

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED



(A Government of India Enterprise)
Bihar Zonal Office,
15 I.A.S. Colony, Kidwaipuri, Patna-800001
Phone: 0612-2525989, Fax: 0612-2526011

An ISO 9001:2015 Organization

WEBSITE: www.npcc.gov.in Email: npccbzo@gmail.com

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

NIT No.	BZO/ICAR NRC-IF/Bulk Services/32
Download of Tender Document	Up to 06.03.2019 till 15:00 Hrs.
Date for Online Submission of Tender	Up to 06.03.2019 till 15:00 Hrs.
Date for Online Opening of Technical Bid	On 06.03.2019 at 15.30 Hrs.
Date for Submission of Hard Copy	On 07.03.2019 till 16.00 Hrs.
Date for Online Opening of Price Bid	To be announced later



INDEX

Volume-I

Sl.No.	Section	Description	Page No.
1.	Section-I	Notice Inviting e-Tender	3-6
2.	Section-II	Pre-Qualification Criteria	7-9
3.	Section-III	Instructions to Bidders	10-36
4.	Section-IV	General Conditions of Contract Description of work & Scope of Work of Contractor	37-91
5.	Section-V	Special Conditions of Contract Forms	92-95 96-125
6.	Section-VI	Technical Specifications	126-145
		List of Approved Makes	146-149
7.	Section-VII	Drawings	150-153



NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED



(A Government of India Enterprise) Bihar Zonal Office, 15 I.A.S. Colony, Kidwaipuri, Patna-800001 Phone: 0612-2525989, Fax: 0612-2526011

An ISO 9001:2015 Organization

WEBSITE: <u>www.npcc.gov.in</u> Email: <u>npccbzo@gmail.com</u>



VOLUME -I

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

SECTION-I
NOTICE INVITING e-TENDER



NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED



(A Government of India Enterprise) Bihar Zonal Office, 15 I.A.S. Colony, Kidwaipuri, Patna-800001 Phone: 0612-2525989, Fax: 0612-2526011

An ISO 9001:2015 Organization

WEBSITE: <u>www.npcc.gov.in</u> Email: <u>npccbzo@gmail.com</u>

NIT No.: BZO/ICAR NRC-IF/Bulk Services/32

NOTICE INVITING e-TENDER

National Projects Construction Corporation Limited (NPCC) invites percentage rate e-tender under two bid systems (one for technical bid and other for financial bid) from the experienced and financially as well as technically sound agencies working in Central /PSU/State Government Departments of National repute for following works as detailed below:

(Amount in Rs.)

Dated: 20.02.2019

Name of Work	Approx. Estimated Cost	Tender Cost	EMD	Completion Period (including rainy season)
Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)	91,72,383	5,000 + 18% GST = 5,900	1,83,500	2 months

Note:

- (a) The details of NIT and Tender documents can be seen at our website www.npcc.gov.in and website https://npcceproc.abcprocure.com/EPROC. Tender documents can be downloaded up to 06.03.2019 till 15:00 Hrs. from website https://npcceproc.abcprocure.com/EPROC. The last date for online submission of Tender is 06.03.2019 till 15:00 Hrs. and Technical Bid will be opened on 06.03.2019 at 15:30 Hrs. The date for submission of hard copy is on 07.03.2019 till 16:00 Hrs.
- (b) Non-refundable cost of Registration fee Rs. 5,500.00 shall be payable to "M/s. E Procurement Technologies Limited" through their e-Payment gateway by credit/debit card or internet banking facility.
- (c) The bidder will have to procure a Class-III Digital Signature Certificate (DSC) for Signing & Encryption (Required both digital signature certificate: Signing & Encryption) of bids issued by any of the valid Certifying Authorities (approved by Controller of Certifying Authorities) in India. The details of the License CA's are available on www.cca.gov.in wherein the details have been mentioned. It would be the respective bidder's responsibility to acquire such DSC's in the name of their authorized signatory for participation in the portal.
- (d) The intending bidder must have valid Class-III digital signature to submit the bid, Contractor can upload documents in the form of PDF & JPEG format.
- (e) For participating in the e-Tendering process of NPCC, the contractor shall have to get them registered on the site https://npcceproc.abcprocure.com/EPROC by making required payment through only online payment mode so that they will get user ID and Password. This will enable



them to access the website https://npcceproc.abcprocure.com/EPROC with the help of Digital Signature by which they can participate in e-Tender of NPCC. For this intending bidder may contact E-Procurement Helpdesk:

Vendor's Queries	Contact Numbers	Mail ID
Get a New Digital Certificate (DC), DC Renewal or Verification, etc.	+91-(79)- 40016 866 +91-(79)- 40016 840 +91-(79)- 40016 818 +91-(79)- 40016 821	info@abcProcure.com
For Only, Technical Assistance related to e-Tender or e-Auction filling / submitting.	+91-(79)- 40270 555 +91-(79)- 40270 564 +91-(79)- 40270 507 +91-(79)- 40270 566	Support@abcProcure.com

- 2. Tender cost (non-refundable) will be in the form of Demand Draft/Banker's Cheque in favour of NPCC Ltd. payable at Patna shall be submitted by the bidder along with their bid. The scanned copy of the same needs to be uploaded in technical bid folder. The bidder has to submit the original tender cost (non-refundable) on date as specified in the NIT.
- 3. Earnest money to be deposited in the form of **Banker's Cheque / Demand Draft** of Nationalized /Scheduled Private Sector Bank in favour of NPCC Ltd. payable at Patna. The EMD in any other form shall not be accepted. The scanned copy of the same needs to be uploaded in technical bid folder. The bidder has to submit the original EMD on date as specified in the NIT.
- 4. Validity of e-Tender will be 60 days.
- 5. Validity of EMD will be 60 days.
- 6. Tender documents duly completed in all respect shall only be uploaded on the website https://npcceproc.abcprocure.com/EPROC till 15:00 Hrs. of 06.03.2019.
- 7. The Tender has been invited in e-tender mode. For download of e-tender document, uploading of tender document along with Financial Bid, opening of Technical Bid, notification of any corrigendum and addendum etc. the website https://npcceproc.abcprocure.com/EPROC is to be used. The intending bidder must get themselves registered with the service provider for participating in e-tender.

The intending Bidder is requested to upload the Bid well in time to avoid any difficulty due to failure of server etc. For any clarification about the website our service provider needs to be contacted.

- 9. The date of opening of price bid shall be intimated to the qualified agencies separately.
- 10. Any corrigendum/addendum/errata in respect of the above tender shall be made available only at our official website www.npcc.gov.in and https://npcceproc.abcprocure.com/EPROC. No further press advertisement will be given. Hence, all bidders are advised to check NPCC website www.npcc.gov.in and website https://npcceproc.abcprocure.com/EPROC regularly.

ZONAL MANAGER (Bihar Zone) on behalf of Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari



Copy forwarded to:

- 1. The Officer on Special Duty, MGIFRI, ICAR NRC-IF for kind information and requested to display on Notice Board.
- 2. The HOD (PMC/IT), C.O., NPCC, Gurugram for information please & uploading on NPCC website. Soft copy being sent through e-mail.
- 3. M/s. E Procurement Technologies Limited for uploading on the e-portal https://npcceproc.abcprocure.com/EPROC
- 4. Notice Boards, Corporate Office & all Zonal Offices



SECTION-II

PRE-QUALIFICATION CRITERIA

The intending bidder should fulfill the following minimum pre-qualification criteria:

- 1. **Turnover**: Average Annual Financial Turnover on construction works during the last three years, ending 31st March of the previous financial year i.e. 2017-18 should be at least 50% of the estimated cost. Applicant has to attach the Balance Sheet along with profit & loss statement duly certified by Chartered Accountant for last five years.
- **2. Experience**: Bidder should have the experience of completion of similar works during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following:
 - (a) Three similar completed works each costing not less than the amount equal to 40% of the estimated cost,

or

(b) Two similar completed works each costing not less than the amount equal to 60% of the estimated cost,

or

- (c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.
- 3. Similar works mean: Construction of Roads/Bridges/Buildings with services like Electrification, Sanitary & Water Supply, etc. from Central / State Govt. Departments / PSUs and/or Autonomous bodies.
- **4. Profitability:** The applicant should be a profit (net) making firm as on 31.03.2018. Applicant should not have incurred any loss in the last 2 (two) consecutive financial years or any three out of last five years ending 31st March 2018. Applicant has to attach the audited annual reports for last five years duly certified by Chartered Accountant.
- 5. **EPF Registration**: Bidder must have valid EPF Registration.
- **6. Goods & Services Tax (GST) Registration:** Bidder must have valid Goods & Services Tax Registration.
- 7. **Joint Venture**: Joint Ventures are not permitted.
- 8. Bid Capacity: Agencies who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:

Assessed available bid capacity = $(A \times N \times 2)$ - B

- N = Number of years rounded up to first decimal prescribed for completion of the subject contract.
- A = Maximum value of works executed in anyone year during last five years (up dated to the price level of current financial year at the rate of 7% per annum)
- B = Value at current price level of existing commitments and ongoing works to be completed in the next 'N' years.
- **9.** Bank Solvency: A Bidder should have a Solvency of 40% of the estimated cost issued by a Bank. The Solvency Certificate should have been issued within 6 months from original last date of the submission of tender but in the current financial year. The bidder has to submit the original Bank Solvency on date as specified in the NIT.



- 10. Additional Requirement: Even though the existing agencies of NPCC/ agencies working with ICAR meet the above qualifying criteria, they are liable to be disqualified if their performance is not as per the construction programme submitted by them/ certified by the Executive Engineer or the competent authority.
- **11.** If required the nature of foundation will be decided as per site condition by Engineer In charge during execution.
- **12.** NPCC reserve the right to cancel/reject any or all applications without assigning any reason thereof.
- 13. Small Scale Industries registered with the National SmallScale Industries Corporation shall be exempted from payment of e-Tender Cost/Earnest Money Deposit as per eligibility limits.
- 14. Tenderers seeking exemption should enclose a photocopy of Valid Registration Certificate duly self-attested giving details such as product/services and Monetary limits, failing which they run the risk of their tenders being passed over as ineligible for this concession. NPCC is free to get verify the documents from NSIC submitted by tenderer.
- 15. NPCC may consider award of work to MSEs as per provision of Public Procurement Policy for Micro and Small Enterprises (MSEs) order, 2012 with special provision for Public Procurement Policy for Micro & Small enterprises owned by the Scheduled Caste or the scheduled Tribe entrepreneurs.
- 16. Tender documents duly completed in all respect shall only be uploaded on the website https://npcceproc.abcprocure.com/EPROC till 15:00 Hrs. of 06.03.2019 and Technical bid shall be opened on the website https://npcceproc.abcprocure.com/EPROC at 15:30 Hrs. on 06.03.2019 in the office of Zonal Manager, Bihar Zone, 15 IAS, Colony, Kidwaipuri, Patna.

The Tender has been invited in e-tender mode. For download of tender document, uploading of tender document along with Financial Bid, opening of Technical Bid, notification of any corrigendum and addendum etc. the website https://npcceproc.abcprocure.com/EPROC is to be used. The intending bidder must get themselves registered with the service provider for participating in e-tender.

The intending Bidder is requested to upload the Bid well in time to avoid any difficulty due to failure of server etc. For any clarification about the website, our service provider needs to be contacted.

Issuance of tender document does not mean the agency has been technically qualified. Hence agencies/bidders are advised to submit all the relevant documents/ credentials required in tender for technical qualification along with their bid.

Tender documents can also be downloaded from our official website www.npcc.gov.in& website https://npcceproc.abcprocure.com/EPROC and the agencies fulfilling the requirements may submit the tender along with the tender processing fee stated in the above table.

Tender documents can be seen at our official website www.npcc.gov.inwhich is only for viewing not for quoting.



Interested bidders may contact Zonal Manager, Bihar Zone, N.P.C.C Ltd., 15 I.A.S. Colony, Kidwaipuri, Patna-800001 (Bihar) – Phone: 0612-2525989, Fax- 0612-2526011 or his authorized officials for site visit and/or for seeking any details regarding execution of proposed work.

Tender documents duly completed in all respect shall be received on the date & up to the time as specified aboveand Technical Bid shall be opened at date & time as specified above. Documents received after the stipulated date & time are liable to be summarily rejected.

17. Any corrigendum/addendum/errata in respect of the above tender shall be made available only at our official website www.npcc.gov.in and website https://npcceproc.abcprocure.com/EPROC. No further press advertisement will be given. Hence, all bidders are advised to check NPCC website www.npcc.gov.in and https://npcceproc.abcprocure.com/EPROC regularly.

ZONAL MANAGER(Bihar Zone)
on behalf of
Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari



SECTION-III

INSTRUCTIONS TO BIDDERS (I.T.B.)

- 1. Qualifying criteria: The intending bidder should fulfill the following minimum pre-qualifying criteria:
- (i) Turnover: Average Annual Financial Turnover on construction works during the last three years, ending 31st March of the previous financial year i.e. 2017-18 should be at least 50% of the estimated cost. Applicant has to attach the Balance Sheet along with profit & loss statement duly certified by Chartered Accountant for last five years.
- (ii) Experience: Bidder should have the experience of completion of similar works during last 7 years ending last day of month previous to the one in which tenders are invited should be either of the following:
 - (a) Three similar completed works each costing not less than the amount equal to 40% of the estimated cost,

or

(b) Two similar completed works each costing not less than the amount equal to 60% of the estimated cost,

or

- (c) One similar completed work costing not less than the amount equal to 80% of the estimated cost.
- (iii) Similar works mean: Construction of Roads/Bridges/Buildings with services like Electrification, Sanitary & Water Supply, etc. from Central / State Govt. Departments / PSUs and/or Autonomous bodies.
- (iv) Bid Capacity: Agencies who meet the minimum qualification criteria will be qualified only if their available bid capacity is more than the total bid value. The available bid capacity will be calculated as under:-

Assessed available bid capacity = $(A \times N \times 2)$ - B

- N = Number of years rounded up to first decimal prescribed for completion of the subject contract.
- A = Maximum value of works executed in anyone year during last five years (up dated to the price level of current financial year at the rate of 7% per annum)
- B = Value at current price level of existing commitments and ongoing works to be completed in the next 'N' years.
- (v)Existing commitment and ongoing works: Intending bidders must submit theseinformation in specified format uploaded with Tender Documents.
- (vi) Profitability: The applicant should be a profit (net) making firm as on 31.03.2018. Applicant should not have incurred any loss in the last 2 (two) consecutive financial years or any three out of last five years ending 31st March, 2018. Applicant has to attach the audited annual reports for last five years duly certified by Chartered Accountant
- (vii)Bank Solvency: A Bidder should have a Solvency of 40% of the estimated cost issued by a Bank. The Solvency Certificate should have been issued within 6 months from original last date of the submission of tender but in the current financial year. The bidder has to submit the original Bank Solvency on date as specified in the NIT.

(viii) EPF Registration: Bidder must have valid EPF Registration.



- (ix) Goods & Services Tax (GST) Registration: Bidder must have valid Goods & Services Tax Registration.
- (x) PAN: Bidder should have valid Permanent Account Number (PAN) of Income Tax.
- (xi) Registration: The Bidder must submit valid registration certificate of civil contractor in proper category issued by any Central/ State Government Organization.
- (xii) Labour License: Bidder should have Labour License from Central Govt. If they are having License of state, they may participate in the tenders with available License but on being qualified they must have to obtain License from Central Govt. within one month from the date of issue of Letter of Acceptance.
- (xiii) Other Information: Intending bidder must submit the following in specified format uploaded with Tender Document.
 - (i) List of Key Personal
 - (ii) Letter of Undertaking
 - (iii) Affidavit/PCP

2. Instructions:

- 2.1 Joint Venture: Joint Ventures are not permitted.
- **2.2** The applicant must have adequate organizational setup and reasonable presence in the work area or nearby as well as having sufficient number of experienced personnel, technical know-how, and infrastructure to complete the project well within time frame.
- **2.3** The applicant must have minimum three years' experienceworking with Central Public Sector Enterprises / Government / Semi-Government Organizations/Autonomous Bodies.
- **2.4** NPCC is free to get documents verified and agency shall have no objection to it. In case, if it is found at any stage that the agency has made any false information will be disqualified and blacklisted.
- 2.5 Bidders are required to submit full bio-data giving details about their organization, experience, technical personnel & manpower available in their organization, equipment holding, PF registration number, Balance sheet and Turnover details for last 5 years duly certified by CA, Litigation history affidavit, Bank certificate etc. in order to assess their financial and technical capabilities etc. in the enclosed forms which will be kept confidential.
- **2.6** While deciding upon the technical qualification of applicant great emphasis will be given on the ability and competence of applicants to do good quality works within the specified time schedule and in close coordination with other agencies.
- **2.7** The documents shall be signed by person(s) on behalf of the organization having necessary authorization/power of attorney to do so (certified copies to be enclosed).
- 2.8 If the space in the proforma is insufficient for furnishing full details, such information may be supplemented on separate sheets of paper, stating therein the part of the proforma and serial number. Separate sheets shall be used for each part. However, the format shall be as per proforma.
- **2.9** Applications containing false / incomplete and / or inadequate information are liable to be rejected. Also mere fulfillment of eligibility criteria does not guarantee for selection.



- **2.10** Clarification, if any required, may be obtained from the office of the Zonal Manager, Bihar Zone, NPCC Ltd. 15, IAS COLONY, KIDWAIPURI, PATNA-800001 (Bihar). Phone: 0612-2525989. Email: npccbzo@gmail.com
- **2.11**Canvassing in any form in connection with pre-qualifications is strictly prohibited and the application of such persons/organizations that resort to canvassing will be liable to rejection.
- **2.12Additional Requirement:** Even though the bidders meet the above qualifying criteria, they are liable to be disqualified if they have:
 - (a) Made misleading or false representation in the forms, statements and attachments in proof of the qualification requirements;
 - (b) Records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.;
 - (c) Their business banned by any Central / state Govt. Department/Public Sector Undertakings or Enterprises of Central / State Govt.
 - (d) Not submitted all the supporting documents or not furnished the relevant details as per the prescribed format.
- **2.13.1**A declaration to the above effect should be submitted as per Proforma-IX.
- **2.13.2** Bidder shall submit the general information about bidder as per Proforma-III.
- **2.13.3** Bidder shall submit the list of major plant & machinery available with the firm as per Proforma-IV.

2.14 Site Visit:

- a. The bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility and cost all information that may be necessary for preparing the bid and entering into a contract for construction of the Works.
- b. The bidder and any of its personnel or agents will be granted permission by the Employer/Owner to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the bidder, its personnel, and agents will release and
- c. Indemnify the Employer/Owner and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- d. Before submitting a Bid, the Bidder shall be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates entered in the Price Bid document are adequate and all-inclusive for the completion of work to the entire satisfaction of the Employer/Owner.



2.15 Preparation of Bids: Documents Comprising the Bid

A- Technical Bid:

- (a) <u>EMD & Tender Document Cost</u>: Scanned Copy of Demand Draft/Banker's Cheque drawn in favour of NPCC Ltd. payable at Patna towards EMD& Tender Document Cost.
- (b) Scanned copies in prescribed formats and all supported documents required as per all Annexures and Performas given in tender document to be attached in pdf format file duly digitally signed by the bidder. Scanned copy of Power of Attorney of authorized signatory signing the bid. Copy of GST registration certificate.

B-Financial Bid: Duly quoted and digitally signed Bill of Quantity (BOQ) in the file supplied by employer inshall be uploaded.

The tenders shall be strictly as per the conditions of contract. Tenders with any additional condition(s)/modifications shall be rejected

NOTE: - All the documents should be digitally signed.

2.16 Online Submission of Bids: Bidding through E-Tendering System:

- (a) The bidding under this contract is electronic bid submission throughwebsite https://npcceproc.abcprocure.com/EPROC. Detailed guidelines for viewing bids and submission of online bids are given on the website. Any citizen or prospective biddercan logon to this website and view the invitation for bids and can view the details ofwork for which the bid is invited. The prospective bidder can submit bids online; however the bidder is required to have enrolment /registration in the web site and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token. The DSC can be obtained from any authorized certifying agencies. The bidder shouldregister in the web site https://npcceproc.abcprocure.com/EPROC using the relevant optionavailable. Then the digital signature registration has to be done with the e-token, afterlogging into the site. After this the bidder can login the site through secured login byentering the password of the e-token & the user id/password chosen duringregistration. After getting the bid schedules, the Bidder should go through themcarefully and then submit the documents as asked, otherwise, the bid will be rejected.
- (b) The completed bid comprising of documents, should be uploaded on the website https://npcceproc.abcprocure.com/EPROC through e-tendering along with scanned copies of requisite certificates as arementioned in different sections in the bidding document and scanned copy of bidsecurity.

2.17 Bid Opening & Evaluation:

- 2.17.1 The Employer inviting bids or its authorized representatives will open the bids onlineand this could be viewed by the bidders also online. In the event of the specified date for the opening of bids being declared a holiday for the Employer, the bids will be pened at the appointed time on the next working day.
- 2.17.2 The file containing the Part I of the bid will be opened first.
- 2.17.3 In all cases, the amount of bid security, cost of bid documents, processing fee for e-tenderand validity of the bid shall be scrutinized. Thereafter, the bidders' name and such other details as the Employer may consider appropriate, will be notified as Part I bid opening summary by the authority inviting bids at the online opening.

- Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)
- 2.17.4 Evaluation of Part I of bids with respect to bid security, qualification information and other information furnished in Part I of the bid, shall be taken up, and a list will bedrawn up of the qualified bidders whose Part II of bids will be eligible for opening.
- 2.17.5 The result of evaluation of Part I of the Bids shall be made public on eprocurementfollowing which on next working day from the date of making public the result of evaluation of Part I of the Bids; Part II or the price bid of the qualified bidders will be opened.
- 2.17.6 Application for Part I shall be evaluated in two stages as under:

STAGE-I:

Evaluation of the technical documents submitted, initially, it shall be seen whether the Construction Agencies/Firms submitted all the documents mentioned herein above.

For non-compliance to the above, the application shall be rejected at this stage itself.

STAGE- II: Credential Evaluation

Under this stage, the applications short listed after Stage- I shall be evaluated and marked as under:

c <u>:</u>			
S.No.	Description	Points Allotted	Max. Points
1.	Past Experience of the firm in		
	construction of similar nature of		
	work *		
a)	Number of Year of experience-	05	07
	Minimum Three years		
	More than three years	01 per year	
b)	Past experience of projects		30
	completed in last seven years of		
	similar nature		
	One completed project of Value	12	
	80% or more		
	Every additional completed	03 each	
	project of value 80% or more		
	One completed project of Value	06	
	60% or more		
	Every additional completed	02 each	
	project of value 60% or more		
	One completed project of Value	04	
	40% or more		
	Every additional completed	01 each	
	project of value 40% or more		
2.	Experience of Key Personnel*		
a)	Graduate Civil Engineers with	05	7
	Minimum 03 years' experience:		
	01 No.		
	Every additional Graduate Civil	01 each	
	Engineers with Minimum 03		
	years' experience		
b)	Graduate Electrical Engineers	02	3
	with Minimum 03 years'		
	experience: 01 No.		

PROJECT EXCELLENCE SIN	Tarining Research Institute, Tipia		
	Every additional Graduate	01 each	
	Electrical Engineers with		
	Minimum 03 years' experience		
c)	Quality Engineer with	02	3
()		02	J
	Minimum 03 years' experience:		
	01 No.		
	Every additional Quality	01 each	
	Engineer with Minimum 03		
0	years' experience		
3.	Financial Strength*		
a)	Average Turnover for last three	07	15
	years – Minimum 50% of		
	estimated value		
		00	
	Every additional 10%	02	
4. a)	Presently working in	05	05
	Piprakothi*		
b)	Within Bihar except above	02	
5.	Bidders need to submit proposed		10
δ.			10
	construction methodology to		
	execute the job with details like		
	Manpower/ Timeline/ Quality		
	and similar type of executed		
	works *		
_			
6.	Performance on works(time over	10 marks	
	run)*(at least three completed		
	work certificate)*		
	Parameter	Score	Maximum
	1 arameter	Beore	
			marks
	Calculation for points		10
	If TOR=	1.00 2.00 3.00>3.5	50
	i)Without Levy of compensation	10 7 5 5	
	ii) With Levy of compensation		
	iii) Levy of compensation not	$\begin{vmatrix} 10 & 7 & 0 & 0 \end{vmatrix}$)
	decided		
	TOR=AT/ST, where AT=actual tim	ne ST=9	Stipulated Time
	Note: Marks for value in between		•
		_	anove is to be
	determined by straight line variat		
7	Performance of works(quality))*(at least three	completed work
	certificate)*		
			10 marks
	i)Outstanding	10	TO HIGHER
	ii)very good	7	
	iii)Good	5	
	iv)Poor	0	
	10/1 001	U	
'	Total		100

^{* (}Documentary evidence is to be submitted).

2.17.7 The committee shall evaluate the documents submitted by applicants/bidders on above concept and would assign the marks.



- 2.17.8 The Construction agency/firm shall have no right to challenge the marks assigned by the committee and the committee shall have no liability to applicant in this regard. No correspondence would be entertained challenging or contesting the marking by the committee.
- 2.17.9 The Employer shall inform the bidders who have technically qualified during evaluation of Part I of bids, of the date, time of online opening of Part II of the bid. In the event of the specified date being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.
- 2.17.10Part II of bids of only these bidders will be opened online, who have qualified in Part I of the bid. The bidders' names, the Bid prices, the total amount of each bid, and such other details as the Employer may consider appropriate will be notified online by the Employer at the time of bid opening.
- 2.17.11 Only bidder securing a minimum of 70% marks in technical evaluation shall be considered technically qualified.
- 2.17.12 Financial proposals of the only those firms who are technically qualified shall be opened publicly on the date & time specified to be notified, in the presence of the bidder, their technical score (if deemed necessary by NPCC) and their financial proposal shall be read aloud.
- 2.17.13 Financial proposal with any counter conditions or ambiguous remarks shall be rejected.
- 2.17.14 The final selection will be based on Lowest Offer i.e. L-1.
- 2.17.15 In case there is tie i.e. two or more than two bidders quoted the same rate and are lowest then final selection will be based on bidder securing maximum marks in Technical Evaluation Criteria. Further, in case of tie i.e. in Technical Evaluation Criteria Securing marks then final selection will be based on lottery among the bidders who secured equal marks in Technical Evaluation Criteria.

2.18 Process to be Confidential

2.18.1 Information relating to the examination, clarification, evaluation and comparison of bids, and recommendations for bid shall not be disclosed to bidders or any other persons not officially concerned with such process until the process is finalized. Any attempt by a bidder to influence the Employer's processing of bids oraward decisions may result in the rejection of his/her Bid

2.19 Examination of Bids and Determination of Responsiveness:

Prior to the detailed evaluation, Employer shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the Tender documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the documents as specified in the Tender document without material deviations, objections, conditionality or reservation. A material deviation, objection, conditionality or reservation is one;

- a) That affects in any substantial way the scope, quality or performance of the contract.
- b) That limits in any substantial way, inconsistent with the bidding documents, the Employers' rights or the successful Bidder's obligations under the Tender document, or
- c) Whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.



3. MODE OF SUBMISSION:

3.1 As notified in Notice Inviting e-Tender

- 3.2 Once the bidder has given an unconditional acceptance to the terms and contract conditions, bidder will not be permitted to put any remark(s)/conditions(s) (except unconditional rebate on price quoted, if any) in/along with the tender document.
- 3.3 In case the conditions 3.2 mentioned above is found violated at any time after opening of tender, the tender shall be summarily rejected and NPCC shall, without prejudice to any other right remedy, be at liberty to forfeit the Earnest Money Deposit as specified above.

4. EARNEST MONEY DEPOSIT:

The agency has to submit the requisite EMD as mentioned in Notice Inviting e-Tender. Tenders received without EMD will be treated as non-responsive and summarily rejected.

5. NPCC reserves the right to reject any or all the tenders in part or full without assigning any reason whatsoever thereof. NPCC does not bind itself to accept the lowest tender. NPCC also reserves the right to split up the work among two or more agencies.

6. QUOTING OF RATES & AMOUNTS:

- 6.1 The tenderers should quote percentage rate in figures. The rate shall be quoted up to 2 decimals.
- Special care should be taken to fill the rates and amounts in figures as well in words in such a way that any alteration is not possible. The total amount should be written both in figures and in words. In case of figures; the word 'Rs.' should be written before the figure of Rupees and word 'P' after the decimal *figure e.g. Rs. 2.15p. Rs. 2.15 shall be written as Rupees two and fifteen paisa only.* Unless the rate/amount is in whole Rupees it should invariably be up to two decimal places.
- 6.3 In case of any discrepancy between the rates/percentage quoted in figures and words, then the rate/percentage quoted by the contractor in words shall be taken as correct.
- 7. The tenders shall be strictly as per the conditions of contract. Tenders with any additional condition(s)/modifications shall be rejected.
- 8. The witnesses to the Tender/Contract Agreement shall be other than the tenderer/tenderers competing for this work and must indicate full name, address, status/occupation with dated signatures.
- 9. The tenders for works shall remain open for acceptance for a period of 60(Sixty) days from the date of opening of the tenders. If any tenderer withdraws his tender before the said period or makes any modification in terms and conditions of the tender to his benefit which are not acceptable to NPCC then NPCC shall without prejudice to any other right or remedy, be at liberty to forfeit the EMD.
- 10. The acceptance of tender will rest with NPCC who does not bind itself to accept the lowest tender and reserves to itself the right to reject any or all the tenders received without assigning any reason thereof. Tenders in which any of the prescribed conditions are not fulfilled or found incomplete in any respect are liable to be rejected.



11. Canvassing whether directly or indirectly in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable for rejection.

12. PERFORMANCE GUARANTEE:

Within 10 days from the date of issue of LOA / LOI, the tenderer shall submit Performance Guarantee amounting to 5% (Five percent) of the awarded value of work in the form of Demand Draft/fixed deposit in favour of NPCC Ltd. or Bank Guarantee from the Nationalized/Scheduled Bank (as per list enclosed) of equivalent value. No interest will be paid under any circumstances. The Performance Bank Guarantee shall remain valid till completion of project/taking over by client whichever is later. This Performance Guarantee initially be submitted with the validity till scheduled completion period as per tender document but in case of extension of completion due to any reason, it is the responsibility of the agency to get it extended one month prior to its expiry without any claim on it, in case of failure, NPCC may get it en-cashed without giving any notice. An amount is to be deposited equivalent to 0.01% per day of the amount of Performance Guarantee for extended /delayed period of submission of Performance Guarantee. In no case the extension will be granted for more than 15 days. In case of non-submission of Performance Guarantee within stipulated / extended period, it will be presumed that agency is not interested in the work and EMD submitted will be forfeited without any notice.

If the bid of the successful bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices. After evaluation of the price analysis, the Employer may require that the amount of the Performance Security set forth in ITB be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract. The amount of the increased Performance Security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder. The detailed price analysis produced by bidder if not found satisfactory, the bid will be rejected.

On receipt of the Performance Guarantee in the form of DD/FDR/BG & duly confirmed from issuing branch, the EMD will be refunded. EMD deposited in the form of Banker's Cheque /Demand draft will be refunded directly to bidder's bank account through Electronic mode.

13. SECURITY DEPOSIT:

The security deposit will be deducted from the successful contractor at the rate of 10% from the Gross value of each R/A bills till it reaches 5% of the contract value. No interest will be paid on the Security Deposit under any circumstances. The total security deposit will be refunded only after expiry of defect liability period. However after successful completion of work 50% of the security deposit can be released against Bank Guarantee from the Nationalized/Scheduled Bank (as per list enclosed) as per approved format.

14. On acceptance of tender, the name of the authorized representative(s) of the contractor who would be responsible for taking instructions from Engineer-in-charge or his authorized representative shall be intimated by the contractor within 07 days from the date of issue of telegram/letter/telex/fax of intents by NPCC.



- 15. The tenderer shall not be permitted to tender for works if his near relative is posted as an Accountant or an Assistant Engineer or any higher ranks in the project office or concerned Zonal Office of the NPCC. The contractor shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any of the officers in NPCC. Any breach of this condition by the tenderer would render him liable to the withdrawal of the work awarded to him and forfeit of Earnest Money and Security Deposit. This may also debar the contractor from tendering for future works under NPCC.
- 16. GST or any other tax on materials as also the Turnover Tax, Work Contract Tax, Construction cess or similar, if any, in respect of contract shall be payable by the contractor and NPCC will not entertain any claim whatsoever, on such grounds. In the event of non-payment/default in payment of any control, royalty, cess, turnover tax, sales tax, including the purchase tax, consignment tax, work contract tax or any labour dues and E.P.F. etc. by contractor/supplier, the NPCC reserves the right to with-hold the dues/payments of contractor and make payment to local / state/ Central Government authorities or to labours as may be applicable. The contractor should submit along with the tender, the Registration Certificates with Sales Tax on works contract authority and EPF Authorities otherwise appropriate recovery shall be made from his bills.
- 17. Tenderer should quote all prices, including the liability of taxes etc. covered under Clause 16.0 or any other levy as applicable in the respective state.
- 18. The tenderer shall be deemed to have gone through the various conditions and clauses of the tender and visited the site before quoting their rates, once they make an offer for this work. No claim shall be entertained on this account.
- 19. The drawings for the work are available with Project Manager, N.P.C.C. Ltd., ICAR Works, Krishi Vigyan Kendra, Piprakothi— 845429 (Bihar) (Phone No. 7544971727) which can be viewed during the Site Visit.
- **20.** Tenderer can download the tender documents as mentioned in Notice Inviting e-Tender.

