarry or at any place in connection with the work the same shall be reported in writing within twenty-four hours of the occurrence to the Engineer-in-charge and Commissioner of Workmen's compensation.
- 17.6 The Contractor after completion of work shall clean the site of all debris and remove all unused materials other than those supplied by the department 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 will be removed by the department at his cost or disposed off as per departmental procedure. In case the material is disposed off by the department, the sale proceeds will be credited to the Contractor's account after deducting the cost of sale incurred. However, no claim of Contractor regarding the price or amount credited will entertained afterwards.
- 17.7 All constructional plant, provided by the Contractor shall when brought on to the site be deemed to be exclusively intended for the construction and the contractor shall not remove the same or any part thereof (save for the purpose of moving it from one part of the site to another) without the consent in writing of the Engineer-in-charge who shall record the reasons for withholding the consent.

18. RESTRICTIONS BECAUSE OF LOCAL TRAFFIC:

As there is local traffic by the side of construction during construction for the building, the Contractor will have to take proper precautions such as proper barricading, fencing, lighting, information and cautionary boards for safe and smooth flow of traffic, and keeping the concerned authorities informed about the work in progress.

19. COMPLETION CERTIFICATE:

- 19.1 The work shall not be considered to have been completed in accordance with the terms of the contract until the Engineer-in-charge shall have certified in writing to that effect. No approval of material or workmanship or approval of part of work during the progress of execution shall bind the Engineer-in-charge or in any way prevent him from even rejecting the work which is claimed to be complete and to suspend the issue of his certificate of completion until such alteration and modifications or reconstruction have been effected at the cost of the Contractor as shall enable him to certify that the work has been completed to his satisfaction.
- 19.2 After the work is completed, the Contractor shall give notice of such completion to the Engineer-in-charge and within 30 days of receipt of such a notice the Engineer-in-charge shall inspect the work and if there is no defect in the work shall furnish the Contractor with a certificate indicating the date of completion. However, if there are any defects which in the opinion of the Engineer-in-charge are rectifiable he shall inform the Contractor the defects noticed. The Contractor after rectification of such defects shall then inform the Engineer-in-charge and Engineer-in-charge on his part shall inspect the work and issue the necessary completion certificate within 30 days if, the defects are rectified to his satisfaction, and if not, he shall inform the Contractor indicating defects yet to be rectified. The time cycle as above, shall continue.
- 19.3 In case defects noticed by the Engineer-in-charge which in his opinion are not rectifiable but otherwise work is acceptable at reduced payment, work shall be treated as completed. In such cases completion certificate shall be issued by the Engineer-in-charge within 30 days indicating the un-rectifiable defects for which reduction in payment is being made by him.
- 19.4 The issued of completion certificate shall not be linked up with the site clearance on completion of the work.

20. ANCILLARY WORK:

The Contractor shall submit to Engineer-in-charge in writing the details of all ancillary works including layout and specifications to be followed for its construction. Ancillary work shall not be taken up in hand unless approved by Engineer-in-charge. The Engineer-in-charge reserves the right to suggest modifications or make complete changes in the layout and specifications proposed by the Contractor at any stage to ensure the safety on the work site. The Contractor shall carry out all such modifications to the ancillary works at his own expenses as ordered by Engineer-in-charge.

21. SPECIAL CONDITIONS:

21.1 The Contractor should ensure that all safety precautions are observed by their labourers, working closed to the State Highway and while closing the State Highway precautions are taken including insurance etc., for their labour at the cost of the contractor and the contractor will bear all the expenses, compensation etc. if any accident occurs to the labour etc. No claim in this regard on whatsoever account shall be entertained and this decision of the Department will be final and conclusive.

21.2 The Contractor shall observe the rules and regulation imposed by traffic police for smooth flow of traffic on the diversion road and shall not be entitled for claims any compensation arising thereof.

In case of delay in handing over the land required for the work, due to unforeseen cause, the Contractor shall not be entitled for any compensation what-so-ever form the Government on ground that the machinery or labour was idle for certain period. Contractor may, however apply for extension of time limit which may be granted on the merit of the case.

22. REJECTION OF MATERIALS NOT CONFORMING TO SPECIFICATIONS:

Any stock or batch of material(s) of which sample(s) does not conform to the prescribed test and quality, shall be rejected by the Engineer or his representative and such materials shall be removed from site by the Contractor at his own cost. Such rejected materials shall not be made acceptable by any modifications.

Materials not corresponding in character and Quality with approved samples will be rejected by the Engineer or his representative and shall be removed from site at the Contractor's own cost.

23. INSPECTION OF OPERATIONS:

The Engineer and any person authorised by him shall at all times have access to the works and to all workshops and places (including required documents) where work is being prepared or from where materials, manufactured articles or machinery are being obtained for the works and the Contractor shall afford every facility for & every assistance in or in obtaining the right to such access.

24. FIELD LABORATORY:

The Contractor shall arrange to provide a well furnished and fully equipped field laboratory which shall be manned by adequately qualified technical staff. The laboratory shall preferably be located adjacent to the plant site and shall be provided with amenities like water supply, electric supply, toilet block etc. The list of equipment is enclosed **on Page No. 142**. This shall be considered as incidental to work and no separate payment whatsoever will be made for the same.

25. SUPPLY OF COLOURED RECORD PHOTOGRAPHS AND ALBUMS:

The Contractor shall arrange to take dated post card size-coloured photographs at various stages/facts of the work including interesting and novel features of the work as desired by the Engineer-in-charge and supply them in five copies each in separate albums of appropriate size. He shall also arrange for the Video Filming of important activities of the work during the currency of the contract and edit it to a video film of 60 to 365minutes playing time.

It shall contain narration of the various activities in English/Marathi by a competent narrator. The cassette shall be of acceptable quality and the film shall be capable of producing color pictures. This shall be considered as incidental to the work and no additional payment whatsoever will be made for the same.

26. SUPPLY OF SAFETY JACKETS TO LABOURERS/ SUPERVISORS/ ENGINEERS

As a safety measure during the execution of work all labours, construction and supervisory staff shall be provided with an orange colour jacket in flouroscent blue so as to make them starkly visible from a distance even during evening hours.

27. APPROVAL OF CONSTRUCTION MATERIALS AND CONSTRUCTION ACTIVITIES:

Approval of all materials for the work shall be obtained in writing from Engineer-in-charge or his representative before its use in the Project.

Before taking up of any construction activity the construction work done earlier shall be got approved in writing. Any failure on this account may result in the work for which the Contractor will be solely responsible.

Materials and job mix, etc. shall be got approved in writing atleast 15 days in advanced of the commencement of the corresponding activity. The testing charges shall be borne by the Contractor.

Besides the prescribed tests and frequencies any other test of tests over the prescribed frequency shall also be carried out by the Contractor at his own cost if so directed by Engineer-in-charge or his authorised representative.

28. CONDITION RELATING TO INSURANCE OF CONTRACT WORK.

Contractor shall take out necessary Insurance Policy/ (viz. Contractors All Risks Insurance Policy, Erection All Risks Insurance Policy etc. as decided by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period compulsorily from the “Directorate of Insurance, Maharashtra State, Mumbai only its postal address for Correspondence is “264, MHADA, First Floor, Opp. Kalanagar, Bandra (East) Mumbai – 400051” (Telephone Nos. 26590403/26590690 and Fax No. 26592461/26590403) Similarly, all workmen’s appointed to complete the contract work are required to insure under workmen’s compensation insurance policy. Insurance policy/policies taken out from any other Company will not be accepted. If any contractor has affected Insurance with any insurance company the same will not be accepted and the amount of premium calculated by the Government Insurance Fund will be recovered directly from the amount payable to the Contractor for the executed contract work and paid to the Directorate of Insurance Fund, Maharashtra State, Mumbai, The Director of Insurance reserves the right to distribute the risks of insurance among the other insurers.

29. BUILDING AND OTHER CONSTRUCTION WELFARE CESS:

Building and other construction worker welfare cess at 1% or at the rates awarded from time to time as intimated by the competent authority of building and other construction worker welfare Act 1996 shall be deducted from bill amount. Whether bill advance payment or secured advance.

30. Goods and Services Tax will be recovered from the bill of the contractor as per GST Act.

31. **DIARY:**

Contractor shall maintain, throughout the construction period, a diary in the form of a register regarding the following: -

- i) Daily presence of all categories of labours.
- ii) Daily availability and use of machinery and equipment's on work.
- iii) Daily procurement, Consumption and balance of materials on site.
- iv) Daily record of various visiting authorities alongwith name of the officers visited and timing.
- v) Details of work executed per day. The register shall be closed on daily basis and signature of Engineers in charge or his representative should be taken over it.

31.1 The contractor shall have to carryout Structural Audit at his own cost after completion of the work and the contractor shall certify that, due to execution of this work the portion restored shall remain intact for minimum of 10 years. Certificate shall be through reputed & empanelled structural consultant.

32. ADDITIONAL TECHNICAL CONDITIONS

- 32.1** The work shall be carried out in the best workmanship like manner and in strict accordance with P.W.D. hand book Volume I & II 1960. Edition supplemented by specification attached and as per Standard Specifications Book of Government of Maharashtra of 1979 and as per specific order of the Executive Engineer or his representative from time to time.
- 32.2** The orders issued by the Government in P.W. Department and the Executive Engineer, Integrated Unit (P.W.) Division, Fort, Mumbai from time to time regarding construction procedure shall be binding on the contractor in addition to the specification contained in P.W.D. hand book Volume I & II and book of standard specification of P.W. Department and the specifications enumerated above.
- 32.3** The contractor shall submit day to day account of the materials issued to him and its use and also monthly progress and programme of work.
- 32.4** (a) The concrete mix design shall be got approved from Engineer in charge and the mix design shall give preliminary strength of 1.33 times working strength.
- (b) The maximum size of aggregate permissible would be as per A-7 page-8 of Standard Specifications Book 1979 Edition.
- 32.5** The items provided with watering for curing include continuous watering operations through out the day including lunch hours and also during holidays. For this purpose, contractor shall have to construct tank of approx. 5000 liters capacity near each building and provide necessary Booster Pumps etc. to ensure adequate curing and wetting. Hold fasts coming in contact with R.C.C. columns shall be of sizes 30 cm x 4 cm to be fitted with two rows, nails fixed properly in concrete.

- 32.6** For all sand covering items, use of washed mixer sand (with sand washing machine) is obligatory. No separate claim in this regard will be entertained.
- 32.7** Material testing requirement frequency and type of testing is enclosed separately. Material to be used shall be tested accordingly and cost shall be borne by contractor.
- 32.8** For R.C.C. centering plywood and M.S. sheet of approved quality shall be used and adjustable props and fasteners shall be used.
- 32.9** The execution of any work from external side of the building 'H' frame steel scaffolding shall be used. No separate payment for claims in this regard shall be entertained.
- 32.10** The scaffolding shall not be supported on existing external walls of the building by making holes in it and also the scaffolds shall not rest on any part of the building.
- 32.11** Quality Assurance Manual: Contractor shall prepare the quality assurance manual booklet in consultation with the Executive Engineer. Quality assurance manual shall be comprehensive document covering every aspect of the work. Executive Engineer shall approve this document. The quality manual document shall be used only after approval from Executive Engineer. Provision of the quality manual is binding on the contractor. Quality manual shall be treated as a legal document as per with this contract document. It shall be used till the work is completed in full respect.
- 32.12** **Payments will be made as and when necessary sufficient funds are available with the department.**
- 32.13** **The test Results of materials shall be produced with the bill and Testing charges are borne by the contractor.**

32.14) E-measurement – Contractor shall submit the E-measurement Engineer-in-charge in reference to clause 10 of they bill will not be sanctioned by the Division office under contractor submitts measurement bill in E-measurement book.

Submission of monthly bill in electronic form:-

1. As per cl 10 of this B1 contract, it is responsibility of the contractor to submit the bill monthly to the Engineer-in-charge.
2. To discharge this responsibility the contractor shall submit the bill in electronic form.
3. In doing so he shall use e-copy of Tender paper.
4. In support of the bills, required measurements, drawings, quality control reports (field lab and VQCC lab as per clause Additional General condition), site supervision data (Scada) shall be submitted in electronic form, the data to submitted have a facility to tightly integrate it with the contract conditions, provisions in the Maharashtra Public Works manual, Maharashtra Public Works Account Code (updated to date of submission of this tender) and current general engineer practices (issued through various govt. resolutions, govt. circulars, Chief Engineer's Circulars etc. issued up to data submission of this tender.) following in Public Works Department.
5. The submissions of e-bill shall be in the web-based format.
6. The offer of Contractor Shall be inclusive of all. He shall not be paid separately, his offer shall be inclusive of all required for submitting bill in e-format mentioned in this para and also
 - (a) The cost of procuring, establishing, running, operating & maintaining web-based system for submission and approval bill, with all instrumentation/automation/services required to submit/ approve/store in PWD database.
 - (b) Web connectivity to all locations where bill and its relevant documents required for bill are being acquired/preparation transmitted, processed, stored and retrieved with minimum speed of 2 MPBS and 100% availability (including SCADA) contractors shall provide the web application in such a manner that it shall first update the above data in real time in PW Works monitoring e-governance web application automatically. The contractor shall put his request to engineer in charge get access to the PWD e-governance web application.
 - (c) Web-based application including computer Software hard ware etc. to transmit process store and retrieve the date in format and as prescribe by the E.I.C

(d) Arrangement for security of bill and relevant documents, disaster recovery arrangement shall be as per prevailing Industry practice, during the construction period and up to defect liability period. hand over the data on the w server after DLP in Electronic forms as instructed by Engineer-in-charge.

(e) Calibration of all accessories /attachment related to bill shall be as per the specification

(f) Web-based application to monitor the schedule of calibration of attachment/accessories related to bill documents. The invalidity of calibration shall lead to non-acceptance of work or measurement and the contractor shall not be paid for such non accepted work or measurements.

(g) Submission of printed and authenticated reports to the Engineer-in-charge as and when required.

