

**THE SUPERINTENDING ENGINEER  
SOUTH CIRCLE  
MUNICIPAL ENGINEERING DIRECTORATE  
Under  
DEPARTMENT OF U.D&M.A**



IMPLEMENTATION OF AUGMENTATION AND STRENGTHENING OF WATER SUPPLY SCHEME WHICH INCLUDES SINKING OF TUBE WELLS WITH ELECTRO-MECHANICAL WORKS (FOR EXISTING AND PROPOSED) , SUPPLYING AND LAYING OF DI-K9 RISING MAIN, WITH TEMPORARY ROAD RESTORATION FOR VEHICULAR MOVEMENT, NH/RAIL CROSSING BY HDD METHOD, CONSTRUCTION OF OHRS WITH GEOTECHNICAL INVESTIGATION & DESIGN OF OHR INCLUDING SOLAR PANEL TO COVER THE SCHEME AREA, PUMP HOUSES, BOUNDARY WALL, GUARD ROOM, LAND DEVELOPMENT, APPROACH ROAD AND MASONRY DRAIN AND ALL OTHER ALLIED WORKS COMPLETE IN ALL RESPECT, COMMISSIONING, 3 MONTHS TRIAL RUN AND O&M FOR 5 YEARS AFTER TRIAL RUN WITHIN KHIRPAI MUNICIPALITY FOR WATER SUPPLY SCHEME UNDER AMRUT 2.0.

**SAVEWATER, EVERY DROPCOUNTS**

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BriefTenderNotice  
(ForNewspaper Publication)



# Detailed Tender Notice



**GOVERNMENT OF WEST BENGAL  
OFFICE OF THE SUPERINTENDING ENGINEER  
SOUTH CIRCLE  
MUNICIPAL ENGINEERING DIRECTORATE  
MUNICIPAL AFFAIRS DEPARTMENT  
Kausallya, Opposite Kausallya T.O.P., Kharagpur, Dist-Paschim Medinipore,  
sesouth.med@gmail.com**

Memo No:-MED/SE(S)/776 /W-06/06Pt-III

Dated: 20/03/2025

**NOTICE INVITING e-Bid**

**N.I.e.(B)NO.:WBMAD/NIQ-27/SE(S)/2024-25,2<sup>nd</sup> Call**

The Superintending Engineer, South Circle, Municipal Engineering Directorate, Department of Urban Development & Municipal Affairs, Government of West Bengal on behalf of the Hon'ble Governor of West Bengal invites e-Bid from bonafide and resourceful contractors/Companies/firms/PublicSector Undertakings/Government Companies having experience for the work as given in the table below (Submission of both technical and price Bid through online) under **AMRUT 2.0**.

Sl. NO.	Nameofthe Works	Initial Earnest Money (Rs.)	Period of Completion	Defect Liability Period	Eligibility of Contractor	Name of the concerned Division & Circle
1.	Implementation of augmentation and strengthening of water supply scheme which includes Sinking of Tube wells with Electro-Mechanical works (for existing and proposed) , Supplying and laying of DI-K9 Rising Main, with temporary road restoration for vehicular movement, NH/Rail crossing by HDD method, Construction of OHRs with Geotechnical investigation & Design of OHR including Solar panel to cover the scheme area, Pump Houses, Boundary wall, Guard room, Land development, Approach road and Masonry Drain and all other allied works complete in all respect, commissioning, 3 months trial run and O&M for 5 Years after trial runwithin Khirpai Municipality for Water Supply Scheme under AMRUT 2.0.	<b>Rs. 10 Lakh</b>	<b>9 months</b>	As per prevailing Govt. norms	As stated under clause 1.0	O/o the Executive Engineer, West Midnapore Division, MED under Superintending Engineer, South Circle, MED.

## Annexure-A

### 1. Locationofthework:

SL.No.	NameofZone	No.OfTubewell	
		Proposed	Existing
1	Zone-1	3	3
2	Zone-2	4	2
3	Zone-3	4	2

Zone No.	Diaof rising main	Approximate length in meter
Zone-1	150mm dia DI(K9)	1649
Zone-2		2592
Zone-3		2676

## 1) Eligibility to participation of Bid:-

<p>3(i) Intending tenderers should produce credential of at least 1 (one) completed work of <b>similar nature of work</b> during last 5 (five) years prior to the date of issue of this NleT of under Central Govt. / State Govt. / Semi Govt. organization of a <b>minimum value of Rupees 2.40 crore</b>;</p> <p style="text-align: center;">OR</p> <p>3(ii) Intending tenderers should produce credential for 2 (two) completed work of <b>similar nature of work</b> during last 5 (five) years prior to the date of issue of this NleT under Central Govt. / State Govt. / Semi Govt. organization, each of the <b>minimum value of Rupees 2.00crore</b>;</p> <p style="text-align: center;">OR</p> <p>3(iii) Intending tenderers should produce credential of 1 (one) single running work of <b>similar nature of work</b> during last 5 (five) years prior to the date of issue of this NleT under Central Govt. / State Govt. / Semi Govt. organization, which has been <b>completed to the extent of 75% or more and value of which is not less than the desired value at 3(i) above</b>;</p> <p><b>Similar Nature of Work means:</b> Construction of Clear Water Reservoir / WTP / Intake Structure/ OHR with sinking of deep Tube well including it's Civil &amp; Electromechanical works in a single or separate contract.</p> <p>Note:- for running work, only those tenderers who will submit the certificate of satisfactory running works from the concerned Executive Engineer or equivalent competent authority will be eligible for the tender. In the required certificate, it should be clearly stated that the work is in progress satisfactorily mentioning progressive value of the work and also that no penal action has been initiated against the executing agency, i.e. the tenderer.</p> <p>N.B.: i) Estimated amount, Date of completion of project or percentage of physical progress of works for running works, Value of Work done, Salient feature &amp; nature of the work executed is to be mentioned in the Credential Certificate. Date of Completion of project along with telephone number &amp; detail address for communication of client must be indicated in the Credential Certificate. Payment Certificate will not be treated as Credential. Credential Certificate issued by the Executive Engineer or equivalent or competent authority of State/Central Govt., State/Central Govt. undertaking, Statutory/Autonomous Bodies constituted under the statute of the Central/State Government will be taken as Credential. However, Credential Certificate issued to sub-contractor by Central or State Govt. undertaking /Govt. Enterprise shall not be accepted.</p> <p>ii) Executed value of completed/running work will be taken as credential &amp; iii) BOQ and Work order of relevant work(s) are to be submitted.</p> <p style="text-align: center;">AND</p> <p>Annual Turn Over <b>Rupees 2.00 crore in any one year within last 5 years</b> in 3CB/3CD format in duly authenticated by registered C.A. shall be submitted. The Audited Report should contain the signature, name, address, contact no./email ID and membership no., UDIN no. of Chartered Accountant clearly.</p> <p style="text-align: center;">AND</p> <p>should submit Banker's certificate having Solvency of at least <b>Rupees 2.00 crore</b> only from nationalized bank /scheduled bank of India. Issue date of the certificate must be after or within the preceding 1 (one) year from the date of closing of the tender.</p> <p style="text-align: center;">AND</p> <p>valid GST, P. Tax clearance Certificates, PAN Card and ESI and EPF registration certificates etc.</p>
AND
Particular of ownership / partnership or board of directors pertaining to the organization / company / firm.
AND
In case of Proprietorship or Partnership Firms or Company the Tax Audited Report in 3CD/3CB Form for the last five years supported with Payment certificates, Income Tax return along with TDS certificates ( Form 26AS) etc. are to be furnished along with balance sheet, trading account and profit & loss account and all schedules forming the part of Balance Sheet and Trading Account. Tax Audited report, Balance Sheet, Trading account and Profit & Loss Account including all schedules forming the part of Balance Sheet and Trading Account should be in favour of applicant. The Audited Report should contain the signature, name, address, contact no./email ID and membership no., UDIN no. of Chartered Accountant clearly. [Non Statutory Documents]
AND
Registered Unemployed Engineers' Co-operative Societies/ Unemployed Labour Co.-Op. Societies are required to furnish Certificate of Registration, Bye Laws, Tax Audit Report in 3CD/3CB Form supported with Payment certificates, Income Tax return for the last 5 years along with TDS certificates(Form 26AS) etc. along with balance sheet, trading account and profit & loss account, Registered Power of Attorney, Professional Tax deposit challan for the Financial Year 2022-23, PAN Card, valid Trade License, GST registration Certificate (GSTIN) with, EPF registration, ESI registration along with other relevant supporting papers. [Non Statutory Documents]
AND

A prospective bidder shall be allowed to participate in the particular Job either in the capacity of individual or as a partner of a firm. If found to have applied severally for a single job, all his applications will be rejected for that job, without assigning any reason thereof. A bidder (either in the capacity of individual or as a partner of a firm) & his/her co-partners of another firm will not be allowed to participate in the same work under a NIT.