21. ESCALATION/PRICE VARIATION:

- 21.1 There will be no escalation on account of any increase in price index in the price of materials or labours, imposition of sales tax or enactment of any new law or imposition of levies etc. No price escalation shall be applicable even during the extended period for completing the works. No extra claim in this regard will be entertained.
- **22.** NPCC reserves its right to accept or reject or cancel any or all tenders without assigning any reason thereof.

23. Deleted



24. Details of documents to be submitted: Following documents dully filled are to be submitted/uploadedwithTechnical Bid duly supported with credentials/certificates as directed in the respective proforma. The bidder also has to submit the following proformas in original on date as specified in the Notice Inviting e-Tender.

Sl.No.	Details	Proforma No.	To be executed on
1.	Acceptance of Tender Conditions	PROFORMA- I	Tenderer's letter head
2.	Form of Tender	PROFORMA- II	Tenderer's letter head
3.	General Information	PROFORMA - III	
4.	List of Major Plant and Machinery in Possession of the Firm	PROFORMA - IV	
5.	Annual Turn Over For The Last Five Years	PROFORMA-V	
6.	Details of the Similar Works Completed in Last Seven Years	PROFORMA-VI	
7.	Solvency Certificate	PROFORMA -VII	Bank's letter head
8.	Details of on-going/existing works	PROFORMA-VIII	
9.	Past Contractual Performance	PROFORMA – IX	Non-judicial stamp paper of Rs. 100/-
10.	Bank Account Particulars for refund of EMD through electronic mode	PROFORMA – X	
11.	Letter of Transmittal	PROFORMA – XI	Tenderer's letter head
12.	GST Registration Details	PROFORMA – XII	



PROFORMA- I

(On the letter head of the Tenderer)

To, The Zonal Manager (Bihar Zone), NPCC Ltd., 15 IAS Colony, Kidwaipuri, Distt.-Patna (Bihar)

Sir,

ACCEPTANCE OF TENDER CONDITIONS

The tender documents for the work of Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar) (Name of Work) have been downloaded by me/us from official e-portal website of National Projects Construction Corporation Limited and I/We hereby unconditionally accept the tender conditions and tender documents in its entirety for the above work.

- 1. The contents of Clause 3.2 and 3.3 of the Tender documents (Instructions to Bidders) have been noted wherein it is clarified that after unconditionally accepting the tender condition in its entirety, it is not permissible to put any remark(s)/conditions(s) (except unconditional rebate on price, if any) in the tender enclosed in "Envelope-2 and the same has been followed in the present case. In case this provision of the tender is found violated at any time after opening of the Envelope 2, I/we agree that the tender shall be summarily rejected and NPCC shall, without prejudice to any other right or remedy be at liberty to forfeit the full said earnest money absolutely.
- 2. I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements. In case this provision of the tender is found violated at any time before or after opening of the Price bid/Award, I/we agree that the tender/Award shall be summarily rejected and NPCC shall, without prejudice to any other right or remedy be at liberty to forfeit the full said earnest money/any other amount payable under this contract absolutely.
- 3. The required earnest money for this work is enclosed herewith.
- 4. If I/we will not fulfill the minimum qualifying criteria of the tender I/we not lodge any claim for opening of envelope 2 of the tender.

	Yours faithfully,
	(Signature of the tenderer) with rubber stamp
Dated:	



PROFORMA-II

FORM OF TENDER

(On the letterhead of the Tenderer)

To,
The Zonal Manager (Bihar Zone),
NPCC Ltd.,
15 IAS Colony, Kidwaipuri,
DisttPatna (Bihar)

1. I/We,	[Name and address of the Bidder]	have read
the various terms and condi	itions of the Bid documents together with Addenda	um no(s)/Errata
no(s) attached here with duly	signed by me/us and agree to abide by the same.	

- 2. I/We hereby declare that we are aware of the site of work and have made ourselves fully conversant of the conditions therein and including the topography of area, soil strata at site of work, sources and availability of construction materials, rates of construction materials, water, electricity, all local taxes, royalties, octrois etc., availability of local labour (both skilled and unskilled), relevant labour rates and labour laws, the existing road and approaches to the site of work, requirements for further service roads / approaches to be constructed by me / us, the availability and rates of private land etc. that may be required by me / us for various purposes, climatic conditions, law and order situation and availability of working days.
- 3. I/We hereby tender for execution of work for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar) as per tender documents within the time schedule of completion of work as per separately signed and accepted rates in the bill of quantities quoted by me/us for the whole work in the accordance with the Notice Inviting e-Tenders, conditions of Contract. Specifications of materials and workmanship, bill of quantities. Drawings, time schedule of completion of jobs and other documents and papers, all as in tender documents.
- 4. It has been explained to me/ us that the time stipulated for jobs and completion of works in all respects and in different stages mentioned in the "Time schedule for Completion of jobs and signed and accepted by me/us is the essence of the contract. I/We agree that in case of failure on my/our part to strictly observe the time of completion mentioned for jobs or any of them and the final completion of works in all respects according to the schedule sat out in the said "Time Schedule for completion of stipulations contained in the contract the recovery being made as specified therein. In exceptional circumstances extensions of time which shall always being in writing way, however be granted by the NPCC at its entire discretion for some items and I/we agree that such extension of time will not be counted for the final completion of work as stipulated in the said "Time Schedule of Completion of jobs."
- 5. I/we agree to pay the Earnest Money Deposit, Performance Guarantee and Security Deposit and accept the terms and condition as laid down in the memorandum below in this respect.



MEMORANDUM

Sl. No.	Description	Clause No.	Values/Description to be applicable for relevant clause(s)
1.	Name of Work		Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)
2.	Client/Owner		Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari
3.	Type of Tender		Percentage Rate
4.	Earnest Money Deposit	As per NIT	Rs. 1,83,500.00 in the form of Banker's Cheque/Demand Draft in favour of NPCC Ltd. payable at Patna
5.	Estimated Cost	As per NIT	Rs. 91,72,383
6.	Time for completion	As per NIT	Total work to be completed in 2 (Two) months including monsoon period in accordance with the time schedule of completion of work in the tender document.
7.	Mobilization Advance	8.0	Simple Interest Rate of 12% (Twelve percent only) per annum.
8.	Interest rate on Mobilization Advance	8.0	Refer clause No. 69 of GCC in conjunctions with BOQ
9.	Schedule of Rates applicable	69.0	Refer clause No. 69 of GCC in conjunctions with BOQ
10.	Validity of e-Tender	4.0	60 (Sixty) days
11.	Performance Guarantee	9.0	5% of contract value plus additional security for unbalanced bids to be submitted within 10 days from the date of issue of LOI
12.	Security deposit/ Retention Money	10.0	To be deducted @ 10% of each R.A. bill and will be restricted up to 5% of the contract value.
13.	Time allowed for starting the work	43.0	Date of start of contract shall be reckoned 10 days after the date of issue of letter/Fax/E-mail of intent/acceptance of tender.
14.	Defect liability period	74.0	12 (Twelve) Months from the date of handing over of works to Owner/NPCC.
15.	Recovery rate of work force supplied by NPCC to Contractor	28.5	Rs. 20000/- (Rupees Twenty Thousand only) each man power per month.

- 6. Should this tender be accepted, I/We agree to abide by and fulfill all terms and conditions referred to above and in default thereof, to forfeit, and pay NPCC or its successors or its authorized nominees such sums of money as are stipulated in the notice inviting tender documents.
- 7. If I/We fail to commence the work immediately on issue of LOI, or I/We fail to submit the Performance guarantee as per Clause 9 of General conditions of contract I/We agree that NPCC shall, without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money deposited with NPCC besides any other action as per terms of registration



with NPCC. The NPCC shall also be at liberty to cancel the notice of acceptance of tender if we fail to deposit the performance guarantee as contained elsewhere in the tender documents.

8. I/We are also enclosing referred to in condition of No		_	letter	on the	e prescribed	pro-forma	as
Dated the	_ day of						
	RS						
TELEPHONE & FAX NO.				_			
E-mail ID				_			
SEAL OF TENDERER							
WITNESS							
OCCUPATION							



PROFORMA - III

GENERAL INFORMATION

All individual firms and each partner of a joint venture participating in this Bid are requested to complete the information in this form.

1	Name of Bidder	
2	Head Office Address	
	Tel. No	
	Mobile no.	
	Fax No	
	E-mail address	
3	Address on which Correspondence	
	should be done	
	Tel. No	
	Mobile no.	
	Fax No	
	E-mail address	
4	Place of incorporation / registration	
5	Legal status of the applicant (attach	
	copies of original documents defining	
	the legal status)	
i)	Specify, if the bidder is	
	a) An individual	
	b) A proprietary firm	
	c) A firm in partnership	
	d) A Limited Company or Corporation	
	e) A group of firms / joint venture	Not Applicable
	(if yes, give complete information in	
	respect of each member)	
ii)	Attach a copy of Proprietorship or	
	Partnership Deed or Article of	
	Association or Incorporation of	
	Company or JV Agreement as the case	
	may be	
6	Name of Proprietor / Partners /	
	Directors with their addresses, Mobile	
	& Telephone numbers, Fax no., E-mail	
_	address.	
7	Designation of individuals authorized	
	to act for the organization with the	
	address, Mobile & Telephone numbers, Fax, E-mail address.	
	(Enclose legal Power of Attorney along	
	with Board resolution in case of	
	Companies).	
8	Was the applicant ever required to	
	suspend any construction for a period	
	of more than six months continuously	
	after commencement of the	
	construction? If so, give the name of	
	the project & reasons of suspension of	

एन पी सी सी

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

4	Farming Research Institute, I	Tprakotni, Mounari (binar)
9	Has the applicant of any constituent	
	partner in case of partnership firm,	
	ever abandoned the awarded work	
	before its completion? If so, give name	
	of the project and reasons for	
	abandonment.	
10	Has the applicant, or any constituent	
	partner in case of partnership firm	
	ever been debarred / black listed for	
	tendering in any organization at any	
	time? If so, give details.	
11	Has the applicant or any constituent	
	partner in case of partnership firm,	
	ever been convicted by a court of Law?	
	If so, give details.	
12	Bank Solvency	
13	Turn Over / Net Profit for the years	Turn Over in Lakhs Profit in Lakhs
	given below: Copies of Audited balance	
	sheets are to be enclosed with	
	proforma V.	
	2013-14	
	2014-15	
	2015-16	
	2016-17	
	2017-18	
14	Other details: (Copies to be enclosed)	
	a) EPF No. valid up to:	
	b) Goods & Service Tax Registration	
	No.	
	c) Clearance of Sales Tax up to	
	d) PAN No.	
15	Give particulars of registration with	
	Govt./Semi Govt./Public Sector	
1		
	Undertakings/Local Bodies.	

Note: Use separate sheets for providing more information if any.

Date & Place

Signature & seal of the applicant



PROFORMA - IV

List of major Plant and Machinery in possession of the firm

Sl.No.	Name of Plant & Machinery/equipment	Available	*Other than
		Owned	col. No. C
A	В	С	D
1.	Excavator		
2.	Dozer		
3.	Dumper		
4.	Truck		
5.	Tractor with trolley		
6.	Water Tanker		
7.	Batching Plant: Capacity		
8.	Transit Mixer		
9.	Site Mixers with weigh batcher		
10.	Skip Hoist		
11.	Dewatering / Water Pumps		
12.	Survey equipments:		
	a) Total Stn,		
	b) Theodolite		
	c) Level instruments		
13.	Details of Shuttering & Staging materials		
14.	Any other information**		

Signature & seal of the applicant

Date & Place

Note:

- * In case of any arrangement for getting the equipment on lease, etc., authenticated proof of the same is to be submitted.
- ** Use separate sheets for providing more information.



PROFORMA-V

Date:	

	ANNUAL TURN OVER FOR THE LAST FIVE YEARS									
S. No.	YEAR	Turnover from Engineering construction works(in Rs lakh)	Net Profit (In Rs lakh)	Remarks (if any)						
1	2017-2018									
2	2016-2017									
3	2015-2016									
4	2014-2015									
5	2013-2014									

Note:

1. The bidder **shall submit the attested copies of the audited balance sheets** along with Profit and loss statements and Auditors report and schedules duly certified by the bidder and Chartered Accountant. Certificate from the Chartered Accountant, wherever the Annual Turnover is certified for the relevant financial year in which the minimum criteria of Annual Turnover is satisfied should also be submitted.



PROFORMA-VI

DETAILS OF THE SIMILAR WORKS COMPLETED IN LAST SEVEN YEARS

S.	Description		Date	Stipulated	Date of	Value of	Reasons	Any other
No.		address of the		date of	actual	completed	for	relevant
	with		award	${f completion}$	completion	\mathbf{work}	delays,	information
	Contract	with Contract				(In Rs	penalty	
	No.	No.				lakh)	if any	
1								
2								
3								
4								
5								
6								
7								

Note:

- 1. The Bidder shall submit the attested Copies of the Completion Certificates from the Client preferably in the below mentioned Format-VI (A).
- 2. The value of work executed should be inclusive of the value of free supply items.



FORMAT-VI (A)

PERFORMANCE REPORTIN RESPECTOF M/S.

1.	Nameofwork/project t&				
	location				
2.	Agreementamount				
3.	Estimatedcost				
4.	Tenderedamount				
5.	Dateofstart				
6.	Dateofcompletion				
(i)	Stipulateddateofcompletion.				
(ii)	Actual dateofcompletion / Likelydate ofcompletion				
7.	Amount ofcompensation leviedfordelayedcompletion, ifany.				
8.	Performancereport	VeryGood	Good	Fair	Poor
(a)	Quality ofwork	VeryGood	Good	Fair	Poor
(b)	Resourcefulness	VeryGood	Good	Fair	Poor
(C)	Financial soundness	VeryGood	Good	Fair	Poor
(d)	Technical proficiency	VeryGood	Good	Fair	Poor
(e)	General Behavior	VeryGood	Good	Fair	Poor

\mathbf{T}		
1)	១t	Δ.

Executive Engineeror Equivalent

Note:1) The performance report is to be submitted separately for each work mentioned in Proforma-VI & VIII. This reports hould be signed by the authority of owner not less than the rank of Executive Engineer or equivalent.

2) Theperformancereportpreferably besubmitted in the above format. Incase, different formatissued, the applicant shall ensure that there port/certific ate shall contain the above information.



PROFORMA-VII

Dispatch number of bank / date

SOLVENCY CERTIFICATE ON LETTER HEAD OF BANK

This	is	to	state	that	to	the	best	of	our	knowledge	and	information	that
M/s		•••••	• • • • • • • • • • • • • • • • • • • •						havin	ng	/registe	ered	office
addre	ss				• • • • • •	• • • • • • • • • • • • • • • • • • • •					• • • • • • • • • • • • • • • • • • • •	is cus	stomer
of bar	nk ai	nd h	as been	n main	taini	ng his	s accou	ints	with o	our branch s	ince		As
per			record	ls		ava	ilable			with	t	he	bank,
M/s	•••••		•••••		•••••	• • • • • • • •	•••••			can be	treate	d as solvent u	p to a
limit (of Rs			•••••	• • • • • •				(R	Rupees in wor	rds).	
										furnished to s tenders.	NPCC	C Ltd at Custo	omer's

Name, Designation, Signature with Seal

Notes:

- 1. In case of Partnership firm, Certificate should include names of all partners as recorded with the bank.
- 2. The Certificate should have been issued within 6 months from original last date of the submission of tender but in the current financial year.
- 3. Original certificates is to be submitted along with the bid documents.



PROFORMA-VIII

DETAILS OF ON-GOING/EXISTING WORKS

S.	Description	Name		Stipulated			Anticipated	•
No.		and	award	date of	work as	work	date of	relevant
	with	address		completion	(In Rs.			information
	Contract	of the				so far	of work	
	No.	Employer			lakh)	(In Rs.		
						lakh)		
1								
2								
3								
4								
5								
6								
7								
8								
9								
				Total				

Note:

The copies of certificates of ongoing-awarded works issued by the owner shall be attached.

Only those works shall be considered for evaluation for which copies of the certificates issued by the owner are attached.



PROFORMA - IX

PAST CONTRACTUAL PERFORMANCE

(Affidavit on non-judicial stamp paper of Rs 100/- duly attested by Notary/Magistrate)

This is to certify that We, M/s	[Name of the Bidder with address],
in submission of the Bid,	
attachments in proof of the qualification required ii) do not have records of poor performance completing the contract, inordinate delays in contract,	representation in the forms, statements and ements; e such as abandoning the work, not properly completion, litigation history or financial failures
etc.;	
iii) have never been banned by any Co Undertakings or Enterprises of Central/State C	entral/State Govt. Departments/Public Sector Govt.;
iv) have submitted all the supporting documer prescribed format; and	nts and furnished the relevant details as per the
	e requisite documents with the Bid and further correctness of the information and documents
	SIGNATURE OF THE BIDDER SEAL

Note:

Exceptions of the above, if any, shall be clearly mentioned with details by the bidder for evaluation/consideration if any.



PROFORMA - X

BANK ACCOUNT PARTICULARS FOR REFUND OF EMD THROUGH ELECTRONIC MODE

S. No.	Description	Particulars
1	Name of the Beneficiary	
2	Bank Name	
3	Bank Address	
4	Bank Branch code	
5	Account No.	
6	IFSC Code	
7	MICR No.	

Date & Place

Signature & seal of the applicant



PROFORMA - XI

LETTER OF TRANSMITTAL

(On the letterhead of the Tenderer)

From:
······································
To, The Zonal Manager Bihar Zone, NPCC Limited, 15, IAS, Colony, Kidaipuri, Patna-800001
Subject: Submission of bids for the work of
Sir, Having examined the details given in press notice and bid document for the above work, I/we hereby submit the relevant information.
 I/we hereby certify that all the statement made and information supplied in the enclosed forms A to H and accompanying statement are true and correct. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency/ Credit facility certificate and authorize the Manager/Dy. Manager, NPCC Ltd. to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize Manager/Dy. Manager, NPCC Ltd. to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/we submit the following certificates in support of our suitability, technical knowledge and capabilityfor having successfully completed the following works:
(a) Name of work:
(b) Certificate from:
Enclosures:
Seal of bidder
Date of submission:
Signature(s) of Bidder(s).



PROFORMA – XII

GST REGISTRATION DETAILS

S.NO.	CONTRACTOR/VENDOR DETAILS	
1	Name	
2	Address(As per registration with GST)	
	City	
	Postal Code	
	Region/State(Complete State Name)	
3	GSTIN ID/Provisional ID No.(Copy of Acknowledgement required)	
4	Type of Business(As per registration with GST)	
5	Service Accounting Code/HSN Code	
6	Contact person	
	Phone number and Mobile number	
	Email id	
	Compliance Rating(if undated by GSTN)	



National Projects Construction Corporation Limited

(A Govt. of India Enterprise)

SECTION -IV GENERAL CONDITIONS OF CONTRACT

1.0 GENERAL

The Contract means the documents forming the tender and acceptance thereof and the agreement executed between the competent person on behalf of NPCC and the contractor, together with the documents referred to therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Engineer-in-Charge and all these documents taken together, shall be deemed to form one contract and shall be complementary to one another.

- 1.1 National Projects Construction Corporation Limited, hereinafter called 'NPCC' proposes to get the works executed as mentioned in the Contract on behalf of Owner/ Client.
- 1.2 The work will be executed as per drawings "GOOD FOR CONSTRUCTION" to be released by NPCC unless otherwise specified elsewhere in the tender documents.
- 1.3 In the contract, the following expressions shall, unless the context otherwise requires, have the meaning, hereby respectively assigned to them.

1.4 **DEFINITIONS**

- a) **ENGINEER-IN-CHARGE** means the PROJECT MANAGER of NPCC who shall supervise and be in-charge of the work from time to time.
- b) **WORKS OR WORK**: The expression works or work shall unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed whether temporary or permanent, and whether original, altered, substituted or additional.
- c) **CONTRACTOR** means the individual, firm or company, whether incorporated or not, undertaking the works and shall include the legal representative of such individual or the persons composing such firm or company, or the successors of such firm or company and the permitted assignees of such individual, firm or company.
- d) **DRAWINGS** mean the drawings referred to in the Bill of Quantities, specifications and any modifications of such drawings or such other drawings as may from time to time be furnished or approved by NPCC.
- e) **SITE** means the lands and other places on, under, in or through which the works are to be executed or carried out and any other lands or places provided by NPCC or used for the purpose of the agreement.
- f) **APPROVAL** means approved in writing including subsequent written confirmation of previous verbal approval.
- g) WRITING means any manuscript typed, written or printed statement under or over signature and/or seal as the case may be.



- h) **MONTH** means English Calendar month 'Day' means a Calendar day of 24 Hrs each.
- i) **CONTRACT VALUE** means the sum for which the tender is accepted as per the letter of intent.
- j) **LANGUAGE**: All documents and correspondence in respect of this contract shall be in English Language.
- k) **BILL OF QUANTITIES** or **SCHEDULE OF QUANTITIES** means the priced and completed Bill of Quantities or Schedule of Quantities forming part of the tender.
- l) **OWNER** means Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari
- m) IMPLEMENTING/ EXECUTING AGENCY means National Projects Construction Corporation Limited (A Govt. of India Enterprise) referred as NPCC who has been retained as implementing agency by Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari.
- n) **TENDER** means the Contractor's priced offer to NPCC for the execution and completion of the work and the remedying of any defects therein in accordance with the provisions of the Contract, as accepted by the Letter of Intent or Award letter. The word TENDER is synonymous with Bid and the word TENDER DOCUMENTS with "Bidding Documents" or "offer documents".

The headings in the clauses/ conditions of tender documents is for convenience only and shall not be used for interpretation of the clause/ condition.

Words imparting the singular meaning only also include the plurals and vice versa where the context requires. Words imparting persons or parties shall include firms, companies and other organizations having legal capacities.

2.0 SITE VISIT AND COLLECTINGLOCAL INFORMATION

Before tendering, the tenderer is advised to visit the site, its surroundings to assess and satisfy themselves about the local conditions such as the working and other constraints at site, approach to the site, availability of water & power supply, application of taxes, cess duties and levies as applicable, nature of ground, soil and sub-soil condition, underground water table level, accommodations they may require etc.

The tenderer may obtain all necessary information as to risks, weather conditions, contingencies & other circumstances (insurgencies etc.), which may influence or affect their tender prices. Tenderer shall be deemed to have considered site conditions whetherhe has inspected it or not and to have satisfied himself in all respect before quoting his rate and no claim or extra charges whatsoever in this regard shall be entertained / payable by the NPCC at a later date.

2.1 ACCESS BY ROAD

Contractor, if necessary, shall build temporary access roads to the actual site of construction for the works at his own cost to make the site accessible. The Contractor shall maintain the same in motorable condition at all the times as directed by Engineer-in-Charge at his own cost. The contractor shall be required to permit the use of any roads



so constructed by him for vehicles of NPCC or any other agencies/ contractors who may be engaged on the project site, free of cost.

Non-availability of access roads or approach to site, for the use of the contractor shall in no case condone any delay in the execution of work nor be the cause for any claim for compensation.

2.2 HANDING OVER & CLEARING OF SITE

- 2.2.1 The Contractor should note that area for construction may be made available in phases as per availability and in conjunction with pace of actual progress of work at site. The work may be required to be carried out in constrained situations. The work is to be carried out in such a way that the traffic, people movement, if any, is kept operative and nothing extra shall be payable to the contractor due to this phasing / sequencing of the work. The contractor is required to arrange the resources to complete the entire project within total stipulated time. Traffic diversion, if required, is to be done and maintained as per specification by the contractor at his own cost and the contractor shall not be entitled for any extra payment, whatsoever, in this regard.
- 2.2.2 The efforts will be made by the NPCC to handover the site to the Contractor free of encumbrances. However, in case of any delay in handing over of the site to the Contractor, the NPCC shall only consider suitable extension of time for the execution of the work. It should be clearly understood that NPCC shall not consider any revision in contract price or any other compensation whatsoever viz. towards idleness of Contractor's labour, equipment etc.
- 2.2.3 The Contractor shall be responsible for removal of all over-ground and under-ground structures (permanent, semi-permanent and temporary) and constructions from the site. The cost to be incurred in this regard shall be deemed to be included in the quoted rate of Bill of Quantities items and contractor shall not be entitled for any extra payment whatsoever, in this regard. The contractor, if required, shall demolish old structures on the proposed site, properly. The useful material obtained from demolition of structures & services shall be the property of the owner/NPCC and these materials shall be stacked in workmanship like at the place specified by the Engineer- in-charge.
- 2.2.4 If required, the contractor has to do site clearance, enabling work, barricading, diversion of Roads, shifting/ realignment of existing utility services, drains, nallahs etc. at his own cost as per direction of Engineer-in-charge and the contractor shall not be entitled for any extra payment whatsoever in this regard.
- 2.2.5 Necessary arrangements including its maintenance are to be made by the contractor for temporary diversion of flow of existing drain and road, as the case may be. The existing drain, road would be demolished, wherever required, with the progress of work under the scope of proposed project. The existing Road and Drain, which are not in the alignment of the said project but are affected and/ or need to be demolished during execution for smooth progress of the project, shall be rehabilitated to its original status and condition (including black topping) by the contractor at his own cost. The cost to be incurred by contractor in these regards shall be deemed to be included in the quoted rates of the Bill of Quantities items and contractor shall not be entitled for any extra payment whatsoever, in these regards.
- 2.2.6 The Contractor shall be responsible to co-ordinate with service provider/ concerned authorities for cutting of trees, shifting of utilities and removal of encroachments etc. and making the site un-encumbered from the project construction area required for



completion of work. This shall include initial and frequent follow up meetings/ actions/ discussions with each involved service provider/ concerned authorities. The contractor shall not be entitled for any additional compensation for delay in cutting of trees, shifting of utilities and removal of encroachments by the service provider/ concerned authorities.

- 2.2.7 The information about the public utilities (whether over ground or underground) like electrical/ telephone/ water supply lines, OFC Cables, open drain etc. is the responsibility of contractor to ascertain the utilities that are to be affected by the works through the site investigation and collection of information from the concerned utility owners.
- 2.2.8 The contractor shall be responsible to obtain necessary approval from the respective authorities for shifting/ re-alignment of existing public utilities. NPCC shall only assist the contractor for liasoning in obtaining the approval from the concerned authorities. Take all measures reasonably required by the various bodies to protect their services and property during the progress of works. It shall be deemed to be the part of the contract and no extra payment shall be made to the contractor for the same. Shifting/ realignment of public utilities should be done without disturbing the existing one. New service lines should be laid and connected before dismantling the existing one.
- 2.2.10 Shifting/ re-alignment of existing public utilities shall be done by the contractor as per technical requirement of respective bodies or as per direction of Engineer-in-Charge. Shifting/ re-alignment of public utilities includes all materials, labours, tools and plants and any other expenses whatsoever for the same. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the contractor shall not be entitled for any extra payment, whatsoever, in this regard. In case any of these services are shifted by the State Govt/ local authorities themselves for which deposit as per their estimates is to be made to them, the contractor shall deposit the same and the contractor shall be paid only at the rates quoted by them in BOQ for quantity specified in the BOQ, if such items are included in the BOQ irrespective of amount paid by him to the State Govt./ local authorities for execution of these works. In case such provision is not made in the BOQ or the quantity exceeds those specified in the BOQ, the same is deemed to be included in the rates quoted by him for other items in BOQ and nothing extra shall be payable to contractor on this account.

3.0 SCOPE OF WORK

- 3.1 The scope of work covered in this tender shall be as per the Bill of Quantities, specifications, drawings, instructions, orders issued to the contractor from time to time during the work. The drawings for this work, which may be referred for tendering, provide general idea only about the work to be performed under the scope of this contract. These may not be the final drawings and may not indicate the full range of the work under the scope of this contract. Drawings released as "GOOD FOR CONSTRUCTION" from time to time by the Engineer-in-charge of NPCC and according be executed according to any additions/ modifications/ alterations/ deletions made from time to time, as required by any other drawings that would be issued to the contractor progressively during execution of work. It shall be the responsibility of the contractor to incorporate the changes that may be in this scope of work, envisaged at the time of tendering and as actually required to be executed.
- 3.2 The quantities of various items as entered in the "BILL OF QUANTITIES" are indicative only and may vary depending upon the actual requirement. The contractor shall be bound to carry out and complete the stipulated work irrespective of the variation in individual items specified in the bill of quantities.



4.0 VALIDITY OF TENDER

The e-tender for the works shall remain open for acceptance for a period of **sixty** days from the date of opening of Price Bid of tenders. The earnest money will be forfeited without prejudice to any right or remedy, in case the contractor withdraws his tender during the validity period or in case he changes his offer to his benefits, which are not acceptable to NPCC. The validity period may be extended on mutual consent.

5.0 ACCEPTANCE OF TENDER

The NPCC reserves to itself the authority to reject any or all the tenders received without assigning any reason. The acceptance of a tender shall be effective w.e.f. the date on which the telegram/ letter of intent of acceptance of the tender is put in the communication by the NPCC. NPCC also reserves the right to split the work among two or more parties at lowest negotiated rate without assigning any reason thereof. The contractor is bound to accept the portion of work as offered by NPCC after split up at the quoted/-negotiated rates.

6.0 SET OF CONTRACT DOCUMENTS

- 1. Notice Inviting e-Tender
- 2. Corrigendum(s) and Addendum (s).
- 3. Pre-Qualification Documents
- 4. General Conditions of Contract
- 5. Special Conditions and Formats
- 6. BOQ/Schedule of Rates
- 7. Technical Specifications
- 8. Tender Drawings

7.0 EARNEST MONEY DEPOSIT

- 7.1 Earnest Money Deposit of amount as mentioned in "Memorandum to Form of Tender" required to be submitted along with the tender shall be in the form as mentioned in "NIT/ Instructions to Bidders" in favour of NPCC Ltd.payable at Patna from any Nationalized Bank/Scheduled Bank. The EMD shall be valid for minimum period of 60 days (Sixty days) from last day of submission of Tender.
- 7.2 EMD shall accompany the offer and placed in the sealed envelope cover of the offer as detailed in the Instructions to Bidders. Any tender not accompanied with the requisite Earnest Money Deposit along with Letter of Acceptance shall be rejected and such tenderer(s) will not be allowed to attend the opening of bids. Conditional tenders will be summarily rejected.
- 7.3 Small Scale Industries registered with the National SmallScale Industries Corporation shall be exempted from payment of Tender Cost/Earnest Money Deposit as per eligibility limits.
- 7.4 Tenderers seeking exemption should enclose a photocopy of Valid Registration Certificate duly self-attested giving details such as product/services and Monetary limits, failing which they run the risk of their tenders being passed over as ineligible for this concession. NPCC is free to get verify the documents from NSIC submitted by tenderer.
- 7.5 NPCC may consider award of work to MSEs as per provision of Public Procurement Policy for Micro and Small Enterprises (MSEs) order, 2012 with special provision for Public Procurement Policy for Micro & Small enterprises owned by the Scheduled Caste or the scheduled Tribe entrepreneurs.



- 7.6 The date of opening of Price bid shall be intimated telephonically or through e-mail to the technically qualified bidders only to depute their representative. The Price Bid shall be opened on intimated date & time in presence of the bidders or their representatives who wish to be present.
- 7.7 EMD will be returned to all unsuccessful or technically unqualified tenderers after opening of price bid and to the technically qualified tenderers other than lowest (L-1) within ten (10) days of the Award of the Contract to successful bidder. EMD of successful tenderer shall be refunded after submission of Performance Guarantee/ initial security deposit duly confirmed from issuing bank.
- 7.8 Once the tenderer has given an unconditional acceptance to the tender conditions in its entirety, he is not permitted to put any remark(s)/conditions(s)(except unconditional rebate on price, if any) in/ along-with the tender.
- 7.9 In case the condition 7.8 mentioned above is found violated at any time after opening of tender, the tender shall be summarily rejected and NPCC shall, without prejudice to any other right or remedy, be at liberty to forfeit the full said Earnest Money absolutely.
- 7.10 No interest shall be payable by the NPCC on the said amount covered under EMD/Other security deposits.