(h) Point (a) to (g) above shall be arranged and maintained during contract period and defect liability period.

(i) Cost includes rectification, fine tuning, corrections, additions and alterations to the system to the satisfaction of Engineer-in-charge.

(j) All data generated as per this special condition of contract shall be the property of PWD.

The contractor shall make all necessary arrangement required under 32 to 32.13 above (Supervising control and data acquisition for concrete works/all cement works/masonry/plaster/Testing Equipments items, submission and approval of bills) well in advance before starting of the related items of works and activities. All necessary arrangements so made shall be offered for inspection to Engineer-in-charge/PMC/officer appointed by the engineer – in- charge one month prior to the start of the related items of work. Changes if any, after his inspection suggested by the Engineer-in-charge/PMC/officer appointed by the engineer-in-charge shall be carried out at no extra cost and within the period of three days. A fresh request for inspection, of Engineer in charge/PMC/Officer appointed by the engineer in charge after such rectifications shall be requested by the contractor and final approval to the arrangements of SCADA and submissions and approval of bill/s shall be obtained.

32.15 Mandatory Testing of Material and Penalty Clause:

It is mandatory on the part of contractor to carry out all the required test of various construction materials as mentioned in Annexure "B" of the tender. If the contractor fails to submit required test result of the various construction materials as mentioned in the items of Annexure "B" he will be liable to deposit the amount at penal rate of five times of the amount of particulars test which he has not carried out. Contractor will be informed by the Engineer-in-charge through letter. On receipt of letter, contractor will have to either deposit the said amount or to carry out the required test within ten days. If he again fails to carryout the required tests in stipulated time limit, the said test will be carried out by the department and total expenditure incurred on the testing charges plus five times amount to testing charges will be recovered from the contractor's bill.

As this recovery is only due to the negligence on the part of contractor to carry out work as per Tender conditions and Executive Engineer's decision will be final and binding on the contractor and it can not be challenged by the contractor by way of Appeal, Arbitration or on the Court of Law.

Annexure 'A'**QUALITY CONTROL TESTS**

(Refer Condition No.7 (vi) on Page No.96)

Sr.No.	Material	Test
1	Laterite Stone	i) Compressive Strength. ii) Water Absorption
2	Trap Metal	i) Crushing value. ii) Impact value. iii) Abrasion value. iv) Water Absorption. v) Flakiness Index & Elongation index vi) Gradation
3	Bricks	i) Crushing Strength. ii) Water Absorption.
4	Flooring Tiles	i) Flexural strength ii) Water Absorption
5	Glazed Tiles	i) Water Absorption
6	Cement	i) Compressive Strength ii) Initial setting time. iii) Final setting time. iv) Specific Gravity v) Soundness vi) Fineness vii) Std. Consistency
7	Steel	i) Weight per meter. ii) Ultimate Tensile stress. iii) Yield stress iv) Elongation v) Bend Test.
8	Interlocking concrete paving block	i) Compressive Strength ii) Flexural Test iii) Resistance to wear
9	Wood work (shutters)	i) End immersion tests ii) Knife test iii) Glue adhesion test
10	Cement Concrete	i) Mix design ii) Compressive strength
11	Structural steel	i) Weight/Running metre

Annexure 'B'
Construction Material Testing & its frequency
(Refer Condition No.7 (vi) on Page No.96)

Sr.	Material	Rate	Frequency
1	CEMENT 1) Consistency 2) Initial & Final Setting time 3) Fineness 4) Specific Gravity 5) Soundness 6) Compressive Strength		Test per 50 M.t. above six tests shall be carried.
2	METAL		
a	1) Sieve Analysis (Gradation) (Concrete work) 2) Sieve Analysis Red Book Specification 3) Sieve Analysis Granular Sub Base (N.H. Work) MOST		1 Test for every day work 1 Test per 100 m ³ 1 Test per 200 m ³
b	Water Absorption		1 Test per 200 m ³
c	Impact (Concrete WBM/BT)		1 Test per 200 m ³
d	Crushing		1 Test per for Each Source
e	Abrasion		1 Test per for Each Source
f	Flakiness & Elongation Index		1 Test per 200 m ³
g	Plasticity Index for blindage used for WBM		1 Test per 25 m ³
3	SAND 1) Water Absorption & Specific Gravity 2) Fineness Modulus 3) Slit Content 4) Bulkage		1 Test per for Each Source 1 Test per for Each day 1 Test per for Each day work 1 Test per for Each day work
4	BRICKS 1) Water Absorption 2) Comp Strength 3) Effloresce		For each 50000 Nos bricks Above three tests are to be carried out
5	Flooring Tiles 1) Flexural Strength 2) Water Absorption 3) Abrasion		For 1000 Nos of Tiles above three tests are to be carried out
6	Glazed Tiles 1) Water Absorption		1 Test- 6 Tiles per 1000 Nos.

Sr.	Material	Rate	Frequency
7	Concrete Mix Design Compressive strength C.C. Cubes for Qty Qty. upto 5 m ³ 6-15 m ³ 16-30 m ³ 31-50 m ³ Quantity above 51 m ³		1 Concrete Mix Design for each grade of concrete per every per hour 1 Set (3 Nos.) 2 Set (3 Nos) 3 Set (3 Nos) 4 Set (3 Nos) 4+1 additional set per 50 m ³
8	MURUM/ SOIL for earth work 1) Optimum Dry Density 2) C.B.R. 3) Liquid & Plastic Limit/Plasticity Index 4) Filed Density 100% P.D. 5) Filed Moisture Content		2 Test per 3000 m ³ 1 Test per 3000 m ³ 1 Test per 3000 m ³ 1 Test per 3000 m ³ 1 Test per 3000 m ³
9	WOOD 1) Moisture Content 2) Density		1 test per Source 1 test per Source
10	WATER 1) P.H. Value for Water and Sand 2) Chloride & Sulphate content		1 test per Source 2 test per Source
11	Steel 1) Wt per meter 2) Ultimate Tensile Stress 3) Yield stress 4) Elogation		One test for every 5.0 MT or part thereof for each diameter

8. ADDITIONAL SPECIFICATIONS

- 1.** The contractor shall achieve that following requirements in respect of quantity of work and his contract rate shall provided for the same.

1.1 ADMIXTURES: -

Whenever necessary the admixture should be used to achieved the required workability. The type of admixture should be got approved from Engineer-in-charge. The rate is inclusive of all admixtures etc. if found necessary.

1.2 CEMENT IN CONCRETE:

For this purpose, the conditions mentioned in additional specifications on **Page 135 to 142** shall be applicable.

1.3 WATER / CEMENT RATIO:

For high quality concrete of low permeability, the water/cement ratio shall be as per IS 456 and mix design, more than 0.45 and preferably 0.40 or less subject to the attainment of adequate workability.

1.4 CURING FOR CONCRETE:

Special attention shall be paid to curing of concrete in order to ensure maximum durability and no minimize cracking. Concrete shall be cured with fresh water whenever it is possible to ensure that the concrete surface can be kept wet despite wind, etc. care shall be taken on avoid rapid lowering of concrete temperatures caused by applying cold water to hot concrete surface (thermal shock) Sea water shall not be used for curing reinforced concrete or prestressed concrete. Where there is doubt about the ability to keep concrete surface permanently wet for the whole of the curing period heavy duty membranes curing compound shall be used.

1.5 CONCRETE COVER TO REINFORCEMENT:

- (i) The cover concrete must be of the same quality, impermeability and strength as the rest of the concrete. Special mix design should be carried out for the concrete to be used for making concrete cover blocks.
- (ii) The concrete cover must develop sufficient alkalinity, and protect the steel. The alkalinity developed shall not be less than 0.04 N and shall not more than 0.08 N.
- (iii) The cover must be uniform throughout and its thickness shall be exclusive of plaster or other decorative finishes.
- (iv) The concrete cover shall be as per the relevant clause of IS codes. In the case of poles the cover thickness shall be separately decided by the Engineer in charge.

1.6 DETAILING OF MISCELLANEOUS ITEM:

Binding Wires: All ends of binding wires shall be carefully turned inwards so that they do not project out of concrete and start rusting action. Plastic coated galvanised wires shall be used. Wherever possible polythene binding string and polythene bar grips shall be used, after making sure that these do not result in loss of bond or chemical reaction with concrete. The use is subject to approval of Engineer-in-charge.

1.7 BAR SPACING: As per relevant I.S. codes and as detailed design drawing or as directed by Engineer-in-charge.

1.8 HOLLOWS IN CONCRETE: After concreting is complete the concrete surface articularly where there is congestion of reinforcement, shall be tested by light hammering or if possible, by Schmidt hammer. Any portion showing signs of hollowness should be grouted immediately.

2. SPECIFICATION FOR FORMWORK AND STEEL CENTERING: -

1) FORMWORK: -

1.1 Formwork: Formwork shall include all temporary forms of moulds required for forming the concrete which is cast-in-situ, together with all temporary construction required for their support. Unless otherwise stated all formwork shall conform to I.S. Specification.

1.2 Design of Formwork: - Formwork including complete false work shall be designed by the contractor in accordance with I.S.: 2750 (1964), 4041 (1987) and all other relevant I.S. codes without any extra cost to the Government and these shall be got approved from Engineer before any formwork is taken up.

1.3 The contractor shall entirely be responsible for the adequacy and safety for false work notwithstanding any approval or review by the Engineer of his drawing and design. Proprietary system of formwork if used a detailed information shall be furnished to the Engineer for approval.

2) QUALITY OF SHUTTERING:

The shuttering shall have smooth and even surface and its joints shall not permit leakage of cement slurry.

2.1 Ply-board shuttering materials to be used shall be steel shuttering/marine plywood well seasoned free from projecting nails, splits or other defects that may mark on the surface of concrete. It shall not be so dry as to absorb water from concrete, or so green or wet as to shrink after erection. Mild steel plates or plywood shall be used for slab and beam bottoms.

2.2 The timber shall be accurately spawned planed on the sides and the surface coming in contact with concrete.

2.3 So far as practicable, clamps shall be used to hold the forms together. Where use of nails is unavoidable minimum number of nails shall be used and these shall be left projecting so that they can be easily with drawn. use of double headed nails shall be preferred.

3. TOLERANCE: -

3.1 The formwork shall be made so as to produce finished concrete true to shape, lines, levels plumb and dimensions as shown on the drawings, subject to the following tolerance unless otherwise specified in these documents or drawings or as directed by the Engineer:

- a) Section dimension = 5 mm
- b) Plumb = 1 in 1000 of height
- c) Levels = 3 mm before any deflection takes place.

3.2 Tolerance given above are specified for local aberrations in the finished concrete surface and should not be taken as tolerance for the entire structure taken as a whole or for the setting and alignment of formwork which should be as accurate as possible to the entire satisfaction of the Engineer, Errors if noticed in any lift/ tilt of the structure after stripping of forms, shall be corrected in the subsequent work to bring back the surface of the structure to its true alignment.

4. SPECIAL PROVISION: -

Whenever the concreting of thinner members is required to be carried out within shutters of considerable depth, temporary openings in the side of the shutters shall, if so directed by the Engineer be provided to facilitate the purging and consolidation of the concrete. Small temporary openings shall be provided as necessary at the bottom of shutters of walls and deep beams to permit the expulsion of rubbish etc.

5. REMOVAL OF FORMWORK: -

The formwork shall be so removed that it shall not cause damage to concrete. Centering shall be gradually and uniformly lowered in such a manner as to avoid any shock or vibrations. Supports shall be removed in such a manner as to permit the concrete to take stresses due to its own weight uniformly and gradually.

The whole of the formwork removal should be planned and definite scheme of operation shall be worked out. Under no circumstances forms be struck until the concrete reaches a strength of at least twice the stress to which the concrete may be subjected at the time of striking but not before the period as mentioned in IS:456-1000 where ordinary portland cement is used.

6. STEEL CENTERING: -

6.1 Work includes:

Erecting steel centering with contractor's material comprising of standard steel adjustable props and standard steel trusses / joists / spans, centering plate for bottom of slab and steel plates for bottom of beams etc. of adequate strength properly balanced for obtaining adequate rigidity to withstand all loads coming on it including permanent and temporary fixtures and fastenings etc complete for R.C.C. member like beams slabs and canopy including its removal after the specified period, stacking making good the damaged parts / its replacement before its next use with all leads and lift (all centering material shall be contractor.)

- 6.2** For R.C.C. works formwork shall be of marine plywood of adequate thickness and grade only. The centering and supporting arrangement such as standard steel trusses/ joists/ spans standards adjustable/ fixed props. H type frames etc shall be designed by the Contractor and approved from the Engineer before commencement of its erection. The Contractor with the prior approval of the Engineer shall use standard steel centering arrangement which may be manufactured by the reputed firm.
- 6.3** The supporting arrangement designed by the contractor shall conform to the relevant I.S. code and Standard practice adopted in this type of work. The centering arrangement shall be adequately braced and properly secured by using appropriate type of fastenings and fixtures to ensure stability and rigidity of the centering to withstand all loads coming on it. The entire responsibility for design, erection, maintenance and safety etc. will exclusively rest with the contractor. The Engineer reserves right to call detailed design calculations of the entire centering or part there of to verify its stability and also reserve right to reject entire centering arrangement or part there of and any material used for the centering in the event of which the contractor shall have to arrange for its replacement at his own cost.

3. SPECIFICATIONS FOR CONCRETE WORKS: -

(1) DESIGN OF CEMENT CONCRETE MIXES:

- (a)** All the cement concrete of grade M-15 and higher strength shall be done with proper mix design as per IS: 10262 - 1982 and shall conform to the durability and other requirements of IS 456 1000. The mix design shall be got approved from the Executive Engineer from time to time whenever there is change in the source and type of cement and aggregates and change in the gradation of aggregates.

(b) The design of concrete mixes for various concrete items in the work shall be obtained by the contractor at his cost from and approved laboratory. The contractor shall submit in advance details of such design to the Engineer-in-charge for his prior approval.