AND

Corresponding address, fax & telephone numbers, contact mobile number and email number of the organization.

N.B. – 1. No joint venture, consortium etc will be accepted. Work completed as sub-contractor will also not be accepted as credential.

2. Successful bidder will have sufficient qualified technical personnel, Certified Electrical Supervisor with necessary valid Electrical licences (to be employed under the firm for at least 3 consecutive years) with sound knowledge and experience in execution of similar nature of works. List of machineries & equipment necessary for fields and list of technical personals employed under the organization in details with name, qualification, experience and address with contact number will have to be furnished by the successful bidder at the time of contract agreement.

Note:

- i. Only works of nature depicted above completed successfully will be treated as credential.
- ii. The bidder should have no adverse report, on any account, against their organization for any project worked during last 5 (five) years or working at present. This clause will lead for rejection of application, even after fulfillment of other eligibility criteria.  
However, the tender inviting authority reserves the right to relax the eligibility criteria if felt necessary for the interest of fair competition.
- ii. After finalization of contract the contractor may be allowed to change /select any other pipe manufacturer subject to conforming all clauses / sub-clauses of 4.13 above and approval of Superintending Engineer of the concerned Circle Office.

Registered Unemployed Engineers' Co-operative Societies/ Registered Unemployed Labour Co-Operative Societies are required to furnish **valid Bye Law, Current Audit Report, Copy of Resolution for constitution of Board** along with other relevant supporting papers.[Non-Statutory Documents].

## **2) Documents to be produced in support of Credential for Bid:-**

As mentioned in Sl. No. 1 above.

Note: - Failure of submission of any of the above-mentioned documents will render the Bid liable to be summarily rejected.

All documents in original may need to be produced at any time of tender evaluation process, if desired by the concerned Superintending Engineer of MED, which may be communicated by the Tender Inviting Authority.

## **3) Earnest Money: -**

- a) 2% of the Quoted Bid price in two parts, an initial Earnest Money with Bid Proposal as mentioned under details of work and rest as mentioned below.
- b) Initial earnest money is to be deposited with bid proposal and may be remitted by selecting from either of the following payments modes:



- i) Net Banking: (any of the banks listed in the ICICI Bank Payment Gateway) in case of payment through ICICI Bank Payment Gateway. Bank Acknowledgement Slip to be uploaded during online bid submission:
- ii) RTGS / NEFT in case of offline payment through bank account in any bank and also to be documented through e-filing.
- c) Earnest Money Deposit i.e. 2% of bid amount beyond Initial Earnest Money (if any) shall have to be deposited by L1 Bidder after acceptance of Bid Proposal in the form of Bank Draft from any nationalised / scheduled Bank in favour of “Executive Engineer, West Midnapore Division, MED”, Payable at PaschimMedinipurand/or as per direction of TIA.
- d) Additional Performance Security Deposit @ 10% of the accepted amount is to be deposited in due course as per GoWB norms if the accepted amount to be found to be @80% or less than the departmental justified amount in terms of GO No. 4608 f(Y) dated 18.07.2018.

#### 4) Date and time schedule:-

Sl. No.	Particulars	Date & Time
1	Date of uploading of NleB. and Bid Documents (online) (Publishing Date)	20/03/2025 at 06.00 p.m
2	Date of Pre-Bid Meeting with the intending bidders in the office of the Superintending Engineer, South Circle, Municipal Engineering Directorate.	02/04/2025 at 01.00 p.m.
3	Documents download start date (Online)	20/03/2025 from 06.00 p.m
4	Documents download end date (Online)	12/04/2025 upto 06.00 p.m
5	Bid submission start date (On line)	20/03/2025 from 06.00 p.m
6	Bid Submission closing (On line)	12/04/2025 upto 06.00 p.m
7	Bid opening date for Technical Proposals (Online)	16/04/2025 at 2.00 p.m.
8	Date of uploading list for Technically Qualified Bidder (online)	To be notified later
9	Date for opening of Financial Proposal (Online)	Minimum 48 Hours from the time of uploading the list for Technically Qualified Bidder(s)*
10	If necessary for further negotiation through off line for final rate	To be notified later
<p><b>*All bidders are requested to raise objection(s), if any, regarding the decision of TIA with respect to acceptance/non-acceptance of technical bid within these hours through official e-mail of TIA only. Failing which the objection(s) may not be considered.</b></p>		

#### 5) Cost price of Bid Document:- “Nil”

#### 6) Time of completion:-

Time of completion of the Contract is 9 (nine) months from the date of issue of Work Order.

#### 7) Site inspection & general information: -

Intending Bidders are required to inspect the site of the Project with particular reference to location and infrastructure facilities. They are to make a careful study of all relevant data with regard to availability of Sufficient Quantum of Water as per the Requirement for the project and all relevant factors as might affect the rates and prices. They should make themselves acquainted with the relevant IS specifications, CPHEEO

manuals, Clauses & Sub Clauses of the Bid documents and to have fully acquainted with all details of work front, communications, underground utility services, seasonal weather and its variation including High Flood level, labour, water supply, existing & proposed site levels, position and diversion of transportation and barricading if required, electricity and any other general information including topological condition & existing level which are needed for the work to be completed in scheduled time properly.

**8) Bid documents:-**

A full set of Bid documents consists of 2 Parts. These are;

a) Part I containing all documents in relation to the name of the firm applied credentials possessed by them, all documents as depicted in Sl. No. 4 along with this NleB and its all corrigenda's.

- Section A: Instruction to Bidder
- Section B: Forms I to IV&Affidevit-'Y'
- Section C: General conditions of the contract.
- Section D: General technical specification –Civil works
- Section E: General technical specification-Electro-Mechanical Works
- Section F: Annexures

b) Part II containing following documents; Bid Price / Price Schedule (BOQ).

**9) Validity of Bid:-**

A Bid submitted shall remain valid for a period of 240 calendar days from the date set for opening of Bids. Any extension of this validity period if required will be subject to concurrence of the Bidders.

**10) Withdrawal of Bid:-**

A Bid once submitted shall not be withdrawn within the validity period. If any Bidder/Bidders withdraw his / their Bid(s) within the validity period then Earnest Money as deposited by him / them will be forfeited and necessary legal action will be applied as per Govt. order.

**11) Acceptance of Bid: -**

The Superintending Engineer, South Circle, Municipal Engineering Directorate will accept the Bid on recommendation of the Competent Authority. He does not bind himself to accept otherwise the lowest Bid and reserves to himself/herself the right to reject any or all of the Bids received without assigning any reason thereof.

**12) Intimation:-**

The successful Bidder will be notified in writing of the acceptance of his Bid. The Bidder then becomes the "Contractor" and he shall forthwith take steps to execute Formal Contract Agreement in appropriate Superintending Engineer, South Circle, Municipal Engineering Directorate and fulfil all his obligations as required by the Contract.

**13) Escalation of Cost:-**

There will be no escalation in cost for materials or labour and the contract price mentioned in the contract stands valid till completion of the operation and maintenance of the contract.

**14) Name & address of Engineer-In-Charge (EIC) of the Work**

Executive Engineer, West Midnapore Division, M.E. Dte.

**16) Execution of Work:-**

The Contractor is liable to execute the whole work as per direction and instruction of the Executive Engineer, West Midnapore Division, M.E.Dte., who is the Engineer in Charge of the work.

**17) Payment:-**

Payment will be made to the successful Bidder from the Executive Engineer, West Midnapore Division, M.E.Dte.

**18)Influence:-**

Any attempt to exercise undue influence in the matter of acceptance of Bid is strictly prohibited and any Bidder who resorts to this will render his Bid liable to rejection.