8.0 MOBILISATION ADVANCE

- 8.1 Mobilization Advance up to maximum of amount as mentioned in the "Memorandum to the Form of Tender" shall be paid to the contractor on submission of non-revocable Bank Guarantee for an amount of 110% (One hundred ten percent) of an amount of Mobilization Advance demanded, from a nationalized / Scheduled Bank as per list annexed in enclosed Performa. The Mobilization Advance shall be at the **interest rate of 12% simple interest** as mentioned in the "Memorandum to the Form of Tender". This advance shall be paid in two instalments as follows
 - i. First Instalment of 50(Fifty) percent of total mobilization advance against Bank Guarantee shall be paid after the agreement is signed and upon submission of performance guarantee and its confirmation from issuing bank.
 - ii. 2ndInstalment of balance 50(Fifty) percent of total mobilization advances against Bank Guarantee will be paid after the setting up of site office and facilities to NPCC as per contract, completion of mobilization of Plant and machinery, scaffolding & shuttering materials etc. to the satisfaction of Engineer-in-charge nominated by Project Manager / Zonal Manager and on completion of 10 (Ten) percent of work in terms of cost.
- 8.2 The mobilization advance bear simple interest at the rate as mentioned in the MEMORANDUM and shall be calculated from the date of payment to the date of recovery (365 days in a year) both days inclusive, on the outstanding amount of advance. Recovery of such sums advanced shall be made by the deduction from the contractor's bills commencing after first 10 (ten) percent of the gross value of the work is executed and paid, on pro-rata percentage basis to the gross value of the work billed beyond 10% in such a way that the entire advance is recovered by the time 80 (eighty) percent of the gross value of the contract is executed and paid, together with interest due on the entire outstanding amount up to the date of recovery of the instalment.

The Mobilization Advance bank guarantee shall essentially be made atleast for the 110% (One hundred ten percent) of total mobilization advance payable and valid for the contract period, and be kept renewed from time to time to cover the balance amount and likely period of complete recovery together with interest. However, the contractor can submit part bank guarantees against the mobilization advance in as many numbers as the proposed recovery installments equivalent to the amount of each installment.

8.3 Notwithstanding what is contained in clause No. 8.1 & 8.2, no mobilization advance whatsoever shall be payable, if payment of mobilization advance is not mentioned in the memorandum to the form of tender.

9.0 PERFORMANCE GUARANTEE

Within 10 days from the date of issue of LOA / LOI, the tenderer shall submit Performance Guarantee amounting to 5% (Five percent) of the awarded value of work in the form of Demand Draft/fixed deposit in favour of NPCC Ltd. or Bank Guarantee from the Nationalized/Scheduled Bank (as per list enclosed) of equivalent value. No interest will be paid under any circumstances. The Performance Bank Guarantee shall remain valid till completion of project/taking over by client whichever is later. This Performance Guarantee initially be submitted with the validity till scheduled completion period as per tender document but in case of extension of completion due to any reason, it is the responsibility of the agency to get it extended one month prior to its expiry without any claim on it, in case of failure, NPCC may get it en-cashed without giving any notice. An amount is to be deposited equivalent to 0.01% per day of the amount of Performance Guarantee for extended /delayed period of submission of Performance Guarantee. In no case the extension will be granted for more than 15 days. In case of non-submission of Performance Guarantee within stipulated / extended period, it will be presumed that agency is not interested in the work and EMD submitted will be forfeited without any notice.

If the bid of the successful bidder is seriously unbalanced in relation to the Engineer's estimate of the cost of work to be performed under the contract, the Employer may require the bidder to produce detailed price analysis for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices. After evaluation of the price analysis, the Employer may require that the amount of the Performance Security set forth in ITB be increased at the expense of the successful bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful bidder under the Contract. The amount of the increased Performance Security shall be decided at the sole discretion of the Employer, which shall be final, binding and conclusive on the bidder. The detailed price analysis produced by bidder if not found satisfactory, the bid will be rejected.

On receipt of the Performance Guarantee in the form of DD/FDR/BG & duly confirmed from issuing branch, the EMD will be refunded. EMD deposited in the form of Banker's Cheque /Demand draft will be refunded directly to bidder's bank account through Electronic mode.

10.0 SECURITY DEPOSIT

The security deposit will be deducted from the successful contractor at the rate of 10% from the Gross value of each R/A bills till it reaches **5% of the contract value**. No interest will be paid on the Security Deposit under any circumstances. The total security deposit will be refunded only after expiry of defect liability period. However after successful



completion of work 50% of the security deposit can be released against bank guarantee from any Nationalized/Scheduled Bank as per approved format.

11.0 MOBILISATION OF MEN, MATERIALS AND MACHINERY:

- 11.1 All expenses towards mobilization at site and de-mobilization including bringing in equipment, work force, materials, dismantling the equipment, clearing the site etc. shall bedeemed to be included in prices quoted and no separate payment on account of such expenses shall be entertained.
- 11.2 It shall be the responsibility of the Contractor to provide, operate and maintain all necessary construction equipments, scaffoldings and safety, gadget, lifting tackles, tools and appliances to perform the work in a workman like and efficient manner and complete all jobs as per the specifications and within the schedule time of completion of work. Further, contractor shall also be responsible for obtaining temporary electric and water connection for all purposes. The contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.
- 11.3 It shall be the responsibility of the contractor to obtain the approval for any revision and/ or modification of work desired by him from NPCC before implementation. Also such revisions and/or modifications if accepted / approved by the NPCC shall be carried at no extra cost to NPCC.
- 11.4 The procurement and supply in sequence and at the appropriate time of all materials and consumable shall be entirely the contractor's responsibilities and his rates for execution of work shall be inclusive of supply of all these items.
- 11.5 It is mandatory for the contractor to provide safety equipments and gadgets to its all workers, supervisory and Technical staff engaged in the execution of the work while working. The cost of the above equipments/ gadgets are deemed to be included in the rates quoted by the contractor for the items & works as per Bill of Quantities and contractor shall not be entitled for any extra cost in these regard. The above norm is to be strictly complied with at site. In case the contractor is found to be deficient in providing Safety Equipments/ Gadgets in the opinion of Engineer-in-charge, the Engineer-in-charge at his option can procure the same at the risk & cost of contractorand provide the same for the use of worksite and shall make the recoveries from the bills of the contractor for the same. The decision of the Engineer-in-charge shall be final and binding on contractor in this regard.
- 11.6 All designs, drawings, bill of quantities, etc. shall be supplied to the contractor for works by NPCC in phased manner as the works progress. However it shall be the duty and responsibility of the contractor to bring to the notice of the NPCC in writing as to any variation, discrepancy or any other changes required and to obtain revised drawings and designs and / or approval of the NPCC in writing for the same.
- 11.7 One copy of contract documents including drawings furnished to the contractor shall be kept at the site and the same shall at all reasonable times be available for inspection.
- 11.8 All materials, construction plants and equipments etc. once brought by the contractor within the project area, will not be allowed to be removed from the premises without the written permission of the NPCC. Similarly, all enabling works built by the contractor for the main construction undertaken by him, shall not be dismantled and removed without the written authority of the NPCC.

44



12.0 INCOME TAX DEDUCTION

Income tax deductions shall be made from all payments made to the contractor including advances against work done, as per the rules and regulations in force, in accordance with the Income Tax Act prevailing from time to time.

13.0 TAXES AND DUTIES

- 13.1 The contract price is inclusive of all taxes, duties, cess and statutory levies payable under any law including but not restricted to Goods and Service Tax (GST) levied by Union and State Governments (CGST, SGST, UTGST, IGST), labourcess, Custom Duty, Royalty, Toll Tax and any other such taxes and duties leviable by Local/State/Union Government from time to time on all such articles, materials which may be used for this work or any other tax (duty etc.) paid by the contractor.
- 13.2 In case of any change in rate of tax or any provision relating levy of tax resulting in increase in burden of tax on the contractor, the contractor shall not be entitled to receive any compensation for such increase in quantum of tax on the contractor. Similarly, no recovery shall be made from the contractor on account of decrease of rate of tax or any provision relating to levy of tax.
- 13.3 Contractor must be registered under Goods and Service Tax (GST) laws, and copy of the registration certificate of the same shall be submitted to NPCC.
- 13.4 Apart from the registration as mentioned at 13.3 above contractors shall also obtain all other necessary registrations required under any other Local/State/Union Government Statute, for the execution of this contract, if any.
- 13.5 Contractor must submit as a compliance of GST Laws, Tax Invoice, as per applicable rules and regulations under the GST Act(s), failing which GST amount will be recovered by NPCC without any recourse or prior notice from the next invoices/Security Deposit/Bank Guarantees and/or available dues with NPCC.
- 13.6 The contractor/service provider shall be responsible for issuing of Tax Invoices, filing of statutory return and deposit of statutory taxes within the time limit as prescribed in law. Any interest/Penalty/taxes (non availment of Input Tax Credit due to mismatch to GSTR2) which is required to be paid by NPCC due to default by the contractor/service provider to comply with the above-mentioned activity/provisions as prescribed in laws, rules and regulations shall be recovered from the contractor/Service provider and adjustment shall be made when mismatch is attended and solved and credit is extended to NPCC.
- 13.7 Apart from compliance mentioned at 13.6 above, in the event of nonpayment/default in payment of taxes and duties and any other statutory compliances, under any other Local/State/Union Government Statute, NPCC reserves the right to withhold the dues/payment of contractor and make payment to Local/State/Union Government authorities or to Labourers, as may be applicable.
- 13.8 It is clearly understood that the contractor is fully aware of all GST Laws and his Liabilities and responsibilities under the said laws including but not restricted to correct HSN/SAC code, applicable rate of taxes of GST or otherwise on which his liability has to be paid and discharged. NPCC shall have no liability or responsibility for any penalty or



proceedings or any other liability levied or leviable on the contractor because of lower deduction or any other such non-compliance of the contractor.

- 13.9 Bidders will examine the various provisions of the Central Goods and Service Tax Act.,2017 (CGST)/ Goods and Service Tax Act (IGST)/Union Territory Goods and Service Tax Act,2017 (UTGST)/respective state's State Goods and Service Tax Act (SGST) also, as notified by Central/State Government and as amended from time to time and applicable taxes before bidding. Bidders will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- 13.10 Anti-Profiteering Clause upon implementation of GST any reduction in tax on account of anti-profiteering on supply of goods or services, the benefit of input tax credit shall be passed on to NPCC by way of commensurate reduction in prices.
- 13.11 In case of any law requires NPCC to pay tax on the contract price on reverse charge basis, the amount of tax deposited by NPCC would be considered as per Income Tax Act, GST Laws or any other law as applicable.
- 13.12 Stamp duty and registration charges, if any, payable on the executed contract document, shall be borne by the contractor.

14.0 ROYALTY ON MATERIALS

The contractor shall deposit royalty and obtain necessary permit for supply of bajri, stone, kankar, sand etc. from the local authorities and quoted rates shall be inclusive of royalty on any account whatsoever.

15.0 RATES TO BE FIRM

- 15.1 The Percentage rates quoted by the tenderer shall be firm and fixed for the entire period of completion and till handing over of the work. No revision to Percentage rates or any escalation shall be allowed on account of any increase in prices of materials, labour, POL and Overheads etc. or any other statutory increase during the entire contract period or extended contract period.
- 15.2 The contractor shall be deemed to have inspected the site, it's surrounding and acquaintedwith the nature of the ground, accessibility of the site and full extent andnature of all operations necessary for the full and proper execution of the contract, space forstorage of materials, constructional plant, temporary works, restrictions on the plying ofheavy vehicles in area, supply and use of labour, materials, plant, equipment and laws, rulesand regulations, if any, imposed by the local authorities.
- 15.3 The rates and prices given in the bill of quantities are for completed and finished items of works and complete in all respects. It will be deemed to include all constructional plant, labour, supervision, materials, transport, all temporary works, erection, maintenance, contractor's profit and establishment/ overheads, together with preparation of designs & drawings pertaining to casting yard, shop drawing, fabrication drawing (if required), staging form work, stacking yard, etc. all general risk, taxes, royalty ,duties, cess, octroi and other levies, insurance liabilities and obligations set out or implied in the tender documents and contract.
- 15.4 Unless otherwise specified in the Bill of Quantities (BOQ), the contractor has to make his own arrangement for dewatering/ bailing out of water, effluent including strutting, shoring etc.at every stage of work wherever required including working under foul



condition as perdirection of Engineer-in-Charge at his own cost and the contractor shall not be entitled forany extra payment, whatsoever, in this regard.

- 15.5 If required to make work site suitable for execution, contractor shall have to clear jungle including of rank vegetation, grass, trees etc., clear & clean existing drains/ canals (including strutting, shoring and packing cavities) and dispose them out of the site up-to any lead and lift as per direction of Engineer-in-charge. The contractor should inspect the site of work from this point of view. Unless otherwise specified in the Bill of Quantities, the cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the contractor shall not be entitled for any extra payment in this regard.
- 15.6 If any temporary/ permanent structure is encountered or safety of such structure in the vicinity is endangered due to execution of the project, the contractor has to protect the structures by any means as per the directions of the Engineer in Charge. If any damage caused to any temporary or permanent structure(s) in the vicinity is caused due to execution of the project, the contractor has to make good the same by any means as per directions of the Engineer in Charge. The contractor should inspect the site of work from this point of view. The cost to be incurred in this regard shall be deemed to be included in his quoted rates of BOQ items and the contractor shall not be entitled for any extra payment in this regard.

16.0 ESCALATION/ PRICE VARIATION

No claim on account of any price variation / Escalation on whatsoever ground shall be entertained at any stage of works. All Percentage rates as per Bill of Quantities (BOQ) quoted by Contractor shall be firm and fixed for entire contract period as well as extended period for completion of the works. No escalation/price variation clause shall be applicable on this contract.

17.0 INSURANCE OF WORKS ETC.

Contractor is required to take **contractor's all risk policy** or erection all risk policy (as the case may be) from an approved insurance company in the joint name with NPCC and bear all costs towards the same for the full period of execution of works including the defect liability period for the full amount of contract against all loss of damage from whatever cause arising other than excepted risks for which he is responsible under the terms of the contract and in such manner that the NPCC and the contractor are covered during the period of construction of works and/or also covered during the period of defect liability for loss or damage:

- a. The work and the temporary works to the full value of such works.
- b. The materials, constructional plant, centering, shuttering and scaffolding materials and other things brought to the site for their full value.

Whenever required by NPCC, the contractor shall produce the policy or the policies of insurance and the receipts for payment of the current premiums.

18.0 INSURANCE UNDER WORKMEN COMPENSATION ACT

Contractor is required to take insurance cover under the Workman Compensation Act, 1923 amended from time to time from an approved insurance company and pay premium charges thereof. Wherever required by NPCC the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums.



19.0 THIRD PARTY INSURANCE

Contractor is required to take third party insurance cover for an amount of 5% (five percent) of contract value from an approved insurance company for insurance against any damage, injury or loss which may occur to any person or property including that of NPCC, arising out of the execution of the works or temporary works. Wherever required by NPCC the contractor shall produce the policy or the policies of Insurance and the receipt of payment of the current premiums. In case of failure of the contractor to obtain contractors all risk policy, insurance under workmancompensation act and third-partyinsurance as described above within one month from the date of commencement of work, running account payments of the contractor shall be withheld till such time the contractor obtains the aforesaid insurance covers.

If the Contractor could not effect a comprehensive insurance cover against risks which he may be required to effect under the terms of the contract, then he shall give his attention to get the best insurance cover available and even in case of effecting a widerinsurance cover than the one which the subsidiary of the General Insurance Company could offer, such an insurance is ought to be done after the NPCC's approval, by or through the subsidiary of the General Insurance Company.

20.0 INDEMNITY AGAINST PATENT RIGHTS

The contractor shall fully indemnify the NPCC from and against all claims and proceedings for or on account of any infringement of any patent rights, design, trademark or name or other protected rights in respect of any construction plant, machine, work or material used for in connection with the works or temporary works.

21.0 LABOUR LAWS TO BE COMPLIED BY THE CONTRACTOR

The contractor shall obtain a valid license under the contract labour (R & A) Act 1970 and the contract labour Act (R&A) Central Rules 1971 and amended from time to time, and continue to have a valid license until the completion of the work including defect liability period. The contractor shall also abide by the provision of the child labour (Prohibition and Regulation) Act. 1986 and amended from time to time. Any failure to fulfill this requirement shall attract the penal provisions of this contract arising out the resultant for non-execution of the work before the commencement of work.

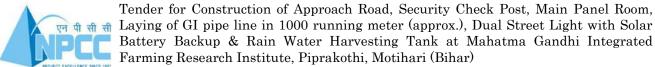
21.1 No labour below the age of 18 years shall be employed on the work.

22.0 LABOUR SAFETY PROVISION

The contractor shall be fully responsible to observe the labour safety provisions.

23.0 OBSERVANCE OF LABOUR LAWS

23.1 The contractor shall be fully responsible for observance of all labour laws applicable including local laws and other laws applicable in this matter and shall indemnify and keep indemnified NPCC against effect or non-observance of any such laws. The contractor shall be liable to make payment to all its employees, workers and subcontractors and make compliance with labour laws. If NPCC or the client/owner is held liable as "Principal Employer" to pay contributions etc. under legislation of Govt. or Court decision in respect of the employees of the contractor, then the contractor would reimburse the amount of such payments, contribution etc. to NPCC and/or same shall be deducted from the payments, security deposit etc. of the contractor.



- 23.2 The Contractor shall submit proof of having valid EPF registration certificate. In absence of the said certificate payment to the extent of 4.70% (four point seventy percent) of the value of the Running Account bill may be withheld by NPCC and shall be released only after the production of the EPF registration certificate from the concerned authorities. If it is incumbent upon NPCC to deposit withhold amount with EPF authorities, the withhold amount shall be deposited by NPCC with EPF authorities. In such a case NPCC hall not refund this withhold amount to the contractor even after the production of EPF registration certificate.
- 23.3 The contractor shall be liable to pay cess levied under the Building and other Construction Workers Welfare Cess Act, 1996, at such rates as may be notified by the Government from time to time. The NPCC shall deduct at source from every Running Account Bill of the Contractor, the said cess, at such rates for the time being prevailing, which shall not exceed 2% (two percent) but not be less than 1% (one percent) of the cost of construction incurred by the NPCC.

24.0 LAW GOVERNING THE CONTRACT

The Indian Laws shall govern this contract for the time being in force.

25.0 LAWS, BY LAWS RELATING TO THE WORK

The contractor shall strictly abide by the provisions, for the time being in force, of law relating to works or any regulations and bylaws made by any local authority or any water & lighting agencies or any undertakings within the limits of the jurisdiction of which the work is proposed to be executed. The contractor shall be bound to give to the authorities concerned such notices and take all approvals as may be provided in the law, regulations or bylaws as aforesaid, and to pay all fees and taxes payable to such authorities in respect thereof.

26.0 EMPLOYMENT OF PERSONNEL

- 26.1 The contractor shall employ only Indian Nationals as his representatives, servants and workmen after verifying their antecedents and loyalty. He shall ensure that no personnel of doubtful antecedents and any other nationality in any way are associated with the works.
- 26.2 The NPCC shall have full power and without giving any reason to the contractor, immediately to get removed any representative, agent, servant and workmen or employees on account of misconduct negligence or incompetence or whose continued employment may in his opinion be undesirable. The contractor shall not be allowed any compensation on this account.

27.0 TECHNICAL STAFF FOR WORK

- 27.1 The contractor shall employ at his cost the adequate number of technical staff during the execution of this work depending upon the requirement of work. For this purpose the numbers to be deployed, their qualification, experience as decided by NPCC shall be final and binding on contractor. The contractor shall not be entitled for any extra payment in this regard. The technical staff should be available at site, whenever required by NPCC to take instructions.
- 27.2 Within 15 days of letter of intent, the contractor shall submit a site organizational chart and resume including details of experience of the Project-in-Charge and other staff

proposed by him and shall depute them on the Project after getting approval from Engineer-in-Charge. If desired by the contractor at a later date, the Project-in-Charge and other staff whose resume is approved by NPCC can be replaced with prior written approval of NPCC and replacement shall be with equivalent or superior candidate only. Decision of Engineer-in-Charge shall be final and binding on the contractor.

Even after approving the site organizational chart, the Engineer-in-Charge, due to nature and exigency of work, can direct the contractor to depute additional staff as per the requirement.

The removal of such additional staff from the site shall only be with the prior written approval of Engineer-in-Charge. The contractor shall not be paid anything extra whatsoever on account of deployment of additional staff and decision of the Engineer-in-Charge shall be final and binding on the contractor.

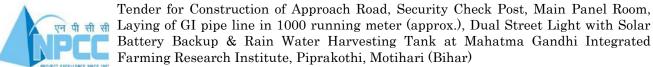
The desired numbers of personnel for the project are as follows:

Sl.No.	Contract Value	Graduate Engineers		Diploma Engineers	
		Civil	Mechanical/	Civil	Mechanical/
			Electrical		Electrical
1.	Up to 5.00 Crores	-	-	02	01
2.	More than 5.00 & Up to 10.00	01	-	02	01
	Crores				
3.	More than 10.00 & Up to 25.00	02	01	02	01
	Crores				
4.	More than 25.00 & Up to 50.00	03	01	03	01
	Crores				
5.	More than 50.00 & Up to 75.00	04	02	04	02
	Crores				
6.	More than 75.00 & Up to 100.00	05	02	06	03
7.	More than 100.00	06	03	08	04

27.3 In case the contractor fails to employ the staff as aforesaid he shall be liable to pay a reasonable amount not exceeding a sum of Rs. 40,000/- (Rupees forty thousand only) for each month of default in the case of each Graduate Engineer and Rs.25,000/- (Rupees twenty-five thousand only) in the case of each Diploma Engineer. The decision of the Engineer-in-charge as to the number of Technical Staff to be adequate for the project and the period for which the required technical staff was not employed by the contractor and as to the reasonableness of the amount to be deducted on this account shall be final and binding on the contractor.

28.0 LAND FOR LABOUR HUTS/ SITE OFFICE AND STORAGE ACCOMMODATION

28.1 The contractor shall arrange the land for temporary office, storage accommodation and labour huts at his own cost and get the clearance of local authorities for setting up of labour camp and same is deemed to be included in the rates quoted by the contractor for the works. The contractor shall ensure that the area of labour huts is kept clean and sanitary conditions are maintained as laid down by the local authorities controlling the area. The labour huts shall be so placed that it does not hinder the progress of work or access to the worksite. Contractor shall give the vacant possession of the land utilized for this purpose back after completion of the work. The security deposit of the contractor shall be released only after contractor demolishes all structures including foundations and gives back clear vacant possession of this land.



28.2 In the event the contractor has to shift his labour campus at any time during execution of the work on the instructions of local authorities or as per the requirement of the work progress or as may be required by NPCC, he shall comply with such instructions at his cost and risk and no claim whatsoever shall be entertained on this account.

28.3 FURNISHED OFFICE ACCOMMODATION & MOBILITY AND COMMUNICATION TO BE PROVIDED BY CONTRACTOR TO NPCC

On account of furnished Unit Office equipped with all facilities such as telephone, fax, internet, photocopier, computer/ laptop & printer along with operator, regular electric & purified drinking water supply etc. as per the requirement of the project an amount equal to 1% of gross bill from all running account & final bill will be recovered.

The contractor shall also make sufficient arrangement for Photography/ Videography preferably by maintaining a camera/video camera at site so that video photographs can be taken of a specific activity at any point of time. The contractor shall also provide software like MS Project etc. for the purpose of preparing progress report etc.

28.4 The contractor shall make all arrangements for ground breaking ceremony / inaugural function etc. for the project as required and the cost towards it deemed to be included in his rates/offer.

28.5 UTILISATION OF WORK FORCE OF NPCC BY THE CONTRACTOR

NPCC may supply skilled/semiskilled work force if available in surplus and required by the contractor, like work supervisors, masons, wireman, plumber etc. or any other category to assist the contractor in execution of the works at the fixed recovery rate of Rs. 20,000/- per month for each number of workforce (Rupees twenty thousand only per month) or any higher rate mentioned in the "Memorandum to the Form of Tender" against each work force, till handing over of the whole project.

Recoveries, as stated above will be made by NPCC from the monthly running account bills. The contractor shall deploy such work force on the execution of the works as per their trades and deployment shall be for the entire contract period till completion and handing over of works.

Further, the monthly rate per person is for the purpose of recovery only and in no way shall be construed to be the rate applicable for working out analysis, justification of rates, extra items, claims etc.

Sl. No.	Value of the Project as per agreement (Rs.in crores)	Number of work force of various categories
1.	From Rs.1 crore to 2.5 crore	1
2.	Above Rs.2.5 crore to 5 crore	3
3.	Above Rs.5 crore to 7.5 crore	4
4.	Above Rs.7.5 crore to 10 crore	6
5.	Above Rs.10 crore to 15 crore	8
6.	Above Rs.15 crore to 20 crore	10
7.	Above Rs.20 crore to 30 crore	12
8.	Above Rs.30 crore to 50 crore	15
9.	Above Rs.50 crore to 75 crore	20
10	Above Rs.75 crore up to any value.	25



29.0 WATCHING AND LIGHTING

The contractor shall at his own cost take all precautions to ensure safety of life and property by providing necessary barriers, lights, watchmen etc. during the progress of work as directed by Engineer-in-Charge.

30.0 HEALTH & SANITARY ARRANGEMENTS

In case of all labour directly or indirectly employed in work for the performance on the contractor's part of this contract, the contractor shall comply with all rules framed by Govt. from time to time for the protection of health and sanitary arrangements for workers.

31.0 WORKMEN'S COMPENSATION ACT

The contractor shall at all times indemnify NPCC and Owner against all claims for compensation under the provision of workmen's compensation Act or any other law in force, for any workmen employed by the contractor or his sub-contractor in carrying out the contract and against all costs and expenses incurred by the NPCC therewith.

32.0 MINIMUM WAGES ACT

The contractor shall comply with all the provisions of the minimum wages Act, 1948, contract labour Act (R&A) 1970, and rules framed there under and other labour laws/local laws affecting contract labour that may be brought into force from time to time.

33.0 LABOUR RECORDS

The contractor shall submit by the 4th & 19th of every month to the Engineer-in-Charge of NPCC a true statement, showing in respect of the second half of the preceding month and the first half of the current month, respectively, of the following data:

- a) The number of the labour employed by him (category-wise).
- b) Their working hours.
- c) The wages paid to them.
- d) The accidents that occurred during the said fortnight showing the circumstances under which they happened and the extent of damage and injury caused.
- e) The number of female workers who have been allowed Maternity Benefits and the amount paid to them.
- f) Any other information required by Engineer-in-Charge.

34.0 RELEASE OF SECURITY DEPOSIT AFTER LABOUR CLEARANCE

Security Deposit of the work shall not be refunded till the contractor produces a clearance certificate from the Labour Officer. As soon as the work is virtually complete, the contractor shall apply for the clearance certificate to the Labour Officer under intimation to the Engineer-in-Charge. The Engineer-in-Charge, on receipt of the said communication, shall write to the Labour Officer to intimate if any complaint is pending against the contractor in respect of the work. If no complaint is pending, on record till after 3 months after completion of the work and/or no communication is received from the Labour Officer to this effect till six months after the date of completion, it will be deemed to have received the clearance certificate and the Security deposit will be released if otherwise due.



35.0 SECURED ADVANCE AGAINST NON-PERISHABLE MATERIALS

Interest free secured advance up-to a maximum of 75 % (seventy five percent) of the Market Value of the Materials or the cost of materials as derived from the tendered item rate of the contractor, whichever is less, required for incorporation in the permanent works and brought to site and duly certified by NPCC Site Engineer shall be paid to the Contractor for all non-perishable items as per CPWD norms. The advance will be paid only on submission of Indemnity Bond in the prescribed pro-forma. The advance shall be recovered in full from next Running Account bill and fresh advance paid for the balance quantities of materials. The contractor shall construct suitable godown at the site of work for safe storing the materials against any possible damages due to sun, rain, dampness, fire, theft etc. at his own cost. He shall also employ necessary watch & ward establishment for the purpose at his costs and risks.

- 35.1 Payment of such advance shall be processed by NPCC with a certificate from an Officer notbelow the rank of Executive Engineer as under:
 - a) The quantities of material for which advance is to be made are required being claimed have actually been brought to site.
 - b) Full quantity of the material for which advance is to be made are required by the contractor for use on items of work for which rates for finished work have been agreed up on.
 - c) The quality of materials is as per desired specifications and having the desired test certificates from the approved laboratories.

36.0 MEASUREMENTS OF WORKS

Unless otherwise mentioned in the bill of quantities the measurements of works shall be done as per CPWD specifications (as specified in Technical Specification of the Tender) and if the same is not given in the CPWD Specifications, the same shall be measured as per latest relevant BIS codes in force. The quantity of steel reinforcement and the structural steel sections incorporated in the work shall be measured & paid on the basis of standard coefficients of sections as per BIS Codes of practice.

37.0 PAYMENTS

- 37.1 The bill shall be submitted by contractor each month on or before the date fixed by the Engineer-in-Charge for all works executed in previous months. The contractor shall prepare computerized bills using the program as approved by Engineer-in-Charge as per prescribed format/ pro-forma. The Contractor shall submit 3 numbers of hard copies and one soft copy for all bills, subject to clause 37.3 herein below, the payment due to the contractor shall be made within fifteen days of getting the measurements verified from the Engineer-in-Charge or his subordinate/ representative and certification of bill by the Engineer-in-Charge.
- 37.2 All running payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and / or accepted by NPCC and shall not preclude the recovery for bad, unsound and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the Contract, or any part thereof, in this respect, or the accruing of any claim, nor shall it conclude, determine or affect in any way the powers of the NPCC under these conditions or any of them as to the final settlement and adjustments of the accounts or otherwise, or in any other way vary/ affect

the contract. The contractor shall submit the final bill within three months of the completion of work, otherwise NPCC's certificate of the measurement and of the total amount payable for the work accordingly shall be final and binding on contractor.

Each Running Bills should be accompanied by two sets of photographs as per direction of Engineer-in-charge taken from various points depicting status of work as on Report/ Bill date along with Monthly Progress Report for the concerned month in the pro-forma to be given/ approved by Engineer-in-Charge. Intermittent progress Photographs as and when required shall also be provided by the Contractor at his own cost as per direction of Engineer-in-Charge. No payment of running account bill shall be released unless it is accompanied by progress photographs and Monthly Progress Report as above.

- 37.3 It is clearly agreed and understood by the Contractor that notwithstanding anything to the contrary that may be stated in the agreement between NPCC and the contractor, the contractor shall become entitled to payment only after NPCC has received the corresponding payment(s) from the client/ Owner for the work done by the contractor. Any delay in the release of payment by the client/ Owner to NPCC leading to a delay in the release of the corresponding payment by NPCC to the contractor shall not entitle the contractor to any compensation/ interest from NPCC.
- 37.4 All payments shall be released by NPCC by Payee's Account cheque from any of its offices in India directly at the address notified by the Contractor (Postage charges shall be charged to the contractor's account). In case of payments is made by Demand Draft at the request of the Contractor, Bank Commission charges shall be debited to the account of contractor.

38.0 WORK ON SUNDAYS, HOLIDAYS AND DURING NIGHT

For carrying out work on Sunday and Holidays or during night, the contractor will approach the Engineer-in-Charge or his representative at least two days in advance and obtain his permission.

The Engineer-in-Charge at his discretion can refuse such permission. The contractor shall have no claim on this account whatsoever. If work demand, the contractor shall make arrangements to carry out the work on Sundays, Holidays and in two, three shifts with the approval of Engineer-in-Charge at no extra cost to NPCC.

39.0 NO IDLE CHARGES TOWARDS LABOUR OR P&M ETC.

No idle charges or compensation shall be paid for idling of the contractor's labour, staff or P&M etc. on any ground or due to any reason whatsoever. NPCC will not entertain any claim in this respect.

40.0 WORK TO BE EXECUTED IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS AND ORDERS ETC.

The contractor shall execute the whole and every part of the work in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly, fully and faithfully to the design, drawings and instructions in writing in respect of the work assigned by the Engineer-in-Charge and the contractor shall be furnished free of charge one copy of the contract documents together with specifications, designs, drawings.

The contractor shall comply with the provisions of the contract and execute the works with care and diligence and maintain the works and provide all labour and materials,



tools and plants including for measurements and supervision of all works, structural plans and other things of temporary or permanent nature required for such execution and maintenance in so far as the necessity for providing these is specified or is reasonably inferred from the contract. The contractor shall take full responsibility for adequacy, suitability and safety of all the works and methods of construction.

41.0 **DIRECTION FOR WORKS**

- 41.1 All works to be executed under the contract shall be executed under the directions and subject to approval in all respects of the Engineer-in-Charge of NPCC who shall be entitled to direct at what point or points and in what manner the works are to be commenced and executed.
- 41.2 The Engineer-in-Charge and his representative shall communicate or confirm their instructions to the contractor in respect of the execution of work during their site inspection in a 'Works Site Order Book' maintained at the site office of Engineer-in-Charge. The contractor or his authorized representative shall confirm receipt of such instructions by signing against the relevant orders in the book.

42.0 ORDER OF PRECEDENCE OF DOCUMENTS

In case of difference, contradiction, discrepancy, dispute with regard to Conditions of Contract, specifications, Drawings, Bill of quantities and rates quoted by the Contractor and other documents forming part of the contract, the following shall prevail in order of precedence.

- i) Letter of Intent, Letter of Award, Work Order, Agreement along with statement of agreed variations and its enclosures.
- ii) Bill of Quantity / Schedule of Quantities.
- iii) Special Condition of Contract.
- iv) Technical specifications (General, Additional and Technical Specification) as give in Tender documents.
- v) General Conditions of Contract.
- vi) Drawings.
- vii) CPWD specifications (as specified in Technical Specification of the Tender) update with correction slips issued up to last date of receipt of tenders.
- viii) Relevant B.I.S. Codes.