(c) For concrete of Grade M-25/ M-30/M-35.

Preliminary mix design must be carried out from an approved laboratory, for subsequent changes field mix design shall be acceptable. However, incase the Executive Engineer has got difficulty in acceptance of the field mix design, laboratory mix design shall be got done by the contractor from approved laboratory at his own cost. Cement, fine aggregate and coarse aggregate must be used by weight only according to the requirement of the approved mix design.

(d) The concrete mix design shall give target strength of 1.33 times the working strength.

(e) The minimum size of aggregate permissible shall be as per para-A-7 of Page - 8 f of standard specification book of 1979 Edition Vol. 1.

(f) The provision of the specification No. B-7 at page - 38 to 40 of Vol. 1 1979 Edition of standard specification book for controlled concrete shall be applicable for all the structural concrete items. The maximum water cement ratio shall be 0.45. The mix design shall be done accordingly.

(g) All the expenses of preliminary mix design, subsequent field/ laboratory mix design, work tests, shall be borne by the contractor.

(2) FROMWORK FOR CONCRETE WORK:

The forms of concrete shall be of the materials as directed by the Executive Engineer-in-charge and shall preferably be of steel or plywood, Forms shall be of the required shape, profile and lines. Suitable devices shall be used to hold corners, adjacent ends, edges of panel or other forms together in accurate alignment. The forms and joints shall be tight enough. Forms used for circular curved or structures of unusual shape, petal dome etc. shall be of such a character that will result in smooth concrete surface and exact shape. They shall be prepared such that they will not warp or distort during erection or while placing concrete. Their design and layout shall be got approved from the Executive Engineer-in-charge in advance.

(3) ERECTION AND REMOVAL OF FORM WORK:

The centering and strutting shall be of steel or plywood board exclusively for concreting. The design and drawing should be got approved in advance from the Department. For minor members the Engineer-in-charge may, at his discretion, permit use of wooden shuttering. The centering and shuttering shall be close and tight to prevent leakage of cement slurry. The centering shall have the necessary props, bracing and edges sufficiently strong and stable which shall not yield or displace while or after laying of concrete. They shall be made in such way that they can be slackened and removed gradually and slowly without disturbing the concrete. Centering and shuttering shall not be removed before the design strength is achieved.

(4) MIXTURE OF CONCRETE:

Design mix concrete as well as nominal mix concrete shall be mixed by following the provision in Standard specification at B. 6.4 unless otherwise directed by the Engineer.

Unless otherwise agreed by the Engineer concrete shall be mixed in a batch type mixer of such other type of mixer as the Engineer may approve.

During hot weather the Contractor shall ensure that the constituent materials are sufficiently cool to prevent the concrete from stiffening in the intervals between its discharge from the mixer and its final position.

(5) TRANSPORTATION, PLACING AND COMPACTION OF CONCRETE:

The method of transportation placing and compaction of concrete shall be followed as per section B.6.6, 6.7 and 6.8 of Standard Specification unless otherwise directed by the Engineer. The compaction shall be done with surface float vibrators for slabs and with pin vibrators for columns and beams. Vibrators of adequate vibrating capacity shall be employed for all types of works.

(6) CURING:

Curing shall be done by following provision of Section B.6.9 of Standard Specification and as directed by the Engineer.

(7) WORKING IN EXTREME WEATHER:

During windy weather sufficient protection shall be provided to prevent the cement from being blown away during the process of proportioning and mixing. During wet weather, the concrete shall be adequately protected as soon as it is placed in position.

No concreting shall be carried out during period of continuous heavy rains unless, it is completely covered during mixing, transporting and placing, In extreme hot weather, concreting shall be restricted to morning and evenings The time between mixing and placing of concrete shall be kept to the minimum and formwork shall be cooled by sprinkling with water.

(8) FINISHING:

Finishing work shall comply with requirement of section B.6.10 of Standard Specification unless otherwise specified herein below:

Immediately on removal of forms, the R.C.C. work shall be examined by the Engineer before any defects are made good.

- (a) The work that has sagged or contains honey combing to an extent detrimental to structural safety or architectural concept shall be rejected.
- (b) Surface defects of a minor nature shall be rectified generally as indicated below by the contractor.
 - i) Surface defects which require rectification when forms are removed usually consist of bulges due to movement of forms, ridges at form joints, honeycombed areas, damage resulting from the stripping of forms and bolt hole. Bulges and ridges shall be removed by careful chipping or tooling and the surface is then rubbed with a grinding stone. Honey combed and other areas shall be chipped out, the edges being cut as straight as possible and perpendicular to the surface, or preferably slightly under cut to provide a key at the edge, of the patch. Bolt holes shall be closed by cement mortar to ensure thorough filling.

- ii) Shallow patches shall be treated with a coat of thin grout composed of one part of cement and one part of sand and then filled with mortar similar to that used in concrete. The mortar is placed in layers not more than 10 mm thick and each layer shall be given a scratch finish to secure bond with the succeeding layer. The last layer shall be finished to match the surrounding concrete by floating, rubbing or tooling on formed surfaces by pressing the form material against the patch while the mortar is still plastic.
- iii) Large and deep patches require filling up with concrete held in place by forms. Such patches shall be reinforced and carefully dowelled to the hardened concrete.
- iv) The same amount of care to cure the material in the patches shall be taken for the whole structure. Curing shall be started, as soon as possible after the patch is finished to prevent early drying. Damp Hessian cloth may be used. But in some locations, it may be difficult to hold it in place, a membrane curing compound in these cases will be most convenient.

(9) CONSTRUCTIONS JOINTS:

Construction joints shall be provided and treated following the provisions of Specification and as directed by the Engineer-in-charge.

(10) DURABILITY:

Minimum cement contents for different exposures and sulphate attack are given in Tables 4 and 5 of I.S. 456, 1000 shall be followed for design mix.

(11) TESTS AND STANDARD OF ACCEPTANCE: -

11.1 Tests and Standard of acceptance criteria of design mix concrete and nominal mix concrete shall be as follows:

Sampling and testing of Concrete shall be done as per provision of section B.6.12 of Standard Specifications. Acceptance criteria for strength of concrete shall be as per IS 456-1000.

Case falling outside the above limit shall be examined by the Engineer on Merits in each case.

11.2 DEFECTIVE CONCRETE:

Any concrete which gives substandard results, or is severely damaged due to cracking or shows excessive honey combing and exposure of reinforcement, if exhibits any fault which in the opinion of the Engineer, seriously impairs its function, may be declared as defective concrete. Such non acceptable concrete shall be removed from the site and replaced by fresh concrete of the specified quality by the contractor at his own expenses. Alternatively in case of acceptable concrete, the Contractor shall carry out whatever other remedy the Engineer may reasonably suggest "Small rendering shall be done by the Contractor without extra cost."

(12) KEEPING RECORDS:

The record of mix design, mixing, slump, testing of C.C. cubes etc. shall be maintained in accordance with Section B-6.13 of the Standard Specification.

LIST OF APPARTUS REQUIRED FOR BUILDING WORK

(Ref. Page No.97 Clause 7.1 Page No.118 Clause 24)

Sr.	Name of Apparatus	Nos (min) required
1.	30 m and 50 m chain/ tape	2 Nos
2.	Automatic leveling instrument/ Tachometer with all accessories like 5.00 metre staff	2 Nos.
3.	Vernier calipers	1 No.
4.	Cube moulds for concrete/ Cube moulds for cement mortar	6 Sets
5.	Silt jar for sand silt testing.	4 Sets
6.	Oven- Electrically operated, thermostatically controlled, range upto 200 °C sensitivity 1°C.	1 No.
7.	Platform balance 300 kg capacity	
8.	Balance 20 kg capacity - self indicating type	1 No.
9.	Electronic Balance 5 kg capacity, accuracy 0.5 gm	2 Nos
10.	Water bath- electrically operated and thermostatically controlled with adjustable shelves, sensitivity 1°C.	1 No.
11.	Thermometers: Mercury-in-glass thermometer, range 0 ⁰ to 250 ⁰ C Mercury-in-steel thermometer with 30 cm stem, range upto 300 ⁰ C.	4 Nos.
12.	Kerosene or gas stove or electric hot plate.	1 No.
13.	Set of IS sieves with lid and pan: 450 mm diameter 63 mm, 53 mm, 37.50 mm, 26.50 mm, 13.20 mm, 9.50 mm, 6.70 mm, and 4.75 mm size 200 mm diameter 2.36 mm, 2.0 mm, 1.18 mm, 600 microns, 425 microns, 300 microns, 150 microns, and 75 microns	1 Sets 2 Sets
14.	Water testing Kit	1 Set
15.	Atterbergs Limits (liquid and plastic limits) Determination apparatus	1 Set
16.	Dry Bulk Density Test apparatus (sand pouring cylinder, tray, can etc.).	1 Set
17.	Speedy Moisture Meter complete with chemicals	1 Set
18.	Aggregate Impact Value Test apparatus/ Los Angles Abrasion Test apparatus.	1 Set
19.	Flakiness and Elongation Test Gauges	1 Set
20.	Vicat apparatus for testing setting times	1 Set
21.	Slump testing apparatus	4 Sets
22.	Compression and Flexural strength testing machine, 200 tonne capacity with additional dial for flexural testing.	1 No.

9. QUALITY ASSURANCE AND MAINTENANCE

To ensure the specified quality of work which shall also include necessary surveys, temporary works etc., the contractor shall prepare a quality assurance plan and get the same approved from the **Engineer in charge** within eight days from the date of work order. For this, contractor shall submit an organization chart of his technical personnel to be deployed on the work along with their qualification, job descriptions defining the functions of reporting, supervising inspecting and approving. The contractor shall also submit a list of tools, equipment's and the machinery and instrumentation which he proposes to use for the construction and for testing in the field and/or in the laboratory and monitoring. The contractor shall modify/supplement the organization chart and the list of machinery, equipment etc. as per the direction of the Executive Engineer and shall deploy the personnel and equipment on the field as per the approved chart and list respectively. The contractor shall submit written method statements detailing his exact proposals of execution of the work in accordance with the specifications. He shall get these approved from the **Engineer in charge**. The quality of the work shall be properly documented through certificates, records, check-lists and logbooks of results etc. Such records shall be complied from the beginning of the work and be continuously updated and supplemented and this shall be the responsibility of the contractor. The forms should be got approved from the **Executive Engineer-in-charge**.

The contractor shall prepare detailed completion drawings after completion of the work. He shall also prepare and submit a maintenance manual giving procedure for maintenance, with the period of maintenance works including inspections, tools and equipment to be used, means of accessibility for all parts of the structure. He shall also include in the manual, the specifications for maintenance work that would be appropriate for his design and technique of construction. This manual shall be submitted within the contract period.

10. SPECIFICATION FOR ANTICORROSIVE TREATMENT TO TMT/MILD/TOR STEEL BAR REINFORCEMENT CODE OF PRACTICE FOR CORROSION PROTECTION OF REINFORCING STEEL USING CEMENT - POLYMER COMPOSITE COATING SYSTEM FOREWORD

01. This standard covers the code of practice for corrosion protection of reinforcing steel using cement polymer composite coating system. In this preparation assistance has been derived from the following.

(A) ASTM A775 / A775M -94 d Standard specification for Epoxy coated reinforcing steel bars.

(B) Test methods specified by Central Electrochemical Research Institute Karaikudi - 630006.

02. This practice covers the various test procedures required to ensure the quality of coated product.

1. SCOPE

This specification covers the code of practice for cement-polymer composite coating system which will be applicable to reinforcing bars conforming to:

BIS 432 (Part 1) 1982 - Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement - Part 1 Mild steel and Medium Tensile steel bars.

BIS 432 (Part 2) 1982 - Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement - Part 2 Hard Drawn steel.

BIS 1139 (Part 1) 1966 - Specification for hot rolled mild steel and medium tensile steel and high yield strength deformed bars for concrete reinforcement.

This standard specifies the recommended practice for surface preparation, method of application, testing, inspection, handling and stacking of coated reinforcing bars.

2. SURFACE PREPARATION

- 2.1 Prior to blast cleaning visible deposits of oil, grease or paint shall be removed by suitable alkaline cleaner (soak cleaning compound) as per SSPC - SPCOM, clause 11.1.2
- 2.2 The surface of the steel reinforcing bars to be cleaned by abrasive blast cleaning using either sand or grit to the near white metal finish in accordance with SSPC - SP 10 - / NACE No.2.1994.
- 2.3 The prepared surface shall meet the visual standards of comparisons as in SSPC - VIS 2
- 2.4 As per SSPC - VIS 2. The cleaned surface shall conform to the rust grading scale 9-10 (i.e. % of area rusted 0.03 %). 0.2 - 1994.

3. APPLICATION OF COATING

- 3.1 The application of the coating shall not be unduly delayed and commence immediately after completion of surface preparation.
- 3.2 The coating shall be applied by an appropriate method and fully cured in accordance with the recommendations of the supplier of the coating material.
- 3.3 It is advisable that severely rusted and heavily pitted reinforcements are not accepted for treatment.

4. REQUIREMENTS OF THE COATED RODS.

Cement polymer coated rods shall meet the following requirements;

4.1 Uniformity of the coating.

The coated rod when visually examined shall be fairly uniform in thickness and shall be devoid of any defects such as cracks peeling, bulging etc. No surface area shall be left uncoated. No rust spots shall be visible with the unaided eye before embedding in concrete.

4.2 Thickness of the coating.

- a) After curing, the minimum dry film thickness of the coated rods shall not be less than 125 microns.
- b) Measurement shall be made using commercially available coating thickness meter which should be specifically suitable for curved surface.
- c) The minimum dry film thickness should be ensured atleast on five deformations/ribs over each one metre length of the coated road.
- d) The thickness of the coating shall also be measured on the straight length of the bar between the ribs and that also shall not be less than, 125 microns.