<b>Following clauses are to be adhering to by the concerned Bidder during the process of Bidding.</b>	
19.	In case office faces sudden closure owing to reason beyond the scope and control of the Superintending Engineer, South Circle, Municipal Engineering Directorate any of last date / dates as schedule in Sl. No 7 may be extended up-to / to next and following working day without issuing further and separate notice should the TIA feel it to be necessary and exigent.
20.	Persons having authenticated and having registered Power of Attorney may be considered lawfully becoming to be acting on and for behalf of the Bidder.
21.	Sufficient care has been taken to avoid variance in between the contents of the listed documents in the Bid documents. However, if there is any variance between the contents of different documents, the provision of documents appearing earlier in the list shall prevail over the same provided in the contents coming later.
22.	Imposition of any duty / tax / rule etc. owing to change / application in legislations / enactment shall be considered as a part of the contract and to be adhering to by the Bidder / contractor strictly.
23.	Bid Acceptance Authority is the Superintending Engineer, South Circle, Municipal Engineering Directorate.
24.	In case of any dispute arising from any clauses of similar nature between bid documents and West Bengal tender form, the decision of the Superintending Engineer, South Circle, MED and Engineers of E/M Section of MED will be final and binding.
25a)	Rates quoted by bidder shall be inclusive of statutory taxes and levies payable under respective statutes.
25b)	All usual deductions for GST, IT, and Labour welfare Cess etc. as applicable will be made from the bills from time to time which is inclusive in cl.57 of section C.
26.	No conditional / incomplete Bid shall be entertained.
27.	In the event of e-Filing intending bidder may download the tender document from the website <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a> directly by the help of Digital Signature Certificate free of cost. Technical Bid & Financial Bid both will be submitted concurrently duly digitally signed in the Website <a href="http://wbtenders.gov.in">http://wbtenders.gov.in</a> . Tender document may be downloaded from website & submission of Technical Bid/Financial Bid as per Tender Schedule.
28.	The requisite cost of Earnest Money, as specified in this NleB shall be paid to ICICI bank by online internet bank transfer or NEFT or RTGS (as per GO No. 3975-F(Y) dt. 28.07.2016 of Finance Department, Govt. of West Bengal). Every such Transfer shall be done on or after the date of publish of NleB. Any Bid without such Transfer of EM (Except exemption as per G.O.) shall be treated as informal and shall be automatically cancelled. Online transfer of Earnest Money receipt (Scanned copy) shall be uploaded as Statutory document.
29.	The Bidder, at the Bidder's own responsibility and risk is encouraged to visit and examine the site of works and its Surroundings and obtain all information that may be necessary for preparing the Bid and entering into a contract for the work as mentioned in the Notice inviting Tender, the cost of visiting the site shall be at the Bidder's own expense. Traffic management and execution shall be the responsibility of the Agency at his / her / their risk and cost.
30.	The intending Bidders shall clearly understand that whatever may be the outcome of the present invitation of Bids, no cost of Bidding shall be reimbursable by the Corporation. The TIA reserves the right to reject any application for purchasing Bid documents and to accept or reject any or all the offered bid / bids without assigning any reason whatsoever and is not liable for any cost that might have incurred by any Bidder at any stage of Bidding.
31.	Prospective applicants are advised to note carefully the minimum qualification criteria as mentioned in 'Instructions to Bidders' before bidding.
32.	During scrutiny, if it is come to the notice to tender inviting authority that the credential or any other papers found incorrect / manufactured / fabricated, that Bidder will not be allowed to participate in the tender and that application will be out rightly rejected without any prejudice.
33.	Before issuance of the work order, the tender inviting authority may verify the credential & other documents with the original of the lowest bidder if found necessary. After verification, if it is found that such documents submitted by the lowest bidder is either manufacture or false, in that case, L.O.A. / work order will not be issued in favour of the bidder under any circumstances.
34.	If any discrepancy arises between two similar clauses on different notifications, the clause as stated in later notification will supersede former one in following sequence: i) 2911-(ii) (WB) tender form ii) NleB/NleT iii) Special terms & Condition iv) Detailed Scope of work. v) Financial bid

	In case of inadvertent typographical mistake in BOQ/Schedule of works/Price schedule/Rates/elsewhere, same may be treated to be so corrected as to confirm with the relevant schedule of rates and /or technically sanctioned estimate.
35.	Contractor shall have to comply with the provisions of (a) the contract labour (Regulation Abolition) Act. 1970 (b) Apprentice Act. 1961 and (c) minimum wages Act. 1948 of the notification thereof or any other laws relating thereto and the rules made and order issued there under from time to time.
36.	Where an individual person holds a digital certificate in his own name duly issued to him against the company or the firm of which he happens to be a director or partner, such individual person shall, while uploading any tender for and on behalf of such company or firm, invariably upload a copy of registered power of attorney showing clear authorization in his favour, by the rest of the directors of such company or the partners of such firm, to upload such tender. The power of attorney shall have to be registered in accordance with the provisions of the Registration Act, 1908.
37.	Any legal matter will be settled within the jurisdiction of Hon'ble District Judges Court at Midnapore, Dist:- PaschimMedinipur, West Bengal.
38.	Bidder would be at liberty to point out any ambiguities, contradictions, omissions etc. seeking clarifications thereof or interpretation of any of the conditions of the Bid documents before the Bid Inviting Authority in writing 48 hours prior to Pre-Bid Meeting, beyond such period no representation in that behalf will be entertained by the Bid Inviting Authority.
39.	The successful Bidder will remain liable for following with West Bengal Contract Labour (Regulation & Abolition) Act 1970 and necessary certificates from appropriate authority to be submitted within 07 (seven) days from the date of issue of work order, otherwise the work order may be cancelled.
40.	The work is of Construction and subsequent operation and maintenance in nature, the Defect Liability Period of the work shall be Sixty months from the actual date of completion of the work. <b>For work with 5 Years Defect Liability Period:</b> (i) Security Deposit amount which is deducted from every running bill shall be refunded to the contractor as per Govt. norms vide PWD Order No. 5784-PW/L&A/2M-175/2017 dated 12.9.2017 for the item 1 of BOQ. (ii) S.D. Money shall be refunded after completion of success full maintenance and operation of 5 Years i.e. in the time of releasing of 5th year operation & maintenance cost.
41	The successful bidder has to provide detailed estimate along with rate analysis (if any) for all civil and electro mechanical works including planning, designing and drawings as per the clause 57 of Section C with all necessary break up elaborately for comparison of rate with departmental estimate if asked by the concerned authority before acceptance of bid which will be treated as part of the bid document.
42.	Clause 57 of Section C has been prepared on the basis of major items of the work so that contractor may get payment after completion of major items in a phase wise way . If any item the contractor feels as major item but not reflected in the clause will be pointed out during pre-bid meeting. All other items (if any) not shown in the payment schedule or in bid document but required for successful completion and commissioning of the project will be in the scope of Bidder.
44.	Agency's whole responsibility is to ensure that the require quantum of the water should available from the structure and for this extensive survey work to be done in all respect
45.	any contradiction between any clauses of the NieB, decision of the Superintending Engineer, South Circle, MED will be final.

**Sd/-**  
**SuperintendingEngineer,**  
**SouthCircle,M.E.Directorate**

# INSTRUCTION TO BIDDERS

## SECTION – A

### 1. General guidance for e-tendering

Instructions / Guidelines for Bidders for electronic submission of the tenders have been annexed for assisting them to participate in e-tendering.

### 2. Registration of Bidder

Any Bidder willing to take part in the process of e-tendering will have to be enrolled and registered with the Government e-procurement system, through logging on to <http://wbtenders.gov.in>. The Bidder is to click on the link for e-tendering site as given on the web portal.

### 3. Digital Signature certificate (DSC)

Each Bidder is required to obtain a class-II or Class-III Digital Signature Certificate (DSC) for submission of tenders, from the service provider of the National Information's Centre (NIC) or any other bonafide service provider on payment of requisite amount. Details are available at the Web Site stated in Clause 2 of Guideline to Bidder. DSC is given as a USB e-Token.

4. The contractor can search and download NIB and Tender Documents electronically from computer once he logs on to the website mentioned in Clause 2 using the Digital Signature Certificate. This is the only mode of collection of Tender Documents.

### 5. Submission of Tenders.

General process of submission, Tenders are to be submitted through online to the website stated in Cl. 2 in two folders at a time for each work, one in Technical Proposal and the other is Financial Proposal before the prescribed date and time using the Digital Signature Certificate (DSC) the documents are to be uploaded virus scanned copy duly Digitally Signed. The documents will get encrypted (transformed into non readable formats).

#### A. Technical proposal

The Technical proposal should contain scanned copies of the following further two covers (folders).

##### A-1. Statutory Cover Containing

1. Prequalification Document

i. Prequalification Application (Sec-B, Form – I)

ii. Scanned Copy online Transaction of earnest money

(EMD) as prescribed in the NleB against each of the serial of work.

##### 2. NleB with Bid Documents (downloads and upload the same Digitally Signed)

##### 3. Technical Document (To be filled, scanned & digitally signed)

i. Financial Statement (Section – B, Form – IIB).

ii. Affidavits (Ref:- format for general affidavit shown in “Y” . )

iii. Bank Solvency Certificate.

iv. Form III & IV Of Section B.