43.0 TIME SCHEDULE & PROGRESS

- 43.1 Time allowed for carrying out all the works as entered in the tender shall be as mentioned in the Tender conditions. The Date of start of contract shall be reckoned 10 days after the date of issue of letter/Fax/E-mail of intent/acceptance of tender whichever is later. Time shall be the essence of the contract and contractor shall ensure the completion of the entire work within the stipulated time of completion.
- 43.2 The contractor shall also furnish within 10 days of date of receipt of letter of Intent, a CPM network/ PERT chart/ Bar Chart for completion of work within stipulated time. This will be duly got approved from NPCC. This approved Network/ PERT Chart shall form a part of the agreement. Achievement of milestones as well as total completion has to be within the time period allowed.
- 43.3 Contractor shall mobilize and employ sufficient resources for completion of all the works as indicated in the agreed BAR CHART/Network. No additional payment will be made to

the contractor for any multiple shift work or other incentive methods contemplated by him in his work schedule even though the time schedule is approved by the Engineer-in-Charge.

- During the currency of the work the contractor is expected to adhere to the time schedule on miles stone and total completion and this adherence will be a part of Contractor's performance under the contract. During the execution of the work contractor is expected to participate in the review and updating of the Network/ BAR CHART undertaken by the NPCC. These reviews may be undertaken at the discretion of NPCC either as a periodical appraisal measure or when the quantum of work order on the contractor is substantially changed through deviation orders or amendments. The review shall be held at site or any of the offices of NPCC/ owner / consultant at the sole discretion of NPCC. The contractor will adhere to the revised schedule thereafter. The approval to the revised schedule resulting in a completion date beyond the stipulated date of completion shall not automatically amount to a grant of extension of time to the contractor.
- 43.5 Contractor shall submit fortnightly/ Monthly (as directed by Engineer-in-Charge) progress reports) on a computer based program (program and software to be approved by Engineer-in-Charge) highlighting status of various activities and physical completion of work.
- 43.6 The contractor shall send completion report with as built drawings and maintenance schedule to the office of Engineer-in-Charge, of NPCC in writing within a period of 30 days of completion of work.

44.0 WATER AND ELECTRICITY

The contractor shall make his own arrangement for Water & Electrical power for construction and other purposes at his own cost and pay requisite electricity and water charges. The contractor shall also make standby arrangement for water & electricity to ensure un-interrupted supply.

45.0 MATERIALS TO BE PROVIDED BY THE CONTRACTOR

The contractor shall, at his own expense, provide all materials, required including Cement & Steel & other construction Materials for the works.

The contractor shall at his own expense and without delay, supply to the Engineer-in-Charge samples of materials to be used on the work and shall get the same approved in advance. All such materials to be provided by the Contractor shall be in conformity with the specifications laid down or referred to in the contract. The contractor shall, if required by the Engineer-in-Charge furnish proof, to the satisfaction of the Engineer-in-Charge that the materials so comply.

The contractor shall at his risk and cost submit the samples of materials to be tested or analyzed and bear all charges and cost of testing unless specifically provided or otherwise elsewhere in the contract or specifications. The Engineer-in-Charge or his authorized representative shall at all times have access to the works and to all workshops and places 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 and every assistance and cost in obtaining the right and visit to such access.

The Engineer-in-Charge shall have full powers to require the removal from the premises of all materials, which in his opinion are not in accordance with the specifications and in case of default, the Engineer-in-Charge shall be at liberty to employ at the expense of the contractor, other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials. The Engineer-in-Charge shall also have full power to require other proper materials to be substituted thereof and in case of default, the Engineer-in-Charge may cause the same to the supplies and all costs which may require such removal and substitution shall be borne by the contractor.

45.1 CEMENT AND CEMENT GODOWN

Cement shall be procured by Contractor confirming to BIS: 8112 Specification latest edition or higher Grade as directed by the Engineer-in-Charge. The cement shall be procured directly from the reputed manufacturers/ stockiest, which will have to be got approved from NPCC in advance. Relevant vouchers and test certificates will be produced as and when required. The cement shall be stored by the contractor in such suitable covered and lockable stores, well protected from climate and atmospheric affect. The cement godown shall be constructed by the contractor as per CPWD specifications at his own cost. The cement in bags shall be stored in godowns in easy countable position. Cement bags shall be used on first in first out basis. Cement stored for beyond 90 days will be required to be tested at contractors cost, before use in works.

45.2 STEEL & STEEL STOCKYARD

Steel confirming to BIS specifications (latest edition) shall be procured by the contractor directly from reputed manufacturers/producers as per approved list of NPCC. The manufacturer has to give a certificate that the material supplied is not a re-rolled product. The contractor will produce relevant vouchers & test certificates. Re-rolled sections will not be allowed.

Reinforcement steel, structural steel shall be stored and stacked in such manner so as to facilitate easy identification, removal etc. The contractor shall take proper care to prevent direct contact between the steel and the ground/ water for which he shall provide necessary arrangement at his own cost including ensuring proper drainage of area to prevent water logging as per directions of the Engineer-in-Charge. Steel shall also be protected, by applying a coat of neat cement slurry over the bars for which no extra payment shall be made.

Test certificates for each consignment of steel shall be furnished and tests to be got carried out from the authorized laboratory as per the directions of Engineer-in-Charge, before incorporating the materials in the work.

46.0 SCHEDULE OF QUANTITIES / BILL OF QUANTITIES / QUANTITY VARIATION

46.1 The work under this contract shall be carried out as per BOQ cum rate schedule. In case the description /specification as per BOQ are found to be incomplete CPWD specifications shall be followed. Quantities mentioned in the rate schedule are approx. only and liable for variation due to change of scope of work/variation in schedule of quantities, changes in design etc. The tenderers shall under take to execute actual quantities as per advice of NPCC engineer and accordingly the final contract price shall be worked out on the basis of quantities actually executed at site in payments will also be regulated for the same. The quantities indicated against each item may vary to any extent and no compensation will be payable in variation of individual quantity to the extent sanction is available.



46.2 All items of work in the bill of quantities/ schedule of quantities shall be carried out as per the CPWD specifications, drawings and instructions of the Engineer-in-Charge of NPCC and the rates shall include for supply of required materials including proper storage, consumables, skilled & unskilled labour, supervision and tools, tackles, plant & machinery complete as called for in the detailed specifications and conditions of the contract. The Contractor without the approval of the NPCC shall execute no item, which is not covered in the bill of quantities. In case any Extra/Substituted item is carried out without specific-approval, the same will not be paid.

47.0 ANTI-TERMITE TREATMENT & WATER PROOF TREATMENT

- 47.1 Pre-construction treatment shall be carried out in co-ordination with the building work and shall be executed in such a manner that the civil works are not hampered or delayed by the anti-termite treatment. The treatment shall be carried out as detailed in BIS:6313 (Part-II) latest revision. The waterproof treatment shall be of type and specifications as given in the schedule of quantities.
- 47.2 The treatment against water-proofing of basement, roofs, water retaining areas and termite infestation shall be and remain fully effective for a period of not less than 10(Ten) years to be reckoned from the date of expiring of the Defect Liability period, prescribed in the contract. At any time during the said guarantee period if NPCC finds any defects in the said treatment or any evidence of re-infestation, dampness, leakage in any part of buildings or structure and notifies the contractor of the same, the contractor shall be liable to rectify the defect or give re-treatment and shall commence the work or such rectification or re-treatment within seven days from the date of issue of such letter to him. If the contractor fails to commence such work within the stipulated period, the NPCC may get the same done by another agency at the Contractor's cost and risk and the decision of the Engineer-in-Charge of NPCC for the cost payable by the contractor shall be final and binding upon him.
- 47.3 Re-treatment if required shall be attended to and carried out by the Contractor within seven days of the notice from Engineer-in-Charge of NPCC.
- 47.4 The NPCC reserves the right to get the quality of treatment checked in accordance with recognized test methods and in case it is found that the chemicals with the required concentration and rate of application have not been applied, or the water proof treatment is not done as per specifications, the contractor will be required to do the re-treatment in accordance with the required concentration & specifications at no extra cost failing which no payment for such work will be made. The extent of work thus rejected shall be determined by NPCC.
- 47.5 Water proofing and anti-termite treatment shall be got done through approved / specialized agencies only with prior approval of Engineer-in-Charge.
- 47.5a. The contractor shall make such arrangement as may be necessary to safe guard the workers and residents of the building against any poisonous effect of the chemicals used during the execution of the work.
- 47.6 During the execution of work, if any damage shall occur to the treatment already done, either due to rain or any other circumstances, the same shall be rectified and made good to the entire satisfaction of Engineer-In-Charge by the contractor at his costs and risks.
- 47.7 The contractor shall make his own arrangement for all equipments required for the execution of the job.



47.8 The contractor whose tender is accepted shall execute Guarantee Bond in the prescribed form as appended for guaranteeing the anti-termite treatment and water proof treatment.

48.0 INDIAN STANDARDS

Wherever any reference is made to any IS in any particular specifications, drawings or bill of quantities, it means the Indian Standards editions with the amendments current at the last date of receipt of tender documents.

49.0 CENTERING & SHUTTERING

Marine plywood only or steel plates of minimum thickness as approved by Engineer-in-Charge shall be used for formwork. The shuttering plates shall be cleaned and oiled after every repetition and shall be used only after obtaining approval of NPCC's Engineers at site. The number of repetitions allowed for plywood and steel shuttering shall be at the discretion of Engineer-in-Charge of NPCC depending upon the condition of shutteringsurface after each use and the decision of Engineer-in-Charge in this regard shall be final and binding on the contractor. No claim whatsoever on this account shall be admissible.

50.0 PROPRIETARY MATERIALS

- 50.1 The following proprietary materials shall be brought to site after the approval of NPCC.
 - a) Water Proofing Compound
 - b) Cement
 - c) Steel
 - d) Bitumen
 - e) Primer/Paints/Varnish etc.
 - f) Chemical for anti-termite treatment
 - g) Any other materials as per discretion of the NPCC.
- 50.2 The quantity of proprietary materials shall be measured and recorded in the Measurement books and signed by the Contractor and the Engineer-in-Charge as a check to ensure that the required quantities as required for execution of works as per specifications have to be brought to site for incorporation in the work.
- 50.3 Proprietary materials brought at site shall be stored as directed by NPCC and those already recorded in Measurement book, shall be suitably marked for identification.
- 50.4 The contractor shall ensure that the proprietary materials are brought to site in original sealed containers or packing bearing manufacturer's markings and brands (except where the quantity required is a fraction of the smallest packing). Materials not complying with this requirement shall be rejected. The empty containers of such proprietary materials shall not be destroyed/ disposed-off without the permission of NPCC.
- 50.5 The contractor shall produce receipted vouchers showing quantities of the materials to satisfy Engineer-in-Charge that the materials comply with the specifications. These vouchers shall be endorsed, dated and initialed by Engineer-in-Charge giving the contract number and name of work and a certified copy of each such voucher signed both by NPCC and the Contractor shall be kept on record.



51.0 RECORDS OF CONSUMPTION OF MATERIALS

- 51.1 For the purpose of keeping a record of materials (Steel & Cement) received at site and consumed in works, the contractor shall maintain a properly bound register in the form approved by the NPCC, showing columns like quantity received and used in work and balance in hand etc. This register shall be signed daily by the contractor's representative and NPCC's representative.
- 51.2 The register of material shall be kept at site in the safe custody of NPCC's Engineer during progress of the work. This provision will not, however, absolve the contractor from the quality of the final product.
- 51.3 In case cement or steel quantity consumed is lesser as compared to the theoretical requirement of the same as per CPWD (as the case may be) specifications/ norms, the work will be devalued and/ or a penal rate (i.e. double the rate at which cement/ steel purchased last) recovery for lesser consumption of cement/ steel shall be made in the rates of the work done subject to the condition that the tests results fall within the acceptable criteria as per CPWD (as the case may be) specifications otherwise the work shall have to be dismantled and redone by the contractor at no extra cost.

In case of cement, if actual consumption is less than 98% of the theoretical consumption, a recovery shall be effected from the contractor's dues at the penal rate(Prescribed under relevant clauses of I.S. Code) for the actual quantity, which is lower than 98% of theoretical consumption.

52.0 MATERIALS AND SAMPLES

52.1 The materials/ products used on the works shall be one of the approved make/ brands out of list of manufacturers/ brands/ makes given in the tender documents. The contractor shall submit samples/ specimens out of approved makes of materials/ products to the Engineer-in-Charge for prior approval. In exceptional circumstances Engineer-in-Charge may allow alternate equivalent makes/ brands of products/ materials at his sole discretion. The final choice of brand/ make shall remain with the Engineer-in-Charge, whose decision in this matter shall be final and binding and nothing extra on this account shall be payable to the Contractor.

In case no make or brand of any materials, articles, fittings and accessories etc. is specified, the same shall comply with the relevant Indian Standard Specifications and shall bear the ISI/BIS mark. The Engineer of NPCC and the owner shall have the discretion to check quality of materials and equipments to be incorporated in the work, at source of supply or site of work and even after incorporation in the work. They shall also have the discretion to check the workmanship of various items of work to be executed in this work. The contractor shall provide the necessary facilities and assistance for this purpose.

- 52.2 The above provisions shall not absolve the contractor from the quality of final product and in getting the material and workmanship quality checked and approved from the Engineer-in-Charge of NPCC.
- 52.3 The contractor shall well in advance, produce samples of all materials, articles, fittings, accessories etc. that he proposes to use and get them approved in writing by NPCC. The



materials articles etc. as approved shall be labeled as such and shall be signed by NPCC and the Contractor's representative.

- 52.4 The approved samples shall be kept in the custody of the Engineer- in-Charge of NPCC till completion of the work. Thereafter the samples except those destroyed during testing shall be returned to the contractor. No payment will be made to the contractor for the samples or samples destroyed in testing.
- 52.5 The brands of all materials, articles fittings etc. approved together with the names of the manufacturers and firms from which supplies have been arranged shall be recorded in the site order book.
- 52.6 The contractor shall set up and maintain at his cost, a field-testing laboratory for all day-to-day tests at his own cost to the satisfaction of the Engineer-in-Charge. This field-testing laboratory shall be provided with equipment and facilities to carry out all mandatory field tests as per CPWD (as the case may be) specifications. The laboratory building shall be constructed and installed with the appropriate facilities; Temperature and humidity controls shall be available wherever necessary during testing of samples.

All equipments shall be provided by the Contractor so as to be compatible with the testing requirements specified. The Contractor shall maintain all the equipments in good working condition for the duration of the contract.

The Contractor shall provide approved qualified personnel to run the laboratory for the duration of the Contract. The number of staff and equipment available must at all times be sufficient to keep pace with the sampling and testing programme as required by the Engineer-in-charge.

The Contractor shall fully service the site laboratory and shall supply everything necessary for its proper functioning, including all transport needed to move equipment and samples to and from sampling points on the site, etc. The Contractor shall recalibrate all measuring devices whenever so required by the Engineer-in-charge and shall submit the results of such measurements without delay. All field tests shall be carried out in the presence of NPCC representative. All costs towards samples, materials, collection, transport, manpower, testing etc. shall be borne by the Contractor and are deemed to be included in the rates quoted by him in the bill of quantities.

53.0 TESTS AND INSPECTION

53.1 The contractor shall carry out the various mandatory tests as per specifications and the technical documents that will be furnished to him during the performance of the work.

All the tests on materials, as recommended by CPWD and relevant Indian Standard Codes or other standard specifications (including all amendments current at the last date of submission of tender documents) shall be got carried out by the contractor at the field testing laboratory or any other recognized institution/ laboratory, at the direction of the NPCC. All testing charges, expenses etc. shall be borne by the contractor.

All the tests, either on the field or outside laboratories concerning the execution of the work and supply of materials shall be got carried out by the contractor or NPCC at the cost of the Contractor.



53.2 WORKS TO BE OPEN TO INSPECTION

All works executed or under the course of execution in pursuance of this contract shall at all times be open to inspection and supervision of the NPCC. The work during its progress or after its completion may also be inspected, by Chief Technical Examiner of Government of India (CTE) and/ or an inspecting authority of State Government of State in which work is executed and/or by third party checks by owner/ clients. The compliance of observations/ improvements as suggested by the inspecting officers of NPCC/CTE/State Authorities/ Owners shall be obligatory on the part of the Contractor at the cost of contractor.

54.0 BORROW AREAS

The contractor shall make his own arrangements for borrow pits and borrow disposal areas including their approaches and space for movement of man, machinery, other equipments as required for carrying out the works. The contractor shall be responsible for taking all safety measures, getting approval, making payment of royalties, charges etc. and nothing extra shall be paid to the contractor on this account andrates quoted by the contractor for various items of bill of quantities shall deemed to include the same.

55.0 BITUMEN WORK

55.1 The contractor shall collect the total quantity of tar or bitumen required for the work as per standard formula, before the process of painting started and shall hypothecate it to the Engineer-in-Charge. Although the materials are hypothecated to NPCC the Contractor undertakes the responsibility for their proper watch, safe custody and protection against all risks. The materials shall not be removed from site of work without the consent of the Engineer-in-charge in writing.

56.0 CARE OF WORKS

From the commencement to the completion of works and handing over, the contractor shall take full responsibility for care thereof all the works and in case of any damage/loss to the works or to any part thereof or to any temporary works due to lack of Precautions or due to negligence on part of Contractor, the same shall be made good by the Contractor.

57.0 WORK IN MONSOON AND DEWATERING

The execution of the work may entail working in the monsoon also. The contractor must maintain labour force as may be required for the job and plan and execute the construction and erection according to the prescribed schedule. No special/extra rate will be considered for such work in monsoon. The contractor's rate shall be considered inclusive of cost of dewatering required if any and no extra rate shall be payable on this account.

58.0 NO COMPENSATION FOR CANCELLATION/ REDUCTION OF WORKS

If at any time after the commencement of the work the NPCC shall for any reason whatsoever is required to abandon the work or is not require the whole work thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor, who shall have no claim to any payment of compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out or fore-closure, neither shall he have any claim for compensation by reason of any alterations having been made in

the original specifications, drawings, designs and instructions which shall involve any curtailment of the work as originally contemplated. Provided that the contractor shall be paid the charges on the cartage only of materials actually and bonafide brought to the site of the work by the contractor and rendered surplus as a result of the abandonment or curtailment of the work or any portion thereof and then taken back by the contractor, provided however, that the Engineer-in-Charge shall have in all such cases the option of taking over all or any such materials at their purchase price or at local current rates whichever may be less. In the case of such stores having been issued by NPCC and returned by the Contractor to NPCC, credit will be given to him by the Engineer-in-Charge at rates not exceeding those at which they were originally issued to him after taking into consideration any deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of the Engineer-in-Charge shall be final.

59.0 RESTRICTION ON SUBLETTING

- 59.1 The contractor shall not sublet or assign the whole or part of the works except where otherwise provided, by the contract and even then only with the prior written consent of the NPCC and such consent if given shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults or neglects of any sub-contractor, his agents, servants or workman as full as if they were the acts, defaults or neglects of the contractor, his agent, servants or workman provided always that the provision of labour on piece work basis shall not be deemed to be a subletting under this clause.
- 59.2 The contractor may entrust specialized items of works to the agencies specialized in the specific trade. The contractor shall give the names and details of such firm whom it is going to employ for approval of NPCC. These details shall include the expertise, financial status, technical manpower, equipment, and resources and list of works executed and on hand of the specialist agency.

60.0 PROHIBITION OF UNAUTHORISED CONSTRUCTION & OCCUPATION

No unauthorized buildings, construction of structures should be put up by the contractor anywhere on the project site, neither any building built by him shall be un-authorisedly occupied by him or his staff.

61.0 CO-ORDINATION WITH OTHER AGENCIES

Work shall be carried out in such a manner that the work of other Agencies operating at the site is not hampered due to any action of the Contractor. Proper Co-ordination with other Agencies will be Contractor's responsibility. In case of any dispute the decision of NPCC shall be final and binding on the contractor. No claim whatsoever shall be admissible on this account.

62.0 SETTING OUT OF THE WORKS

The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position, levels, dimensions and alignment of all parts of theworks. If at any time during the progress of works, shall any error appear or arise in the position, levels, dimensions or alignment of any part of the works, the contractor shall at his own expenses rectify such error to the satisfaction of Engineer-in- charge. The checking of any setting out or of any line or level by the engineers of NPCC shall not in any way relieve the contractor of his responsibility for the correctness.



63.0 NOTICE BEFORE COVERING UP THE WORK

The contractor shall give not less than seven days' notice before covering up or otherwise placing beyond the reach of measurement any work, to the Engineer-in-charge in order that the same may be inspected and measured. If any work is covered up or placed beyond the reach of Inspection/ measurement without such notice or his consent being obtained the same shall be uncovered at the contractors' expenses and he shall have to make it good at his own expenses.

64.0 SITE CLEARANCE

- 64.1 The contractor shall ensure that the working site is kept clean and free of obstructions for easy access to job site and also from safety point of view. Before handing over the work to the NPCC the contractor shall remove all temporary structures like the site offices, cement godown, stores, labour hutments etc., scaffolding rubbish, left over materials tools and plants, equipments etc., clean and grade the site to the entire satisfaction of the Engineer-in-charge. If this is not done the same will be got done by NPCC at his risk and cost.
- 64.2 The contractor shall clean all floors, remove cement/ lime/ paint drops and deposits, cleanjoinery, glass panes etc., touching all painter's works and carry out all other necessary items of works to make the premises clean and tidy before handing over the building, and the percentage rates quoted by the contractor shall be deemed to have included the same.

65.0 VALUABLE ARTICLES FOUND AT SITE

All gold, silver and other minerals of any description and all precious stones, coins, treasure, relics, antiques and all other similar things which shall be found in, under or upon the site, shall be the property of the owner/ Government and the contractor shall duly preserve the same to the satisfaction of Engineer-in-charge and shall from time to time deliver the same to such person or persons indicated by the NPCC.

66.0 MATERIALS OBTAINED FROM DISMANTLEMENT TO BE OWNER'S PROPERTY

All materials like stone, boulders and other materials obtained in the work of dismantling, excavation etc. will be considered owner/ government property and may be issued to the contractor by the owner/ NPCC, if required for use in this work at rates approved by NPCC or the contractor may be asked to dispose these items at his cost.

67.0 SET-OFF OF CONTRACTOR'S LIABILITIES

NPCC shall have the right to deduct or set off the expenses incurred or likely to be incurred by it in rectifying the defects and/or any claim under this agreement against the Contractor from any or against any amount payable to the contractor under this agreement including security deposit and proceeds of Performance Guarantee.

68.0 MATERIALS PROCURED WITH THE ASSISTANCE OF NPCC

If any material for the execution of this contract is procured with the assistance of NPCCeither by issue from its stores or purchase made under orders or permits or licenses obtained by NPCC, the contractor shall hold and use the said materials economically and solely for the purpose of this contract and shall not dispose them without the permission of Engineer-in-charge. The contractor, if required by the NPCC, shall return all such surplus or unserviceable materials that may be left with him after

64

THE THE PLANE TO T

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

the completion of the contract or at its termination on whatsoever reason, on being paid or credited such price as the NPCC shall determine having due regard to the conditions of materials.

69.0 ALTERATION IN SPECIFICATION, DESIGN & DRAWING

- 69.1 The Engineer-in-Charge shall have power to make any alterations in, omissions from, additions to or substitutions for, the original specifications, drawings, designs and instructions that may appear to him to be necessary during the progress of the work, and the contractor shall carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge and such alterations, omissions, additions, or substitutions shall not invalidate the contract and any altered, additional or substituted 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. The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work, and the certificate of the Engineerin-Charge shall be conclusive as to such proportion. Over and above this, a further period to the extent of 25 percent of such extension shall be allowed to the contractor. The rates for such additional, altered or substituted work under this clause shall be worked out in accordance with the following provisions in their respective order:
 - i) The rates for the additional, altered or substituted work are specified in the contract for the work, the contractor is bound to carry out the additional, altered or substituted work at the same rates as are specified in the contract for the work.
 - ii) If the rates for the additional, altered or substituted work are not specifically provided in the contract for the work, the rates will be derived from the rates for a nearest similar item of work as are specified in the contract for the work. In case of composite tenders where two or more schedule of quantities/ bill of quantities form part of the contract, the rates shall be derived from the nearest similar item in the schedule of quantities / bill of quantities of the particular part of work in which the deviation is involved failing that from the lowest of the nearest similar item in other schedule of quantity. The opinion of the Engineer-in-Charge as to whether or not the rate can be reasonably so derived from the item in this contract will be final and binding on the contractor.
 - iii) If the altered, additional or substituted work includes any work for which no rate is specified in the contract for the work and which cannot be derived in the manner specified in sub para (i) and (ii) from the similar class of work in the contract then such work shall be carried out at the rates entered in the Schedule of Rates (DSR-2016) plus the percentage above or below to the quoted rates.
 - iv) If the rates for the altered, additional or substituted work cannot be determined in the manner specified in sub-clauses (i) to (iii) above, then the contractor shall, within 15 days of the date of receipt of 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, supported by analysis of the rate or rates claimed, and the Engineer-in-Charge shall determine the rate or rates on the basis of prevailing market rates of the material, Labour, T&P etc. plus 15% (Fifteen percent) to cover the contractors supervision, overheads and profit and pay the contractor accordingly. The opinion of the Engineer-in-Charge as to the current market rates of materials and quantum of labour involved per unit of measurements will be final and binding on the contractor.

However, the Engineer-in-Charge, by notice in writing, will be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he



may consider advisable. But under no circumstances, the contractor shall suspend the work on the plea of non-settlement of rates of items falling under the clause.

70.0 ACTION AND COMPENSATION PAYABLE IN CASE OF BAD WORK

If it shall appear to the Engineer-in-Charge or his authorized subordinate in charge of the work or to the Chief Technical Examiner or to any other inspecting agency of Government/ State Government/ Owner where the work is being executed, that any work has been executed with unsound, imperfect, or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the contractor shall on demand in writing which shall be made within six months of the completion of the work from the Engineerin-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been passed, Certified and paid for forthwith rectify, or remove and reconstruct the work so specified in whole or in part as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-Charge in his demand aforesaid, then the Contractor shall be liable to pay compensation at the rate of one percent of the estimated amount put to tender for every day not exceeding ten days, while his failure to do so shall continue and in the case of any such failure, the Engineerin-Charge may rectify or remove and re-execute the work or remove and replace with others, the material or articles complained of as

the case may be at the risk and expense in all respects of the contractor.

71.0 POSSESSION PRIOR TO COMPLETION

- 71.1 NPCC shall have the right to take possession of or use any completed or partially completed work or part of the work. Such possession or use shall not be deemed to be any acceptance of any work not completed in accordance with the contract agreement. If such prior possession or use by NPCC delays the progress of work an equitable adjustment in the time of completion will be made and the contract agreement shall be deemed to be modified accordingly. The decision of NPCC in this case shall be final binding and conclusive.
- 71.2 When the whole of the works or the items or the groups of items of work for which sepa rate periods of completion have been specified have been completed the contractor will give a notice to that effect to the Engineer-in-Charge in writing. The Engineer in-Charge shall within 7 days of the date of receipt of such notice inspect the works and either the Engineer-in-Charge issues to the contractor a completion certificate stating the date on which in his opinion the works were completed in accordance with the contract or gives instructions in writing to the contractor specifying the balance items of work which are required to be done by the contractor before completion certificate could be issued. The Engineer-in-Charge shall also notify the contractor of any defect in the works affecting completion.
- 71.3 The contractor shall during the course of execution prepare and keep updated a complete set of 'as built' drawings to show each and every change from the contract drawings, changes recorded shall be countersigned by the Engineer-in-Charge and the contractor. Four copies of 'as built' drawings shall be supplied to NPCC by the contractor within 30 days of the completion. All costs incurred in this respect shall be borne by the contractor only.



72.0 COMPENSATION FOR DELAY AND REMEDIES

- 72.1 If the contractor fails to maintain the required progress in terms of relevant clause of Special Conditions of Contract, to complete the work and clear the site on or before the contract or extended date of completion, he shall, without prejudice to any other right or remedy available under the law to the NPCC on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below or such smaller amount as the Engineer in charge (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day / week (as applicable) that the progress remains below that specified in the relevant clause in Special Conditions of Contract or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified.
 - i) Completion period (as originally stipulated) not exceeding 3 month @ 1% per day
 - ii) Completion period (as originally stipulated) exceeding 3 months @ 1% per week

Provided always that the total amount of compensation for delay to be paid under this Condition shall not exceed 10% of the Tendered Value of work or of the Tendered Value of the item or group of items of work for which a separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to the Contractor under this or any other contract with NPCC.

72.2 CANCELLATION / TERMINATION OF CONTRACT IN FULL OR PART

Subject to other provisions contained in this clause the Engineer-in-Charge may, without prejudice to his any other rights or remedy against the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, by notice in writing absolutely determine the contract in any of the following cases:

- i) If the contractor having been given by the Engineer-in-Charge a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper or un-workmanlike manner shall omit to comply with the requirement of such notice for a period of seven days thereafter; or
- ii) If the contractor has, without reasonable cause, suspended the progress of the work or has failed to proceed with the work with due diligence so that in the opinion of the Engineer-in-Charge (which shall be final and binding) he will be unable to secure completion of the work by the date for completion and continues to do so after a notice in writing of seven days from the Engineer-in-Charge; or
- iii) If the contractor fails to complete the work within the stipulated date or items of work with individual date of completion, if any stipulated, on or before such date(s) of completion and does not complete them within the period specified in a notice given in writing in that behalf by the Engineer-in-Charge; or
- iv) If the contractor persistently neglects to carry out his obligations under the contract and / or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by the Engineer-in-Charge; or
- v) If the contractor shall offer or give or agree to give to any person in NPCC service or to any other person on his behalf any gift or consideration of any kind as an inducement or reward for doing or forbearing to do or for having done or forborne to do any action in relation to the obtaining or execution of this or any other contract from NPCC; or



- vi) If the contractor shall obtain a contract with NPCC as a result of wrong tendering or other non-bona-fide methods of competitive tendering; or
- vii) If the contractor being an individual, or if a firm, any partner thereof shall at any time be adjudged insolvent or have a receiving order or order for administrative of his estate made against him or shall take any proceedings for liquidation or composition (other than a voluntary liquidation for the purpose of amalgamation or reconstruction) under any Insolvency Act for the time being in force or make any conveyance or assignment of his effects or composition or arrangement for the benefit of his creditors or purport so to do, or if any application be made under any Insolvency Act for the time being in force for the sequestration of his estate or if a trust deed be executed by him for benefit of his creditors; or
- viii) If the contractor being a company, shall pass a resolution or the Court shall make an order for the winding up of the company, or a receiver or manager on behalf of the debenture holders or otherwise shall be appointed or circumstances shall arise which entitle the Court or debenture holders to appoint a receiver or manager; or
- ix) If the contractor shall suffer an execution being levied on his goods and allow it to be continued for a period of 21 days; or
- x) If the contractor assigns, transfers, sublets (engagement of labour on a piece-work basis or of the labour with materials not to be incorporated in the work, shall not be deemed to be subletting) or otherwise parts with or attempts to assign, transfer, sublet or otherwise parts with the entire works or any portion thereof without and prior written approval of the Engineer-in-Charge.

When the contractor has made himself liable for action under any of the cases aforesaid, the Engineer-in-Charge may without prejudice to any other right or remedy which shall have accrued or shall accrue hereafter to NPCC, by a notice in writing, cancel the contract as a whole or only such items of work in default from the Contract.

The Engineer-in-Charge shall on such cancellation by the NPCC have powers to:

- a) Take possession of site and any materials, constructional plant, implements, stores, etc. thereon; and/or
- b) Carry out the incomplete work by any means at the risk and cost of the contractor; and/ or
- c) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Engineer-in-Charge shall be conclusive evidence). Upon such determination or rescission, the full security deposit recoverable under the contract shall be liable to be forfeited and un-used materials, construction plants, implements, temporary buildings, etc. shall be taken over and shall be absolutely at the disposal of the NPCC. If any portion of the Security Deposit has not been paid or received it would be called for and forfeited; and/ or
- d) To employ labour paid by the Department and to supply materials to carry out the work or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Engineer-in-Charge shall be final and conclusive) against the contractor and crediting him with the value of the work done 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 Engineer-in-Charge as to the value of the work done shall be final and conclusive against the contractor provided always that action under the sub-clause shall only be

taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor; and/ or

e) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed or delayed with reference to the General Conditions of Contract clause / relevant clause of Special Conditions of Contract, out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Engineer-in-Charge shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by NPCC under his contract or on any other account whatsoever or from his security deposit or the proceeds of sales of unused materials, construction plants, implements temporary buildings etc. thereof or a sufficient part thereof as the case may be. If the expenses incurred by the NPCC are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor; and/ or

f) By a notice in writing to withdraw from the contractor any items or items of work as the Engineer-in-charge may determine in his absolute discretion and get the same executed at the risk and cost of the contractor.