4.3 Adhesion of coating.

The adhesion of the coating shall be evaluated by mandrel bent test. The coated rods shall be bent around a mandrel through 365as per the test procedure-A given in the Annexure. When visually examined with unaided eye there shall not be any cracking or disbonding at the outside radius of the bent bar.

4.4 Relative bond strength in concrete.

The relative bond strength of the coated/uncoated bars shall be evaluated by conducting pull out test (three cured coated bars and three uncoated bars) as per the procedure given BIS-2770 Part-1 Methods of testing bonds in Reinforced Concrete Part-1 Pull out Test (1967). The average bond strength at 0.25 mm slip for coated bar shall not be less than that of the uncoated bar.

4.5 Resistance to 2v impressed voltage Test.

The resistance of the coating against chloride permeation and the film integrity on the rod shall be tested by conducting 2v. Impressed voltage test as per the test procedure- B given in the Annexure. At the end of 1 hour, there shall not be any evolution of hydrogen gas at the cathode or appearance of corrosion products of iron at the anode.

4.6 The abrasion resistance:

The abrasion resistance of the coating shall be tested by a Taber abraser on coated panels as per the test procedure- C given in the Annexure. The weight loss shall not exceed 100 mg / 1000 cycles.

4.7 Tolerable limit for chloride:

Using anodic polarization technique, the tolerable limit for chloride shall be determined as per the test procedure-D given in the Annexure. For cement polymer rod it shall not be less than 10,000 PPM.

4.8 Chemical Resistance of the coating:

The chemical resistance of the coated bar shall be evaluated as per the test procedure-E by partially keeping the coated rods immersed in the following four environments for 45 days.

- (a) 3M NaOH
- (b) 3M CaCl₂
- (c) Saturated CA (OH)₂ and
- (d) Distilled water.

At the end of the test period, when visually examined there shall not be any blistering, softening or peeling on the coated rods.

4.9 Impact Resistance of the coating:

The resistance of the coated rebar to mechanical damage be assessed by standard falling weight test as per the test procedure - F with an impact force of 9 N-m. No shattering, cracking or bond-loss of the coating shall be observed except at the impact area.

5 ACCEPTANCE / INSPECTION.

- 5.1 The coated rods that do not meet the requirements of the above specification shall be rejected.
- 5.2 The manufacturer of the coated rebar, shall submit a certificate from an appropriate testing agency that the coated rebars meet the requirements of the specification.

6. PROCEDURE FOR HANDLING, STACKING AND TRANSPORTING OF COATED REINFORCING BARS.

The durability of the coated rebars is related to the coating quality. The more damage is to the coating; it is more prone to corrosion. Good jobs site practices can minimise the coating damage. For this reason, standards, such as ASTM, JSCE, NACE (USA) have laid down specific procedures for stacking and transporting coated bars. Some important guidelines are referred here.

6.1 Stacking:

- (a) It is preferable to store the coated bars on buffer material placed at suitable intervals instead of placing them directly on the ground.
- (b) It is nor desirable to store coated bars by piling them on top of one another. If they are to be stored by piling, buffer materials such as wood, rubber, jute sack etc, should be used to separate the layers. However, the number of layers allowed shall be limited to a maximum of five.
- (c) The coated rods shall be stored in an enclosed yard.
- (d) If any damage had occurred during stacking it should be repaired immediately before any rusting could occur by using the same coating formulation.

6.2 Handling and Transporting:

- (a) The coated bars shall be securely bound together using a buffer material (Padding) and it is desirable that the best bars shall be supplied with some canvas cover.
- (b) When loading and unloading bundles of coated bars, it shall be preferable to lift them, with a strong back, spreader bar multiple supports etc. To avoid extreme bending, nylon slings at 2 or 3 points shall be used.

7. SPECIFICATIONS FOR PATCH REPAIRING OF COATING DAMAGES.

- 7.1 Coating repair is required when peeling off and other damages occur during fabrication or handling.
- 7.2 The patch repair shall be done at site using the same coating material as per the manufacturer's recommendations.
- 7.3. It is essential to ensure a minimum coating thickness of 150 microns at all the repaired portions before embedding in concrete.

REFERENCE DOCUMENTS

- 1. ASTM G8 -90 Standard test methods for cathodic disbonding of pipeline coatings (Method A)
- 2. ASTM G20-88 Standard test method for chemical resistance of pipeline coating.
- 3. ASTM G12-83 Standard test method for non-destructive measurement of film thickness of pipeline coating on steel.
- 4. ASTM D-4060-90 Standard test method for abrasion resistance of organic coating by the Taber Abraser.

5. ASTM -G14-88 Standard test method for impact resistance of pipeline coating (falling - weight test)
6. BIS - 2770 Part - I 1967 Method of testing bond in Reinforced Concrete part 1 Pullout Test (1967)
7. SSPC - SP 10-NACE No.2 1994 Near White Blast Cleaning.
8. SSPC - VIS 2 Guide to standard method of evaluating degree of rusting on painted steel surfaces.
9. SSPC-SP-COM - Surface Preparation Specifications.

ANNEXURE

TEST PROCEDURE: A

Determination of adhesion of the coating:

Adhesion of the coating is to be tested as per ASTM-A-775/775 M 94 d. 10 mm Dia coated rods of length 1 m. shall be used in this test. The coated rods shall be padded with sponge and bend to 365degree around a 75 mm diameter mandrel. The bending shall be done at an uniform rate and not suddenly. No cracking of the coating shall be visible to the unaided eye on the outside radius of the bar. If the test is to be conducted on other than 10 mm diameter rod, then the diameter of the mandrel has to be changed accordingly as tabulated below :

Diameter of the Rod (MM)	Diameter of the mandrel (MM)
8 mm and 10 mm	75
12	100
16	125
25	200
32	250

TEST PROCEDURE: B**Applied Voltage Test:**

Two identical coated bars of same size and length shall be used in the test. 14 mm gauge copper wire shall be soldered to the one end of each bar. The other end of the bars shall be sealed with an insulating material to a length of 2.5 cm. The exposed area on which test is to be conducted shall not be less than 240 sqcms, if 10 mm. diameter rods are used, then the length exposed shall not be less than 80 mm. A non-conductive plastic container of size not less than 150 x 150 mm x 850 mm is filled with 7 % NaCl solution (70 gms/litre) up to the height of 800 mm. The coated rebars shall be suspended vertically so as to have a clearance of 25 mm from the bottom, 40 mm from the sides and 40 mm in between the rods. A potential of 2 V in between the coated rods shall be impressed for a period of 60 minutes using suitable DC power source. The voltage and current shall be measured by using a high resistance voltmeter having an internal resistance of not less than 10 Mega Ohms and having a range upto 5 V (minimum) Storage batteries may also be used for impressing the voltage.

During these 60 minutes of testing, there shall not be any coating failure as evidenced by evolution of hydrogen gas at the cathode or by appearance of corrosion products of iron at the anode.

TEST PROCEDURE: C**Determination of abrasion resistance of the coating:**

Test shall be conducted as per ASTM D 4060 using Taber Abraser using CS-19 wheel under 1 kg. load per wheel. Abrasion resistance of the coating shall be conducted on panel of size 100 mm x 100 mm in which 8 mm Dia hole shall be drilled. The panel shall be coated as per specified procedure. After curing, thickness of the coating shall be measured to the nearest 0.1 mg. Then the coated panel shall be mounted on the turn table. The abrading heads shall placed on the panel and the vacuum pickup nozzle kept in position. The counter shall be set in position. The vacuum pickup and turn table of the abrader shall be fixed for 1000 cycles. After 1000 cycles loose abradings remaining on the test specimen shall be removed by light brushing. The final weight of the specimen shall be measured for finding the loss in weight. The weight loss shall not exceed 100 mg. The test shall be conducted on duplicate specimens.

TEST PROCEDURE: D**Chloride tolerable limit:**

10 mm Dia cement polymer coated rod of length 10 cm. shall be used. Bottom edge of the coated rod shall be sealed using lacquer. Then test specimen is kept immersed in 0.04N NaOH + 10,000 PPM Chloride and potential is monitored using high impedance Multimeter against suitable reference electrode such as saturated calomel electrode. After getting stabilized potential, using appropriate current regulator (0-100 mA), the test specimen is anodically polarized at a constant current density of 290 $\mu\text{A}/\text{sqcm}$. using a Platinum/Stainless Steel/TSIA/Polished mild steel as cathode. Potential with time is followed for 5 minutes. At the end of 5 minutes, no rust spots shall be observed on the coated rod.

TEST PROCEDURE: E**Chemical Resistance of the coating:**

The coated rods (any diameter) of length 30 cm. shall be used in this test. The bottom edge of the coated rods are to be sealed using lacquer. Transparent PVC cylindrical container shall be use. 3M Cacl₂ 3M NaOH Saturated Ca(oh)₂ and distilled water are prepared as individual test solution and filled in the separate container up to the half of its height. Then the coated rods are kept partially immersed in the test solution so that they are in term contact with both the liquid and vapour phase of the test solution. The test shall be conducted for 45 days. The coating should not blister, soften or disbond during this period.

TEST PROCEDURE: F**Impact resistance of the coating:**

The resistance of a cement polymer reinforcing bar to mechanical damage shall be determined by the falling weight test. A test apparatus similar to the described in the test method G14 of the ASTM standard shall be used. Impact shall occur on the low laying areas of the coated bar, that is between deformations and ridges. The test shall be performed at room temperature. With an impact force of 9 NM, no shattering, cracking or disbandment of the coating shall occur except at the impact area, that is, area permanently deformed by the top.

10. GENERAL SPECIFICATION FOR WATERPROOFING

1. The work of waterproofing described in the following items shall be carried out by the contractor only through a renowned specialist water proofing agency using cement waterproofing compounds, as approved in writing by the Engineer-in-charge.
2. The contractor shall give before execution, detailed specifications for each item of work waterproofing to be executed according to the specifications of the specialist agency he proposes to employ for approval. The work shall not be started unless approval in writing is given by the Engineer-in-charge to the said specifications.
3. The contractor shall give a Guarantee Bond on requisite stamp paper for a minimum period of ten Years for all the items of waterproofing done. During the guarantee period the contractor shall entirely be responsible to rectify any defect at his own cost to maintain the work in waterproof condition. The waterproofing contractor shall also have to make good all the surroundings disturbed by him during the rectification work at his own cost. The form of written guarantee shall be all legal stamped agreements acceptable to the Government. The guarantee shall be given within in one month from the date of completion of waterproofing treatment but any delay in furnishing the guarantee shall not relieve the contractor from the implications of this clause.
4. 10% (ten Present) of the cost of the waterproofing work executed shall be retained as "Retention Money" for a period of 10 years covering the guarantee. And the same shall be released only after satisfactory performance of the treatment during guarantee period of 5 years. The amount may be converted into any approved interest-bearing security (for ten years after completion of defect liability period), in the name of Executive Engineer, Integrated Unit (P.W.) Division, Mumbai on receipt of such written request from the contractor.
5. The waterproofing agency as approved by Engineer-in-charge shall provide and install at his own cost the following for his own use and remove the same after completion of the work.
 - I) Two pumps electrical/diesel operated for watering and curing at any level in the building. Curing shall be carried out for a minimum period of 14 days.
 - II) Temporary mild steel water storage tanks.
 - III) temporary galvanised iron pipings and fittings for water line.
 - IV) Flexible hose lengths.
 - V) Cement godown, site office.
6. Injections to reinforced cement concrete slab, wherever required, have to be undertaken by the contractor free of cost.
7. before starting the waterproofing work, the surface receiving the treatment shall be cleaned properly.
8. The item of waterproofing as given in the Schedule 'B' applies for work in any portion and on any floor and at any height. The lift of materials shall not form any criteria for extra payment.
9. For the reference of contractor, general guideline specifications for waterproofing are attached herein with the general specification for waterproofing:

General Guidelines for Waterproofing work

For reference of contractor

(Note: The contractor is required to give detailed specification for each item of waterproofing work)

1. Roof, Slab and terrace:

Providing average 112 mm thick cement based Indian waterproofing treatment with Brick Bat Coba beading by keeping the treatment minimum 75 mm thick at the rain water pipe point and kipping the gradient not flater than 1 in 100

- a) Cleaning the surface to the requirements.
- b) Giving a coat of wash mixed with cement.
- c) Providing 12 mm thick cement mortar bed with admixture of waterproofing compound to form a bed for brickbats. Special care shall be taken at the junction of parapet and terrace slab to ensure gaps, if any, are properly sealed.
- d) Placing brickbats of varying size (average 80 mm thick) to proper slope and grouting their joints with chemical process in cement mortar with 2% of waterproofing compound.
- e) Providing all around the terrace large waterproof wattas (roundings) upto a height of 30 cm in PCC or as directed above the finished level of waterproof treatment
- f) **Finishing:** Finishing the top surface with average 20 mm thick layers of cement mortar 1:3 added with jute fibre at one kilogram per bag, including finishing the surface smooth with cement slurry mixed with approved waterproofing compound, marking finished surface with false squares of 300 mm x 300 mm.
- g) **Curing:** Curing shall be done for 14 days. Curing of top surface shall be done by making base (wattas) with lean cement mortar to keep water standing on the surface.
- h) **Carrying out the test.:** The test shall be carried out by ponding method. Payment for the item shall be released only after results of pond test are satisfactory.

2. **Toilets:**

- a) Cleaning the surface to the department's requirements.
- b) Giving a coat of wash mixed with cement
- c) Providing average 15 cm thick waterproofing treatment to the bottom of toilet floors
- d) Providing 20 mm to 25 mm thick cement mortar waterproof treatment to the walls of toilets upto the height of 0.30 metre above the finished floor level
- e) Providing waterproof wattas all around the toilets
- f) Grouting the mouths of inlets and outlets
- g) Filling sunk portion with brickbats including waterproof mortar and the top surface left rough to form a key for tiles.