##### A-2. Non statutory Cover Containing / My Documents

i. GST Certificate (up to date).

ii. Registration Certificate under Company Act. (if any).

iii. Registered Deed of partnership Firm/ Article of Association and Memorandum, if applicable.

iv. Power of Attorney (For Partnership Firm/ Private Limited Company, if any)

v. Tax Audit Report along with Balance Sheet and Profit and Loss A/c for the period up to last five years (year just preceding the current Financial Year will be considered as year – I)

vi. Clearance Certificate for the Current Year issued by the Assistant Registrar of Co-Op (S) (ARCS) bye laws are to be submitted by the Registered labour Co-Op(S) Engineers' Co.-Opt.(S), if applicable.

vii. Credential: Scanned copy of Original Credential Certificate as stated in NleB

Intending Bidders should upload Non-Statutory documents as per following folders in My Document:

E-Bidding system of Government of West Bengal			
<b>Bidder Document Sub Category Master</b>			
Sl. No.	Category Name	Sub Category Name	Sub Category Description
A	CERTIFICATES	A1. CERTIFICATES	1. GST Certificate 2. E.S.I & EPF Registration Certificate.
B	COMPANY DETAILS	B1. COMPANY DETAILS	1. Proprietorship Firm (Trade License). 2. Registered Deed of partnership Firm 3. Registration Certificate under Company Act. (if any). Ltd. Company (Incorporation Certificate, Trade License) 4. Power of Attorney (For Partnership Firm / Private Limited Company, if any) 5. Society (Society Registration copy, Trade License)
C	CREDENTIAL	C1. CREDENTIAL1	Similar nature Work & Completion Certificates along with work order and payment certificate issued by competent authority (as per Sl. No. 1 of NleB)
D	EQUIPMENT	D1. LABORTARY	1. List of Machineries and equipment necessary for field as well as laboratory test of all materials as per NleB
		D2.CIVIL MACHINERIES	
		D2. ELECTRICAL MACHINERIES	
		D2. MECHNANICAL MACHINERIES	
		D2. MISCELLENEOUS MACHINERIES	
E	FINANCIAL INFO	E1. P/L & BALANCE SHEET 2019- 2020	P/L & BALANCE SHEET (as per NleB)
		E2. PAYMENT CERTIFICATE 1	Payment Certificate in support of valid Credential only to be submitted
		E3 PAYMENT CERTIFICATE 2	
F	MANPOWER	F1. TECHNICAL PERSONNEL	1. List of sufficiently qualified technical person (as per SI No 3 of NleB)
		F2. TECHNICAL PERSONNEL ON CONTRACT	1. List of technical personnel employed under the organisation (or on contact basis) in details with name, qualification, experience and, address with contact number.
G	DECLARATION	DECLARATION 1	1. Bank Solvency Certificate (As per NleB)
		DECLARATION 2	2. Valid Document in support of annual turnover as per NleB.
		DECLARATION 3	3. Corrigendum and additional document (if any).

**Note:-** Failure of submission of any of the above mentioned documents (as stated in A1 & A2) will render the Bid liable to summarily rejected for both statutory & non statutory cover. All Corrigendum & Addendum Notices, if any, have to be digitally signed & uploaded by the contractor in the Declaration Folder of My Documents.

### **B. Bid Evaluation**

i. Opening and evaluation of Bid :- If any Bidder is exempted from payment of EMD, copy of relevant Government order needs to be furnished (applicable in case of Registered Labour Co-Operative Society).

ii. Opening of Technical proposal: - Technical proposals will be opened by the Bid Inviting Authority electronically from the website using his/ her Digital Signature Certificate.

iii. Cover (folder) of statutory documents (vide Cl. No. 5.A-1) should be opened first and if found in order, cover (Folder) for non-statutory documents (vide Cl. No.– 5.A-2) will be opened. If there is any deficiency in the statutory documents the Bid will summarily be rejected.

iv. Decrypted (transformed in to readable formats) documents of the non-statutory cover will be downloaded and handed over to the Bid Evaluation Committee. Scrutiny of technical proposal and recommendation thereafter and processing of comparative statement for acceptance etc. will be made by the Municipal Engineering Directorate, under the department of Municipal Affairs, Govt. of West Bengal. Comparative Statement may be forwarded to appropriate authority depending on the value of the work as applicable as per existing norms and guidelines under AMRUT programme.

v. Uploading of summary list of technically qualified bidders.

vi. Pursuant to scrutiny and decision of the screening committee the summary list of eligible Bidder and for which their proposal will be considered and uploaded in the web portals.

vii. While evaluation, the committee may summon the bidders and seek clarification / information or additional documents or original hard copy of any of the documents already submitted and if these are not produced within the stipulated time frame, their proposals will be liable for rejection.

#### **Bid Evaluation Committee:**

A Bid Evaluation Committee (BEC) has been constituted under the Superintending Engineer of concerned Circle, Municipal Engineering Directorate, and Government of West Bengal, who is the tender inviting authority for all works beyond the tender accepting power of the Executive Engineers.

The members of Bid Evaluation Committee would be:-

1. Superintending Engineer, South Circle, Chairman
2. Executive Engineer, South Circle - Member
3. Executive Engineer, West Midnapore Division - Member
4. Divisional Accounts Officer/ Divisional Accountant West Midnapore Division – Member

The Bid Evaluation Committee will do the technical and financial evaluations of the bidders for different types of works and make recommendation to the tender accepting authority. The bidders will have to meet all the minimum criteria regarding:

- a) Financial Capacity
- b) Technical Capability
- c) Experience / Credential

The eligibility of a bidder will be ascertained on the basis of his digitally signed documents in support of the minimum criteria as mentioned in (a), (b), (c) above with the help of his DSC and the declaration executed through prescribed affidavit in non-judicial stamp paper of appropriate value duly notarized. If any document submitted by a bidder is either manufactured or false, in such case the eligibility of the bidder/ tenderer will be out rightly rejected at any stage without any prejudice and further penal action may be taken against him as per rule.

#### **Financial proposal**

As per Sl. 9 Part II (a) , Bid Price / Price Schedule. To be uploaded digitally signed by the Bidder.

#### **Penalty for suppression / distortion of facts:**

Submission of false document by Bidder is strictly prohibited and in case of such act by the Bidder the same may be referred to the appropriate authority for prosecution as per relevant IT Act with forfeiture of earnest money forthwith.

#### **REJECTION OF BID**

The Employer (tender accepting authority) reserves the right to accept or reject any Bid and to cancel the Bidding processes and reject all Bids at any time prior to the award of Contract without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the ground for Employer's (tender accepting authority) action.

The Bidder who's Bid has been accepted will be notified by the Tender Inviting and Accepting Authority through acceptance letter/ Letter of acceptance. The Letter of acceptance will constitute the formation of the Contract.

The Agreement in Printed Tender Form will incorporate all necessary documents e.g. N.I.B., all addenda-corrigendum, special terms and condition (Section –C), different filled-up forms (Section –B), Price Schedule and the same will be executed between the Tender Accepting Authority and the successful Bidder.

**Superintending Engineer, South Circle,  
Municipal Engineering Directorate**

Memo. No. MED/ SE(S) /776(1-9) /W-6/06 Pt.III

Dated.20/03/2025

Copy Forwarded for information and for favour of wide circulation to:

1. The State Mission Director AMRUT, SUBHANNA, Saltlake, Kol 106.
2. The Chief Engineer (South), M.E. Dte., Bikash Bhawan, Saltlake, Kol-106.
3. The Addl. Chief Engineer, South, M.E.Dte., Bikash Bhawan, Saltlake, Kol-106.
4. The District Magistrate, West Midnapore District.
5. The Chairman Khirpai Municipality.
6. The Executive Engineer, M.E. Dte. West Midnapore Division.
7. The Executive Engineer(E/M), Bikash Bhawan, Salt Lake Kol-106
8. The Divisional Accountant, Municipal Engineering Directorate, West Midnapore Division
9. The Office Notice Board of Superintending Engineer, South Circle, for wide circulation.

**Superintending Engineer, South Circle,  
Municipal Engineering Directorate**



**SECTION – B**

**FORM –I**  
**PRE-QUALIFICATION APPLICATION**

To

Superintending Engineer, South Circle,  
Municipal Engineering Directorate

Ref: - Tender for \_\_\_\_\_

(Name of work) \_\_\_\_\_ N.I. B. No.:

Dear Sir,

Having examined the Statutory, Non statutory and NIT documents, I /we hereby submit all the necessary information and relevant documents for evaluation. The application is made by me / we on behalf of \_\_\_\_\_ in the capacity \_\_\_\_\_ duly authorized to submit the order.