Any excess expenditure incurred or to be incurred by NPCC in completing the works or part of the works or the excess loss or damages suffered or may be suffered by NPCC as aforesaid after allowing such credit shall without prejudice to any other right or remedy available to NPCC in law be recovered from any moneys due to the contractor on any account, and if such moneys are not sufficient the contractor shall be called upon in writing and shall be liable to pay the same within 30 days.

If the contractor shall fail to pay the required sum within the aforesaid period of 30 days, the Engineer-in-Charge shall have the right to sell any or all of the contractor's unused materials, constructional plant, implements, temporary buildings, etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the contractor under the contract and if thereafter there be any balance outstanding from the contractor, it shall be recovered in accordance with the provisions of the contract and law.

Any sums in excess of the amounts due to NPCC and unsold materials, constructional plant etc. shall be returned to the contractor, provided always that if cost or anticipated cost of completion by NPCC of the works or part of the works is less than the amount which the contractor would have been paid had he completed the works or part of the works, such benefit shall not accrue to the contractor.

In the event of anyone or more of the above courses being adopted by the Engineer-in-Charge the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-Charge has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

Provided further that if any of the recoveries to be made, while taking action as per (d) and/or (e) above, are in excess of the security deposit forfeited, these shall be limited to the amount by which the excess cost incurred by the Department exceeds the security deposit so forfeited.



72.3 CONTRACTOR LIABLE TO PAY COMPENSATION EVEN IF ACTION IS NOT TAKEN

In any case in which any of the powers conferred upon the Engineer-in-Charge by relevant clause thereof, shall have become exercisable and the same are not exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor and the liability of the contractor for compensation shall remain unaffected. In the event of the Engineer-in-Charge putting in force all or any of the powers vested in him under the preceding clause he may, if he so desires after giving a notice in writing to the contractor, take possession of (or at the sole discretion of the Engineer-in-Charge which shall be final and binding on the contractor) use as on hire (the amount of the hire money being also in the final determination of the Engineer-in-Charge) all or any tools, plant, materials and stores, in or upon the works, or the site thereof belonging to the contractor, or procured by the contractor and intended to the 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 these not being applicable, at current market rates to be certified by the Engineer-in-Charge, whose certificate thereof shall be final, and binding on the contractor and/or direct the contractor or his authorized agent to remove such tools, plant, materials, or stores from the premises (within a time to be specified in such notice) in the event of the contractor failing to comply with any such requisition, the Engineer-in-Charge may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and his risk in all respects and the certificate of the Engineer-in-Charge as to the expenses of any such removal and the amount of the proceeds and expenses of any such sale shall be final and conclusive against the contractor.

72.4 TIME ESSENCE OF CONTRACT & EXTENSION FOR DELAY

The time allowed for execution of the Works as specified in the terms of contract or the extended time in accordance with these conditions shall be the essence of the contract. The execution of the works shall commence from the 10th Day or such time period as mentioned in letter of Intent/ award after the date on which the Engineer-in-Charge issues written orders to commence the work. If the Contractor commits default in commencing the execution of the work as aforesaid, the Executing Agency shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the earnest money absolutely.

72.4.1 Within 10 (Ten) days of Letter of Intent, the Contractor shall submit a Time and Progress Chart (CPM/ PERT/ Quantified Bar Chart) and get it approved by the Engineer-in-Charge. The Chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of the works. It shall indicate the forecast (mile-stones) of the dates of commencement and completion of various items, trades, sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time stipulated in the Contract documents, and further to ensure good progress during the execution of the work.

The compensation for delay as per Clause 50.1 and 50.1 shall be leviable at intermediate stages also, in case the required progress is not achieved to meet the above time deadlines of the completion period and/ or milestones of time and progress chart, provided always that the total amount of Compensation for delay to be paid under this condition shall not exceed 10% of the tendered value of work".



72.4.2 If the work(s) be delayed by:

- i) force-majeure or
- ii) abnormally bad weather, or
- iii) serious loss or damage by fire, or
- iv) civil commotion of workmen, strike or lockout, affecting any of the trades employed on the work, or
- v) delay on the part of other contractors or tradesmen engaged by Engineer-in-Charge in executing work not forming part of the Contract, or
- vi) non-availability of stores, which are responsibility of the NPCC or,
- vii) non-availability or break down of tools and plant to be supplied or supplied by NPCC or,
- viii) any other cause which, in the absolute discretion of the NPCC, is beyond the Contractor's control, then upon the happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.
- 72.4.3 Request for extension of time, to be eligible for consideration, shall be made by the Contractor in writing with in fourteen days of the happening of the event causing delay on the prescribed form.
 - The Contractor will indicate in such a request the period for which extension is desired. In any such case NPCC may give a fair and reasonable extension of time for completion of work. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing, within 3 months of the date of receipt of such request.

73.0 WITHHOLDING AND LIEN IN RESPECT OF SUMS DUE FROM CONTRACTOR

- Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, NPCC shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, NPCC shall be entitled to withhold the security deposit, if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, NPCC shall be entitled to withhold and have a lien to retain to the extent of such claimed amount or amounts referred to above, from any sum or sums found payable or which may at any time thereafter become payable to the contractor under the same contract or any other contract with NPCC pending finalization or adjudication of any such claim.
- 73.2 It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above by the Engineer-in-Charge or NPCC will be kept withheld or retained as such by the Engineer-in-Charge or NPCC till the claim arising out of or under the contract is determined by the competent court and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to above and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the Engineer-in-Charge or the NPCC shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be whether in his individual capacity or otherwise.



NPCC shall have the right to cause an audit and technical examination of the works and the final bills of the contractor including all supporting vouchers, abstract, etc, to be made after payment of the final bill and if as a result of such audit and technical examination any sum is found to have been overpaid in respect of any work done by the contractor under the contract or any work claimed to have been done by him under the contract and found not to have been executed, the contractor shall be liable to refund the amount of over-payment and it shall be lawful for NPCC to recover the same from him in the manner prescribed in Clause 51.1 above or in any other manner legally permissible; and if it is found that the contractor was paid less than what was due to him under the contract in respect of any work executed by him under it, the amount of such under payment shall be duly paid by NPCC to the contractor, without any interest thereon whatsoever.

73.3 LIEN IN RESPECT OF CLAIMS IN OTHER CONTRACTS

Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the Engineer-in-Charge or by NPCC against any claim of the Engineer-in-Charge or NPCC in respect of payment of a sum of money arising out of or under any other contract made by the contractor with the Engineer-in-Charge or the NPCC. It is an agreed term of the contract that the sum of money so withheld or retained underthis clause by the Engineer-in-Charge or the NPCC will be kept withheld or retained as such by the Engineer-in-Charge or the NPCC or till his claim arising out of the same contract or any other contract is either mutually settled or determined by the arbitration clause or by the competent court, as the case may be, and that the contractor shall haveno claim for interest or damages whatsoever on this account or on any other ground inrespect of any sum of money withheld or retained under this clause and duly notified assuch to the contractor.

74.0 DEFECTS LIABILITY PERIOD

The contractor shall be responsible for the rectification of defects in the works for a period of (12) twelve months from the date of taking over of the works by the Owner/Client. Any defects discovered and brought to the notice of the contractor forthwith shall be attended to and rectified by him at his own cost and expense. In case the contractor fails to carry out these rectifications, the same may without prejudice to any other right or remedy available, be got rectified by NPCC at the cost and expense of the contractor.

75.0 FORCE MAJEURE

Any delay in or failure of the performance of either party hereto shall not constitute default hereunder to give rise to any claims for damages, if any to the Extent such delay or failure of performance is caused by occurrences such as acts of God or the public enemy, expropriation, compliance with any order or request of Government authorities, acts of war, rebellions, sabotage fire, floods, strikes, or riots (other than contractor's employees). Only extension of time shall be considered for Force Majeure conditions as accepted by NPCC. No adjustment in contract price shall be allowed for reasons of force majeure.

76.0 ARBITRATION- DELETED

76.1 JURIDICTION

The agreement shall be executed at Patna on non-judicial stamp paper and the Courts at Patna alone will have jurisdiction to deal with matters arising there from, to the exclusion of all other courts.



77.0 SUSPENSION OF WORKS

- (a) The contractor shall, on receipt of the order in writing of the Engineer-in-charge, suspend the progress of the works or any part thereof for such time and in such manner as the Engineer-in-charge may consider necessary for any of the following reasons:
- i) On account of any default on part of the contractor, or
- ii) for proper execution of the works or part thereof for reason other than the default of the contractor, or
- iii) for safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works to the extent necessary and carry out the instructions given in that behalf by the Engineer-in-charge.

- (b) If the suspension is ordered for reasons (ii) and (iii) in sub-para (a) above.
- i) The contractor shall be entitled to an extension of the time equal to the period of every such suspension plus 25%. No adjustment of contract price will be allowed for reasons of such suspension.
- ii) In the event of the Contractor treating the suspension as an abandonment of the Contract by NPCC, he shall have no claim to payment of any compensation on account of any profit or advantage which he may have derived from the execution of the work in full.

78.0 TERMINATION OF CONTRACT ON DEATH OF CONTRACTOR

Without prejudice to any of the right or remedies under this contract if the contractor dies, the Engineer-in-charge shall have the option of terminating the contract without compensation to the contractor.

79.0 CLARIFICATION AFTER TENDER SUBMISSION

Tenderer's attention is drawn to the fact that during the period, the bids are under consideration, the bidders are advised to refrain from contacting by any means, the NPCC and/or his employees/ representatives on matters related to the bid under consideration and that if necessary, NPCC will obtain clarifications in writing or as may be necessary. Duly authorized Tender Scrutiny Committee does the tender evaluation and process of award of works and this committee is authorized to discuss and get clarification from the tenderers.

80.0 ADDENDA/ CORRIGENDA

Addenda/Corrigenda to the tender documents may be issued prior to the date of opening of the tender to clarify or effect modification in specification and/or contract terms included in various tender documents. The tenderer shall suitably take into consideration such Addenda/Corrigenda while submitting his tender. The tenderer shall return such Addenda/ Corrigenda duly signed and stamped as confirmation of its receipt and submit along with the tender document. All addenda/ Corrigenda shall be signed and stamped on each page by the tenderer and shall become part of the tender and contract documents.

81.0 QUALITY ASSURANCE PROGRAMME

To ensure that the services under the scope of this contract are in accordance with the specifications, the Contractor shall adopt Quality Assurance Programme to control such activities at the necessary points. The contractor shall prepare and finalize such Quality

Assurance Programme within 15 days from letter of intent. NPCC shall also carryout quality audit and quality surveillance of systems and procedures of Contractor's quality control activities. A Quality Assurance Programme of Contractor shall generally cover the following:

- a) His organization structure for the management and implementation of the proposed Quality Assurance Program.
- b) Documentation control system.
- c) The procedure for purpose of materials and source inspection.
- d) System for site controls including process controls.
- e) Control of non-conforming items and systems for corrective actions.
- f) Inspection and test procedure for site activities.
- g) System for indication and appraisal of inspection status.
- h) System for maintenance of records.
- i) System for handling, storage and delivery.
- j) A quality plan detailing out quality practices and procedures, relevant standards and acceptance levels for all types of work under the scope of this contract.

The Contractors in the formats appended hereto shall submit all the quality reports. Checklist enclosed here in this document shall be followed while carrying out Construction activities (items). If any item is not covered by the Checklist/ Formats appended hereto, the Format for the same may be developed and submitted to Engineer-in-Charge for approval and the same shall be adopted. These filled in formats shall be prepared in two copies and duly signed by representatives of contractor and NPCC. All the costs associate with Printing of Formats and testing of materials required as per technical specifications or by Engineer-in-charge shall be included in the Contractor's quoted rates in the Schedule/ Bill of quantities.

82.0 APPROVAL OF TEMPORARY / ENABLING WORKS

The setting and nature of all offices, huts, access road to the work areas, and all other temporary works as may be required for the proper execution of the works shall be subject to the approval of the Engineer-in-charge.

All the equipments, labour, material including cement, reinforcement and the structural steel required for the enabling/ temporary works associated with the entire Contract-shall have to be arranged by the Contractor only. Nothing extra shall be paid to the Contractor on this account and the percentage rates quoted by the Contractor for various items in the Bill of Quantities shall be deemed to include the cost of enabling works.

83.0 CONTRACT COORDINATION PROCEDURES, COORDINATION MEETINGS AND PROGRESS REPORTING

The Contractor shall prepare and finalize in consultation with NPCC, a detailed contract coordination procedure within 15 days from the date of issue of Letter of Intent for the purpose of execution of the Contract.

The Contractor shall have to attend all the meetings at any place in India at his own cost with NPCC, Owners/ Clients or Consultants of NPCC/ Owner/ Client during the currency of the Contract, as and when required and fully cooperate with such persona and agencies involved during these discussions. The Contractor shall not deal in any way directly with the Clients/ Owners or Consultants of NPCC/ Owner/ Clients and any dealing/ correspondence if required at any time with Clients/ Owners/ Consultants shall be through NPCC only.

During the execution of the work, Contractor shall submit at his own cost a detailed Monthly progress report to the Engineer-in-charge of NPCC by 5th of every month. The format of monthly progress report shall be as approved by Engineer-in-Charge of NPCC.

84.0 CONTRACT AGREEMENT

The Contractor shall enter into a Contract Agreement with the NPCC within 20 days from the date of receipt of Letter of Intent or within such extended time, as may be granted by the NPCC. The cost of stamp papers, stamp duty, registration, if applicable on the contract, shall be borne by the Contractor. In case, the contractor does not sign the agreement as above or start the work within 10 days of the receipt of letter of intent, his earnest money is liable to be forfeited and letter of intent consequently will stand withdrawn.

85.0 MANNER OF EXECUTION OF AGREEMENT

i. The agreement as per prescribed Proforma as enclosed to the Special Conditions of Contract shall be signed at the office of the NPCC within 20 days from the date of receipt of Letter of Intent. The Contractor shall produce for signing of the Contract, appropriate Power of Attorney and the requisite documents/materials. Unless and until a formal contract is prepared and executed, the Letter of Intent read in conjunction with the Bidding Documents will constitute a binding contract.

ii. The agreement will be signed in two originals and the Contractor shall be provided with one signed original and the other signed original will be retained by the NPCC. The Contractor has to provide two numbers of non-judicial stamp paper of requisite value purchased from Bihar.

iii. The Contractor shall deposit the amount in the form of demand draft in favour of NPCC Ltd. payable at Patna within seven days of issuance of LOI/LOA equal to the twice of the tender cost in lieu to the preparation of contract agreement.

86.0 PURCHASE PREFERENCE TO PUBLIC SECTOR ENTERPRISES

NPCC reserves its right to extend Purchase Preference to Central Public Sector Enterprises (CPSEs) as per policy of Government of India, if any, as applicable on this work. The tenderers are requested to go through latest instructions of Government of India on its preference policy for CPSU s before quoting for the tender.

87.0 CHANGE IN FIRM'S CONSTITUTION TO BE INTIMATED

Where the contractor is a partnership firm, the previous approval in writing of the Engineer-in-Charge shall be obtained before any change is made in the constitution of the firm. Where the contractor is an individual or a Hindu undivided family business concern such approval as aforesaid shall likewise be obtained before the contractor enters into any partnership agreement where under the partnership firm would have the right to carry out the works hereby undertaken by the contractor. If previous approval as aforesaid is not obtained, the contract shall be deemed to have been assigned in contravention of Clause 59.1 hereof and NPCC shall be entitled to take action under Clause 72.2 (xi).



LABOUR SAFETY PROVISION

The contractor shall be fully responsible to observe the labour safety provisions as per prevailing act and amended from time to time.

- 1.0 Suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. When a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal and 1 vertical).
- 2.0 Scaffolding or staging more than 3.6m (12 feet) above the ground or floor, swung or suspended from an overhead support or erected with stationery support shall have a guard rail properly attached or bolted, braced and otherwise secured at least 90 cm. (3 feet) high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
- 3.0 Working platforms, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 3.6m (12 feet) above ground level or floor level, they should be closely boarded, should have adequate width & should be suitable fastened as described in (2.0) above.
- 4.0 Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 90 cm (3 feet).
- Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. (30 feet) in length while the width between side rails in rung ladder shall in no case be less than 29 cm. for ladder up to and including 3m (10 feet) in length. For longer ladders this width should be increased at least 1/4" for each additional 30 cm (1 ft.) of length. Uniform step spacing shall not exceed 30 cm (12"). Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of the work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident, and shall be bound to bear the expenses of defense of every suit, action or other proceeding at law that may be brought by an 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 the consent of the Contractor, be paid to compensate any claim by any such person.

6.0 EXCAVATION AND TRENCHING

All trenches, 1.2mts.(four feet) or more in depth, shall at all times be supplied with at least one ladder for each 30m. (100 feet) in length or fraction thereof, Ladder shall be extended from bottom of the trench to at least 90 cm (3 feet) above the surface of the ground. The side of the trenches, which are 1.5m. (5feet) or more in depth shall be stepped back to give suitable slope or securely held by timber bracing, so as to avoid the danger or sides to collapsing. The excavated materials shall not be placed within 1.5m (5

feet) of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

- 7.0 Demolition Before any demolition work is commenced and also during the progress of the work:
- 7.1 All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- 7.2 No electric cable or apparatus that is likely to be a source of danger or a cable or apparatus used by the operator shall remain electrically charged.
- 7.3 All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be overloaded with debris or materials as to render it unsafe.
- 8.0 All necessary personal safety equipments as considered adequate by the Engineer-incharge should be kept available for the use of persons employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate step to ensure proper use of equipment by those concerned. The following safety equipment shall be invariably provided.
- 8.1 Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- 8.2 Those engaged in white washing and mixing or stacking of cement bags or any materials that are injurious to the eye shall be provided with protective goggles.
- 8.3 Those engaged in welding works shall be provided with welders protective eye shields.
- 8.4 Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe interval.
- 8.5 When workers are employed in sewers and manholes, which are in active use, the Contractors shall ensure that the manhole covers are opened and ventilated at-least for an hour before the workers are allowed to get into the manholes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident the public. In addition, the contractor shall ensure that the following safety measures are adhered to:
- a. Entry for workers into the line shall not be allowed except under supervision of the JE or any other higher officer
- b. At least 5 to 6 manholes upstream and downstream should be kept open for at least 2 to 3 hours before any man is allowed to enter into the manholes for working inside.
- c. Before entry, presence of Toxic gases should be tested by inserting wet lead acetate paper, which changes colour in the presence of such gases and gives indication of their presence.
- d. Presence of Oxygen should be verified by lowering a detector lamp into the manhole. In case, no Oxygen is found inside the sewer line, workers should be sent only with Oxygen kit.
- e. Safety belt with rope should be provided to the workers. While working inside the manholes such rope should be handled by two men standing outside to enable him to be pulled out during emergency.



- f. The area should be barricaded or cordoned of by suitable means to avoid mishaps of any kind. Proper warning signs should be displayed for the safety of the public whenever cleaning works are undertaken during night or day.
- g. No smoking or open flames shall be allowed near the blocked manhole being cleaned.
- h. The malba obtained on account of cleaning of blocked manholes and sewer lines should be immediately removed to avoid accidents on account of slippery nature of the malba.
- i. Workers should not be allowed to work inside the manhole continuously. He should be given rest intermittently. The Engineer In-charge may decide the time up to which a worker may be allowed to work continuously inside the manhole.
- j. Gas masks with Oxygen Cylinder should be kept at site for use in emergency.
- k. Air-blowers should be used for flow of fresh air through the manholes. Whenever called for, portable air-blowers are recommended for ventilating the manholes. The Motors for these shall be vapour proof and of totally enclosed type. Non sparking gas engines also could be used but they should be placed at-least 2 meters away from the opening and on the leeward side protected from wind so that they will not be a source of friction on any inflammable gas that might be present.
- 1. The workers engaged for cleaning the manholes/ sewers should be properly trained before allowing working in the manhole.
- m. The workers shall be provided with Gumboots or non-sparking shoes, bump helmets and gloves non-sparking tools, safety lights and gas masks and portable air blowers (whennecessary). They must be supplied with barrier cream for anointing the limbs before working inside the sewer lines.
- n. Workmen descending a manhole shall try each ladder step or rung carefully before putting his full weight on it to guard against insecure fastening due to corrosion of the rung fixed to manhole well.
- o. If a man has received a physical injury, he should be brought out of the sewer immediately and adequate medical aid should be provided to him.
- p. The extent to which these precautions are to be taken depend on individual situation but the decision of the Engineer In charge regarding the steps to be taken in this regard in an individual case will be final.
- 8.6 The Contractor shall not employ men and women below the age of 18 years on the work of painting with products containing lead in any form wherever men above the age of 18 are employed on the work of lead painting the following precautions should be taken.
- 8.6.1 No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
- 8.6.2 Suitable facemasks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint is dry rubbed and scrapped.
- 8.6.3 Overalls shall be supplied by the Contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

8.6.4.1

a. White lead, sulphate or lead work products containing those pigments shall not be used in painting operation except in the form of paste or of paints ready for use.



- b. Measures shall be taken whenever required in order to prevent danger arising from the application of paint in the form of spray.
- c. Measures shall be taken, whenever practicable to prevent danger arising out of dust caused by dry rubbing down and scrapping.

8.6.4.2

- a. Adequate facilities shall be provided to enable working painter to wash during and on cessation of work.
- b. Suitable arrangements shall be made to prevent clothing put off during working hours being spoiled by painting materials.

8.6.4.3

- a. Cases of lead poisoning and of suspected lead poisoning shall be notified and shall be subsequently verified by a medical man appointed by the competent authorities of the Consultant.
- b. The NPCC may require when necessary a medical examination of workers.
- c. Instructions with regard to the special hygienic precautions to be taken in the painting trade shall be distributed to working painters.
- 9.0 When the work is done near any place where there is risk of drowning, all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provisions should be made for prompt first aid treatment of all injuries likely to be obtained during the course of the work.
- 10.0 Use of hoisting machines and tackle including their attachment encourage and supports shall conform to the following standard of conditions.

10.1

- a. These shall be of good mechanical construction, sound material and adequate strength and free from patent, defects and shall be kept required in good working order.
- b. Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- 10.2 Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any Scaffolding, winch or giving signals to operator.
- 10.3 In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of 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. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.



- 10.4 In case of NPCC machines, the safe working load shall be notified by the Engineer-in-Charge. As regards Contractor's machines the Contractor shall notify the safe working load of the machine to the Engineer-in-charge whenever he brings any machinery to site of work and get verified by the Engineer-in-Charge.
- 11.0 Motors gearing, transmission electric wiring and other dangerous parts of hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load. Adequate precautions should be taken to reduce the minimum the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energized, insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary be provided. The worker should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.
- 12.0 All scaffolding, ladders, and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities should be provided at or near places of work.
- 13.0 These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place of work spot. The person responsible for compliance of the safety codes shall be named therein by the contractor.
- 14.0 To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the Contractor shall be open to inspection by them or their representatives.
- 15.0 Notwithstanding the above Clauses from (i) to (xiv) there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

MODELRULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGEMENTS FOR WORKERS

1.0 APPLICATION

These rules shall apply to all building and construction works in which 20 (twenty) or more workers are ordinarily employed or are proposed to be employed in any day during the period during which the contractor work is in progress.

2.0 DEFINITION

Work place means a place where twenty or more workers are ordinarily employed or are proposed to be employed in connection with construction work on any day during the period during which the contractor work is in progress.

3.0 FIRST-AID FACILITIES

- 3.1 At every work place first aid facilities shall be provided and maintained, so as to be easily accessible during working hours, First-Aid boxes at the rate of not less than one box per 150 contract labour or part thereof ordinarily employed.
- 3.2 The First-Aid box shall be distinctly marked with a red cross on white ground and shall contain the following equipments:



- a) For work places in which number of contract labour employed does not exceed 50, each First-Aid box shall contain the following equipments:
 - i) 6 small sterilized dressings.
 - ii) 3 medium size sterilized dressings.
 - iii) large size sterilized dressings.
 - iv) 3 large sterilized burn dressings.
 - v) 1 (30 ml) bottle containing a two percent alcoholic solution of iodine.
 - vi) 1(30 ml) bottle containing Sal volatile having the dose and mode of administration indicated on the label.
 - vii) 1 snakebite lancet.
 - viii) (30 gms) bottle of potassium permanganate crystals.
 - ix) 1 pair of scissors.
 - x) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advise Service &Labour Institutes, Government of India.
 - xi) 1 bottle containing 100 tablets (each of 5 grams) of aspirin.
 - xii) Ointment for burns.
 - xiii) A bottle of suitable surgical antiseptic solution.
- 3.2.2 For work places in which the number of contract labour exceed 50. Each First-Aid box shall contain the following equipments:
 - i) 12 small sterilized dressings.
 - ii) 6 medium size sterilized dressings.
 - iii) 6 large size sterilized dressings.
 - iv) 6 large size sterilized burn dressings.
 - v) 6 (15 gms) packet sterilized cotton wool.
 - vi) 1 (60 ml.) bottle containing a two percent iodine alcoholic solution.
 - vii) 1 (60 ml.) bottle containing salvolatile having the dose and mode of administrationindicated on the label.
 - viii) 1 roll of adhesive plaster.
 - ix) 1 snake bite lancet.
 - x) 1 (30 gms.) bottle of potassium permanganate crystals.
 - xi) 1 pair of scissors.
 - xii) 1 copy of the First-Aid leaf-let issued by the Director General, Factory Advice Service and Labour Institutes, Government of India.
 - xiii) A bottle containing 100 tablets (each of 5 grams) of aspirin.
 - xiv) Ointment for burns.
 - xv) A bottle of suitable surgical antiseptic solution.
- 3.3 Adequate arrangements shall be made for immediate recoupment of the equipment when necessary.
- 3.4 Nothing except the prescribed contents shall be kept in the First Aid box.
- 3.5 The First Aid box shall be kept in charge of a responsible person who shall always be readily available during the working hours of the work place.



- 3.6 A person in charge of the First-Aid box shall be a person trained in First-Aid treatment, in work places where the number of labour employed is 150 or more.
- 3.7 In work places where the number of labour employed is 500 or more and hospital facilities are not available within easy distance of the works, first-Aid Posts shall be established and run by a trained Compounder. The Compounder shall be on duty and shall be available at all hours when the workers are at work.
- 3.8 Where work places are situated in places, which are not towns of cities, a suitable motor transport shall be kept readily available to carry injured person or persons suddenly taken ill to the nearest hospital.

4.0 DRINKING WATER

- 4.1 In every work place, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking.
- 4.2 Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.
- 4.3 Every water supply of storage shall be at a distance of not less than 50 feet from any latrines drain or other source of pollution, Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap-door which shall be dust and water-proof.
- 4.4 A reliable pump shall be fitted to each covered well, trap-door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

5.0 WASHING FACILITIES

- 5.1 In every work place adequate and suitable facilities for washing shall be provided and maintained for the use of labour employed herein.
- 5.2 Separate and adequate screening facilities shall be provided for the use of male and female workers.
- 5.3 Such facilities shall be conveniently accessible and shall be kept clean and hygienic condition.

6.0 LATRINES AND URINALS

- 6.1 Latrines shall be provided in every work place on the following scale, namely:
 - a) Where females are employed there shall be at least one latrine for every 25 females.
 - b) Where males are employed, there shall be at least one latrine for every 25 males. Provided that where the number of males or females exceeds 100, it shall be sufficient if there is one latrine for 25 males or females, as the case may be, up to the first 100, and one for every 50 thereafter.
- 6.2 Every latrine shall be under cover and so partitioned off as to secure privacy, and shall has a proper door and fastenings.



6.4

6.6

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

- 6.3 Construction of Latrines: The inside walls shall be constructed of masonry or some suitable heat resisting non-absorbent materials and shall be cement washed inside and outside at least once a year. Latrine shall not be a standard lower than borehole system.
- (a) Where workers of both sexes are employed, there shall be displayed outside each block of latrine and urinal, a notice in the language understood by the majority of the workers "For Men only" or "For Women only" as the case may be.
- (b) The notice shall also bear the figure of man or of women, as the case may be.
- 6.5 There shall be at least one urinal for male workers up to 50 and one for female workers up to 50 employed at a time. Provided that where the number of male or female workmen, as the case may be, exceeds 500, it shall be sufficient if there is one urinal for every 50 males or females up to the first 500 and one for every 100 or part thereof, thereafter.
- a) The latrines and urinals shall be adequately lighted and shall be maintained in a clean and sanitary condition at all times.
- b) Latrines and urinals other than those connected with a flush sewerage system shall comply with the requirements of the Public Health Authorities.
- 6.7 Water shall be provided by means of a tap or otherwise so as to be conveniently accessible in or near the latrines and urinals.
- 6.8 Disposal of Excreta
 - Unless otherwise arranged for by the local sanitary authority arrangements for proper disposal of excreta by incineration at the work place shall be made by means of a suitable incinerator. Alternatively excreta may be disposed off by putting a layer of night soil at the bottom of a pucca tank prepared for the purpose and covering it with a 15 cm layer of waste or for refuse and then covering it with a layer of earth for fortnight (when it will turn into manure).
- 6.9 The Contractor shall, at his own expense, carry out all instruction issued to him by the Engineer-in-Charge to effect proper disposal of night soil and other conservancy work in respect of the Contractor's workmen or employees on the site. The Contractor shall be responsible for payment of any charges, which may be levied by Municipal or Cantonment Authority for execution of such work on his behalf.

7.0 PROVISION OF SHELTER DURING REST

At every place there shall be provided, free of cost four suitable sheds, and two for males and the other two for rest separately for the use of man and women labour. The height of each shelter shall not be less than 3 meters from the floor level to the lowest part of the roof. These shall be kept clean and the space provided shall be on the basis of 0.6 sqm. Per head, provided that the Engineer-in-Charges may permit, subject to his satisfaction, a portion of the building under construction or other alternative accommodation to be used for the purpose.

8.0 CRECHES

8.1 At every work place, at which 20 or more women workers are ordinarily employed, thereshall be provided two rooms of reasonable dimensions for the use of their children



under the age of six years. One room shall be used as a playroom for the children and the other as their bedrooms.

The rooms shall be constructed on standard not lower than the following:

- i) Thatched roof
- ii) Mud floor and walls
- iii) Planks spread over the mud floor and covered with matting
- 8.2 The rooms shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the places clean.
- 8.3 The Contractor shall supply adequate number of toys and games in the playroom and sufficient number of cots and beddings in the bedroom.
- 8.4 The Contractor shall provide one Ayah to look after the children in the crèche when the number of women workers does not exceed 50 and two when the number of women workers exceeds 50.
- 8.5 The use of the rooms/earmarked as crèche shall be restricted to children, their attendant and mother of the children.
- 9.0 CANTEENS
- 9.1 In every work place where the work regarding the employment of contract labour is likely to continue for six months and wherein contract labour numbering one hundred or more are ordinarily employed, an adequate canteen shall be provided by the Contractor for the use of such labour.
- 9.2 The canteen shall be maintained by the Contractor in an efficient manner.
- 9.3 The canteen shall consist of at least a dining hall, kitchen, storeroom, pantry and washing places separately for workers and utensils.
- 9.4 The canteen shall be sufficiently lighted at all times when any person has access to it.
- 9.5 The floor shall be made of smooth and impervious material and inside walls shall be lime washed or colour washed at least once in each year provided that the inside walls of the kitchen shall be lime-washed every four months.
- 9.6 The premises of the canteen shall be maintained in a clean and sanitary condition.
- 9.7 Waste Water shall be carried away in suitable covered drains and shall not be allowed to accumulate so as to cause a nuisance.
- 9.8 Suitable arrangements shall be made for the collection and disposal of garbage.
- 9.9 The dining hall shall accommodate at a time 30 persons of the labour working at time.
- 9.10 The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chair shall not be less than one square meter per dinner to be accommodated.
- 9.11
- a) A portion of the dining hall, and service counter shall be partitioned off and reserved for women workers in proportion to their number.
- b) Washing places for women shall be separate and screened to secure privacy.
- 9.12 Sufficient tables, stool, chairs or benches shall be available for the number of dinners to be accommodated.
- 9.13.1
- a) There shall be provided and maintained sufficient utensils, crockery, furniture and any other equipment necessary for the efficient running of the canteen.

b) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition.

9.13.2

- a) Suitable clean clothes for the employees serving in the canteen shall be provided and maintained.
- b) A service counter, if provided, shall have top of smooth and impervious material.
- c) Suitable facilities including an adequate supply of hot water shall be provided for the cleaning of utensils and equipment.
- 9.14 The foodstuffs and other items to be served in the canteen shall be in conformity with the normal habits of the labour.
- 9.15 The charge for foodstuffs, beverages and any other items served in the canteen shall be based on 'No profit No loss' and shall be conspicuously displayed in the canteen.
- 9.16 In arriving at price of foodstuffs, and other articles served in the canteen, the following items shall not be taken into consideration as expenditure, namely:
- a) The rent of land building.
- b) The depreciation and maintenance charges for the building and equipment provided for the canteen.
- c) The cost of purchase, repair and replacement of equipment including furniture, crockery, cutlery and utensils:
- d) The water charges and other charges incurred for lighting and ventilation:
- e) The interest and amounts spent on the provision and maintenance and equipment provided for in the canteen.
- 9.17 The accounts pertaining to the canteen shall be audited once in every 12 months by registered accountants and auditors.