3. **Overhead tanks:**

If the work under some items in Schedule 'B' of the tender pertains to construction of overhead water tank. After completion of the work, water tank as a whole shall be tested for water tightness and leakages if any shall be rectified forthwith without any extra cost to the department

11. SPECIFICATIONS FOR POLYMER MORTAR AND POLYMER MODIFIED CONCRETE

1. QUALITY ASSURANCE:

1.1 Submittals:

The contractor shall submit manufacturer's certificate that the firm has manufactured the supplied materials.

1.2 Labeling:

All containers shall be clearly marked with following information.

- (a) Name of Manufacturer
- (b) Manufacturer's instruction for identification
- (c) Manufacturer's instruction for mixing.
- (d) Warnings for handling and toxicity.
- (e) Date of manufacturing and its shelf life

1.3 Manufacturer's Test Certificates:

The contractor shall submit manufacturer's certification verifying conformance to material specification as specified.

1.4 Application Control:

The contractor shall submit mixing application procedure for each of the manufactured repair material for the approval of Engineer in-charge prior to their use and demonstration of site before starting of work should be arranged.

1.5 Measurements Control:

Measurements for payment of the item of repair shall be done only after completion of all steps of execution listed in the particular specification.

1.6 Product Delivery, Storage and Handling

- (a) **Storage:** The contractor shall get approved from the Engineer in-charge the storage space for epoxy/polymer/patented/other manufacture of materials to ensure that the storage temperature is maintained between 5⁰ C and 38⁰ C unless recommended other wise by the manufacturer.
- (b) **Delivery:** Contractor shall deliver all materials in sealed containers in packing as approved by Engineer in-charge with tables legible and intact.
- (c) **Handling:** All materials shall be handled in a safe manner and in a way to avoid breaking container seals.

The technical representative of polymer manufacturing company shall visit sites frequently and certify whether the work is carried out as per specification or not.

2. Environmental Requirements:

Contractor shall comply with manufacturer's recommendations so as to comply with environmental conditions under which the repair materials may be applied.

3. General Requirements of a Polymer Latex:

The general requirement for polymer latexes as cement modifiers are as follows:

- (a) Very high chemical stability towards the active cat ions, such as calcium and aluminum, liberated during the hydration of cement.
- (b) Very high mechanical stability during mixing, and in transfer pumps.
- (c) Low air entrainment. The is generally achieved by addition of anti-foaming agents during manufacture of polymer latexes. Excess of anti-foaming results into loss of adhesion to the substrate. The balance has to be judiciously maintained.

- (d) No adverse influence on cement by hydration.
- (e) FORMATION OF CONTINUOUS FILMS IN MORTAR OR CONCRETE. High adhesion of the films to cement hydrates and aggregates.
- (f) Very good water, alkali and weather resistance.
- (g) Thermal stability: In special cases dealing with higher temperatures.
- (h) For internal works S.B.R. type polymer latexes should be used and for external works acrylic type polymer should be used.

4 (A) GENERAL ACCEPTANCE CRITERIA FOR POLYMER LATEXES:

Type of Polymer	Stabilizer Type	Appearance	Particle size (mm)	Total Solids (%0)	Specific Gravity (at 20 ^o C)	pH (at 20 ^o C)	Viscosity (at 20 ^o C, cP)	Surface Tension (at 20 ^o C) dyn/cm
SBR	Non-ionic	Milky White	200	46.5-49.5	1.010	10.0-11.0	10-12	32
	An-ionic	Milky White	219	44.0-46.0	1.016	7.06	53	31
PAE	Non-ionic	Milky White	500	46.5-49.5	1.054	8.6-10.2	1328	45
	An-ionic	Milky White	519	44.0-46.0	1.054	9.4-10.0		45
CR	Cat ionic	Milky White	120	50.0	1.100	9.0	16	35
	Cat ionic	Milky White	700	50.0	1.100	6.0	10	30
EVA	Non-ionic	Milky White	700	52.8	1.050	60	1100-1600	75
	An-ionic	White	400	55.0	1.060	4.5-6.5	3000-7000	40.45
	An-ionic	Milky White	300	50.0	1.127	5.0-7.0	5000	40

4 (B) Quality Requirements for latexes (polymer Dispersions for Cement Modifiers)

Kind of Test	Test Item	Requirement
Latex Test	Appearance	Exclusive of coarse particles, foreign substances and coagulants.
	Total Solids	Not less than 35.0% and within +/-1.0% of the value marked by the manufacturer.
Polymer Modified Mortar test	Flexural strength	Not less than 40 kgf/cm ² (3.9 Mpa)
	Compressive Strength	Not less than 100 kgf/cm ² (0.98 Mpa)
	Adhesion	Not less than 100 kgf/cm ² (0.98 Mpa)
	Water absorption	Not more than 15.0%
	Amount of water permeation	Not more than 30g
	Length change	0 to 0.15%

5. General Guidelines and Precautions for use of Polymer Modified Cement Mortar/Concrete:

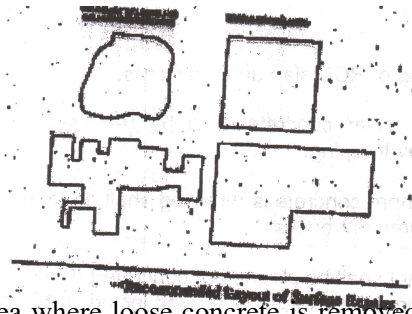
- (a) The speed and time of mixing should be properly selected to avoid unnecessary entrapment of air.
- (b) The PMM/PMC have excellent adhesion even to metal and hence all equipments should be washed immediately after use.
- (c) For resurfacing, flooring and patching, all loose and non-durable materials including laitance must be removed either by sandblasting, wire brushing and blowing with compressed air. The cleaned surface should be thoroughly wetted well before placement of PMM/PMC. Before application, surface concrete should be in saturated dry (wet but no standing water) condition.
- (d) The choice of type of PMM/PMC depends on thickness of coating to be applied.
- (e) It is advisable to finish the surface by trawling 2-3 times. Over trawling is not advisable.
- (f) PMM/PMC should never be placed below 5⁰C and above 30⁰C. The surface of newly placed material should be protected from rainfall or other source of water. The surface should be immediately covered with burlap or plastic sheet.
- (g) In large are of application, it is advisable to provide joints of 15 mm width at intervals of 3-4 meter.
- (h) Curing under water immersion or under wet condition is detrimental to PMM.POMC. It should be most cured for 1-3 days followed by curing at ambient temperature. Steam curing is not recommended.
- (i) Polymers and Latexes are non-toxic and safer for handling.

Polymers should be stored in a cool dry room and should not be kept in exposed areas.

Polymers should be mixed with cement slurry or mortar in the proportions recommended by the manufactures for various uses.

6. General Guidelines for removal of concrete and surface preparation:

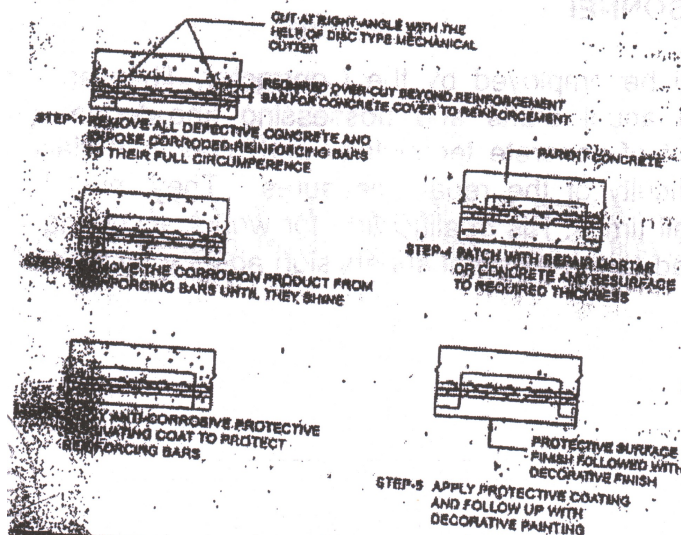
The general procedure for making area to prepare the surface of spoiled area for carrying out repairs is illustrated in Figure below:



Photographs of area where loose concrete is removed shall be taken at contractors cost and record should be maintained on compact disk (CD). The record entire shall be also be taken in measurements books immediately.

Prior to preparation of concrete surfaces, exposed reinforcement should be inspected for access clearance, cross-sectional area and location. Reinforcing bars must be further exposed if the remaining concrete is de-bonded from the reinforcing steel. Removal must be continued to completely expose the bar if more than half of a reinforcing bar perimeter has been exposed. For completely exposed reinforcing bars, a minimum average clearance of 25 mm or nominal maximum size of aggregate plus 5 mm, whichever is greater, must be provided between the reinforcing bar and surrounding concrete. A Structural engineer should be consulted if the cross-sectional area of an individual bar has been reduced by 15 percent or more or if two adjacent bars have been reduced by 10 percent or more. Out of plans and loose reinforcement should be secured in its design location.

The process of surface preparation is illustrated stepwise (Step 1 to 5) in figure. The general procedure in preparing concrete and reinforcement surface for optimum bonding is to sandblast the surfaces and then remove dust and debris by air blasting, low pressure water blasting, or brooming. If the damage is due to corrosion a suitable coating may be considered after removal of total rust from its surface to protect the exposed reinforcing steel. Final inspection of the prepared area including remedying any deficiencies should be complete just prior to batching the repair material.



7. General Methodology for patch repairs to RCC Slabs, Beams and Columns with Polymer Modified Cement Mortar.

Stepwise sequences of methodology to be adopted is given hereunder:

- Step-1 : Propping and supporting of RCC slab under distress.
- Step-2 : All loose and spalled cover concrete shall be removed including finishing plaster wherever found loose by trapping.
- Step-3 : Photographs of area where concrete is removed shall be taken and record entries shall also be taken in measurements books.
- Step-4 : The rusted reinforcement shall be cleaned of concrete preferably by using sand blasting to give a minimum 15mm clear air gap all around including behind the reinforcement.
- Step-5 : Additional reinforcement wherever necessary shall be added and tied to the RCC slab with necessary binding wires and nails.
- Step-6 : Fix shear key bars of appropriate diameter at specified spacing in both directions over the surface to be covered with repair materials
- Step-7 : The rusted reinforcement shall be cleaned of rust and passivated and applied bond coating.
- Step-8 : The prepared concrete surface shall be covered with appropriate mix of polymer modified cement sand mortar in layers including behind reinforcement over a bond coat with polymer modified cement slurry. The mortar cover thickness shall be not less than 15 mm over the reinforcement." The maximum thickness shall be not more than 30mm with each layer not exceeding 10 mm.
- Step-9 : Batch wise consumption register shall be maintained and cubes shall be casted and sent for testing.
- Step-10 : Water spray curing shall be carried out for a minimum period of 7 days.

8. SKILLED SITE PERSONNEL:

- 8.1 Skilled workers shall be employed by the Contractor. They shall be equipped with special training in manual crafts and possessing knowledge, skills and practical experience in respect of concrete technology and other materials appropriate to the scope, type and difficulty of the repair measures. They must be present on each construction site at all times. His qualification for works according to these guidelines must be demonstrated to the external supervision agency by means of an appropriate certificate.
- 8.2 The Contractor must ensure that the skilled workers employed at site, are informed of and instructed in protection and repair measures at maximum intervals of 3 years so as to enable them to take all measures for the proper execution of the construction measure, including tests and internal supervision as per the latest prevalent technology.
- 8.3 The Tasks of the skilled site personnel include.
- (a) Practical execution of the protection and repair measures according to the prescribed planning/execution documents (directions for execution).
 - (b) Specifying and supervision any work delegated to other skilled site personnel, insofar as it affects the success of the measure.
 - (c) Directing the other skilled site workers to whom execution of the construction measures has been entrusted and checking their manual craft skills.
 - (d) Carrying out the test required as part of internal supervision and recording and interpreting the results.

9. Safety:

Workers: Contractor shall advise all workers with epoxies to avoid contact with eyes and skin, inhalation of vapors, and ingestion. Necessary protective and safety equipments in the form of hand gloves, welder's goggles, shall be provided by the contractor and used on side.

10. Tools and Plants (T & P)

10.1 For the execution of protection and repair works, properly maintained plant and equipment permitting adequate treatment of the concrete substrate, proper execution of the work and determination of the required properties of the construction materials and construction measures must be present on the construction site.

In particular, these are plant and equipment for,

- (a) Treatment of the concrete substrate.
- (b) Dosing of the base materials
- (c) Mixing of the base materials
- (d) Processing and after – treatment
- (e) Measurement and testing

10.2 To ensure efficient and effective functioning all plant and equipment must be checked on - site and at field material testing laboratory prior to first use and at appropriate Intervals thereafter

11. Supervision:

11.1 Documentation during Execution of the works.

1) Depending on the type and scope of the works, continuous verifiable records of all data significant for the quality and durability of the structure and its parts are to be made in a certifiable form, e.g. on forms (site log)., by the site contract manager, his deputy or the skilled site personnel for construction measures according to these guidelines. They must contain at least the following information.

- (a) Commencement and completion of the individual works
- (b) whether conditions, air temperature, atmospheric humidity (where relevant), temperature of the materials at the time of execution of the individual construction phases or components up to adequate hardening. A special note must be made of days on which the processing conditions were not fulfilled (e.g. due to frost, rain)

- (c) The materials processed.
 - (d) Supplier and delivery not, batch number where relevant.
 - (e) Records of the work procedures and checks according to the directions for work and execution.
 - (f) Proper functioning of the equipment employed.
 - (g) Specimens made up, with their designations, date of making up and details of the individual components or phases of construction for which the associated construction material was used, test date and results and required properties.
 - (h) Testing of concrete substrate and, where relevant, of intermediate layers, with results specified for each component.
 - (i) Where necessary, temperatures and moisture of the components.
 - (j) Measures taken when requirements were not met.
 - (k) Names of the skilled site personnel executing and supervision the work.
- 2) The records must be available on the site during the construction period and must be shown on demand to the person responsible for supervision.
 - 3) Following completion of the construction works, the results of important tests stipulated by the external supervision agency must be handed over to that agency

11.2 Quality manual for execution for execution of works.

- 1) The type, scope and frequency of the supervision measures are specified in Tables 1, 2 and 3 if the construction measure is interrupted, the test time spans are prolonged accordingly.
- 2) In, case of doubt, tests which are not normally required, for example on properties of the base materials, their composition, suitability of methods of execution and testing, must also be performed. The qualified executive manager is responsible for ordering such tests.
- 3) if test results are inadequate, the Contractor must eliminate the causes and any defects -where necessary including defects on the structure - without delay.