The necessary evidence admissible by law in respect of authority assigned to us on behalf of the group of firms for Application and for completion of the contract documents is attached herewith. We are interested in bidding for the work(s) given in Enclosure to this letter. We understand that:

(a) Tender Inviting and Accepting Authority/Engineer-in-Charge can amend the scope and value of the contract bid under this project.

(b) Tender Inviting and Accepting Authority/Engineer-in-Charge reserves the right to reject any application without assigning any reason.

Enclose: - e-Filling:-

1. Statutory Documents
2. Non Statutory Documents

Date: -

Signature of applicant

Including title and capacity in which application is made.

**SECTION - B**

**B.2. FINANCIAL STATEMENT**

**Form-IIB**

This is to certify that we have verified the consolidated financial statement of \_\_\_\_\_ (Name of the Firm in which application is made) having its Registered Office at \_\_\_\_\_ (address of the Firm). Based on our examination of Books and Records and other documentary evidences we certify that the financial data of the company given in the balance sheets are detailed hereunder for the financial year(s) as mentioned below are true and correct.

Sl, No.	Description	Financial Data for the last 5 audited Financial Year				
		Previous to Year 4 Year 5	Previous to Year 3 Year 4	Previous to Year 2 Year 3	Previous to Year 1 Year 2	Last Year Year 1
1	<b>Net Worth</b> (Calculated on the basis of capital, profit and free reserve available to the firm should be positive)					
2	<b>Working Capital</b>					
3	<b>Annual Turnover</b> (Engineering Works)					

Available Liquid Assets (Last Financial Year):

1. Working Capital =Rs \_\_\_\_\_

2. Uncommitted Bank Guarantees =Rs \_\_\_\_\_

3. Credit facilities =Rs \_\_\_\_\_

(Certificate to be submitted in **Form IIC**)

**Total Liquid Assets = Rs \_\_\_\_\_**

Signature, name and designation of Authorised Signatory For and on behalf of  .....(Name of the applicant)	Name of the Statutory Auditor's Firm / Chartered Accountant  Signature:- Seal of the Audit / Chartered Accountant Firm: Name of signatory (in capital):- Membership No.:- Firm Regn. No.:- Date of Birth:- Mobile No.  UDIN:-
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**N.B:- THIS FORM (i.e. FORM-IIB) MUST BE PROPERLY MADE IN THE LETTER HEAD OF THE AUDITOR'S / CHARTERED ACCOUNTANT FIRM, CLEARLY MENTIONING THE ADDRESS, e-mail ID, and CONTACT NUMBER OF THE FIRM & should preferably be made in a single page else to be authenticated in each page similarly.**

**NB:-i) All information sought w.r.t. Firm / Chartered Accountant is mandatory.**

**ii) All relevant data as mentioned in form IIB shall be available through UDIN verification**

**AFFIDAVIT "Y"**

**DECLARATION OF THE BIDDER**

(Affidavit to be affirmed on a Non Judicial Stamp Paper of Appropriate Value And Duly Notarized)

I, ....., son of ....., aged about ..... years by occupation ..... do hereby solemnly affirm and confirm as follow:

1. That, I am the ..... of ..... have duly authorized by and competent to affirm this affidavit on behalf of the said Bidder.
2. That, I have inspected the site of work covered under NIB (NIB No\_\_\_\_\_) circulated through Office memo bearing No -----dated ----- and have made myself fully acquainted with the site conditions existing level/proposed level and local conditions in and around the site of work. I have also carefully and meticulously gone through the Bid documents. Bid of the above named Bidder is offered and submitted upon due consideration of all factors and if the same is accepted, I on and for behalf of the aforesaid Bidder, being lawfully and duly authorized, promise to abide by all the covenants, conditions and stipulations of the Contractual documents and to carry out, complete the works to the satisfaction of the Bid accepting Authority of the Work and abide by all instructions as may given by the Engineer in Charge of the work time to time. I also hereby undertake to abide by the provisions of Law including the provisions of Contract Labour (Regulation & Abolition) Act, Apprentice Act 1961, GST Act as would be applicable to the Contractor upon entering into formal Contract / agreement with the Bid Inviting/Accepting authority.
3. That I declare that, no relevant information as required to be furnished by the Bidder has been suppressed in the Bid documents.
4. That the statement above made by me is true to my knowledge.

Deponent  
Solemnly affirmed by the said  
.....

Before me. ....  
(1st class Judicial Magistrate / Notary Public) .

**SECTION - B**  
**FORM- III**  
**STRUCTURE AND ORGANISATION**

**A.1 Name of applicant:**

**A.2 Office Address:**

**Telephone No. and Cell Phone No. :**

**Fax No. :**

**E mail id:**

**A.3 Attach an organization chart showing the structure of the company with names of Key personnel and technical staff with Bio-data. :**

**Note: Application covers Proprietary Firm, Partnership, Limited Company or Corporation,**

**Signature of applicant including title  
and capacity in which application is made.**

**SECTION –B**  
**FORM – IV**  
**DEPLOYMENT OF MACHINERIES (in favour of owner / lessee)**

(Original document of own possession arranged through lease deed to be annexed)  
(If engaged before Certificate from E.I.C. to be annexed in respect of anticipated dated of release of Machineries.)

Name of Machine / Instrument	Make	Type	Capacity	Motor / Engine No.	Machine No.	Possession Status		Date of release If Engaged
						Idle	Engaged	

For each item of equipment the application should attach copies of

- (i) Document showing proof of full payment, (ii) Receipt of Delivery,
- (iii) Road Challan from Factory to delivery spot, is to be furnished.

Signature of applicant including title

and capacity in which application is made.

## Civil Works

### **(A).SINKING OF DEEP TUBE WELL, EACH OF 180 M (More or less)**

#### **Deep Tube Well by Direct Rotary Rig method**

- i) Sinking of 300mm X 200mm dia. Deep tube well,each of 180 m (more or less) deep by direct rotary method using UPVC pipes (CD) and UPVC deepwell screen(RDS)including supplying,fitting and fixing of all required materials as per approved drawing,specification and direction of the E.I.C.
- ii) The depth of tube well will be ascertained as per the report of SWID or field inspection by any experienced and recommended geologist.
- iii) Site Preparation, Temporary Latrine, Placement &levelling of Rig Machine, Mast hoisting and Casing drilling (Upto 6 mtr.) Placement of Casing with all allied works necessary to commence drilling woks andwind up of all machineries after completion of Drilling.
- iv) Drilling by Direct Rotary method of drilling using 9 7/8" dia.bit forpilot bore followed by subsequently reaming using 12 1/4"dia. ,15 " dia.and 17.5" dia. Rock Roller Bits/Drag Bits in consolidated, semiconsolidated and soft formation up to required depth including casingboring and casing lowering as required including cost of fuels andlubricants etc. as required for drilling.
- v) Supply and delivery of UPVC pipe (CD) conforming to IS 12818:2010.
- vi) (CIPET Certified).
- vii) Supply and delivery of UPVC Deep Well Screen (RDS) Pipes with Ribs
- viii) conforming to IS 12818:2010 .(CIPET Certified).
- ix) Supply and delivery of UPVC Reducer, UPVC End Cap, M.S. Housing clamp 250 mm dia, M.S .Centre guide (Special Type), Washed gravels size ranging from 1.80 mm to4.74 mm. conforming to IS 4097 : 1967.
- x) Electro Logging of the bore hole shall have to carried out.
- xi) Lowering the tube well assembly (UPVC Casing pipe ,wellpipe,strainer along with UPVC accessories) vertically in a position withproper lowering arrangement by applying necessary jointing compoundincluding labour cost for subsequent gravel packing and machineoperation cost etc.
- xii) Development (Min. 8 Hr. continuous) of tube well by using suitable aircompressor (Min. Capacity: 600CFM & operating Pressure 14 Bar)followed by yield testing with BHT pump (Head :45 to50mtr.,Discharge :1100 to 1000 LPM and 25 BHP engine) all completeincluding To & Fro Transportation cost and Cost of fuels, lubricants &Labour etc.
- xiii) Supplying 200 mm M.S. male / female adopter of approved make and brand for coupling of M.S. pipe and fibre glass strainers, as per direction of the Engineer - in -Charge.