10.0 ANTI MALARIAL PRECAUTIONS

The Contractor shall at his own expense, conform to all anti-malarial instructions given to him by the Engineer-in-Charge including the filling up of any borrows pits which may have been dug by him.

11.0 AMENDMENTS

NPCC may from time to time, add to or amend these rules and issue such directions as it may consider necessary for the purpose of removing any difficulty which may arise in the administration hereof.



CONTRACTOR'S LABOUR REGULATIONS

1.0 SHORT TITLE

These regulations may be called the Contractor "Labour Regulations".

2.0 Definitions

- 2.1 "Workman" means any person employed by the NPCC or its Contractor directly or indirectly through a sub-contractor, with or without the knowledge, of the NPCC to do any skilled, semi-skilled, un-skilled, manual, supervisory, technical or clerical work for hire or reward, whether, the terms of employment are expressed or implied but does not include any person-
- a) Who is employed mainly in a managerial or administrative capacity; or
- b) Who being employed in a supervisory capacity draws wages exceeding Rupees Two thousand Five hundred per person or exercises either by the nature of the duties attached to the office or by reason of powers vested to him, functions mainly of managerial nature.
- c) Who is an outworker, that is to say, a person to whom any articles or materials are given out by or on behalf of the principal employer to be made up cleaned, washed, altered, ornamental finished, repaired, adopted or otherwise processed for sale for the purpose of the trade or business of the principal employer and the process is to be carried out either in the home of the out worker or in some other premises, not being premises under the control and management of the principal employer.
- 2.2 "Fair Wages" means wages whether for time or piecework fixed and notified under the provisions of the minimum Wages Act from time to time.
- 2.3 "Contractor" shall include every person who undertake to produce a given result other than a mere supply of goods or articles of manufacture through labour or who supplies labour for any work and includes a sub-contractor.
- 2.4 "Wages" shall have the same meaning as defined in the Payment of Wages Act.
- 2.4.1 Normally working hours of an adult employee should not exceed 9 hours a day. The working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
- 2.4.2 When an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week he shall be paid overtime for the extra hours put in by him at double the ordinary rate of wages.
- 2.4.3.1 Every worker shall be given a weekly holiday on a Sunday, in accordance with the provisions of the Minimum Wages (Central) Rules 1960 as amended from time to time, irrespective of whether such worker is governed by the Minimum Wages Act or not.
- 2.4.3.2 Whether the Minimum Wages prescribed by the Government under the Minimum Wages Act are not inclusive of the wages for the weekly day of rest, the worker shall be entitled

to rest day wages at the rate applicable to the next preceding day, provided he has worked under the same contractor for a continuous period of not less than 6 days.

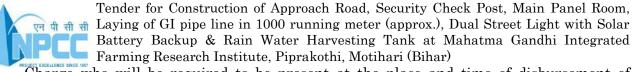
2.4.3.3 Here a contractor is permitted by the Engineer-in-Charge to allow a worker to work on a normal weekly holiday, he shall grant a substitute holiday to him for the whole day on one of the five days immediately before or after the normal weekly holidays and pay wages to such worker for the work performed on the normal weekly holiday at overtime rate.

3.0 DISPLAY OF NOTICE REGARDING-WAGES, ETC.

The contractor shall before he commences his work on contract, display and correctly maintain and continue to display and correctly maintain in a clean and legible condition in conspicuous places on the work, notices in English and in the local Indian languages spoken by the majority of the workers, giving the minimum rates of wages fixed under the Minimum Wages Act, the actual wages being paid, the hours of work for which such wages are earned, wage period, dates of payment of wages and other relevant information as per Appendix 'A'.

4.0 PAYMENT OF WAGES

- 4.1 The contractor shall fix wage periods in respect of which wages shall be payable.
- 4.2 No wage period shall exceed one month.
- 4.3 The wages of every person employed as labour in an establishment or by a contractor where less than one thousand, such persons are employed shall be paid before the expiry of the seventh day and in other cases before the expiry of tenth day after the last day of the wage period in respect of which the wages are payable.
- 4.4 Where the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry of the second working day from the date on which his employment is terminated.
- 4.5 All payments of wages shall be made on a working day at the work premises and during the working time and on a date notified in advance and in case the work is completed before the expiry of the wage period, final payment shall be made within 48 hours of the last working day.
- 4.6 Wages due to every worker shall be paid to him direct or to other person authorized by him in this behalf.
- 4.7 All wages shall be paid in current coin or currency or in both.
- 4.8 Wages shall be paid without any deductions of any kind except those specified by the Central Government by general or special order in this behalf or permissible under the Payment of Wages Act 1956.
- 4.9 A notice showing the wage period and the place and time of disbursement of wages shall be displayed at the place of work and a copy sent by the contractor to the Engineer-in-Charge under acknowledgment.
- 4.10 It shall be the duty of the contractor to ensure the disbursement of wages in the presence of the Engineer or any other authorized representatives of the Engineer-in-



Charge who will be required to be present at the place and time of disbursement of wages by the contractor to workmen.

- 4.11 The contractor shall obtain from the Engineer or any other authorized representative of the Engineer-in-Charge as the case may be, a certificate under his signature at the end of the entries in the "Register of Wages" or the "Wage-cum-Muster Roll" as the case may be in the following form:
- 5.0 FINES AND DEDUCTIONS, WHICH MAY BE MADE FROM WAGES
- 5.1 The wages of a worker shall be paid to him without any deduction of any kind except the following—
- a) Fines
- b) Deductions for absence from duty i.e. from the place or the places where by the terms of his employment he is required to work. The amount of deduction shall be in proportion to the period for which he was absent.
- c) Deduction for damage to or loss of goods expressly entrusted to the employed persons for custody, or from loss of money or any other deduction which he is required to account where such damage or loss is directly attributable to his neglect or default.
- d) Deduction for recovery of advances or for adjustment of over payment of wages, advances granted shall be entered in a register.
- e) Any other deduction, which the Central Government may from time to time allow.
- 5.2 No fines should be imposed on any workers in respect of such acts and omissions on his part as have been approved by the Chief Labour Commissioner.
 - NOTE: An approved list of Acts and Omissions for which fines can be imposed is enclosed at Appendix-I.
- 5.3 No fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- 5.4 The total amount of fine, which may be imposed in any one-wage period on a worker, shall not exceed an amount equal to three paise in Rupees of the total wages, payable to him in respect of that wage period.
- 5.5 No fine imposed on any worker shall be recovered from him in installment, or after the expiry of sixty days from the date on which it was imposed.
- 5.6 Every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.



6.0 LABOUR RECORDS

- 6.1 The contractor shall maintain a "Register of persons employed" on work on contract in form XIII of the CL (R&A) Central Rules 1971 (Appendix-B).
- 6.2 The contractor shall maintain a "Muster Roll" register in respect of all workmen employed by him on the work under contract in from XVI of the CL (R&A) Rules 1971 (Appendix-C).
- 6.3 The contractor shall maintain a "Wage Register" in respect of all workmen employed by him on the work in form (Appendix-D).
- 6.4 Register of accidents The contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars:
- a) Full particulars of the labourers who met with accident.
- b) Rate of wages
- c) Sex
- d) Age
- e) Nature of accident and cause of accident.
- f) Time and date of accident.
- g) Date and time when he/she admitted in Hospital
- h) Date of discharge from the Hospital
- i) Period of treatment and result of treatment
- j) Percentage of loss of earning capacity and disability as assessed by Medical Officer.
- k) Claim required to be paid under Workmen's Compensation Act.
- 1) Date of payment of compensation.
- m) Amount paid with details of the person to whom the same was paid.
- n) Authority by whom the compensation was assessed.
- o) Remarks.
- 6.5 Register of Fines The contractor shall maintain a "Register of Fines" in the form (Appendix-H).
 - The contractor shall display in a good condition and in a conspicuous place of work the approved list of Acts and Omission for which fines can be imposed (Appendix-I).
- 6.6 Register of Deductions-The contractor shall maintain a "Register of Deductions" for damage or loss in form (Appendix-J).



- 6.7 Register of Advances-The contractor shall maintain a "Register of Advances" in form (Appendix-K).
- 6.8 Register of Overtime-The contractor shall maintain a "Register of Overtime" in form (Appendix-L).
- 7.0 ATTENDANCE CARD-CUM WAGE SLIP:
- 7.1 The contractor shall issue an attendance card-cum-wage slip to each workman employed by him in the specimen form at (Appendix-E).
- 7.2 The card shall be valid for each wage period.
- 7.3 The contractor shall mark the attendance of each workman on the card twice each day, once at the commencement of the day and again after the rest interval, before he actually starts work.
- 7.4 The card shall remain in possession of the worker during the wage period under reference.
- 7.5 The contractor shall complete the wage slip portion on the reverse of the card at least a day prior to the disbursement of wages in respect of the wage period under reference.
- 7.6 The contractor shall obtain the signature or thump impression of the worker on the wage slip at the time of disbursement of wages and retain the card with himself.

8.0 EMPLOYMENT CARD

The contractor shall issue an Employment Card in form to each worker within three days of the employment of the worker (Appendix-F).

9.0 SERVICE CERTIFICATE

On termination of employment for any reason whatsoever the contractor shall issue to the workman whose services have been terminated, a service certificate in from Appendix-G.

10.0 PRESERVATION OF LABOUR RECORDS

All records required to be maintained under Regulations Nos. 6 and 7 shall be preserved in original for a period of three years from the date of last entries made in them and shall be made available for inspection by the Engineer-in-Charge, Labour Officer.

11.0 POWER OF LABOUR OFFICERS TO MAKE INVESTIGATIONS INQUIRY

The Labour Officer or any other person authorized by NPCC on its behalf shall have power to make inquiries with a view to ascertaining and enforcing due and proper observance of the Fair Wage Clauses and the Provisions of Regulations. He shall investigate into any complaint regarding the default made by the contractor or subcontractor in regard to such provision.

12.0 Inspection of Book and slips

The contractor shall allow inspection of all the prescribed labour records to any of his workers or to his agent at a convenient time and place after due notice is received or to

एन पी सी सी

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

the Labour officer or any other person, authorized by the Central Government on his behalf.

13.0 Submission of Returns

The contractor shall submit periodical returns as may be specified from time to time.

14.0 Amendments

NPCC may from to time, add or amend the regulations and on any question as to the application, interpretation or effect of these regulations the decision of the Zonal Manager concerned shall be final.

15.0 Contractor has to follow all the rules & regulations as per Labour Act and maintain all the records in the proper formats by obtaining from concerned labour department/office which are to be produced before the Owner / NPCC / labour officers for inspection as & when asked.



SECTION-V SPECIAL CONDITIONS OF CONTRACT (SCC)

GENERAL

The following special conditions shall be read in conjunction with General Conditions of contract, if there are any provisions in these Special Conditions, which are at variance with the provisions of General Conditions of Contract, the provisions in these special Conditions shall prevail.

- (1) The work in general shall be carried out as per CPWD/MOST specification updated with correction slips issued upto last date of submission of e-tender.
- (2) For items not covered under CPWD/MOST Specification, as above, the work shall be done as per latest relevant ISI /BIS Codes of practice.

1.0 INTRODUCTION

1.1 APPROACH TO SITE

The proposed site is in Piprakothi (Motihari) in the state of Bihar.

2.0 **LETTER OF UNDERTAKING**

The tender shall be accompanied by Letter of acceptance of tender conditions as per proforma given in this tender document.

- 3.0 Any tender not accompanied by Letter of acceptance in accordance with aforesaid provision of Notice Inviting Tender and Instructions to Tenderer shall be rejected.
- 4.0 Once the Tenderer has given an unconditional acceptance to the tender conditions in its entirety, he is not permitted to put any remark(s)/conditions(s)(except unconditional rebate on price,if any)in/along with the tender.

5.0 SITE VISIT AND COLLECTING LOCAL INFORMATION

Before tendering, the tenderer is advised to visit the site, its surrounding, access and satisfy themselves about the local conditions such as approach roads to the site, availability of water & power supply, application of taxes, duties and levies as applicable, nature of ground, soil and sub-soil condition, underground water table level, accommodations they may require etc., The tenderer may obtain all necessary information as to risks, contingencies & other circumstances (insurgencies etc.) which may influence or affect their tender. Tenderer shall be deemed to have considered site conditions whether he has inspected it or not and to have satisfied himself in all respect before quoting his rates and no claim or extra charges whatsoever in this regard shall be entertained / payable by the NPCC at a later date.

6.0 **GST& TURNOVER TAX ETC.**

As per GCC conditions



7.0 TRANSFER OF BID DOCUMENTS

Transfer of bid documents purchased by one intending bidder to another is not permissible.

8.0 The NPCC reserves the right to award the work to a single party or to split the work amongst two or more parties as deemed necessary without assigning any reason whatsoever.

9.0 NO ESCALATION PAYMENT / PRICE VARIATION ADJUSTMENT

The rates quoted by the contractor shall be firm and fixed for entire contract period as well as extended period for completion of works. All rates as per bill of quantities (BOQ) shall be firm & fixed for entire contract period as well as for extended period for completion of the project. No claim on account of any price variation / Escalation on whatsoever ground shall be entertained at any stage of works.

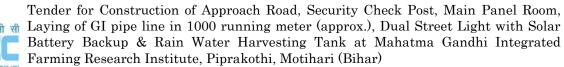
- 10.0 The rates and prices to be tendered in the bill of quantities are for completed and finished items of works and complete in all respects. It will be deemed to include all constructional plant, labour, supervision, materials, transport, all temporary works, erection, maintenance, contractor's profit and establishment / overheads, together with preparation of designs drawings pertaining to casting yard (if required). Staging from work, stacking yard, etc, all general risk, taxes, royalty, duties, cess, octroi and other levies, insurance liabilities and obligations set out or implied in the tender documents and contract.
- 11.0 The materials products used on the works shall be one of the approved **makes/brands** out of list of manufacturers / brands /makes given in the tender documents. The contractor shall submit samples /specimens out of approved makes of materials /products to the engineer in charge for prior approval. In exceptional circumstances engineer in charge may allow alternate equivalent makes /brand s of products /materials at his sole discretion .The final choice of brand / make shall remain with the engineer in charge, whose decision in the matter shall be final and binding and nothing extra on this account shall be payable to the contractor.

Incase single brand / make are mentioned, other equivalent makes brands may be considered by the engineer in charge with prior approval .Incase of variance in CPWD's specification from approved products makes specification the specification of approved products make shall prevail for which nothing shall be paid extra to the contractor

As soon as possible after the contract is concluded the contractor should submit a time and progress chart and get it approved by the NPCC. The chart shall be prepared in direct relation to the time stated in the contract documents for completion of items of works. It shall indicate the forecast of the dates of commencement and completion of various trades of section of the work and may be amended as may be necessary by agreement between the parties.

13.0 AMENITIES TO BE PROVIDED BY CONTRACTOR TO NPCC

On account of furnished Unit Office equipped with all facilities such as telephone, fax, internet, photocopier, computer/ laptop & printer along with operator, regular electric & purified drinking water supply etc. as per the requirement of the project an amount equal to 1% of gross bill from all running account & final bill will be recovered.



- 14.0 The contractor if required shall demolish old structures on the proposed site properly. The useful material shall be the property of the owner /NPCC and these materials shall be stacked in workmanship like at the place specified by the Engineer-in-Charge.
- 15.0 The contractor shall provide safety equipment and gadgets to all their workers, supervisors and technical staff engaged in the execution of the work while working. The equipment and gadgets shall also be provided to NPCC by the contractor at his own cost for use of NPCC officials and /or workforce.

The cost of the above equipments /gadgets shall be included in the rates quoted by the contractor for the items & works as per bill of Quantities and contractor shall not be entitled for any extra cost in this regard. The above norm is to be strictly complied with at site .In case the contractor is found to be deficient in providing safety equipment/ gadgets in opinion of engineer in - charge, the engineer in charge at his option can procure the same at the risk & cost of contractor and provide the same for the use at work site and shall make the recoveries from the bills of the contractor for the same. The decision of the engineer -in -charge shall be final and binding on contractor in this regard.

- 16.0 The tenderer shall quote his rates inclusive of GST, turnover tax/ sales tax on works and LabourCess payable to Central/State Government along with other taxes, duties, levies etc. in conjunction with other terms and conditions.
- 17.0 If required, the contractor has to do site clearance, enabling work, barricading, shifting / realignment of existing utility services etc. at his own cost and the contractor shall not be entitled for any extra payment whatsoever in this regard.
- 18.0 In case of any sort of anomalies and/or typing error in the nomenclature, rates, & Description etc. of the items indicated in the Price bid / BOQ of scheduled items must be read as per respective schedule such as DSR-2016.
- 19.0 Deleted
- 20.0 Contractor has to submit a Construction Programme within 10 days of issue of LOA/LOI.
- Unless otherwise provided in the schedule of quantity, rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads, & depths of the building and nothing extra shall be paid to him on this account.
- 22.0 All drawings shall at all times be properly correlated before executing any work. However, in case of any discrepancy in the item given in the schedule of the quantities appended with the tender and architectural drawings relating to relevant item, the former shall prevail unless and otherwise given in writing by the engineer in charge.
- 23.0 The contractor shall be required to produce samples of all building materials and fittings sufficiently in advance to obtain approval of the Engineer-in charge.
- 24.0 The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charges which he may be liable.
- 25.0 The rate of all items in which use of cement is involved inclusive of all charges for curing.



26.0 MODE OF PAYMENT As per GCC conditions

- 27.0 The rate quoted by the contractor shall be deemed to be inclusive of GST, Turnover Tax on works contract, Labourcess or any other similar tax as per the laws applicable in the State.
- 28.0 The stamp duty if any on the contract agreement levied by the Government or any other statutory body shall be paid by the contractor.
- 29.0 The contractor shall obtain all the statutory clearance / permission / licenses on behalf of NPCC from different Government and civic bodies for implementation of the project.
- 30.0 The contractor shall submit to NPCC monthly report indicating physical and financial progress by 10th of every month;
- 31.0 The contractor shall confirm that the activities proposed under the project shall conform to all Environmental Legislations, any judicial orders in force at the site of work including the Environment and Social Safeguard measures as per the NGRBA framework.
- 32.0 The contractor shall obtain the required statutory approval on behalf / in the name of ICAR- Mahatma Gandhi Integrated Farming Research Institute, Piprakothi (if applicable).
- 33.0 Operation and Maintenance (O&M) cost for 12 months shall be part of construction contracts and to be executed by the contractor.
 - Review from time to time the performance of construction during the Defects Liability Period (12 months) and get rectification done by the CONTRACTOR, if necessary at no extra cost and for this purpose the contractor shall submit adequate Bank Guarantee under the Construction Contract.
- 34.0 The contractor shall not be at liberty to release any news, information, advertisement and propaganda etc., regarding this AGREEMENT to the Press or any other broadcasting media, except with the prior written APPROVAL from NPCC.
 - 35.0 The contractor and their personnel shall not, either during the term or after expiration of the AGREEMENT, disclose any proprietary or confidential information relating to the network, AGREEMENT or ICAR- Mahatma Gandhi Integrated Farming Research Institute, Piprakothi's business or operations without the prior written consent of NPCC.
- 36.0 The contractor shall provide all information, news and pre-post work photos/video to NPCC;
- 37.0 During the performance of SERVICES hereunder, the contractor shall take out/carry/maintain insurance as "Builder All Risk Insurance"



Forms



Appendix - 'A'

LABOUR BOARD

S. No.	Description	
1.	Name of work	
2.	Name of Contractor	
3.	Address of Contractor	
4.	Name and Address of Unit	
5.	Name of Labour Enforcement Officer	
6.	Address of Labour Enforcement	
	Officer	
7.	Date:	

S. No	Category	Minimum Wages fixed	Actual Wages fixed	Numbers present	Remarks

Weekly Holiday	
Wage Period	
Date of Payment of wages	
Working hours	
Rest interval	



Appendix - 'B'

FORM 13

(See Rule 75)

REGISTER OF WORKMEN EMPLOYED BY CONTRACTOR

S.No.	Description	
	Name and Address of Contractor	
	Name and Address of Establishment in/ under which contract is carried on	
	Nature and location of work	
	Name & Address of Principal Employer	
1	Sl. No.	
2.	Name and surname of workman	
3.	Age & sex	
4.	Father's/ Husbands Name	
5.	Nature of employment / designation	
6.	Permanent home address of the workman (village and Taluk and District)	
7.	Local address	
8.	Date of commencement of employment	
9.	Signature or thumb impressions of the workman	
10.	Date of termination of employment	
11.	Reasons for termination	
12.	Remarks	



Appendix - 'C'

FORM XVI

[See Rule 78(2) (193)]

MUSTER ROLL

S.No.	Description	
	Name and address of contractor	
	Name and address of establishment	
	in/under	
	which contract is carried on	
	Nature and location of work	
	N 1 1 1 1 CD : : 1 E 1	
	Name and Address of Principal Employer	
	For the month / fortnight	
	For the month / forthight	
1.	S. No.	
	D. 110.	
2.	Name of the workman	
3.	Sex	
4.	Father's/Husband's Name	
5.	Dates (1, 2, 3, 4, 5,12, 13, 14,	
	15)	
6.	Remarks	



Appendix - 'D'

FORM XVII

[See Rule 78(2) (03)]

REGISTER OF WAGES

	Name and address of contractor
	Name and address of establishment
	in/under which contract is carried on
	Nature and location of work
	Name and Address of Principal
	Employer
	Wage period: per month/ fortnightly
1	Sl. No.
2	Name of Workman
3	Serial No. in the register of workman
4	Designation /nature of work done
5	Nos. of days worked
6	Units of work done
7	Daily rate of wages/ piece rate
8	Basic rate of Wages
9	Dearness allowance
10	Overtime
11	Other cash payments (Nature of
	payments to be indicated)
12	Total
13	Deduction if any (indicate nature)
14	Net amount paid
	•
15	Signature thumb impression of the
	workman
16	Initials of contractor or his
	representatives
	1



Appendix - 'E'

FORM XIX

[SEE RULE 78 (2) (B)]

WAGESLIP

Name and address of contractor	
Name and Father's/Husband's Name of workman	
Nature and location of work	
For the Week/Fortnight/Month ending	
No. of days worked	
No. of Units worked in case of piece rate works	
Rate of daily wages/piece rate	
Amount of overtime wages	
Gross wages payable	
Deductions if any	
Net amount of wages paid	
Sign of the Contractor	
Received the sum of Rstowards my wages for the above period.	
	Name and Father's/Husband's Name of workman Nature and location of work For the Week/Fortnight/Month ending No. of days worked No. of Units worked in case of piece rate works Rate of daily wages/piece rate Amount of overtime wages Gross wages payable Deductions if any Net amount of wages paid Sign of the Contractor Received the sum of Rs.————————————————————————————————————

Sign. of workman:	
_	



Appendix - 'E'

WAGE CARD

Wage Card No. &	Date of Issue	
	Month/Fortnight	
Name and address of Contractor		
Nature of work with location	Designation	
Name of workman		
		•

Rate of Wages

Dates	Morning	Evening	Rate	Amount	Initials
1	2	3	4	5	6

Received from the sum of Rs. on account of my wagon.

Signature

The wage card is valid for one month from the date of issue.



Appendix - 'F'

FORM XIV

(See Rule 76)

EMPLOYMENT CARD

S. No.	Description	
	Name and address of contractor	
	Name and address of establishment	
	under which	
	the contract is carried out	
	Nature and location of work	
	Travaro ana rocación el wem	
	Name and address of Principal	
	Employer	
1	Name of the workman	
2	Sl.No in the register of workman employed	
3	Nature of Employment/Designation	
4	Wage rate (with particulars of unit in case of piece work)	
5	Wage Period	
6	Tenure of employment	
7	Remarks	

Signature of Contractor



Appendix - 'G'

Form XV

(See Rule 77)

SERVICE CERTIFICATE

Name and address of contractor	
Nature and location of work	
Name and address of workman	
Age or date of birth	
Identification Marks	
Father's/Husband's Name	
Name and address of establishment in/under	
which	
contract is carried on	
Name and address of Principal Employer	
Total period of which employed	

S	5. Vo.	From	То	Nature of work	Rate of wages	Remarks
		_				

with particulars of unit (in case of piece work)

Signature



Appendix - 'H'

Form XII

[See Rule 78 (2) (D)]

REGISTER OF FINES

SNo.	Name of	Father's /	Designation/	Act/Omission	Date of offence
			nature		
	Workman	Husband Name	of employment		for which fine imposed
1	2	3	4	5	7

8	Whether workman showed	
	causes against fine	
9	Name of person in whose	
	presence employees	
	explanation was heard	
10	Wages period and wages	
	payable	
11	Amount of fine imposed	
12	Date on which fine realized	
13	Remarks	



Appendix - 'I'

LIST OF ACTS AND OMISSIONS FOR WHICH FINES CAN BE IMPOSED

In accordance with rule of Labour Regulations, to be displayed prominently at the site of work both in English and local language.

)th 11:	English and local language.			
1	Willful insubordination or disobedience, whether alone or in combination with other.			
2	Theft, fraud or dishonestly in connection with contractors beside a business or property.			
3	Taking or giving bribes or any illegal gratifications.			
4	Habitual of Late attendance.			
5	Drunkenness fighting riotous or disorderly or indifferent behaviors.			
6	Habitual negligence.			
7	Smoking near or around the area where combustible or other materials are locked.			
8	Habitual indiscipline.			
9	Causing damage to work in the progress or to property of the NPCC or of the contractor.			
10	Sleeping on duty.			
11	Malingering or slowing down work.			
12	Giving the false information regarding name, age, fathers name etc.			
13	Habitual loss of wage cards supplied by the employer.			
14	Unauthorized use of employers property or manufacturing or making of unauthorized articles at the work place.			
15	Bad workmanship in construction and maintenance by skilled workers, which is not approved by the NPCC for which the contractors are compelled to undertake rectifications.			
16	Making false complaints and/or misleading statements.			
17	Engaging on trade within the premises of the establishment.			
18	Any unauthorized divulgence of business affairs of the employees.			
19	Collection or canvassing for the collection of any money within the premises of an establishment unless authorized by the employer.			



20	Holding meeting inside the premises without previous sanction of the employers.
21	Threatening or intimidating any workman or employee during the working hours



Appendix - 'J'

Form XX [See Rule 78 (2) (D)]

REGISTER OF DEDUCTIONS FOR DAMAGES OR LOSS

	Name and address of contractor	
	Name and address of establishment in/	
	under which	
	contract is carried on	
	Nature and location of work	
	Ivature and location of work	
	Name and address of Principal Employer	
1	S. No.	
2	Name of workman	
3	Father's/Husband's Name	
4	Designation/nature of employment	
5	Particulars of damage or loss	
6	Date of damage/loss	
7	Date of recovery	
8	Whether workman showed cause against deductions	
9	Name of person in whose presence employees explanation was heard	
10	Amount of deduction Imposed	
11	No. of installment	
12	First Installment Last Installment	
	2 222 2	
13	Remarks	

.



Appendix - 'K'

Form XXII [See Rule 78(2)]

REGISTER OF ADVANCES

	Name and address of contractor	
	Name and address of establishment in/ under which	
	contract is carried on	
	Nature and location of work	
	Name and address of Principal Employer	
_		
1	S. No.	
-		
2	Name of workman	
0	T3 (1 2 /TT 1 12 N)	
3	Father's/Husband's Name	
4	Desires eties de terre	
4	Designation/nature of employment	
5	Wages period and wages payable	
-		
6	Date and amount of advance given	
7	Purpose / for which advance made	
8	No. of installments by which advance is to be paid	
9	Date and amount of each installment repaid	
10	Date on which last installment was repaid	
11	Remarks	



Appendix - 'L'

Form XXIII [See Rule 78(2) (E)]

REGISTER OF OVERTIME

	Name and address of contractor	
	Name and address of	
	establishment in/ under which	
	contract is carried on	
	Nature and location of work	
	Name and address of Principal Employer	
	21	
1	S. No.	
0	N. C. I	
2	Name of workman	
3	Father's/Husband's	
	T GOTTO S. TI HOS GITTE S	
4	Sex	
5	Designation/nature of employment	
6	Date on which overtime worked	
7	Total overtime worked or	
1	Total overtime worked or production in case of piece rated	
	production in ease of precentation	
8	Normal rate of wages	
9	Overtime rate of wages	
10	Overtime earning	
11	D. d. l. l.	
11	Rate on which overtime wages paid	
12	Remarks	



Appendix - 'M'

LIST OF APPROVED BANKS

Nationalized Banks:

The BGs shall be accepted from all Nationalizes Banks, and in addition, these can also be accepted from the Scheduled Private as detailed below:

Scheduled Private Sector Banks:

- ING Vysya Bank Ltd
- Axis Bank Ltd
- ICICI Bank Ltd
- HDFC Bank Ltd



APPLICATION FOR EXTENSION OF TIME

(To be completed by the Contractor)

PART-I

- 1. Name of Contractor
- 2. Name of the work as given in the Agreement
- 3. Agreement No.
- 4. Estimated amount put to tender
- 5. Date of commencement work as per agreement
- 6. Period allowed for completion of work as per agreement
- 7. Date of completion stipulated as per agreement
- 8. Period for which extension of time has been given previously

Extension granted

a) First extensi	on vide	Enginee	er-in- charg	e letter No	date Months Days
	,					= = = = = = = = = = = = = = = = =

b) 2nd extension vide Engineer-in- charge letter No....... date Months Days

c) 3rd extension vide Engineer-in- charge letter No........ date Months Days

d) 4th extension vide engineer-in- charge letter No....... date Months Days

Total extension previously given

- 9. Reasons for which extension have been previously given (copies of the previous application should be attached)
- 10. Period for which extension is applied for:
- 11. Hindrances on account of which extension is applied for with dates on which hindrances occurred, and the period for which these are likely to last.
- a) Serial No.
- b) Nature of hindrance
- c) Date of Occurrence
- d) Period for which it is likely to last
- e) Period for which extension required for this particular hindrance.
- f) Over lapping period, if any, with reference to item



g) Net extension applied for

h) Remarks, if any

Total period for which extension is now applied for on account of hindrances mentioned aboveMonth/ days.

- 12. Extension of time required for extra work.
- 13. Details of extra work and on the amount involved:
- a) Total value of extra work
- b) Proportionate period of extension of time based on estimated amount put to tender on account of extra work.
- 14. Total extension of time required for 11 & 12

Submitted to the Engineer-in-Charges office.

SIGNATURE OF CONTRACTOR

DATE



APPLICATION FOR EXTENSION OF TIME

PART - II

- 1. Date of receipt of application from the Contractor in the Engineer-in-charge's office.
- 2. Acknowledgement issued by Engineer-in-charge vide his letter No dated
- 3. Engineer-in-charge remarks regarding hindrances mentioned by the Contractor.
- i) Serial No.
- ii) Nature of hindrance
- iii) Date of occurrence of hindrance
- iv) Period for which hindrance, is likely to last
- v) Extension of time period applied for by the contractor
- vi) Over lapping period, if any, giving reference to items which over lap
- vii) Net period for which extension is recommended.
- viii) Remarks as to why the hindrance occurred and justification for extension recommended.
- 4. Engineer-in-charge recommendations.

(The present progress of the work should be stated and whether the work is likely to be completed by the date up to which extension has been applied for. If extension of time is not recommended, what compensation is proposed to be levied under the agreement?

SIGNATURE OF ENGINEER-IN-CHARGE

APPROVAL OF ZONAL MANAGER



PROFORMA FOR EXTENSION OF TIME

PART-III
Γο
NAME
ADDRESS OF THE CONTRACTOR
SUBJECT:
Dear Sir(s)
Reference your letter No dated, in connection with the grant of extension of time for completion of the work
The date of completion for the above mentioned work, is as stipulated in the agreement, dated
Extension of time for completion of the above-mentioned work is granted up to, without prejudice to the right of the NPCC to recover compensation for delay in accordance with the provision made in the relevant Clause (s) of the said agreement dated the// It is also clearly understood that the NPCC shall not consider any revision in contract price or any other compensation whatsoever due to grant of this extension.
Provided that notwithstanding the extension hereby granted, time is and shall still continue to be the essence of the said agreement.
Yours faithfully,
FOR NPCCLTD.



NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

PROFORMA OF BANK GUARANTEE (FOR PERFORMANCE GUARANTEE)

NATIONAL PROJECTS CONSTRUCTION CORPORATION LIMITED,

(Address as mentioned in Notice Inviting e-Tender)

Whereas the National Projects Co.	nstruction Corpor	ration Limited	(hereinafter	called "NPCC"
which expression shall include	its successors	and assigns)	having awa	rded a work
order/contract / supply order No	Dated	(herein	after called t	he contract) to
M/s	(Hereinafter o	called the cont	ractor / suppl	lier) at a total
price of Rs subject to the t	erms and conditio	ns contained in	the contract.	