Table-1: Concrete according to IS: 456

Sr. No.	Object of test	Types of tests, tests on, tests variable	Requirements	Frequency, time
	Base Materials.			
1.	Cement	Delivery notes and packaging stamp or silo certificate (possibly lead sealing)	Labeling (type, strength class and proof of monitoring) according to IS269 IS :3466	Each delivery
2.	Aggregate	Delivery note	Designation, proof of monitoring according to IS :383	Each delivery
		Visual inspection for aggregate type, granulometric composition absence of rock defects, harmful constituents (e.g. clay chalk, coat) and particle shape.	Compliance with specifications according to IS: 383:1952.	Each delivery
		Granulometric composition Through sieve analysis according to IS 383	Compliance with granulometric composition and reproducibility.	At first delivery, at appropriate intervals, on change of a manufacturing works.
4.	Concrete agents, fibers, colorants	Delivery note and possibly sack labeling or silo lettering.	Designation, mark of conformity or approval and proof of monitoring.	Each delivery
5.	Concrete agents	Delivery note and possibly sack labeling or silo lettering.	Designation: mark of conformity or approval and proof of monitoring.	Each delivery
6.	Admixed water	Constituents interfering with initial setting and hardening	No constituents interfering with initial setting and hardening.	Only if potable water is not used and if interfering constituents are suspected

11. Model Format of Bank Guarantee Bond

BANK GUARANTEE BOND FOR SECURITY DEPOSIT (Revised)

(on stamp paper worth Rupees 100/-)

In consideration of the Governor of Maharashtra (here in after referred to as “the Government”) having agreed to exempt (here in after referred to as “the Contractor”) from depositing with the Government in cash the sum of Rs. (Rupees only) being the amount of Security Deposit payable by the Contractor to the Government under the terms and conditions of the Agreement dated the day of and made between the Government on the one part, and the Contractor on the other part (hereinafter referred to as “the said Agreement”) for as security for due observance and performance by the Contractor of the terms and conditions of the said Agreement, on the Contractor furnishing to the Government a Guarantee in the prescribed form of a Schedule Bank of India being in fact those presents in the like sum of Rs. (Rupees only). We Bank/Limited registered in India under Act and having one of our Local Head Office at do hereby :

1. Guarantee to the Government:
 - (a) Due performance and observance by the Contractor of terms, covenants and conditions on the part of the Contractor contained in the said Agreement. and
 - (b) Due and punctual payment by the Contractor to the Government of all sums of money, losses, damages, costs, charges, penalties and expenses payable to the Government by the Contractor under or in respect of the said Agreement.
2. Undertake to pay to the Government on demand and without demur and not withstanding any dispute or disputes raised by the Contractor(s) in any suit or proceeding filed in any court of Tribunal relating there to the said sum of Rs. (Rupees only) or such lesser sum as may demand by the Government from us our liability hereunder being absolute and unequivocal and agree that.

3. (a) The guarantee herein contained shall remain in full force and effect during the subsistence of the said Agreement and that the same will be continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been duly paid and its claims satisfied or discharged and till the Government certifies that the terms and conditions of the said Agreement have been fully properly carried out by the Contractor.
- (b) We shall not be discharged or released from the liability under this Guarantee by reasons of
- i) Any change in the constitution of the Bank or the Contractor. or
 - ii) Any agreement entered into between the Government and the Contractor with or without our consent.
 - iii) Any forbearance or indulgence shown to the Contractor
 - iv) Any variation in the terms, covenants or conditions contained in the said Agreement.
 - v) Any time given to the Contractor, or
 - vi) Any other conditions or circumstances under which, in law, a surety would be discharged.
- (c) Our liability here under shall be joint and several with that of the Contractor as if we were the principal debtors in respect of the said sum of Rs.
(Rupees only) and
- (d) We shall not revoke this guarantee during its currency except with the previous consent in writing of the Government.

~~IN WITNESS WHERE OF the Common Seal of
..... has been
hereunto affixed this day of
.....20.~~

~~The Common Seal of was
pursuant to the resolution of the Board of
Directors of the Company dated the day
ofherein affixed in the presence
of who, in token thereof, have hereto
set their respective hands in the presence of:~~

~~1) _____~~

~~2) _____~~

~~SPECIMEN FORM OF TERM DEPOSIT RECEIPT TO BE ATTACHED ALONG WITH
THE TENDER AS EARNEST MONEY.~~

~~DEPOSIT No.: _____ State/Reserve Bank of India~~

~~TERM DEPOSIT RECEIPT~~

~~Rs.~~

~~Received from the sum of Rupees
..... which is placed to his credit with the State/Reserve Bank of India as
Term Deposit Receipt for a period of one year in the name of the Executive Engineer,
Integrated Unit (P.W.) Division, Mumbai - 400 001.~~

~~No.:~~

~~For State/Reserve Bank of India~~

~~Dated~~

~~Signature~~

~~NOT TRANSFERABLE~~

~~Signature of Contractor's~~

~~Executive Engineer,
Director Of Tourism
Mumbai~~

13. Model Format of 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 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.

**GUARANTEE BOND FOR WATERPROOFING WORK
(On stamp paper worth Rupees 100/-)**

Name of work : **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna**

Name of Agency :

Agreement No. :

The contractor hereby declares that the water proofing work carried out under this contract shall be of the best quality and workmanship and shall strictly in accordance with the specifications and particulars contained/mentioned in the clause hereof and the contractor hereby guarantee that the said work should continue to conform to the description and quality aforesaid for a period of **Ten years** from the date of handing over the said work to the Department and notwithstanding the fact that the Department may have inspected and or approved the said work. If during the aforesaid period of **Ten years**, the said work be discovered not to conform to the description and quality aforesaid for a period of **Ten years** from the date of handling over the said work to the Department and notwithstanding the fact that Department may have inspected and or approved the said work. If during the aforesaid period of **Ten years**, the said work be discovered not to conform to the description and quality aforesaid or have deteriorated (and the decision of the Engineer in charge in that behalf will be final and conclusive) the department will be entitled to reject the said work or such portion thereof as may be discovered not to conform to the said description and quality. On such rejection, the work will be at the contractor's risk and all the provisions herein contained relating to rejection of work etc. shall apply. The contractor shall, if so called upon, have to make good the work etc. or such portion thereof, as is rejected by the Engineer in charge, otherwise the contractor shall pay to the Department, such damages, as may arise by the reason of the breach of the condition herein contained. Nothing herein contained shall prejudice any other right of the Department in that behalf under this contract or otherwise.

Date:

Place:

Contractor

12. Form of Stores

सिमेंटची आवक व खप यांचा हिशोब दर्शविणारी नोंदवही क्र.१

कामाचे नांव:

मागील सप्ताहापासून कामाच्या ठिकाणी असलेली शिल्लक

आवक आणि खप यांचा हिशोब

दिनांक	गाडी क्रमांक	प्राप्त सिमेंटचे वजन	वापरलेल्या सिमेंटचे वजन	दिवसाच्या अखेरीस शिल्लक सिमेंटचे वजन

कंत्राटदाराची सही

अभियंत्याची सही

नोंदवही क्र.२

निरनिराळ्या बाबींवर आठवड्यामध्ये उपयोगात आणणे आवश्यक असलेले परिमाण यांची तुलना दाखवणारे कोष्टक

आठवड्यामध्ये केलेल्या कामाचे एकूण अंदाजे परिमाण

१)

२)

३)

नोंदवही क्र.३
 रोजी संपणाऱ्या आठवड्यासाठी गोषवारा

अ. क्र.	बाबीचे नांव	केलेल्या कामाचे अंदाजे परिमाण		वापरणे आवश्यक असलेले सिमेंटचे परिमाण मे.टन.	वापरावयास हवे असलेल्या सिमेंटचे परिमाण मे.टन.	प्रत्यक्ष वापरलेले सिमेंटचे एकूण परिमाण मे.टन.
		परिमाण	एकमान			
१	२	३	४	५	६	७

पोलादाचा आवक खप
यांचा हिशोब दर्शविणारी नोंदवही - क्र. १

कामाचे नांव:

मागील सप्ताहापासून कामाच्या ठिकाणी असलेली शिल्लक

आवक आणि खप यांचा हिशोब

दिनांक	गाडी क्र.	प्राप्त पोलादाचे वजन	वापरलेल्या पोलादाचे वजन	दिवसाच्या अखेरीस शिल्लक पोलादाचे वजन
१	२	३	४	५

कंत्राटदाराची सही

अभियंत्याची सही

नोंदवही क्र. २

निरनिराळ्या बाबींवर आठवड्यामध्ये उपयोगात आणणे आवश्यक असलेले परिमाण यांची तुलना दाखविणारे कोष्टक

आठवड्यामध्ये केलेल्या कामाचे एकूण अंदाज परिमाण.

१)

२)

३)

नोंदवही क्र. ३

..... रोजी संपणाऱ्या आठवड्यासाठी गोषवारा

अ. क्र.	बाबीचे नांव	केलेल्या कामाचे अंदाजे परिमाण		वापरणे आवश्यक असलेले पोलादाचे परिमाण मे.टन.	वापरावयास हवे असलेल्या पोलादाचे परिमाण मे.टन.	प्रत्यक्ष वापरलेले पोलादाचे एकूण परिमाण मे.टन.
		परिमाण	एकमान			
१	२	३	४	५	६	७

13. ~~PRICE VARIATION CLAUSE (Price Adjustment)~~

~~Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants excluding bitumen, cement and steel in accordance with the following principles and procedures and as per formula given in the contract data. The price variation clause to be included shall be read as follows: (a) The price adjustment shall apply for the work done from the start date given in the contract data upto end of the initial intended completion date or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor. (b) The price adjustment shall be determined during each month from the formula given in the contract data. (c) Following expressions and meanings are assigned to the work done during each month:~~

~~R = Total value of work done during the month. It would include the amount of secured advance granted, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed under variations for which price adjustment will be worked separately based on the terms mutually agreed.~~

~~To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.~~

~~The formula (c) for adjustment of prices are: R = Value of work~~

Adjustment For Labour Component :		
(i)	Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:	
(ii)	$VL =$	$0.85 \times PI/100 \times R \times (LI - Lo)/Lo$
(iii)	$VL =$	increase or decrease in the cost of work during the month under consideration due to changes in rates for local labour.
(iv)	$Lo =$	the consumer price index for industrial workers for the State on 28 days preceding the date of opening of Bids as published by Labour Bureau, Ministry of Labour, Government of India.
(v)	$LI =$	The consumer price index for industrial workers for the State for the under consideration as published by Labour Bureau, Ministry of Labour, Government of India.
(vi)	$PI =$	Percentage of labour component of the work. (33.99%)
Adjustment of POL (fuel and lubricant) Component :		
(v)	Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula:	
	$Vf =$	$0.85 \times P/100 \times R \times (F_1 - F_0)/F_0$
	$Vf =$	Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.
	$F_0 =$	The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC at nearest center on the day 28 days prior to the date of opening of Bids.
	$F_1 =$	The official retail price of HSD at the existing consumer pumps of IOC at nearest center for the 15th day of month of the under consideration
	$P =$	Percentage of fuel and lubricants component of the work. Note: For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group. (2.5%)

Adjustment of Other Materials Component (Excluding bitumen, steel and cement) :	
(vii)	Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen and POL procured by the contractor shall be paid in accordance with the following formula:
$V_m =$	$0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$
$V_m =$	Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL
$M_0 =$	The all India wholesale price index (all commodities) on 28 days preceding the date of opening of Bids, as published by the Ministry of Industrial Development, Government of India, New Delhi
$M_1 =$	The all India wholesale price index (all commodities) for the month under consideration as published by Ministry of Industrial Development, Government of India, New Delhi
$P_m =$	Percentage of local material component (other than cement, steel, bitumen and POL of the work. (63.51%))
Adjustment of Cement Component	
Price adjustment for increase or decrease in the cost Cement procured by the contractor shall be paid in accordance with the following formula:	

$$V_1 = QC (CI_1 - CI_0)$$

Where,

V_1 = Amount of price variation in rupees to be allowed for cement component

QC = Quantity of cement in metric tonnes used in the permanent works and approved enabling works during the quarter under consideration

CI_1 = Current, average rate of cement in rupees per metric tonne including taxes (GST) as per purchased voucher indicating name of work by supplier produced by contractor.

CI_0 = Basic rate of cement in rupees per metric tonne as considered for working out value of 'R' or average ex factory price in rupees per metric tonne including taxes (GST) of cement under consideration prevailing quarter preceding the month in which the last date prescribes for receipt of tender falls, whichever is higher.

Adjustment of Steel Component

Price adjustment for increase or decrease in the cost Steel procured by the contractor shall be paid in accordance with the following formula for HYSD & Mild Steel / TMT component

$$V_2 = QS (SI_1 - SI_0)$$

Where,

V_2 = Amount of price variation in rupees to be allowed for HYSD & Mild Steel / TMT component

QS = Quantity of HYSD & Mild Steel / TMT component in metric tonnes used in the permanent works and approved enabling works during the quarter under consideration

SI_1 = Current, average rate of HYSD & Mild Steel / TMT component in rupees per metric tonne including taxes (GST) as per purchased voucher indicating name of work by supplier produced by contractor.

SI_0 = Basic rate of HYSD & Mild Steel / TMT component in rupees per metric tonne as considered for working out value of 'R' or average ex factory price in rupees per metric tonne including taxes (GST) of HYSD & Mild Steel / TMT component under consideration prevailing quarter preceding the month in which the last date prescribe for receipt of tender falls, whichever is higher.