- xiv) Water sample collection and chemical test including Arsenic Test.
- xv) Making arrangement for showing verticality test including the cost for hire charges of tools and plants, scaffolding, labour etc. all complete.
- xvi) Supply and delivery of Bentonite Powder conforming to IS 6186 :1986.
- xvii) Development of Existing DTW of the tubewell by Air Compressor and BHT/ other suitable pump and Yield Testing by BHT/ other suitable pumping machinery upto the satisfaction of EIC. It includes arrangement of all machinery, supply of fuel & lubricants, laborers, any others etc.
- xviii) Collection of water sample and testing the same for all parameters (For potable water) from any Govt. Engineering college, Govt. Laboratory or NABL accredited laboratory as per relevant IS. Necessary reports are to be submitted to the department.
- xix) Showing of verticality test will be in the bidder's scope.
- xx) All kinds of Electro-mechanical works will be in the bidder's scope details of which has been given in Electro-mechanical part of this Bid.

**(B) Construction of Pump House at Tube Well Sites:**

- i) The agency has to build one pump house at each tubewell site with frame structure as per approved drawing and design having minimum internal dimension 5.4 m x 3.6m and 3.6m x 3.0m each.
- ii) The F.G.L. shall be level of the near by road or H.F.L., whichever is higher.
  - iii) The total height of the building will be 3.6m from F.G.L.
  - iv) The out side wall will be of 250mm. Thick and to be built with C/M(6:1).
  - v) The floor will be of 25mm. Thick A.S.F.
  - vi) The outside and inside wall surface will receive plaster(6:1) of thickness 20mm. and 15mm. respectively. The ceiling plaster will be of thickness 10mm. And with C/M (4:1)
- vii) There will be one wooden door and two windows. The frame will be of Sal wood having size 100mm x 75mm. The door & window shutter will be Panel shutter of thickness 40mm. and of Sishu/Gamar wood as per approval of the EIC.
- viii) The inside plaster surface will receive two coats of white wash and outside surface will receive two coats of Cement based Paint of approved quality over a coat of approved primer. The door and window including grill will receive one coat of approved primer and two coats of approved paint as per direction of the EIC.
- ix) All other works as per direction of EIC to complete the work with entire satisfaction will be within the scope of work. Specification of all works will be as per PWD schedule or relevant IS codes.
  - x) Scope of electrical work has been detailed in Electro-mechanical part.
  - xi) Drawing and Design supplied by agency and approved by EIC is within

the bidder's scope.

The contractor has to design the structure as per IS, and the detailed design report has to be prepared and shall be got approved from IIT / NIT / Govt Engineering College before submission for acceptance.

<b>Tentative Technical specification of Pump House with Toilet (5.4m x 3.6m)</b>	
<b>SL.NO.</b>	<b>Description</b>
1	<b>SURFACE DRESSING :-</b> Surface dressing of ground in any kind of soil including removing vegetation inequalities not exceeding 15 cm depth and disposal of the rubbish within a lead upto 75 m. as directed.
2	<b>EARTHWORK IN EXCAVATION</b> Earth work in excavation of foundation trenches or drains in all sorts of soil (including mix soil but excluding laterite or sand stone) including removing, spreading or stacking the soils within a lead of 75 m. as directed. The item includes necessary ramming the sides of trenches, levelling, dressing and ramming the bottom, boiling out water etc, as required complete. (a) Depth of excavation not exceeding 1500 mm
3	<b>FILLING</b> (A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand.
4	<b>BFS</b> Supplying and laying brick khoa of ordinary bats of size (38mm x 63mm) of approved quality in 100mm layer (loose) filling in gaps with small ones rammed and compact as directed true to level and grade.
5	<b>PCC</b> Cement concrete with graded stone ballast ( 40 mm size ) in ground floor (A) Pakur Variety (Analysis rate) (a) 1:3:6
6	<b>RCC</b> Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. Pkur/Chandil variety.
7	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete.
8	<b>SHUTTRING</b> Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) 25 mm and upto 30 mm thick wooden shuttering as per decision and direction of EIC
9	<b>REINFORCEMENT</b> Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge-black annealed wire at every intersection, complete as per drawing and direction. (Tata/RINL/SAIL)



10	<p><b>BRICKWORK</b>  Brick work with 1st class bricks in cement mortar (1:6)  In foundation &amp; plinth  (b) In Superstructure ground floor (upto 4m)</p>
11	125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor
12	<p><b>PLASTERING</b>  Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course where necessary (ground floor) [excluding cost of chipping overconcrete surface].  i) With 1:6 cement mortar 20mm thick  Wall (Out side)  i) With 1:6 cement mortar 15mm thick  250mm THK Inside Wall  125mm THK inside wall  i) With 1:4 cement mortar 10mm thick  Ceiling Plaster</p>
13	25 mm. thick damp proof with cement concrete (1:1.5:3) (with graded stone aggregate 10 mm. normal size) and painting the top surface with a coat of bitumen [VG.40 ] using 1.7 kg. persq.m. including heating the bitumen and cost and carriage of all materials complete. [Bitument to be supplied by the Agency]
14	<p>Artificial stone in floor,dado,staircaseetc with cement concrete(1:2:4) with stone chips,laid in panels as directed with topping made with ordinary or white cement (as necessary)and marble dust in proportion (1:2)including smooth finishing and rounding off corners including raking out joints or roughening of concrete surface and application of cement slurry before flooring works using cement @ 1.75kg/sq.m all complete including all materials and labour. In ground floor.  3mm.thick topping(High polishing grinding on this item is not permitted with ordinary cement).Using grey cement  (i) 25 mm. thick</p>
15	Supplying, fitting & fixing 1st quality Ceramic tiles in walls and floors to match with the existing work & 4 nos. of key stones (10mm) fixed with araldite at the back of each tile & finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive & grout materials etc.With Sand Cement Mortar (1:4) 20 mm thick & 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m& joint filling using white cement slurry @0.20kg/Sq.m. area of each tiles upto 0.09 sqm(colour decorative)
16	Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc
17	Wood work in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frameexcluding cost of concrete, Iron Butt Hinges and M.S clamps.(b) Sishu, Gamar, Champ,Badam,Bhola, Mogra, Hallak

18	Supplying fitting and fixing in position approved P.V.C. door frame (Matt finish) made of extruded P.V.C. multichamber hollow section having dimensions 60mm x 50mm x 2mm (+/- 0.2mm), horizontal section will be joined with vertical section by galvanised steel screws after inserting two number steel brackets as reinforcement making suitable space for placing hinges, one steel tube 40mm x 20mm x 1.20 mm will be inserted on one full vertical side of the frame (hinge side) as reinforcement, the frame will then be fixed in the opening with the help of P.V.C. expandable fastner/wooden gutties and galvanised steel screws including cost of all materials and labour, hire charges of tools and appliances, carriage of all materials, taxes and all other incidental charges complete.
19	Supplying fitting and fixing P.V.C. door shutter of approved quality & shade in position, the style & rail of the P.V.C. door shutter will be made of rigid P.V.C. multicavity hollow chamber of 59 mm x30 mm section with 2.0 mm (+/-0.2 mm) wallthickness. Horizontal & vertical section shall be fixed to each other by self tapping screws and 1 solid polymeric or M.S. galvanised tubular 'L' shaped bracket 100mm x 200mm in each corner of the shutter frame for placing hinges. Polymer based multicavity hollow section of 120 mm x30mm with 2.0 mm (+/- 0.2 mm) wall thickness will be fitted in the middle, reinforced by solid polymer bar of 200 mm long at both ends and screws from both sides as lock rail. The section frame will then be fitted in by PVC panels of size 100 mmx25 mm with wall thickness of 1.2 mm (+/- 0.2 mm) and 2 nos. of 6 mm dia bright rod will be inserted horizontally with both side check and nut system and stretches where fixing of hinges /hasp bolt / tower bolt / door ring are required to be strong enough to with stand wear and tear. The rate is inclusive of cost of all materials, labour, and hire of tools and plants and appliances/c carriage of all materials taxes and all other incidental charges complete.
20	Supplying fitting approved type ventilator in position after cutting holes in walls setting in cement mortar mending damages to wall and plaster and two coats of paint of approved brand of any shade.(b) R.C.C ventilator of 20 mm. thick(i) Upto 0.10 sq.m. area
21	Supplying, fitting and fixing Openable steel windows as per IS sizes with side hung shutters and horizontal glazing bars.
22	Supplying 1.5mm thick M.S. sheet fitted and fixed on one or both faces of M.S./ W.I. gate etc. with point welding at not more than 150mm apart complete in all respect as per design including cost of all labour and materials
23	(a) M.S. or W.I. Ornamental grill of approved design joints continuously welded with M.S., W.I. Flats and bars of windows, railing etc. fitted and fixed with necessary screws and lugs in ground floor.(i) Grill weighing above 10 Kg./sq.mtr and up to 16 Kg./sq. mtr.
24	<b>PAINTING</b> Applying decorative cement based paint of approved quality after preparing the surface including scraping the same thoroughly (plastered or concrete surface) as per manufacturer's specification..
25	(a) Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc
26	(b) Priming one coat on timber or plastered surface with synthetic oilbound primer of approved quality including smoothening surfaces by sandpapering etc
27	(A) Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : (a) On timber or plastered surface :With other than hi-gloss of approved quality-(iv) Two coats (with any shade except white)