We, the Bank, (hereinafter called the "Bank") do hereby unconditionally and irrevocably undertake to pay to NPCC immediately on demand in writing and without protest/or demur all moneys payable by the contractor/supplier to NPCC in connection with the execution/ supply of and performance of the works/equipment, inclusive of any loss, damages, charges, expenses and costs caused to or suffered by or which would be caused to or suffered by NPCC by reason of any breach by the contractor/supplier of any of the terms and conditions contained in the contract as specified in the notice of demand made by NPCC to the bank. Any such demand made by NPCC on the bank shall be conclusive evidence of the amount due and payable by the bank under this guarantee. However, the Bank's liability under this guarantee, shall be limited to Rs......in the aggregate and the bank hereby agrees to the following terms and conditions:-

- (i) This guarantee shall be a continuing guarantee and irrevocable for all claims of NPCC as specified above and shall be valid during the period specified for the performance of the contract including the period of maintenance/warranty i.e. up to...........
- (ii) We, the said bank further agree with NPCC that NPCCshall have the fullest liberty without our consent and without affecting in any manner our obligations and liabilities hereunder to vary any of the terms and conditions of the said contract or to extend time for performance of contract by the contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by NPCC against the contractor/supplier under the contract and forbear or enforce any of the terms and conditions relating to the said contract and we shall not be relieved from our liability by reason of any such variations or extension being granted to the contractor or for any forbearance, act or omission on the part of NPCC or any indulgence by NPCC to the contractor or by any such matter or thing whatsoever, which under the law relating to the sureties would, but for this provision, have effect of so relieving us.
- (iii) This guarantee/undertaking shall be in addition to any other guarantee or security whatsoever

NPCC may now or at any time have in relation to the performance of the works/equipment and the company shall have full re-course to or enforce this security in performance to any other security or guarantee which the NPCC may have or obtained and there shall be no forbearance on the part of the company in enforcing or requiring enforcement of any other security which



shall have the effect of releasing the Bank from its full liability. It shall not be necessary for NPCC to proceed against the said contractor/supplier before proceeding against the Bank.

- (iv) This guarantee/ undertaking shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the supplier/ contractor, but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to NPCC in terms thereof are paid by the Bank.
- (v) The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the bank in terms hereof, shall not be otherwise effected or suspended by reasons of any dispute or disputes having been raised by the supplier/contractor (whether or not pending before any Arbitrator, Tribunal or Court) or any denial of liability by the supplier/contractor stopping or preventing or purporting to stop or prevent any payment by the Bank to NPCC in terms hereof.

We, the said Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of NPCC in writing. Unless a claim is made in writing within three months from the date of expiry of this guarantee i.e................ (Three months after the date of expiry) we shall be relieved from all liabilities under this guarantee thereafter.

Signed this	day of	at
For and on behalf o	of Bank	
WITNESS.		
1		
n		



Bank.

National Projects Construction Corporation Ltd.

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

NATIONAL PROJECTS CONSTRUCTIONCORPORATION LIMITED

(A GOVERNMENT OF INDIAENTERPRISE)

PROFORMA OF BANK GUARANTEE (IN LIEU OF SECURITY DEPOSIT)

In consideration of the National Projects Construction Corporation Ltd., (hereinafter called "the NPCC") which expression shall include its successors and assigns having awarded to M/s
(Rupees
1. This Guarantee shall be continuing guarantee and shall remain valid and irrevocable for all claims of the Company and liabilities of Supplier/Contractor arising up to and until midnight of
2. That Guarantee shall be in addition to any other Guarantee or Security whatsoever that the Company now or at any time have in relation to the Supplier's obligations/liabilities under and/or in connection with the said supply/contract, and the company shall have full authority to take recourse or to enforce this Security in preference to any other Guarantee or Security which the Company may have or obtain and no forbearance on the part of the Company in enforcing or requiring enforcement of any other Security shall have the effect of releasing the Bank from its liability hereunder.
3. The Company shall be at liberty without reference to the Bank and without affecting the full liability of the Bank hereunder to take any other security in respect of the Supplier's/Contractor's obligations and/ or liabilities under or in connection with the said supply/contract or to grant time and / or indulgence to the supplier / contractor or to increase or otherwise vary the prices or the total contract value or to release or to forbear from enforcement of all or any of the conditions under the said supply / contract and / or the remedies of the

Company under any other security/securities now or hereafter held by the Company and no such dealings, increase(s) or other indulgence(s) or arrangement(s) with the supplier / contractor or releasing or forbearance whatsoever shall have the effect of releasing the Bank from its full liability to the Company hereunder or prejudicing rights of the company against the



- 4. This Guarantee shall not be determined or affected by the liquidation or winding up, dissolution or change of constitution or insolvency of the supplier / contractor but shall in all respects and for all purposes be binding and operative until payment of all moneys payable to the company in terms thereof.
- 5. The Bank hereby waives all rights at any time inconsistent with the terms of this Guarantee and the obligations of the Bank in terms hereof shall not be otherwise affected or suspended by reason of any dispute or disputes having been raised by the supplier / contractor (whether or not pending before any Arbitrator, Tribunal or Court) or any denial or liability by the supplier/contractor stopping/ preventing or purporting to stop or prevent any payment by the Bank to the Company in terms thereof.

Notwithstanding	anything	contained	herein	before	our	liability	under	this	guarantee	is
restricted to Rs	(B	Rupees						.only)).	
This guarantee wi	ill expire o	n								
Any claim under	this Guara	antee must	be recei	ived by	us w	ithin thre	ee mont	hs fro	m the date	e of
expiry i.e	(This I	Date is, thre	ee montl	hs after	the e	expiry dat	e) and i	f no s	uch claim	has

been received by us by that date all your rights under this guarantee will cease.

For and on behalf of the Bank

Place

Date

WITNESS:

1.

2.



NATIONAL PROJECTS CONSTRUCTIONCORPORATION LIMITED

(A GOVERNMENT OF INDIA ENTERPRISE)

PROFORMA OF BANK GUARANTEE (FOR MOBILIZATION ADVANCE)

NATIONAL PROJECTS	CONSTRUCTION	CORPORATION LIMITED,

- In consideration of the NPCC......(hereinafter called "the Corporation" which 1. expression shall unless repugnant to the subject or context include his successor and assigns) having agreed under the terms and conditions of Contract dated... between......and the Corporation in connection with... (Hereinafter called "the said contract") to make at the request of the Contractor a Mobilization Advance of Rs... for utilizing it for the purpose of the Contract on his furnishing a guarantee acceptable to the Corporation, we the..... Bank (hereinafter referred to the "the said Bank") and having our registered office at....... do hereby guarantee the due recovery by the Corporation of the said advance as provided according to the terms and conditions of the Contract. We...... do hereby undertake to pay the amount due and payable under this Guarantee without any demur, merely on a demand from the Corporation stating that the amount claimed is due to the Corporation under the said Agreement. Any such demand made on the......shall be conclusive as regards the amount due and payable by under this guarantee and....... agree that the liability of theto pay the Corporation the amount so demanded shall be absolute and unconditional notwithstanding any dispute or disputes raised by the Contractor and notwithstanding any legal proceeding pending in any court or Tribunal relating thereto. However, our liability under this Guarantee shall be restricted to an amount not exceeding Rs......
- 2. We Bank further agree that the Corporation shall be the sole judge of and as to whether the amount claimed has fallen due to the corporation under the said agreement or whether the said Contractor has not utilized the said advance or any part thereof for the purpose of the Contract and the extent of loss or damage caused to or suffered by the Corporation on account of the said advance together with interest not being recovered in full and the decision of the Corporation that the amount has fallen due from contractor or the said Contractor has not utilized the said advance or any part thereto for the purpose of the contract and as to the amount or amounts of loss or damage caused to or suffered by the Corporation shall be final and binding on us.
- 3. We, the said Bank, further agree that the Guarantee herein contained shall remain in full force and effect till the said advance has been fully recovered and its claims satisfied or discharged and till NPCC certify that the said advance has been fully recovered from the said Contractor, and accordingly discharges this Guarantee subject, however, that the Corporation shall have no claims under this Guarantee after the said advance has been fully recovered, unless a notice of the claims under this Guarantee has been served on the Bank before the expiry of the said Bank Guarantee in which case the same shall be enforceable against the Bank.
- 4. The Corporation shall have the fullest liberty without affecting in any way the liability of the Bank under this Guarantee or indemnity from time to time to vary any of the terms and conditions of the said Contract or the advance or to extend time of performance by

the said Contractor or to postpone for any time and from time to time of the powers exercisable by it against the said Contractor and either to enforce or forbear from enforcing any of terms and conditions governing the said Contract or the advance or securities available to the Corporation and the said Bank shall not be released from its liability under these presents by any exercise by the Corporation of the liberty with reference to the matters aforesaid or by reasons of time being given to the said Contractor or any other forbearance, act or omission on the part of the Corporation or any indulgence by the Corporation to the said Contractor or of any other matter or thing whatsoever which under the law relating to sureties would but for this provision have the effect of so releasing the bank from its such liability.

- 5. It shall not be necessary for the Corporation to proceed against the Contractor before proceeding against the Bank and the Guarantee herein contained shall be enforceable against the Bank notwithstanding any security which the Corporation may have obtained or obtain from the Contractor or shall at the time when proceedings are taken against the Bank hereunder be outstanding or unrealized.
- 6. We, the said Bank, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Corporation in writing and agree that any change in the constitution of the said Contractor or the said Bank shall not discharge our liability hereunder.

Dated	this	day	of

For and on behalf of Bank

(NAME AND DESIGNATION)

Dated:



2.

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR ANTI-TERMITETREATMENT

THIS AGREEMENT made this day of Two thousand between M/s (hereinafter called the guarantor of the one part) and M/s National Projects Construction Corporation Limited, (hereinafter called the NPCC) the OWNER of the other part.
Whereas this agreement is supplementary to the contract hereinafter called the contract dated made between the guarantor of the one part and National Projects Construction Corporation Ltd., of the other part whereby the contractor inter-alia, understood to render the buildings and structures in the said contract recited, completed, termite proof. And whereas the guarantor agreed to give a guarantee to the effect that the said structure will remain termite proof for TEN YEARS to be so reckoned from the date after the maintenance period prescribed in the contract expires.
During this period of guarantee the guarantor shall make good all defects and for that matter shall replace at his risk and cost such wooden member as may be damaged by termite and in case of any other defect being found, he shall render the building termite proof at his cost to the satisfaction of the Engineer-in-charge and shall commence the works of such rectification within seven days from date of issuing notice from the Engineer-in-Charge calling upon him to rectify the defects falling which the work shall be got done by NPCC/OWNER by some other contractor at the guarantor's cost and risk and in the latter case the decision of the Engineer-in-charge as to the cost recoverable from the guarantor shall be final and binding.
That if the Guarantor fails to execute the Anti-Termite treatment or commits breaches hereunder then the Guarantor will indemnify NPCC against all losses damages, cost expenses or otherwise which may be incurred by him by reasons of any default on the part of the guarantor in performance and observance of this supplemental Agreement. As to the amount of loss and or damage and/or cost incurred by NPCC/ OWNER decision of the Engineer-in-charge will be final and binding on the parties.
In witness where of these presents have been executed by the guarantor and by for and on behalf of NPCC on the day of month and year first above written.
Signed sealed and delivered by (Guarantor)
IN THE PRESENCE OF:
1.
2.
Signed for and on behalf of NPCC by/ in presence of:
1.



2.

Tender for Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)

GUARANTEE TO BE EXECUTED BY CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

COMPLETION IN ICESTED OF WITHIN THOOTING WOMEN
The agreement made this
WHEREAS this agreement is supplementary to a contract (hereinafter called the Contract), dated and made between the GUARANTOR OF THE ONE part and the NPCC of the other part, whereby the Contractor, inter-alia, undertook to render the buildings and structures in the said contract recited completely water and leak proof.
AND WHEREAS the Guarantor agreed to give a guarantee to the effect that the said structures will remain water and leak proof for ten years from the date of handing over of the structure of water proofing treatment
NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structures completely leak proof and the minimum life of such water proofing treatment shall be ten years to be reckoned from the date after the maintenance period prescribed in the contract provided that the Guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose.
a) Misuse of roof shall mean any operation, which will damage proofing treatment, like chopping of firewood and things of the same nature, which might cause damage to the roof.
b) Alternation shall mean construction of an additional storey or a part of the roof or construction adjoining to existing roof whereby proofing treatment is removed in parts
c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final
During this period of guarantee, the Guarantor shall make good all defects and in case of any defect being found render the building water proof to the satisfaction of the Engineer-in-Charge at his cost and shall commence the work for such rectification within seven days from the date of issue of notice from the Engineer-in-Charge calling upon him to rectify the defects failing which the work shall be got done by the NPCC by some other Contractor at the guarantor's cost and risk. The decision of Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.
That if the Guarantor fails to execute the waterproofing or commits breach thereunder, then the Guarantor will indemnify the principal and his successors against all laws damage, cost, expense or otherwise which he may incur by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and/ or cost incurred by the NPCC, the decision of the Engineer-in-Charge will final and binding on the parties.
IN WITNESS WHEREOF these presents have been executed by the Obligator, and by for and on behalf of the NPCC on the day, month and year first above written.
Signed, sealed and delivered by Obligator in the presence of- 1. 2.
Signed for and on behalf of the NPCC by
In presence of: 1.



AGREEMENT FORM

This Agreement No
WHEREAS, NPCC has desirous for
(hereinafter referred to as "OWNER"), had invited tender as per tender documents vide NIT No.:
AND WHEREAS,
Now this indenture witnessed that in consideration of the payment to be made as per terms and conditions by NPCC Limited to
The following shall be part of the agreement:
 NPCC Limited Letter of Award No
 4 (name of Contractor)Letter of Acceptance. 5. Construction Program / Bar chart submitted by Contractor/Agency.
AND THE NPCC do hereby agree that if
It is hereby agreed that all the provisions of the said condition, specification which have been carefully read and understood by



CONSTRUCTION CORPORATION LIMITED

For and on behalf of:	For and on behalf of:
(NAME OF CONTRACTOR)	NATIONAL PROJECTS

WITNESS: WITNESS:

1. 1.

2. 2.



SECTION-VI TECHNICAL SPECIFICATIONS

PARTICULAR SPECIFICATIONS FOR CIVIL WORK

1.0 All works will be executed in the most substantial and workman like manner both as regards materials and otherwise in every respect in strict accordance with DSR-2016/ Latest CPWD Specifications with up to date correction slips.

2.0 EARTH WORK

- 2.1 Before commencing the earth work, the ground levels shall be taken at 5 to 15m interval or as shall be directed by the Engineer-in-charge. Where local mounds, pits or undulations are met with closer internal shall be adopted.
- 2.2 The ground levels shall be recorded in the level books and plotted on plan on suitable scale as per direction of Engineer-in-charge. The North direction and position of Bench Mark shall be shown on the plans. The ground levels for building and the sub-soil water level shall be determined with respect to the bench mark approved by the Engineer-in-charge before commencement of the work and these levels shall be recorded in the level book and also indicated on the 'Plan' showing ground levels. These plans shall be signed by the Contractor and the Engineer-in-charge before the earth work is started.

2.3 Deleted

- 2.4 'Plan' showing ground levels. These plans shall be signed by the Contractor and the Engineer-in-charge before the earth work is started.
- 2.5 All labour and material for setting out and making profile and taking ground levels shall be supplied by the contractor and nothing extra shall be payable on this account.
- 2.6 The Bidder shall co-operate and provide all possible assistance to the other agency /agencies executing other works. He shall adjust his execution program to accommodate such essential activities of construction.
- 2.7 Rate for earth work shall include the following operations:
 - a. Setting out works, profiles
 - b. Site clearance
 - c. Protection measures and putting up caution signs and lights.
 - d. Handling useful materials and Antiques.
 - e. Bailing out or pumping of rain water / underground water out of excavation.

3.0 CONCRETE / REINFORCED CEMENT CONCRETE WORK/ DESIGN MIX CONCRETE

- 3.1. Cement concrete work using nominal mix concrete shall be executed as per DSR/CPWD Specifications with up to date correction slips.
- 3.1(a) The item machine batched, machine mixed and machine vibrated design mix concrete used in the nomenclature of "Sub head RCC Work" shall mean the concrete produced in automatic concrete batching and mixing plant and transported by transit mixers (if necessary), placed in position and vibrated by surface vibrator / needle vibrator / plate vibrator as the case may be to achieve required strength and durability.



- 3.2. All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries or any other source to be got approved by the Engineer-in-charge.
- 3.3. Sand to be used for cement concrete RCC work shall not contain silt content by more than 8%.
- 3.4. Only PPC shall be used for the entire work.
- 3.5. All shuttering shall either be of steel or marine ply. All scaffolding shall be of steel. The contractor will have to manufacture new shuttering so as to obtain exposed concrete surface of even and uniform shade wherever required. Shuttering already used on other work(s) will not be permitted to be used in this work for obtaining exposed concrete surface. The steel / marine ply centering, shuttering and steel scaffolding shall be as per DSR/CPWD specifications.
- 3.6. Keeping in view the flooring thickness as per nomenclature of the item, the structural drawings shall be reconciled with the architectural drawings to make appropriate adjustment in the level of shuttering for RCC slab so as to achieve the final floor finish level as per Architectural drawing.

3.7 DESIGN MIX CONCRETE

The contractor shall exercise "very good" quality control over site conditions for production of controlled concrete by using fresh cement and regular tests employing fully automatic cement batching plant for batching of all materials, grading of aggregate, determination of moisture contents and control of water cement ratio, frequent supervision and by conducting regular workability and strength tests and maintaining adequate field laboratory facilities to maintain the specified quality of concrete consistently.

Grade Designation	Compressive strength on 15cm cubes min 7 days (N/mm²)	compressive at	Minimum cement content (kg per cubic metre)/ As per relevant IS Code	
M-25	As per Design	25	380	0.50

3.7(a) The aggregate used for RCC work shall be 20mm nominal maximum size aggregate and coarse sand will be as per DSR /CPWD specifications. Fly ash not permitted .The chloride content of admixture will be as per IS / CPWD standard. The minimum cement content and the maximum water cement ratio for various grades of concrete shall be as given below:

Note: Excess/Less cement content used as per design mix in respect of the above specified limit is payable / recoverable separately.

3.7(b) The concrete mix will be designed for minimum workability as per the table given below:

Placing conditions	Degree of workability	Slump (mm)
Lightly reinforced sections in slabs, beams, walls and columns	Low	25 –75
Heavily reinforced section in slabs beams walls and columns	Medium	100-125
Pumped concrete	Medium	100- 150



- 3.8. The contractor shall engage one of the following approved laboratories, test houses for designing the concrete mix in accordance with the relevant I.S. Codes and to conduct laboratory tests to ensure the target mean strength and workability criteria for a given grade of concrete
 - a. I.I.T (All)
 - b. N.I.T or Government Engineering College
 - c. Govt. approved Lab.

If all the above laboratories express in writing their inability to carry out designing and testing of concrete mixes by a specified date, the contractor may be allowed to engage any other laboratory with prior approval of Engineer-in-charge.

Records of design Mix & Mix design Modification: - Contractor shall insure that record of Mix design & mix design modifications is available at plant for inspection of Engineer-in-charge or his representative.

- 3.9. The source and quality of all ingredients of a concrete mix shall be got approved from the Engineer-in-charge before designing the mixes and their testing and the same shall be maintained during the execution of the work as well.
- 3.10. Any change in source or characteristic of any ingredient used in the concrete mix during the work execution shall require revised mix design and laboratory testing as per direction of the Engineer-in-charge and no further concrete work shall be proceeded without approval of the revised design mix.
- 3.11. In the event of use of admixtures to achieve the required workability, the mix shall be designed and tested using the admixture in suitable proportion.
- 3.12. All cost and charges of designing the concrete mix and its testing by approved laboratory including the redesigning of the concrete mix, whenever required and directed by the Engineer-in-charge, shall be borne by the Contractor and nothing extra shall be payable over the quoted rates.
- 3.13. The designed mix proportions shall be checked for target mean compressive strength by means of trial batches.
- 3.14. The quantities of materials for each trial mix shall be sufficient for at least six specimens(cubes) and the concrete required for carrying out workability test.
- 3.15. The workability of trial mix No. 1 shall be measured and mix shall be carefully observed forfreedom from segregation, bleeding and its finishing characteristics. The water content, if required, shall be adjusted corresponding to the required change in the workability.
- 3.16. With the modified water content, the mix proportions shall be recalculated by keeping with water cement ratio unchanged. The mix proportion, so modified, shall form the Trial Mix No. 2 and tested for the specified strength and workability.
- 3.17. In addition, trial mix No. 3 and 4 shall be designed by keeping water contents same as that determined for trial mix 2 but varying the water cement ratio by \pm 10 percent of the specified value and tested for their design characteristics.



APPROVAL OF DESIGN MIX CONCRETE

- 3.18. Minimum three sets of separate preliminary tests shall be carried out for each trial batch of concrete mix. Each test shall comprise of six specimens and only one test-set of six specimens shall be made on any particular day.
- 3.19. Of the six specimens of each test-set, three specimens shall be tested at 7 days and remaining three at 28 days.
- 3.20. The Preliminary tests at 7 days are intended only to indicate the likely strength to be attained at 28 days while the design mix shall be approved only on the basis of test strength at 28 days.
- 3.21. The contractor shall submit the design mix report from the approved laboratory within 45 days of award of work for approval of Engineer-in-charge. No concreting work shall be executed until the mix design is approved.
- 3.22. The design mix shall be considered satisfactory and approved if at least three preliminary test-sets individually satisfy the following strength and workability criteria:
- a The average strength of each test-set is not less than the specified target means compressive strength.
- b The strength of any specimen cube is not less than 0.85 times the target means compressive strength.
- c The concrete mix is of required degree of workability and acceptable concrete finish.

PRODUCTION OF CONTROLLED CEMENT CONCRETE

- 3.23 Automatic Batching Plant conforming to IS 4925-1968 and minimum 30 cum/ hour capacity shall be used for production of controlled concrete.
- 3.24 Automatic batcher shall be charged by devices which, when actuated by a single starter switch, will automatically start weighing operation of each material and stop automatically and interlocked when the designated weight of each material has been reached.
- 3.25 The batching system shall have rated capacity (in terms of concrete in a single batch) to match the maximum rated size of the mixer that could be adopted for use with the plant.
- 3.26 The mixers shall be free fall tilting type conforming to IS 1791-1968.
- 3.27 All measuring equipment shall be maintained in a clean and serviceable condition and their accuracy shall be checked at least once a month.
- 3.28 Only single sized good quality stone aggregate shall be brought to site of work from the approved source. The grading of the stone aggregate shall be controlled by blending the aggregate of different sizes in the required proportions at site of work.
- 3.29 The aggregate of different sizes shall be stock-piled separately at least a day before use. The grading of coarse and fine aggregates shall be checked as frequently as possible and as directed by the Engineer-in-charge to ensure that the specified grading and quality of aggregate is maintained.



- 3.30 It is important to maintain the water cement ratio constant at its specified or approved value by making adjustment for the moisture contents of both fine and coarse aggregates.
- 3.31 The moisture contents in the aggregate shall be determined as frequently as possible in keeping with the weather conditions as per the provisions of I.S 2386 (Part III) 1963.
- 3.32 All other operations involved in concrete work like laying, placing, compaction and curing etc. shall be done as per CPWD specifications 1996 Volume I to VI with up to date correction slips.
- 3.33.1 For RCC Work, the contractor may be permitted to use ready mixed concrete (RMC) procured from the approved suppliers of RMC instead of producing concrete at site. The specifications for RMC shall be same as for Design mix concrete produced at site. The prescribed tests for design mix concrete shall also be carried out for RMC in addition to getting the test report from the supplier. Nothing extra shall be paid for using RMC.
- 3.33(a) The contractor shall obtain prior approval of Engineer –in Charge for using RMC, which shall be granted only in exceptional cases like failure of plant or other exigencies.

SAMPLING AND STRENGTH OF WORK TEST OF CONCRETE

- 3.34Samples from fresh concrete shall be taken as per IS-1199-1959 and the test cubes shall be made, cured and tested in accordance with IS 516-1959.
- 3.35 Each test sample shall comprise of six test cubes (specimen), three of which shall be tested at 7 days and remaining for tests at 28 days.
- 3.36 A random sampling procedure shall be adopted to ensure that the sampling is spread over the entire period of concreting and cover all mixing units.
- 3.37 The concrete work shall be notionally divided into lots as under for the purpose of sampling conditions:
- a Footings, rafts, etc.
- b Columns and walls at all levels
- c Beams at all levels
- d Slabs at all levels
- 3.38 At least one test sample shall be taken for each lot of concrete work.
- 3.39 Each grade of concrete shall form different lot of testing.
- 3.40 The minimum frequency of sampling of concrete of each grade shall be as given below:

Qty.	of Concrete (in Cum.)	work	Number of Samples
1-5			1
6-5			2
16-30			3
31-50			4
51 and	d above		ample for additional 50m³ or part thereof.

The concrete work shall be assessed on day to day basis and samples shall be taken as specified.



TEST STRENGTH OF A SAMPLE

- 3.41 The test strength of the sample shall be taken as the average of the strength of its three specimens, the individual variation between the three specimens should not be more than \pm 15 percent of the average test results of the sample.
- 3.42 If individual variation in strength of three specimens is more than \pm 15 percent of average, the test results of the sample shall be invalid.
- 3.43 90% of the total work tests shall be done at the field laboratory established at the site of work and the remaining 10% work tests shall be got done from any Govt. laboratory or the lab oratory approved by the Engineer in charge.

MEASUREMENTS

- 3.44 The measurements of work and the allowable tolerances shall be governed by provisions of CPWD specifications read with up to date correction slips.
- 3.45 The theoretical consumption of cement in designs mix concrete shall be worked out on the basis of proportions approved for Design mix subject to the permissible variations under clause 42 of the tender documents.

RATE

3.46 The rate shall include cost of all materials and labour involved in all operations described above including the cost of designing and testing of concrete mix in the approved laboratory including admixture but excluding the cost of centering, shuttering and reinforcement.

4.0 WATER PROOFING TREATMENT

4.1 GENERAL

- 4.1.1 The waterproofing treatment shall be carried out as per detailed specifications indicated for the same from the agency to be approved by the Engineer in Charge.
- 4.1.2 Two samples of the waterproofing materials / compound proposed to be used shall be submitted to the Engineer-in-charge along with test result from a testing laboratory of repute confirming its quality and performance and the constituents making it.
- 4.1.3 Total quantity of the waterproofing material / compound required shall be arranged only after obtaining the prior approval of the Engineer-in-charge in writing. Materials shall be kept under double lock and key and proper account of the waterproofing / material compound used in the work shall be maintained. It shall be ensured that the consumption of the material / compound is as per specified requirement.

4.1.4 Cement based integral waterproofing compound

Shall be of specified quality and also satisfy all the performance requirements indicated in IS Code 2645-1975. The compound shall be used @ 2% by weight of cement used (or as recommended by the manufacturer).

Any other waterproofing compound, if specified for use, shall satisfy the manufacturer's specifications.



4.2 MEASUREMENT

4.2.1 The measurement shall be taken along the finished surface of treatment including the rounded and tapered portions at junctions. Length and breadth shall be measured correct to one centimeter and area shall be worked out nearest to two decimals.

4.3 RATE

4.3.1 The rate shall be inclusive for all operations described in the nomenclature and the specifications applicable to the item, including any incidental expenditure. Nothing extra shall be payable on any account whatsoever.

5.0 BRICK WORK

- 5.1 The brick work shall be carried out with good quality of bricks of specified designation, free from ash, dust or mud etc.
- 5.2 Only well wet bricks shall be used for brick work in cement mortar.
- 5.3 The cement mortar of specified mix shall be uniformly mixed to the required consistency in the Mixer Machine with hopper attached only and measuring boxes shall be used for proper proportion of mortar mix.
- 5.4 All the joints of brick work both horizontal and vertical shall be filled in completely with cement mortar. The joints shall be of uniform thickness of not more than one cm.

6.0 WOOD WORK (Doors and shutters)

- 6.1 The contractor shall procure the shutters and get them fixed only from approved manufacturer / contractor for manufacturing such shutters as per the specification specified herein.
- 6.2 The specialized agency manufacturing factory made shutters shall be got approved from the Engineer-in-charge before placing bulk supply order.
- 6.3 The contractor shall get at least 4 shutters of each type of door fabricated from the approved manufacturer immediately after start of the work and give written intimation to the Engineer-in-charge who shall arrange inspection of the samples at factory premises for approval. The two approved samples shall be left with manufacturer / suppliers and the remaining two samples will be delivered at the site of work for sample fixing.
- 6.4 The officer approving each shutter shall put his signature on each of the approved shutter and the contractor shall fix such approved shutters only and preserve the officer's signature until the completion of work.

8.0 Flooring

- 8.1 Only machine cut Kota stone, sand stone marble, granite slabs shall be used for flooring.
- 8.2 Proper gradient shall be given to flooring for toilets etc and shall be determined by providing required gradient in the lean concrete/ sub-grade surface.
- 8.3 The bed mortar on concrete shall be fully compacted, particularly at the junctions of panels, during laying of flooring so that the finished floor does not give hollow sound.

9.0 Roofing

9.1 The roofing shall be executed as specified in the nomenclature and detailed specifications for the item.



9.2 The work of fixing rainwater pipes, grouting around mouth of rain water pipes and making khurra shall be done before starting the items of roofing. The roofing shall overlap the khurra surface by about 100mm.

10.0 Finishing

10.1 The cement paint, primer, synthetic enamel paint, bitumen, plastic emulsion and distemper etc. of approved manufacturer shall only be brought to the site of work in the original sealed containers. The material brought to the site of work in lots of at least 25% of the total requirement.

The materials shall be kept under the joint custody of contractor and Engineer-in-charge. The empty containers shall not be removed from the site till the completion of the work.

- 10.2 Nothing extra shall be paid for providing drip course or moldings in RCC projected slabs wherever required.
- 10.4 The rate for relating to stainless steel cramps shall include the cost of 100mmx100mm x100mm cement concrete 1:2:4 (1cement:2 coarse sand:4 graded stone aggregate 20 mm nominal size) blocks in brick masonry wall in which the cramp shall be embedded.
- 10.5 The rate for to stainless steel cramps of size 15x6mm-16.5cm long shall include the cost of two nos. Wedge expansion type hold fasteners (with threaded dia of size 6mm) for fixing each cramp to RCC / CC backing.
- 10.6 Nothing extra shall be paid for shuttering and other inputs required at the locations of construction joints in RCC work.

11 RCC WORK

- 11.1 To ensure proper cover only factory made approved cover blocks will be used to avoid displacement of bars in any direction.
- 11.2 The Steel bars of different diameters should be stored about 30 to 45 cm above ground level to avoid corrosion of steel. No extra payment shall be made on this account.

 11.3

12 FLOORING

The flooring is to be laid in pattern of various combinations as per architectural drawings. The flooring in treads and risers of stair case is to be laid in single piece. Nothing extra shall be paid on these accounts. The measurement shall be made for finished work of flooring.

14. Structural Steel

14.1 Erection & Fabrication:

All the fabrication & erection should be as per direction of Engineer –in-Charge. Nut & Bolt, washer, Anchor Bolt, expansion bolt, Foundation bolt,non-shrink grout Filler materials, Gusset plate, Holes, Slots,joints, welding material /type /methods / Tests will be as per structural requirement, relevant IS Code, CPWD specifications, manufactures specifications & direction of Engineer –in – Charge. Contractor shall arrange all materials, equipments / plants, support systems, labours etc. complete in all respect for safe & stable erection of steel structure. Nothing extra will be paid on this account; Payment should be made as per the relevant BOQ main item. No other claims of any kind pertaining to this work shall be entertained.



14.2 DRAWINGS

The drawings issued along with the tender document are only for the purpose of guidance of the Contractor. The works shall be carried out on the basis of the Good for Construction Drawings which shall be issued by the Architect. Contractors to prepare shop drawings

based on GFC drawings issued by the consultants and take approval of shop drawings before fabrication. Contractors to furnish design calculations along with structure stability certificate.

SCOPE OF WORK

Preliminary Requirements

- (i) The contractor shall design, test, fabricate, deliver, install and guarantee all construction necessary to provide a complete curtain wall system for the proposed site, all in conformity with the drawings as shown.
- (ii) Specification and all relevant construction regulations including providing any measures that may be required to that end, notwithstanding any omissions or inadequacies of the drawings.
- (a) Metal frames, ventilators, finish hardware, copings, windows etc.
- (b) All anchors attachments, reinforcement and steel reinforcing for the systems required for the complete installations.
- (c) All copings and closure and metal cladding to complete the system
- (d) All sealing and flushing including sealing at junctions with other trades to achieve complete water tightness in the system.
- (e) Anticorrosive treatment on all metals used in the system.
- (a) Engineering proposal, shop drawings, engineering data and structural calculations in connection with the design of the curtain wall system.
- (b) Mock-ups, samples and test units.
- (c) Co-ordination with the work of other trade.
- (d) Protection.
- (e) All final exterior and interior cleaning
- (f) As built record drawings and photographs.
- (g) Guarantees and warranties.
- (h) All hoisting, scaffolding, staging and temporary services.