Component percentage as given below are as of the total cost of work put to tender,

Sr. No.	Component	Percentage
1	Labour Component - Pl	33.99%
2	Materials Component - Pm	63.51%
3	POL Component - Pf	2.50%

Basic Star Rate (Excluding GST)

Sr. No.	Component	Amount	Unit
1	Cement	Rs. 6,000/-	Per Metric Tonne as per SSR
2	Steel FE 500 D, CRS Steel	Rs. 63,775/-	Per Metric Tonne as per SSR
3	Structural Steel	Rs. 62,575/-	Per Metric Tonne as per SSR

Total amount due to price variation

$$V = V_L + V_F + V_M + V_1 + V_2$$

However, the minimum amount due to price variation will be restricted to 5% of the accepted contract value excluding the compensation payable for the materials (bitumen, steel and cement) which have been directly given difference in purchase price and star rate.

(176)

INTEGRITY PACT

Between

Directorate of Tourism, Maharashtra Government
having its Office at 4th Floor Sakhar Bhavan Nariman Point Mumbai - 400021

hereinafter referred to as

"DIRECTORATE OF TOURISM",

and

[Insert the name of the Sole Bidder/Lead Partner of Joint Venture]

having its Registered Office at

(Insert full Address)

and

[Insert the name of the Partner(s) of Joint Venture, as applicable]

having its Registered Office at

(Insert full Address)

hereinafter referred to as

"The Bidder/Contractor"

Preamble

Directorate Of Tourism intends to award, under laid-down organizational procedures, contract(s) for,
[Insert the name of the package]

(Signature)
(For & On behalf of Directorate of Tourism)

(Signature)
(For & On behalf of Bidder/
Partner(s) of Joint Venture/ Contractor)

Contractor

No. of Corrections

Executive Engineer

Number

[Insert Specification Number of the package]

Directorate of Tourism values full compliance with all relevant laws and regulations, and the principles of economical use of resources, and of fairness and transparency in its relations with its Bidders/ Contractors.

In order to achieve these goals, Directorate of Tourism and the abovenamed Bidder/ Contractor enter into this agreement called '**Integrity Pact**' which will form a part of the bid.

It is hereby agreed by and between the parties as under:

Section I- Commitments of Directorate of Tourism

- (1) Directorate of Tourism commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - a) No employee of Directorate of Tourism personally or through family members, will in connection with the tender, or the execution of the contract, demand, take a promise for or accept, for him/herself or third person, any material or other benefit which he/she is not legally entitled to.
 - b) Directorate of Tourism will during the tender process treat all Bidder(s) with equity and fairness. Directorate of Tourism will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c) Directorate of Tourism will exclude from evaluation of Bids its such employee(s) who has any personnel interest in the Companies/Agencies participating in the Bidding/Tendering process.
- (2) If Principal Secretary TOURISM, Maharashtra Government obtains information on the conduct of any employee of Directorate of Tourism which is a criminal offence under the relevant Anti-Corruption Laws of India, or if there be a substantive suspicion in this regard, he will inform its Chief Vigilance Officer and in addition can initiate disciplinary actions under its Rules.

Section II- Commitments of the Bidder/Contractor

- (1) The Bidder/Contractor commits himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution:
 - a) The Bidder/Contractor will not, directly or through any other person or firm, offer, promise or give to Directorate of Tourism, or to any of Directorate of Tourism employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange an advantage during the tender process or the execution of the contract.

- b) The Bidder/Contractor will not enter into any illegal agreement or understanding, whether formal or informal with other Bidders/Contractors. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c) The Bidder/Contractor will not commit any criminal offence under the relevant Anti-corruption Laws of India; further, the Bidder/Contractor will not use for illegitimate purposes or for purposes of restrictive competition or personal gain, or pass on to others, any information provided by Directorate of Tourism as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d) The Bidder/Contractor of foreign origin shall disclose the name and address of the Agents/ representatives in India, if any, involved directly or indirectly in the Bidding. Similarly, the Bidder/Contractor of Indian Nationality shall furnish the name and address of the foreign principals, if any, involved directly or indirectly in the Bidding.
 - e) The Bidder/Contractor will, when presenting his bid, disclose any and all payments he has made, or committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and/ or with the execution of the contract.
 - f) The Bidder/ Contractor will not misrepresent facts or furnish false/forged documents / information's in order to influence the bidding process or the execution of the contract to the detriment of Directorate of Tourism.
- (2) The Bidder/Contractor will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section III- Disqualification from tender process and exclusion from future contracts

- (1) If the Bidder, before contract award, has committed a serious transgression through a violation of Section II or in any other form such as to put his reliability or credibility as Bidder into question, Directorate of Tourism may disqualify the Bidder from the tender process or terminate the contract, if already signed, for such reason.
- (2) If the Bidder/Contractor has committed a serious transgression through a violation of Section II such as to put his reliability or credibility into question, DIRECTORATE OF TOURISM may after following due procedures also exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of the transgression. The severity will be determined by the circumstances of the case, in particular the number of transgressions, the position of the transgressors within the company hierarchy of the Bidder / Contractor and the amount of the damage. The exclusion will be imposed for a minimum of 12 months and maximum of 3 years.
- (3) If the Bidder/Contractor can prove that he has restored/recouped the damage caused by him and has installed a suitable corruption prevention system, DIRECTORATE OF TOURISM may revoke the exclusion prematurely.

Section IV - Liability for violation of Integrity Pact

- (1) If DIRECTORATE OF TOURISM has disqualified the Bidder from the tender process prior to the award under Section III, DIRECTORATE OF TOURISM may forfeit the Bid Guarantee under the Bid.

- (2) If DIRECTORATE OF TOURISM has terminated the contract under Section III, DIRECTORATE OF TOURISM may forfeit the Contract Performance Guarantee of this contract besides resorting to other remedies under the contract.

Section V- Previous Transgression

- (1) The Bidder shall declare in his Bid that no previous transgressions occurred in the last 3 years with any other Public Sector Undertaking or Government Department that could justify his exclusion from the tender process.
- (2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Section VI- Equal treatment to all Bidders / Contractors

- (1) DIRECTORATE OF TOURISM will enter into agreements with identical conditions as this one with all Bidders.
- (2) DIRECTORATE OF TOURISM will disqualify from the tender process any bidder who does not sign this Pact or violate its provisions.

Section VII- Punitive Action against violating Bidders/Contractors

If DIRECTORATE OF TOURISM obtains knowledge of conduct of a Bidder or a Contractor or his subcontractor or of an employee or a representative or an associate of a Bidder or Contractor or his Subcontractor which constitutes corruption, or if DIRECTORATE OF TOURISM has substantive suspicion in this regard, DIRECTORATE OF TOURISM will inform the Chief Vigilance Officer (CVO).

(* Section VIII -Independent External Monitor/Monitors

- (1) DIRECTORATE OF TOURISM has appointed a panel of Independent External Monitors (IEMs) for this Pact with the approval of Central Vigilance Commission (CVC), Government of India, out of which one of the IEMs has been indicated in the NIT/IFB
- (2) The IEM is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement. He has right of access to all project documentation. The IEM may examine any complaint received by him and submit a report to Principal Secretary PWD, Maharashtra Government, PUBLIC WORKS DEPARTMENT, at the earliest. He may also submit a report directly to the CVO and the CVC, in case of suspicion of serious irregularities attracting the provisions of the PC Act. However, for ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process, the matter shall be referred to the full panel of IEMs, who would examine the records, conduct the investigations and submit report to Principle Secretary PWD, Maharashtra Government, PUBLIC WORKS DEPARTMENT, giving Joint findings.
- (3) The IEM is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the Principle Secretary PWD, Maharashtra Government, PUBLIC WORKS DEPARTMENT.
- (4) The Bidder(s)/Contractor(s) accepts that the IEM has the right to access without restriction to all documentation of DIRECTORATE OF TOURISM related to this contract including that provided by the Contractor / Bidder. The Bidder / Contractor will also grant the IEM, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his documentation. The same is applicable to Subcontractors. The IEM is under contractual

obligation to treat the information and documents of the Bidder(s) / Contractor(s) / Subcontractor(s) with confidentiality.

- (5) DIRECTORATE OF TOURISM will provide to the IEM information as sought by him which could have an impact on the contractual relations between DIRECTORATE OF TOURISM and the Bidder/Contractor related to this contract.
- (6) As soon as the IEM notices, or believes to notice, a violation of this agreement, he will so inform the Principle Secretary PWD, Maharashtra Government, DIRECTORATE OF TOURISM and request the Principle Secretary PWD, Maharashtra Government, DIRECTORATE OF TOURISM to discontinue or take corrective action, or to take other relevant action. The IEM can in this regard submit non-binding recommendations. Beyond this, the IEM has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action. However, the IEM shall give an opportunity to DIRECTORATE OF TOURISM and the Bidder/Contractor, as deemed fit, to present its case before making its recommendations to PUBLIC WORKS DEPARTMENT.
- (7) The IEM will submit a written report to the Principle Secretary PWD, Maharashtra Government, DIRECTORATE OF TOURISM within 8 to 10 weeks from the date of reference or intimation to him by DIRECTORATE OF TOURISM and, should the occasion arise, submit proposals for correcting problematic situations.
- (8) If the IEM has reported to the Principle Secretary PWD, Maharashtra Government, PUBLIC WORKS DEPARTMENT, a substantiated suspicion of an offence under relevant Anti-Corruption Laws of India, and the Principle Secretary PWD, Maharashtra Government, DIRECTORATE OF TOURISM has not, within the reasonable time taken visible action to proceed against such offence or reported it to the CVO, the Monitor may also transmit this Information directly to the CVC, Government of India.
- (9) The word 'IEM' would include both singular and plural.
- (* The section shall be applicable for only those packages wherein the IEMs have been identified in Section - I: Invitation for Bids and / or Clause ITB 9.3 in Section - III: Bid Data Sheets of Conditions of Contract, Volume-I of the Bidding Documents.

Section IX - Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor after the closure of the contract and for all other Bidder's six month after the contract has been awarded.

Section X - Other Provisions

- (1) This agreement is subject to Indian Law Place of performance and jurisdiction is the establishment of PUBLIC WORKS DEPARTMENT. The Arbitration clause provided in the main tender document / contract shall not be applicable for any issue/ dispute arising under Integrity Pact.
- (2) Changes and supplements as well as termination notices need to be made in writing.
- (3) If the Contractor is a partnership firm or a consortium or Joint Venture, this agreement must be signed by all partners, consortium members and joint Venture partners.
- (4) Nothing in this agreement shall affect the rights of the parties available under the General Conditions of Contract (GCC) and Special Conditions of Contract (SCC)

- (5) Views expressed or suggestions/ submissions made by the parties and the recommendations of the CVO/IEM in respect of the violation of this agreement, shall not be relied on or introduced as evidence in the arbitral or judicial proceedings (arising out of the arbitral proceedings) by the parties in connection with the disputes/ differences arising out of the subject contract.

- # CVO shall be applicable for packages wherein IEM are not identified in Section IFB / BDS of Condition of Contract, Volume - I. IEM shall be applicable for packages wherein IEM are identified in Section IFB/BDS of Condition of Contract, Volume - I.

- (6) Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(Signature)
(For & On behalf of
Directorate Of Tourism

(Signature)
(For & On behalf of Bidder/
Partner(s) of Joint Venture/ Contractor)

(Office Seal)

(Office Seal)

Name:

Name:

Designation:

Designation:

Witness 1:

Witness 1:

(Name & Address):

(Name & Address):

Witness 2:

Witness 2:

(Name & Address):

(Name & Address):

SCHEDULE 'B' AND SPECIFICATIONS

Name of work :- Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna						
Sr. No.	Quantity Estimated but may be more	Item of Work	Estimated Rate		Unit Per	Amount according to estimated quantity
			In figures	In Words		
1	2	3	4	5	6	7
1	567.50	Excavation for foundation in earth, soil of all types, sand, gravel and soft murum, including removing the excavated material up to a distance of 50 metre beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting, dewatering etc. complete. (Lift upto 1.5 metre) by Mechanical Means..	207.00	Rupees Two Hundred Seven and paise nil only.	One Cubic Metre	117472.50
2	278.39	Excavation for foundation in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material upto a distance of 50 metres beyond the building area and stacking and spreading as directed, dewatering, preparing the bed for the foundation and necessary back filling, ramming, watering including shoring and strutting, dewatering etc. complete. (Lift from 1.5 metre to 3.0 metre) by Mechanical Means..	258.00	Rupees Two Hundred Fifty eight and paise nil only.	One Cubic Metre	71824.62
3	279.72	Providing soling using 80 milimetre size trap metal in 15 centimetre layer including filling voids with crushed sand/ grit, ramming, watering etc. complete.	2007.40	Rupees Two Thousand Seven and paise Forty only.	One Cubic Metre	561509.92
4	186.47	Providing and laying Cast in situ/ Ready Mix cement concrete in Mix- 10 of trap/ granite/ quartzite/ gneiss metal for foundation and bedding including bailing out water, formwork, laying/ pumping, compacting, roughening them if special finish is to be provided, finishing if required and curing complete, with fully automatic micro processor based Programmable Logic Controller with Superwisery Control and Data Acquisition enabled reversible Drum Type mixer/concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate (Crushed sand V.S.I.	6723.70	Rupees Six Thousand Seven Hundred Twenty three and paise Seventy only.	One Cubic Metre	1253768.33