28	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary : (b) On steel or other metal surface :With other than hi-gloss of approved quality- (iv) Two coats (with any shade except white)
29	Supplying, fitting and fixing M.S. clamps for door and window frame made of flat bent bar, end bifurcated with necessary screws etc. by cement concrete(1:2:4) as per direction. (a) 40mm X 6mm, 250mm Length
30	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. 75mm x 47 mm x 1.70mm 100mm x 50 mm x 1.90mm
31	(A) Iron door ring of approved quality fitted and fixed with nut and washer complete. 50mm dia
32	Anodised aluminium barrel / tower / socket bolt (full covered) of approved manufactured from extruded section conforming to I.S. 204/74 fitted and fixed with cadmium plated screws: 150mm long x 10mm dia bolt 225 mm long x 10mm dia bolt
33	i) Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16mm dia rod with centre bolt and round fitting. 200mm long
34	Iron catch hook of approved quality fitted and fixed to shutter and chowkat. 6mm dia x 225 mm long
35	Supplying, fitting and fixing hinge cleat in position excluding the cost hinge and other fittings. b) with 75mm iron Butt-hinge iii) Local Sal. 125 mm wooden buffer block sal.(I) with salsiliguri
36	Number plaque of building (plaque size up to 225 mm x 225 mm) made of sand cement plaster (1 : 2) on face of wall or plinth with 50 mm size letters P.W.D and the number of the structure formed thereon (in sunk type) including painting the letters and the number complete as per direction. (Cement - 1 kg/No.)
37	R.C. shelves (1:1.5:3) either precast or cast in situ with stone chips and necessary reinforcement upto 1% (0.8% main and 0.2% distribution bars), shuttering etc. and 10 mm. thick cement plaster (1:4) including neat cement finishing and cutting chase fitting and fixing in position, mending good damages as necessary complete. In ground floor. (b) 37.5 mm. Thick panels. SAIL/ TATA/RINL
38	Band moulding (horizontal or vertical) rectangular section, made with cement plaster (1:4) complete. In ground floor. (i) Projection upto 25 mm. (a) Depth or width (75 mm to 100 mm) (Cement 1.25Kg/Mtr.)
39	Renewing throating, nosing or drip course moulding with 15 mm. thick cement plaster (1:4) complete. (Cement 0.7Kg/Mtr.) In ground floor
40	Supplying, fitting and fixing Peet's valve fullway gunmetal standard pattern best quality of approved brand bearing I.S.I. marking with fittings (tested to 21 kg per sq. cm.)
41	Supplying, fitting and fixing Fan Hook for ceiling with 1 metre long 16mm. dia rod complete including mending damages.
42	Supplying, fitting and fixing bevelled edged mirror 5.5 mm thick silver redas per I.S. 3438 / 1965 together with brass C.P. hinges. 450 x 300

43	Construction of septic tank of different capacities as per approved drawing with 1st class brick work in cement mortar (1:4) including two 560 mm dia. R.C.C. manhole cover (heavy type) of approved make supplied, fitted and fixed in the 100mm thick R.C.C (1:1.5:3) top slab with necessary fittings, 20mm thick cement plaster (4 : 1) with neat cement finish to the internal surfaces and 15 mm thick cement plaster (4 : 1) to outside wall upto 200 mm below G.L floor finished with 25 mm thick grey artificial stone over 100 mm thick R.C.C(1:1.5:3) bottom slab including supplying, fitting and fixing all necessary specials, fittings, S.W. tees, C.I. foot rest etc. including excavation earth in all sorts of soil, shoring, bailing out and pumping out water as necessary, ramming, dressing the bed and refilling the sides of the tanks with earth, removing spoils, filling up the chamber with clear water, removing foreign materials from the chamber and including constructing attached inspection pit as per approved drawing and connecting all necessary pipes, joints etc. with internal plaster work and artificial stone flooring is to be done with admixture of water proofing compound @ 0.5% by weight of cement with all costs of labour and materials. Note:- (i) Finished level of Septic Tank should be 400 mm. from Ground Level. (ii) Height of 50 mm. Ventilation pipe & Mosquito proof mesh, should be followed as per IS:2470, Part- I.
44	Supplying, fitting and fixing E.W.C. in white glazed vitreous chinaware of approved make complete in position with necessary bolts, nuts etc.
45	Supplying, fitting and fixing 10 litre porcelain low-down cistern of approved make with either side or bottom inlet, side overflow, brackets complete with all internal PVC fittings.
46	Supplying, fitting and fixing approved brand P.V.C. CONNECTOR white flexible, with both ends coupling with heavy brass C.P. nut, 15 mm dia
47	Construction of circular soak well 2.5 metre deep in all types of sandy soils with dry brick work upto 1.6 metre from the bottom having 150 mm intermediate cement brick work (1:4) band all round and cement brick work (1:4) upto 0.90 metre from top with 20mm thick cement plastering (1:4) to inside face upto the depth of cement brick work, 15mm thick cement plaster (1:4) on outer face from top of the well upto G.L. and 6 mm thick cement plaster (1:4) on top of the R.C.C. cover slab including filling bottom 1.00 metre of inside of the well with brick metal (50 mm to 63 mm size) including R.C.C. cover slab of 100 mm thick with cement conc (1:1.5:3) with stone chips with necessary reinforcement and shuttering including one 560 mm dia. R.C.C. manhole cover (heavy type) of approved make supplied, fitted and fixed in the cover slab with necessary fittings, making necessary arrangements for pipe connections, excavation of well including shoring, dewatering and removing the excess earth from the premises as per direction complete in all respect with all costs of labour and materials. With 250 mm thick dry brick work and 250 mm thick cement brick work (1:6) and 1.00m inside dia. (SAIL/TATA/RINL)
48	Constructing Inspection pit to a depth of 1.5 metre (inside), 250 mm thick 1st class brick work (1:4) in all sides over a layer of jhama brick soling and 150 mm thick cement concrete with stone chips (1:3:6) including necessary earth work, fitting and fixing approved type S.W. master trap, constructing masonry invert with cement concrete (1:1.5:3) with stone chips, plastering inside and outside (outside upto 300 mm below G.L.) with 20 mm thick cement plastering (1:4) and neat cement punning, including supplying, fitting and fixing one 560 mm. dia R.C.C. manhole cover of approved make with R.C.C. slab of 100 mm thick with cement concrete (1:1.5:3) with stone chips including necessary reinforcement (upto 1%) and shuttering and necessary corbelling brick work (1:4) so that the R.C.C. cover slab rests 150 mm above adjacent G.L., cement plaster (1:4) 10 mm thick on all external surfaces of the top slab as directed complete in all respect and removal of surplus earth with all costs of labour and materials

49	Wash basin vitreous china of approved make (without fittings) supplied, fitted and fixed in position on 75mm X 75 mm X 75 mm wood blocks and C.I. brackets including two coats of painting of C.I. brackets
50	Supplying, fitting and fixing bib cock or stop cock.(i) Chromium plated Bib Cock short body (Equivalent to Code No.511 & Model - Tropical / Sumthing Special of ESSCO or similar brand
51	Supplying, fitting and fixing PVC pipes of approved make of Schedule 80 (medium duty) conforming to ASTM D - 1785 and threaded to match with GI Pipes as per IS : 1239 (Part - I). with all necessary accessories, specials viz. socket, bend, tee, union, cross, elbo, nipple, long screw, reducing socket, reducing tee, short piece etc. fitted with holder bats clamps, including cutting pipes, making threads, fitting, fixing etc. complete in all respect including cost of all necessary fittings as required, jointing materials and two coats of painting with approved paint in any position above ground. a 25 mm, b 15mm dia
52	Supplying P.V.C. water storage tank of approved quality with closed top with lid (Black) - Multilayer
53	Supplying, fitting and fixing liquid soap container, Fibre glass
54	Supplying, fitting and fixing towel rail with two brackets. 25 mm dia. and 450 mm long
55	Supplying, fitting and fixing soap holder. Fibre glass
56	Rain Water Pipe : Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete :110 mm Dia