Quality Consideration and Other Activities

- (i) The contractor while submitting the detailed design calculations should submit the following information on the quality of materials to be used and other aspects as detailed below:
- (1) Metal quality finishes and thickness
- (2) Arrangement and jointing of components.
- (3) Field connections especially mullion to mullion and transom to mullion.
- (4) Fixing and anchorage system of typical wall unit together with structural calculations.
- (5) Drainage system and provision in respect of water leakage in the curtain wall system



- (6) Sealant and sealing methods.
- (7) Glazing method.
- (8) Wind load and seismic load and any other specific load considered in the design

Tolerances

Any parts of the curtain wall, when completed, shall be within the following tolerances:

- (1) Deviation from plumb, level or dimensioned angle must not exceed 3mm per 3.5m length of any member or 6mm in any total run in any line.
- (2) Deviation from theoretical position on plan or elevation, including deviation from plumb, level or dimensioned angle must not exceed 9mm total at any location.
- (3) Change in deviation must not exceed 3mm for any 3.5m run in any deviation.

Mode of Measurement

The breadth and the height of the finished work including the openable windows shall be measured in meters and centimetre and the net quantity for payment shall be calculated in sqm up to two place of decimal, the area to be considered for measurement shall be the net area of the exterior face of the curtain wall as fixed including the openable windows if any as part of the curtain wall.

Rate

The rate shall include the cost of all operations described above including the cost of materials, labors, designs of drawings, erection and testing, mock-up test units, fabrication, erection, finishing, scaffolding, undertaking performance guarantee. No other claims of any kind pertaining to this work shall be entertained.



TECHNICAL SPECIFICATIONS FOR PLUMBING WORK

SECTION – I: GENERAL REQUIREMENTS

1 SCOPE OF WORK

- 1.1 The form of Contract shall be according to the "Conditions of Contract". The following clauses shall be considered as an extension and not in limitation of the obligation of the Contractor.
- 1.2 Work under this Contract shall consist of furnishing all labour, materials, equipment and appliances necessary and required. The Contractor is required to completely furnish all the plumbing and other specialized services as described hereinafter and as specified in the schedule of quantities and/or shown on the plumbing drawings.
- 1.3 Without restricting to the generality of the foregoing, the sanitary installations shall include the following:
- A. Plumbing Works
 - Sanitary Fixtures
 - Soil, Waste, Vent, Rainwater Pipes & Fittings
 - Water Supply System
 - Sewerage & Storm Water Drainage
- B. Water supply Pumps Pumps & Allied Equipment
- 1.4 Services rendered under this section shall be done without any extra charge.

2 SPECIFICATIONS

- 2.1 Work under this Contract shall be carried out strictly in accordance with specifications attached with the tender.
- 2.2 Items not covered under these specifications or due to any ambiguity or misprints, or additional works, the work shall be carried out as per specifications of the latest Central Public Works Department with up to date amendments as applicable in the Contract.
- 2.3 Works not covered under Para 2.1 and 2.2 shall be carried out as per relevant Codes & Bureau of Indian Standards and in case of its absence as per British Standard Code of Practice.

3 EXECUTION OF WORK

3.1 The Contractor should visit and examine the site of work and satisfy himself as to the nature of the existing roads and other means of communication and other details pertaining to the work and local conditions and facilities for obtaining his own information on all matters affecting the execution of work. No extra charge made in consequence of any misunderstanding, incorrect information on any of these points or on ground of insufficient description will be allowed



- 3.2 The work shall be carried out in conformity with the Plumbing drawings and within the requirements of architectural, electrical, structural and other specialized services drawings.
- 3.3 The Contractor shall cooperate with all trades and agencies working on the site. He shall make provision for hangers, sleeves, structural openings and other requirements well in advance to prevent hold up of progress of the construction schedule. All supports to the civil structure shall be provided with dash fasteners.
- 3.4 On award of the work, Contractor shall submit a schedule of construction in the form of a PERT chart or BAR chart for approval of the Project Manager/Architect/ Consultant. All dates and time schedule agreed upon shall be strictly adhered to within the stipulated time of completion/ commissioning along with the specified phasing, if any.

4 DRAWINGS

- 4.1 Contract drawings are diagrammatic but shall be followed as closely as actual construction permits. Any deviations made shall be in conformity with the architectural and other services drawings.
- 4.2 Architectural drawings shall take precedence over plumbing or other services drawings as to all dimensions.
- 4.3 Contractor shall verify all dimensions at site and bring to the notice of the Project Manager all discrepancies or deviations noticed. Decision of the Project Manager shall be final.
- 4.4 Large size details and manufacturers dimensions for materials to be incorporated shall take precedence over small scale drawings.
- Any drawings issued by the Architects/Consultant for the work are the property of the Architects/ Consultant and shall not be lent, reproduced or used on any works other than intended without the written permission of the Architects/Consultant.

6 METRIC CONVERSION

- 6.1 All dimensions and sizes of materials and equipment given in the tender document are commercial metric sizes.
- 6.2 Any weights, or sizes given in the tender having changed due to metric conversion, the nearest equivalent sizes accepted by Indian Standards shall be acceptable without any additional cost.

7 REFERENCE POINTS

- 7.1 Contractor shall provide permanent bench marks, flag tops and other reference points and check that with other agencies to confirm the same reference point for all the proper execution of work and these shall be preserved till the end of the work.
- 7.2 All such reference points shall be in relation to the levels and locations, given in the architectural and plumbing drawings.

8 REFERENCE DRAWINGS

8.1 The Contractor shall maintain one set of all drawings issued to him as reference drawings. These shall not be used on site. All-important drawings shall be mounted on boards and placed in racks indexed. No drawings shall be rolled.



- 8.2 All corrections, deviations and changes made on the site shall be shown on these reference drawings for final incorporation in the completion drawings to be submitted by the contractor in fulfilment of the conditions of this contract.
- 8.3. On award of the work the contractor shall be issued four sets of consultant's working drawings stamped "good for construction" by the Project Manager. The consultant's drawings shall be the basis of contractor's shop drawings. In addition, the Project Manager shall also issue one copy of the Interior Designer's; Electrical approved shop drawings relevant to his work.
- 8.4 Shop drawings are detailed working drawings which incorporate the contractor's details for execution of the work and incorporate equipment manufacturer's details and dimensions to ensure that the same can be installed in the space provided.
- 8.5 All shop drawings should detailed pipe routing and levels, showing location of other services at crossings etc., cable runs, route cable trays and all allied works and must be fully coordinated with other services and approved by the Project Manager before execution of the works. Project Manager shall arrange to issue two copies/prints of services drawings from the respective contracting agencies. Additional copies/prints may be provided on payment of actual cost of the copies/ prints. All drawings will valid only when stamped and issued by the Project Manager.
- 8.6 Shop drawings shall also be furnished for detailed layout of all equipment, foundation, bolting and vibration elimination details along with information on dead and dynamic load, vibration etc.
- 8.7 Six sets of manufacturer's equipment drawings, roughing in and wiring diagrams shall be submitted.
- 8.8 Contractor shall submit shop drawings furnishing all details of MCC panels, cable routes, wiring diagrams and connection details as required.
- 8.9 Three copies of each set of shop drawings shall be submitted for initial scrutiny, discussion and approval.
- 8.10 Each submission shall be accompanied by contractor's certificate stating that the shop drawings meet all the contract requirements and that the piping and equipment can be satisfactorily installed without any obstructions in the space available.
- 8.11 On approval of the above the contractor shall furnish six sets of the approved shop drawings for execution of the work.

9 COMPLETION DRAWINGS

- 9.1 On completion of work, Contractor shall submit one complete set of original tracings and two prints of "as built" drawings to the Project Manager. These drawings shall have the following information.
- a) Run of all piping, diameters on all floors, vertical stacks and location of external services.
- b) Ground and invert levels of all drainage pipes together with location of all manholes and connections up to outfall.



- c) Run of all water supply lines with diameters, locations of control valves, access panels.
- d) Location of all mechanical equipment with layout and piping connections and mechanical equipment.
- e) All shop drawings shall be updated from time to time for the purpose of making completion drawings.

 No completion certificate shall be issued unless the above drawings are submitted.
- 9.2 Contractor shall provide four sets of catalogues, service manuals, manufacturer's drawings, performance data and list of spare parts together with the name and address of the manufacturer for all electrical and mechanical equipment provided by him.
- 9.3 All "warranty cards" given by the manufacturers shall be handed over to the Project Manager.

10 CONTRACTOR'S RATES

- 10.1 Rates quoted in this tender shall be inclusive of cost of materials, labour, supervision, erection, tools, plant, scaffolding, service connections, transport to site, taxes, octroi and levies, breakage, wastage and all such expenses as may be necessary and required to completely do all the items of work and put them in a working condition.
- 10.2 Rates quoted are for all heights and depths and in all positions as may be required for this work.
- 10.3 All rates quoted must be for complete items inclusive of all such accessories, fixtures and fixing arrangements, nuts, bolts, hangers as are a standard part of the particular item except where specially mentioned otherwise.
- All rates quoted are inclusive of cutting holes and chases in walls and floors and making good the same with cement mortar/concrete/water proofing of appropriate mix and strength as directed by the Project Manager. Contractor shall provide holes, sleeves, recesses in the concrete and masonry work as the work proceeds. All hot andcold water supply pipes crossing masonry walls shall be provided with G.I. pipe sleeves. The annular space between the pipe and sleeve shall be filled up with fire proof sealant after testing. Contractor shall give the pipe sleeves to the civil contractor well in time so that the same can be fixed along with civil works. Any co-ordination gap shall be of contractor's responsibility.
- 10.5 The Contractor shall furnish the Project Manager with vouchers & test certificates, on request, to prove that the materials are as specified and to indicate that the rates at which the materials are purchased in order to work out the rate analysis of non-tendered items which he may be called upon to carry out.

11 TESTING

- 11.1 Piping and drainage works shall be tested as specified under the relevant clauses of the specifications.
- 11.2 Tests shall be performed in presence of the Project Manager and test records for the tests shall be duly signed by Contractor and the Project Manager.
- 11.3 All materials and equipment found defective shall be replaced and whole work tested to meet the requirements of the specifications.
- 11.4 Contractor shall perform all such tests as may be necessary and required by the local authorities to meet municipal or other bye-laws in force.



11.5 Contractor shall provide all labour, equipment and materials for the performance of the tests.

12 SITE CLEARANCE AND CLEANUP

- 12.1 The Contractor shall, from time to time, clear away all debris and excess materials accumulated at the site.
- 12.2.1 After the fixtures, equipment and appliances have been installed and commissioned, Contractor shall clean-up the same and remove all plaster, paints, stains, stickers and other foreign matter or discoloration leaving the same in a ready to use condition.
- 12.2.2 On completion of all works, Contractor shall demolish all stores, remove all surplus materials and leave the site in a broom clean condition, failing which the same shall be done by the Project Manager at the Contractor's risk and cost. Cost of the cleanup shall be deducted from the contractor's bills on pro-rata basis in proportion to his contract value.

13 LICENCE PERMITS AND AUTHORITIES

- 13.1 Contractor must hold a valid plumbing or any other as required license by the municipal authority or other competent authority under whose jurisdiction the work falls.
- 13.2 Contractor must keep constant liaison with the local development, municipal/statutory authority and obtain approval of all drainage, water supply, fire suppression and other works carried out by him.
- 13.3 Contractor shall obtain, from the municipal and other authorities 'C' & 'D' & other forms as required for approval of drainage and water supply works during executionand the completion certificate with respect to his work as required for occupation of the building. Contractor shall obtain permanent water supply and drainage connections from authorities concerned. CLIENT shall re-imbrue the fees paid to the authorities towards the connection charges on production of receipts for money paid.
- 13.4 Contractor shall get any materials tested from the appropriate authority if so required with nocost to the CLIENT.

14 RECOVERY OF COST FOR MATERIALS ISSUED TO CONTRACTORS FREE OF COST If any material issued free of cost by the CLIENT to the contract for use on the work and the same is lost, stolen, pilfered or broken while in contractor' possession, the cost of the

the same is lost, stolen, pilfered or broken while in contractor' possession, the cost of the same shall be recovered from the Contractor on the basis of actual cost to CLIENT. The cost shall include the cost paid, freight, transportation, excise duty, sales tax, octroi, import duty and other levies, plus 100% as penalty. The decision on the actual cost given by the CLIENT shall be final and binding on the Contractor.

14.1 Contractor has to keep full records of material issued by the CLIENT with reference and challans etc. Contractor has to give account of all such materials to the Project Manager.

15 CUTTING OF WATER PROOFING MEMBRANE

No walls terraces shall be cut for making and opening after water proofing has been done without written approval of project manager. Cutting of water proofing membrane shall be done very carefully so as other portion of water proofing is not damaged. On completion of work at such place the water proofing membrane shall be made good and ensured that the opening/cutting is made fully water proof as per specifications and details of water proofing approved by Project Managers.



16 CUTTING OF STRUCTURAL MEMBERS

No structural member shall be chased or cut without the written permission of the Project Manager.

17 MATERIALS SUPPLIED BY CLIENT

The Contractor shall verify that all materials supplied by the CLIENT conform to the specifications of the relevant item in the tender. Any discrepancy found shall be brought to the notice of the Project Manager.

18 MATERIALS

- 18.1 Unless otherwise specified and expressly approved in writing by the Project Manager, only materials of makes and specification as mentioned in the list of approved makes attached with the specifications shall be used.
- 18.2 If required, the Contractor shall submit samples of materials proposed to be used in the works. Approved samples shall be kept in the office of the Project Manager.



TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORKS

1.0 GENERAL:

- 1.1 The entire electrical installation shall be carried out in accordance with latest Indian Electricity Code and relevant IS Standards up to date. The work shall also comply with all statutory regulations of supply agencies, state inspection authorities and fire regulations.
- 1.2 Contractor shall be responsible for obtaining all necessary statutory approvals, clearances, sanctions, drawing approvals and getting actual connections.
- 1.3 Definition of terms pertaining to all technical requirements as per IEC / IS shall apply.
- 1.4 Contractor shall submit all necessary drawings for scrutiny and approval by Engineer / Consultant prior to commencement of work. Contractor shall immediately bring out the difficulties faced in execution of works to the notice of Engineer / owner / consultant.
- 1.5 All material, equipment, fittings used in the installation shall be of approved quality conforming to relevant IS specifications.
- 1.6 On completion of works contractor shall carry out all necessary tests including but not limited to pressure test, insulation resistance test, continuity of conductors and earth resistance and functional tests along with commissioning checks to the satisfaction of Consultant / Engineer. Contractor shall employ services of specialist agency for testing of substation equipment, H. T. Cables & H. T. Joints, relays & for harmonic analysis.
- 1.7 Contractor shall furnish necessary test certificates as required by authorities and consultant.
- 1.8 List of standards relevant to the works is enclosed.
- 1.9 Installation of equipment shall include all necessary works and fixing accessories like hardware, clamps, round blocks supports boxes etc. required for completing installation satisfactorily.
- 1.10 Complete location/room wise technical and functional testing will be done for equipments& installation before handing over and a consolidated acceptance test report shall be prepared by contractor based on standard formats along with test certificates of bought out items, certificates of testing carried out at site. All equipment & installation test will be done jointly with representatives of client, consultant and signed jointly for the acceptance with remarks if any.

F.1.11 MODE OF MEASUREMENT:

- 1.11.1 Excavations, refilling, reinstating, removing excess soil etc. in all types of strata except hard rock for laying cables, pipes and earthing conductor will not be measured separately and will be included in respective items. Only excavation in hard rock will be measured separately.
- 1.11.2 Civil works like Brick / Concrete pedestals, foundations and coping for poles, earth pits and chambers, chasing for conduits and making good chases up to wall level etc. shall be included in respective items.
- 1.11.3 End termination of YY cables (Cu un-armoured) & flexible cables will not be measured separately.
- 1.11.4 Cost of street light poles includes, cost of pole pit, pole foundation, coping, 2nos of 40mm dia. GI pipes for cables, cable loop box, wiring up to streetlight fittings from looping box with MCB and loop earthing of pole with 8 SWG GI wire painting etc.



- 1.11.5 Cost of control panels or Distribution boards includes, all base frames required for erection, foundation bolts or anchor fasteners, nut bolts, earth points etc. complete. All structural steel supports over trench for panel, wall mounting brackets for DB's sockets, cable trays will be measured separately.
- 1.11.6 No extra charges will be paid towards testing to be done at site after installation as per the IS standards, specifications, manufacturers recommendations, statutory requirements etc.

2.0 SUBSTATION AND H.T. INSTALLATION: DELETED

3.0 TECHNICAL SPECIFICATIONS FOR HV METAL ENCLOSED SWITCHGEAR UPTO 33 KV: DELETED

4.0 TECHNICAL SPECIFICATIONS OF DISTRIBUTION TRANSFORMERS (ONAN): DELETED

5.0 EARTHING AND LIGHTNING PROTECTION:

- 5.1 GENERAL: All non-live metal parts of the electrical system and equipment shall be earthed with suitable size of earth conductors. 2 distinct earthing shall be provided for all 3-phase equipment. Earthing shall be in confirming with IS 3043 and Lightning protection shall be with IS 2309. Earth resistance of individual earth station shall not exceed 5 Ω and overall resistance shall be less than 1 Ω at all times. Earth resistance shall be taken with earth muggers for all earth points. All earth points shall be located 2.0mtrs away from the building and there will be a minimum distance of 3.0 meters between 2 earth points. All earth stations shall be identified with number and using painted board.
- 5.2 EARTH STATION: Pipe Electrode Earthing: 50 mm dia. Class B GI Pipe 3.0 mtrs long tapered at bottom and 12mm dia holes at 75mm c/c on all sides for bottom 2.0mtrs with top watering arrangement shall form earth electrode. The electrode has to be buried vertical in ground. Plate Earthing: 600 x 600 x 6mm GI or 600 x 600 x 3mm Copper Plate with 50 mm dia. GI watering pipe with funnel at top. The construction shall be as per details given in the Latest edition of IS 3043. In case of rocky strata, Bore earthing stations with 150mm bore and 100mm class B GI pipe shall be done. Depth of bore earthing shall be 6.0 mtr minimum. Soil resistivity test shall be done for deciding depth if necessary. Bentonite or earth powder slurry shall be put along with pipe in the bore.
- 5.3 MAINTENANCE FREE EARTHING: Generally pipe-in-pipe technology shall be used with inner pipe and outer pipe of different sizes and lengths as mentioned below. These pipe electrodes shall be hot dip galvanized to enhance life. The annular space between these pipes & inner pipe shall be filled with adequate special crystalline compound material which shall resists the corrosion of inner pipe electrode. Area surrounding outer pipe shall be filled with back fill compound mixed with the soil. Depth & size of pit shall suit to the electrode length. Soil resistivity test shall be done if necessary for deciding depth.

	Pipe Electrode Details			Galvanising (Micron) min
Category	Inner pipe dia (min)	Outer pipe dia (min)	Length	
T39	40 mm dia.	80 mm dia.	300 mm or as specified	80-100
T19	25 mm dia.	50 mm dia.	300 mm or as specified	80-100



- 5.4 MASONRY CHAMBER: Brick masonry chamber of size 450 x 450 x 450mm minimum (internal clear dimensions) with cast iron cover and frame with top finished at ground level shall be provided for watering and test link access.
- 5.5 ARTIFICIAL TREATMENT: In case of rocky soil, hard murum soil resistance is very high. For getting proper earthing alternate layers of charcoal and salt are to be provided, for entire height of earth electrode with 300mm over all cover. Black cotton soil can be used for refilling the earth points in rocky strata.
- 5.6 EARTHING CONDUCTORS: Earthing conductor size shall depend on the loads and defined fault conditions. The general guide lines are as listed below:

a) Main H.T. & L.T. earth conductor, Transformer	: 75 x 10 MM GI Strip
2000 KVA and above.	70 K TO MINI OI SUITP
	: 50 C CI Strain
Up to 1600 KVA	: 50 x 6 mm GI Strip
b) D. G. set neutral 1500 KVA and above.	: 75 x 10 mm Cu Strip
up to 1250 KVA	: 75 x 6 MM Cu. Strip
c) Grid earth conductors	: 32 x 6 mm GI Strip
d) Main Switch boards/Power Distribution boards	: 50 x 6 mm GI Strip
e) Other switch board & Motors including &	: 25 x 6 mm GI Strip
above	
50 HP / 100 Amps up to 400 Amps	
f) Motors from 20HP to 50 HP	: 25 x 6 mm GI Strip
Motors above 10 HP up to 20 HP Local PDB's	: 25 x 3 mm GI strip
g) Power Points 63A, LDB'S	: 8 SWG GI Wire / 10
SWG	
	Cu. Wire
h) Lightning conductors	: 25 x 3 mm GI Strip
i) Motors below 10 HP & Power points up to 32A	: 10 SWG GI Wire / 12
SWG	
	Cu Wire
j) Metering Kiosk	: 25 x 3 mm Cu strip
k) UPS earthing	: Cu. Flexible wire as
per	
	rating

The earthing conductors shall be connected with either riveted or bolted joints with at least 2 rivets/bolts. The joints shall be painted with bitumen paint. Earthing strips for lightning protection shall be run on parapet walls of outer periphery of building and outer periphery of highest structure for horizontal runs and on unapproachable vertical walls up to disconnecting box fixed at 1.0 mtr height above ground level. Lightning conductor shall be connected to earth station directly and separate 25x6 mm strip from earth station is to be connected to grid earthing. The lightning conductor/s shall be fixed at appropriate highest location on the building / structure. Separate earth pit shall be provided for each lightning conductor.



5.7 GENERAL SPECIFICATION FOR EARLY STREAMER (LIGHTNING ARRESTOR):

- 5.7.1 AIR TERMINATION UNIT: The air-termination unit should be a Controlled Early Streamer Emission (CESE) lightning conductor with a central pick up rod made of tinned copper. A full electrical continuity between the tip and the earth point should be ensured. The unit shall be fully autonomous and collect energy through a lower series of electrodes. It shall be equipped with an electronic device to detect the lightning and trigger a controlled streamer (3KV and 20A minimum) within few micro seconds. Air Termination shall be manufactured as per NFC 17-102. A dedicated tester or remote testing facility should be available for maintenance purpose. Performance of the unit should have been tested in High Voltage Laboratory (CPRI) as well as in real lightning conditions.
- 5.7.2 AIR TERMINATION SUPPORT: The Air Termination shall be fixed at the top of a GI or FRP elevation pole so as to be at least 2 meters above the top of the structure to be protected. The elevation pole should have a dia of 35mm to 50mm with a thread at the top to fix the unit. Guy wires may be used in order to ensure the stability of the installation.
- 5.7.3 LIGHTNING EVENT COUNTER: Design and Supply of a lightning event counter electronically controlled shall be done. It shall activate one registration for 1000A to 100kA for a 8/20 micro second peak current. The item should have necessary High Voltage Laboratory (CPRI) test certificate.
- 5.7.4 EARTHING SPECIFICATION FOR EARLY STREAMER: Each down conductor should be connected to its own Tripod Earthing termination for a lower resistance value. The tripod earthing shall be made of 3 copper bonded earth rods, 2m long minimum, each one connected to a horizontal conductor (25x3 copper strips) with a 2m length minimum. The horizontal conductors shall be connected to the down conductor with an earth clamp housed in a manhole in order to facilitate the inspection. The earth termination should be connected to the electrical earth of the building with a Copper cable (16mm²) or Aluminium cable (25mm²) in order to achieve an equipotential network as per IEC 62305 standard. The earthing station details shall be as mentioned in previous point (5.5).



LIST OF APPROVED MAKES

The Contractor shall provide samples of all material in the list of make:

CIVIL WORKS

Sl.No.	Material	Make
1)	Cement	ACC/Ultratech/BIRLA/JK/ Shri Ultra /Ambuja
2)	TMT Reinforced Steel	SAIL/RINL/TATA/Shyam Steel/SRMB
3)	Mild Steel	Mahavir / Swastik/Shyam Steel/SRMB
4)	Anti-Termite Chemical	Vam Organic/Hindustan Insecticide/Bayer/ICI
5)	Water Proofing Chemicals	CICO/Dr.Fixit/Pidilite/STP
6)	Wall Putty	Birla/JK/Jhonson
7)	Aluminium Sections	Hindalco/Jindal
8)	Vitrified Tiles	Marbito/Kajaria/Somany/Orient/Johnson
9)	Ceramic Tiles	Marbito/Kajaria/Somany/Orient/Johnson
10)	Enamel paint	Dulux/ICI/Asian
11)	Texture Paint	Spectrum/Unistone
12)	Cement Paint	Snowcem/ICI
13)	Sanitary ware	Hindware/Parryware/Cera
14)	CP Fittings	Cera/Jaquar/Marc
15)	UPVC SWR pipes & Fittings	Supreme/Finolex/Prince/Kissan/AKG
16)	SCI Pipes & Fittings	NECO/SRIF/RIF
17)	GI & MS Pipes	Jindal Hissar/Prakash Surya/Swastik
18)	CPVC Pipes	Astral/Ajay/Ashirwad/Prince/Supreme
19)	GI Fittings	UNIK/DRIP-M/ZOLOTO/"R"/ Jindal
20)	Ball Valves	Zoloto/DRP/Sant
21)	CI Valves(>65mm dia)	Kirloskar/Leader/Sant
22)	50mm dia and above	Audco/Veeson/KSB/Zoloto/Sant
23)	Ferrules/Ballcocks/Water level Fittings	DRP/Zoloto/Leader/Sant
24)	Pressure Regulating valves	DRP/Zoloto/Kartar/CIm
25)	Garden Irrigation Sprinklers	Rainbird/Harvel/Premier/Jain



26) Stoneware Pipes & Gully Traps 27) RCC Pipes Pragati/JSP 28) SFRC Manholes Covers & KK Gratings 29) CI-LA/DI Fittings 30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Door 32) Plywood/Blockboard/MDF Greenlam/Century/Green Ply/Equivale	ent ent
27) RCC Pipes Pragati/JSP 28) SFRC Manholes Covers & KK Gratings 29) CI-LA/DI Fittings Kartar/Neer 30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Greenlam/Green Ply/Equivalent Door	ent
28) SFRC Manholes Covers & KK Gratings 29) CI-LA/DI Fittings Kartar/Neer 30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Greenlam/Green Ply/Equivalent	ent
Gratings 29) CI-LA/DI Fittings 30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Door Greenlam/Green Ply/Equivalent	ent
29) CI-LA/DI Fittings Kartar/Neer 30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Greenlam/Green Ply/Equivalent Door	ent ent
30) Wood Greenlam/Green Ply/ Equivalent 31) Flush Doors/ Multi-Functional Greenlam/Green Ply/Equivalent Door	ent
31) Flush Doors/ Multi-Functional Greenlam/Green Ply/Equivalent Door	ent
Door	ent
32) Plywood/Blockboard/MDF Greenlam/Century/Green Ply/Equivale	ent
33) Laminate /Natural Veener Greenlam/Century/Equivalent	
34) Birch Ply/Veener Greenlam/Decowood/ Equivalent	
35) Wooden Flooring Greenlam/ Equivalent	
FIRE FIGHTING WORKS	
1) MS Pipes TATA/Jindal/Swastik	
2) Gunmetal Ball Valves Leader/DRP/Sant/Zoloto/TBS	
3) CI Double Flanged Sluice valves & Check Valves Kirloskar/Sant/Leader	
4) Slim Seal Butterfly Valve Audco/Veeson/C&R/KSB/Advance/Sant	t
5) Dual Disk type Non Return Audco/Veeson/C&R/KSB/Advance/Sant Valve	t
6) Fire Hydrant Valves/Branch Minimax/Firex/Newage Pipes & Fire Main Axe.	
7) Fire Aid Fire Hose reels Minimax/Firex/Newage	
8) CP Hose Pipes Minimax/Firex/Newage	
9) Sprinkler Head Tyco/Grinel/Viking	
10) Fire Pumps Kirloskar/Mather-Plate	
11) Motors Kirloskar/Seimens/Crompton/ABB	
12) Electric Switch Gear L&T/Seimens/ABB	
13) Cables RR Cable /Polycab/Paramount/Finolex/	/Havells
14) Suction Stainer Vaishno/Jaypee/Grandpit	
15) Vibration Eliminator Resistoflex/Kanwal Connector	
16) Single Phasing Preventer Siemens/Minilec/L&T/ABB	
17) Pipe Coat Material PYPKOTE/Coaltek/STP	
18) Flow switch Potter/System Sensor/Jhonson Control	



19)	Diesel Engine	Ashok Leyland/Kirloskar/Cummins
20)	Main Control Panel	Tricolite/Vidyut Control/Sterling Generator Pvt.
21)	Fire Brigade Inlet	Minimax/Newage
22)	Rubber Hose Pipe	Jyoti/Tiger/Padmini
23)	Hose Coupling Branch	Minimax/Newage
24)	Pressure Switch	Indfoss/Switzer
25)	Pressure Gauge	H/Guru/Fiebig
26)	Battery	Exide/Prestolite
27)	Fire Extinguisher	Minmax/Newage
28)	Enamel Paint	Asian/Nerolac/Berger
29)	Annunciation panel	Safeway/agni/Matter &Palet
30)	Contactor	L&T/Siemens/ABB
31)	Thimbles/Ferrules	Dowel
32)	Cable Gland	Commex/Power/Gripwell
33)	Power capacitor	L&T/Crompton/Asian/Ducati/ABB
34)	Measuring meter	L&T/Siemens/AE
35)	MS Conduit	BEC/AKG/steel craft
ELECT	RICAL WORKS	
	MCCB &MPCB	L&T/ABB/GE/SEIMENS VL
2)	MCB& ELMCB	L&T/HEGGAR/LEGRAND/HAVELLS/ABB
3)	Lugs, Thimbles	Dowells
4)	Capacitor	EPCOS/L&T/DUCATI/MEHER/ABB
5)	APCR relay	EPCOS/ L&T/DUCATI/CONZERV/ABB
6)	Reactor	EPCOS/ L&T/DUCATI/ELSPEC/SAIGON/ABB
7)	Indication Lights	Schnieder/L&T/Seimens/ABB
8)	Selector Switch	Salzer/ L&T/Kaycee
9)	Push Button	Schnieder/L&T/Seimens/ABB
10)	Terminal Strip	Connectwell/Elmex/Phoenix
	1	



11)	Digital Meter	Conzerv/ L&T/Trinity
12)	Analogue Meter	Rishabh/AE/IMP
13)	Current transformer cast Resin	G&M/KAPPA/AE
14)	Compression Glands	HMI/Comet
15)	HRC Fuses	Siemens/L&T/ABB
16)	Lighting Fixtures	Philips/Wipro/ Bajaj
17)	Power(PVC/XLPE 1.1KV gradecables)	POLYCAB/FINOLEX/PARAMOUNT
18)	Cable Tray	Slotco/SECO/Steel Ways/Indiana
19)	MS Conduit & Accessories	BEC/AKG/Steel Craft
20)	PVC insulated copper conductor	Finolex/RR Kabel/KEI/Polycab/Anchor/Havells
21)	Switches&socket	Northwest/Legrand/Havells/ L&T/Anchor/ABB
22)	DB	Legrand/Havells/ L&T/Indo Asian/ABB
23)	HT Cable	Unistar/Polycab/RPG/KEI/Rallison/Paramount
24)	Telephone wire	Finolex/Polycab/RR Kabel/Havells/Anchor
25)	Fans & exhaust fans	Orient/Crompton/Bajaj
26)	Data Points	Awaya/Amp
27)	Pre-Fabricated MS Junction Box	Legrand/ L&T/MK
28)	LED Display unit	Delite Or Equ.
29)	Lightning Protection	Alltec/LPI/ABB
30)	Conventional fire alarm system	Notifier/Edwards/Siemens/Simplex
31)	Transformer	Kirloskar/Crompton
32)	DG set	Cummins/Catterpillar
33)	LT Panel& PDB's	AARVEE/Electro/IPC/Vidyut/Milestone/Equivalent

Note:

- 1. The contractor will use one of the approved makes with prior approval of the Engineer-in-charge. For technical reason, the Engineer-in-charge can specify aparticular make.
- 2. The order will be placed with the prior approval of Engineer-in-charge relating to makes and quantities.
- 3. When certain makes of the items are missing in the above list/description of item, the make will be decided as per the approval of Engineer- in- charge.

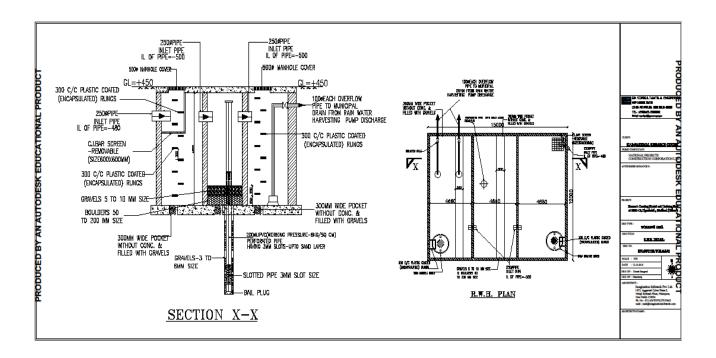


SECTION-VII Drawings

Construction of Approach Road, Security Check Post, Main Panel Room, Laying of GI pipe line in 1000 running meter (approx.), Dual Street Light with Solar Battery Backup & Rain Water Harvesting Tank at Mahatma Gandhi Integrated Farming Research Institute, Piprakothi, Motihari (Bihar)



PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



PRODUCED BY AN AUTODESK EDUCATIONAL PRODUCT