Contractor

No. of Corrections

Executive Engineer

		Grade).				
5	1856.11	Providing and fixing heavy duty inter locking concrete Rubber mould glossy paving blocks of 80 milimetre thickness of having a strength of 400 kilogram per square centimetre of approved quality and shape on a bed of crushed sand of 25 to 30 milimetre thick including skirting joints and cleaning etc. complete using 100 percent crushed sand.	1420.85	Rupees One Thousand Four Hundred Twenty and paise Eighty five only.	One Square Metre	2637253.89
6	10.00	Providing and fixing board displaying information, such as 'Name of work, Tender cost, Name of Contractor, Work completion and liability period etc.', having rectangular shape of 1.20 metre x 0.90 metre size made out 18 gauge (1.25 mm.) thick mild steel sheet painted with one coat of Zinc chromate stoving primer and two coats of enamel paint on front side and grey stove enamel on back side and border/ messages/ symbols etc. with approved colour shade paint complete, on Mild Steel angle of size 35 milimetre x 35 milimetre x 3 milimetre frame with properly cross braced Mild Steel angles of size 35 milimetre x 35 milimetre x 3 milimetre duly painted including Two Mild Steel angle iron posts of size 65 milimetre x 65 milimetre x 6 milimetre, 3.65 metre long painted with alternate black and white bands of 25 centimetre width including all fixtures etc. and fixing the boards in 1:4:8 concrete block of size 60 centimetre x 60 centimetre x 75 centimetre including, excavation, refilling, transportation and labour etc. complete.	9963.00	Rupees Nine Thousand Nine Hundred Sixty three and paise nil only.	One Number	99630.00
7	1425.00	Providing and applying three coats of water proof cement paint of approved manufacture and of approved colour to new plastered surfaces including scaffolding if necessary, cleaning and preparing the surface, watering for two days etc. complete.	104.00	Rupees One Hundred Four and paise nil only.	One Square Metre	148200.00
8	270.81	Excavation for roadway in earth soil of all sorts, sand, gravel or soft murum including dressing section to the required grade camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50 metre and spreading for embankment or stacking as directed.	119.00	Rupees One Hundred Nineteen and paise nil only.	One Cubic Metre	32226.39
9	135.40	Excavation for roadway in hard murum and boulder including dressing section to the required grade, camber and side slopes and conveying the excavated materials with all lifts upto a lead of 50 metre and spreading for embankment or stacking as directed.	139.00	Rupees One Hundred Thirty nine and paise nil only.	One Cubic Metre	18820.60
10	135.40	Providing soling using 80 milimetre size trap metal in 15 centimetre layer including filling voids with crushed sand/ grit, ramming, watering etc. complete.	2007.40	Rupees Two Thousand Seven and paise Forty only.	One Cubic Metre	271801.96
11	135.40	Spreading 80/40 mm metal for road work including sectionong etc complete as directed by Engineer in charge .	85.00	Rupees Eighty five and paise nil only.	One Cubic Metre	11509.00
12	270.81	Supplying hard murum at the road site including conveying and stacking	903.35	Rupees Nine	One Cubic	244636.21

(185)

		complete.		Hundred Three and paise Thirty five only.	Metre	
13	270.81	Spreading the hard murum for side width complete.	79.00	Rupees Seventy nine and paise nil only.	One Cubic Metre	21393.99
14	902.70	Compacting the hard murum side widths including laying in layers on each side with power roller including artificial watering complete.	21.00	Rupees Twenty one and paise nil only.	One Square Metre	18956.70
15	180.54	Providing and laying in situ cement concrete M-30 with tremix treatment for 200 milimetre thickness for Concrete Road including laying plastic sheet of 125 micron with groove cutting of 4 milimetre wide and 20 milimetre deep, with necessary refilling with bitumen (excluding reinforcement) with course and fine agreeegates (Natural sand/ VSI sand finely washed crushed sand) etc. complete.	9469.50	Rupees Nine Thousand Four Hundred Sixty nine and paise Fifty only.	One Cubic Metre	1709623.53
16	1.18	Providing and laying in situ/ Ready Mix cement concrete Mix-20 of trap/ granite/quartzite/ gneiss metal for Reinforced Cement Concrete work in foundations like raft, strip foundations, grillage and footings of Reinforced Cement Concrete columns and steel stanchions etc. including bailing out water, formwork, laying/ pumping cover blocks, compaction and curing roughening the surface if special finish is to be provided, (Excluding reinforcement and structural steel) etc. complete, with fully automatic micro processor based Programmable Logic Controller with Superwisery Control and Data Acquisitionenabled Reversible Drum Type mixer/ concrete Batch Mix plant (Pan mixer) etc. complete, with fine aggregate (Crushed sand V.S.I. Grade).	8066.30	Rupees Eight Thousand Sixty six and paise Thirty only.	One Cubic Metre	9518.23
17	5.94	Providing and laying cast in situ/ Ready Mix cement concrete Mix-20 of trap/ granite/ quartzite/ gneiss metal for Reinforced Cement Concrete columns as per detailed designs and drawing or as directed including centering, formwork, cover blocks, laying/ pumping, compaction finishing the formed surfaces with cement mortar 1:3 of sufficient minimum thickness to give a smooth and even surface or roughening if special finish is to be provided and curing etc. complete, (Excluding reinforcement and structural steel) with fully automatic micro processor based Programmable Logic Controller with Superwisery Control and Data Acquisitionenabled Reversible Drum Type mixer/ concrete Batch Mix plant (Pan mixer) etc. complete with fine aggregate (Crushed sand V.S.I. Grade).	14745.30	Rupees Fourteen Thousand Seven Hundred Forty five and paise Thirty only.	One Cubic Metre	87587.08

Contractor

No. of Corrections

Executive Engineer

(186)

18	5.40	Providing and laying Cast in situ/ Ready Mix cement concrete Mix-20 of trap/ granite/quartzite/ gneiss metal for Reinforced Cement Concrete Beams and Lintels as per detailed designs and drawings or as directed including centering, formwork, cover blocks, laying/ pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel), with fully automatic micro processor based Programmable Logic Controller with Superwisery Control and Data Acquisition enabled Reversible Drum Type mixer/ concrete Batch Mix plant (Pan mixer) etc. complete with fine aggregate (Crushed sand V.S.I. Grade).	13231.30	Rupees Thirteen Thousand Two Hundred Thirty one and paise Thirty only.	One Cubic Metre	71449.02
19	1.04	Providing and fixing in position Thermo Mechanically Treated (TMT) FE - 500 bar reinforcement of various diameters for Reinforced Cement Concrete pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels, arches, copings, fins, arches etc. as per detailed designs, drawings and schedules, including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required complete.	89703.00	Rupees Eighty nine Thousand Seven Hundred Three and paise nil only.	One Metric Tonne	93291.12
20	25.00	Making Cement concrete foundation including excavation (45 x 45 x 120)cm deep in 1:3:6 cement concrete, 20 to 25 mm stone metal, (45 x 45 x 45)cm/45cm dia. x 45cm height plinth duly plastered, with necessary curing and finishing complete. (for 6m pole)	2019.00	Rupees Two Thousand Nineteen and paise nil only.	One Number	50475.00
21	34.50	Providing second class Burnt Brick masonry with conventional / Indian Standard type bricks in cement mortar 1:6 in superstructure including striking joints, raking out joints, watering and scaffolding complete.	8244.45	Rupees Eight Thousand Two Hundred Forty four and paise Forty five only.	One Cubic Metre	284433.52
22	300.00	Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15 millimetre thick in cement mortar 1:4 using waterproofing compound at 1 kg per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough to receive the sand faced treatment 6 to 8 millimetre thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc. complete.	668.65	Rupees Six Hundred Sixty eight and paise Sixty five only.	One Square Metre	200595.00
23	25.00	Providing & erecting 6 m high (clear height) galvanised octagonal pole with foundation bolts having bottom of 130 mm A/F, top 70 mm A/F on provided foundation as per specification no. OH-PL/OPL	15193.00	Rupees Fifteen Thousand One Hundred Ninety three and paise nil only.	One Number	379825.00
24	25.00	Providing and erecting galvanised 1000mm double arm sword type bracket with FRP dome and ball as per specification no. OH-PL/BKT	4500.00	Rupees Four Thousand Five Hundred and paise	One Number	112500.00

Contractor

No. of Corrections

Executive Engineer

(187)

				nil only.		
25	25.00	40-Watt Philips Solar Light with Solar Panel – 4-Year Warranty	10000.00	Rupees Ten Thousand and paise nil only.	One Number	250000.00
26	155.00	Tree Plantation including excavation,decomposed farm yard manure FYM,garden soil,trees min girth 8 to 10 cm,height 8 ft to 10 ft,min 5 to 6 branches,as directed by Engineer In Charge etc	4305.00	Rupees Four Thousand Three Hundred Five and paise nil only.	One Number	667275.00
27	15.00	Providing and fixing bench in cement mortar/concrete with rmt wooden finishing on allexternal surface as directed by Engineer In Charge	9052.10	Rupees Nine Thousand Fifty two and paise Ten only.	One Running Metre	135781.50
28	6.00	Testing Charges for conducting BASIC TEST OF AGGREGATE. Water Absorption, Specific Gravity,Impact Value Crushing Value test.	2730.00	Rupees Two Thousand Seven Hundred Thirty and paise nil only.	Number	16380.00
29	2.00	Testing Charges for conducting FINE AGGREGATES. Fineness Modulus (Sieve Analysis),Silt & Clay Content test.	1450.00	Rupees One Thousand Four Hundred Fifty and paise nil only.	Number	2900.00
30	1.00	Testing Charges for conducting BRICKS Water Absorption (Set of 5 Bricks), Compressive Strength (Set of 5 Bricks), Efflorescence (Set of 5 Bricks) test.	2285.00	Rupees Two Thousand Two Hundred Eighty five and paise nil only.	Number	2285.00
31	2.00	Testing Charges for Taking of core samples in concrete pavement.	3015.00	Rupees Three Thousand Fifteen and paise nil only.	Number	6030.00
32	36.00	Testing Charges for conducting CONCRETE Compressive Strength OF Cement Concrete Cube (Set of 3 cubes) test.	725.00	Rupees Seven Hundred Twenty five and paise nil only.	Number	26100.00
33	4.00	Testing Charges for conducting CONCRETE Flexural strength of Beam test.	780.00	Rupees Seven Hundred Eighty and paise nil only.	Number	3120.00
34	5.00	Testing Charges for conducting CONCRETE PAVING BLOCKS Compressive Strength,Water Absorption test (Set of 8 Blocks).	2620.00	Rupees Two Thousand Six Hundred Twenty and paise nil only.	Number	13100.00
35	2.00	Testing Charges for conducting MORTAR Compressive Strength (Set of 3 Cubes) test.	725.00	Rupees Seven Hundred Twenty five and paise nil only.	Number	1450.00

Contractor

No. of Corrections

Executive Engineer

(188)

36	2.00	Testing Charges for conducting SOIL / MURUM Sieve Analysis test.	725.00	Rupees Seven Hundred Twenty five and paise nil only.	Number	1450.00
37	2.00	Testing Charges for conducting SOIL / MURUM Liquid limit & plastic Limit test.	1230.00	Rupees One Thousand Two Hundred Thirty and paise nil only.	Number	2460.00
38	2.00	Testing Charges for conducting SOIL / MURUM C.B.R. Test (Lab) Excluding compaction test.	7250.00	Rupees Seven Thousand Two Hundred Fifty and paise nil only.	Number	14500.00
39	1.00	Testing Charges for conducting STEEL BAR TESTING Upto 16 mm (Set of 3 Bars)	1340.00	Rupees One Thousand Three Hundred Forty and paise nil only.	Number	1340.00
40	685.93	Royalty Charges	211.94	Rupees Two Hundred Eleven and paise Ninety four only.	Cubic Metre	145376.00
41	685.93	Surcharge 2% on Royalty Charges	4.24	Rupees Four and paise Twenty four only.	Cubic Metre	2908.34
					Total	9800757.11
					Say Rs.	9800757.00
(Rupees Ninety eight Lakh Seven Hundred Fifty seven and paise nil only.)						
		Deputy Engineer		Executive Engineer		
		Regional Office Chhatrapati Sambhajnagar		Directorate of Tourism		

Contractor

No. of Corrections

Executive Engineer

17. DECLARATION OF THE CONTRACTOR

Name of work : Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswani District Jalna

"It is understood and accepted by the contractor that, he has studied drawings and information provided, and has satisfied that, information provided to him is adequate, understood the nature and extent of work, is aware of site condition and constraints of the site. The contractor is sufficiently experienced in the type of work undertaken by him in this contract and has adequate financial support and has fully experienced staff to execute the work and takes full responsibility to execute the work in time with proper safety precautions during construction under circumstances etc. Unless the work defined, proper brief is prepared, responsibilities specified, liquidated damages mentioned (important as there are delays, extensions, unilateral extensions, supplementary contracts, waivers which form important part of the contract), Indemnity in civil liability, Insurances including professional indemnity etc. to prove the professional approach of the Engineer-in-charge. Proper information has to be provided by the contractor about the brief of work, constraints if any in work for execution, nothing to be withheld. It is the total responsibility of the contractor."

This declaration of the contractor shall be the part of the contract.

Signature of Contractor

(208)

Name of Work: - **Providing Basic Facilities For Tourist/Devotees at Wadgaon Shree Mahadev Mandir and Facilities and cc road and solar light at Pardgaon Shree Bharav Nath Mandir and at Shree Rokdeshwar Mahadev Mandir and at Ramsagaon Ram Mandir and Compound wall at Dahegaon Renuka Devi Mandir Taluka Ghanswangi District Jalna** **BAR CHART**

Contractor

No. of Corrections

Executive Engineer

(212)

Drawings

CONTRACT DRAWINGS: -

The Contract Drawings provided for tendering purpose with the tender documents shall be used as a reference only. Contractor should visualize the nature and type of work contemplated and to ensure that the rates and prices quoted by him in the bill of quantities take due consideration of the complexities of work involved during actual execution / construction as experienced contractors in the field.

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

DOCUMENTATION:

If so, ordered by the Engineer-in-charge, the contractor will prepare drawings of the work as constructed and will supply original and three copies to the Engineer who will verify and certify these drawings.

Final as constructed drawings shall then be prepared by the contractor and applied in triplicate alongwith a micro-film of the same to Engineer for record and reference purpose at the contractor's cost.

Contractor

No. of Corrections

Executive Engineer