<b>Tentative Technical specification for construction of Pump House ( 3 x 3.60 ) mtr. Without Sanitary Arrangement</b>	
<b>SL.NO.</b>	<b>Description</b>
1	<b>EARTHWORK IN EXCAVATION</b> Earth work in excavation of foundation trenches or drains in all sorts of soil (including mix soil but excluding laterite or sand stone) including removing, spreading or stacking the soils within a lead of 75 m. as directed. The item includes necessary ramming the sides of trenches, levelling, dressing and ramming the bottom, boiling out water etc, as required complete. (a) Depth of excavation not exceeding 1500 mm
2	<b>FILLING</b> (A) Filling in foundation or plinth by silver sand in layers not exceeding 150 mm as directed and consolidating the same by thorough saturation with water, ramming complete including the cost of supply of sand.
3	Single brick flat soling of picked jhama bricks including ramming and dressing bed to proper level and filling joints with powdered earth or local sand.
4	<b>PCC</b> Cement concrete with graded stone ballast ( 40 mm size ) in ground floor (A) Pakur Variety (Analysis rate) (a) 1:3:6

5	RCC Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes. Pkur/Chandil variety.
6	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete.
7	SHUTTRING Hire and labour charges for shuttering with centering and necessary staging upto 4 m using approved stout props and thick hard wood planks of approved thickness with required bracing for concrete slabs, beams and columns, lintels curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor) 25 mm to upto 30 mm thick wooden shuttering as per decision and direction of EIC
8	REINFORCEMENT Reinforcement for reinforced concrete work in all sorts of structures including distribution bars, stirrups, binders etc initial straightening and removal of loose rust (if necessary), cutting to requisite length, hooking and bending to correct shape, placing in proper position and binding with 16 gauge-black annealed wire at every intersection, complete as per drawing and direction. (Tata/RINL/SAIL)
9	BRICKWORK Brick work with 1st class bricks in cement mortar (1:6) In foundation & plinth (b) In Superstructure ground floor (upto 4m)
10	125 mm. thick brick work with 1st class bricks in cement mortar (1:4) in ground floor
11	PLASTERING Plaster (to wall, floor, ceiling etc.) with sand and cement mortar including rounding off or chamfering corners as directed and raking out joints including throating, nosing and drip course where necessary (ground floor) [excluding cost of chipping over concrete surface]. i) With 1:6 cement mortar 20mm thick Wall (Out side) i) With 1:6 cement mortar 15mm thick 250mm THK Inside Wall 125mm THK inside wall i) With 1:4 cement mortar 10mm thick Ceiling Plaster
12	25 mm. thick damp proof with cement concrete (1:1.5:3) (with graded stone aggregate 10 mm. normal size) and painting the top surface with a coat of bitumen [VG.40 ] using 1.7 kg. persq.m. including heating the bitumen and cost and carriage of all materials complete. [Bitument to be supplied by the Agency]

13	<p>Artificial stone in floor,dado,staircaseetc with cement concrete(1:2:4) with stone chips,laid in panels as directed with topping made with ordinary or white cement (as necessary)and marble dust in proportion (1:2)including smooth finishing and rounding off corners including raking out joints or roughening of concrete surface and application of cement slurry before flooring works using cement @ 1.75kg/sq.m all complete including all materials and labour. In ground floor.</p> <p>3mm.thick topping(High polishing grinding on this item is not permitted with ordinary cement).Using grey cement (i) 25 mm. thick</p>
14	<p>Supplying, fitting &amp; fixing 1st quality Ceramic tiles in walls and floors to match with the existing work &amp; 4 nos. of key stones (10mm) fixed with araldite at the back of each tile &amp; finishing the joints with white cement mixed with colouring oxide if required to match the colour of tiles including roughening of concrete surface, if necessary or by synthetic adhesive &amp; grout materials etc.With Sand Cement Mortar (1:4) 20 mm thick &amp; 2 mm thick cement slurry at back side of tiles using cement @ 2.91 Kg/Sq.m&amp; joint filling using white cement slurry @0.20kg/Sq.m. area of each tiles upto 0.09 sqm(colour decorative)</p>
15	<p>Neat cement punning about 1.5mm thick in wall, dado, window sill, floor etc</p>
16	<p>Wood work in door and window frame fitted and fixed in position complete including a protective coat of painting at the contact surface of the frame exluding cost of concrete, Iron Butt Hinges and M.S clamps. (The quantum should be corretedupto three decimals). (d) Sal : Local</p>
17	<p>Panel shutters of door and window, as per design (each panel consisting of single plank without joint), including fitting and fixing the same in position but excluding the cost of hinge and other fittings. In ground floor. (In case of non-supply of single plank, penal rate of reduction of 20% will be made) (ii) 40mm thick shutters with 19mm thick panel of size 30 to 45 cm b) Sishu, Gamar, Champ,Badam,Bhola, Mogra, Hallak.</p>
18	<p>Supplying fitting and fixing in position approved P.V.C. door frame (Matt finish) made of extruded P.V.C. multichamber hollow section having dimensions 60mm x 50mm x 2mm (+/- 0.2mm), horizontal section will be joined with vertical section by galvanised steel screws after inserting two number steel brackets as reinforcement making suitable space for placing hinges, one steel tube 40mm x 20mm x 1.20 mm will be inserted on one full vertical side of the frame (hinge side) as reinforcement, the frame will then be fixed in the opening with the help of P.V.C. expandable fastner/wooden gutties and galvanised steel screws including cost of all materials and labour, hire charges of tools and appliances, carriage of all materials, taxes and all other incidental charges complete.</p>

19	Supplying fitting and fixing P.V.C. door shutter of approved quality & shade in position, the style & rail of the P.V.C. door shutter will be made of rigid P.V.C.multicavity hollow chamber of 59 mm x30 mm section with 2.0 mm (+/-0.2 mm) wallthickness.Horizontal& vertical section shall be fixed to each other by self tapping screws and 1 solid polymeric or M.S. galvanised tubular 'L' shapedbracket 100mm x 200mm in each corner of the shutter frame for placing hinges. Polymer based multicavity hollow section of 120 mm x30mm with 2.0 mm (+/- 0.2 mm) wall thickness will be fitted in the middle, reinforced by solid polymer bar of 200 mm long at both ends and screws from both sides as lock rail. The section frame will then be fitted in by PVC panels of size 100 mmx25 mm with wall thickness of 1.2 mm (+/- 0.2 mm) and 2 nos. of 6 mm dia bright rod will be inserted horizontally with both side check and nut system and stretches where fixing of hinges /hasp bolt / tower bolt / door ring are required to be strong enough to with stand wear and tear. The rate is inclusive of cost of all materials, labour, and hire of tools and plants and appliances/c carriage of all materials taxes and all other incidental charges complete.
20	Supplying fitting approved type ventilator in position after cutting holes in walls,setting in cement mortar,mending damages to wall and plaster and two coats of paint of approved brand sand shade.R.C.C. ventilator of 20 mm thick - above 0.10 sq.m. area
21	Supplying, fitting and fixing Openable steel windows as per IS sizes with side hung shutters and horizotal glazing bars.
22	Supplying 1.5mm thick M.S. sheet fitted and fixed on one or both faces of M.S./ W.I. gate etc. with point welding at not more than 150mm apart complete in all respect as per design including cost of all labour and materials
23	(a) M.S.or W.I. Ornamental grill of approved design joints continuously welded with M.S, W.I. Flats and bars of windows,railing etc. fitted and fixed with necessary screws and lugs in ground floor.(i) Grill weighing above 10 Kg./sq.mtr and up to 16 Kg./sq. mtr.
24	<b>PAINTING</b> Applying decorative cement based paint of approved quality after preparing the surface including scraping the same thoroughly (plastered or concrete surface) as per manufacturer's specification..
25	(a) Priming one coat on steel or other metal surface with synthetic oil bound primer of approved quality including smoothening surfaces by sand papering etc
26	(b) Priming one coat on timber or plastered surface with synthetic oilbound primer of approved quality including smoothening surfaces by sandpapering etc
27	(A) Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary :(a) On timber or plastered surface :With other than hi-gloss of approved quality-(iv) Two coats (with any shade except white)
28	Painting with best quality synthetic enamel paint of approved make and brand including smoothening surface by sand papering etc. including using of approved putty etc. on the surface, if necessary :(b) On steel or other metal surface :With other than hi-gloss of approved quality-(iv) Two coats (with any shade except white)
29	Supplying, fitting and fixing M.S. clamps for door and window frame made of flat bent bar, end bifurcated with necessary screws etc. by cement concrete(1:2:4) as per direction.(a) 40mm X 6mm, 250mm Length
30	Iron butt hinges of approved quality fitted and fixed with steel screws, with ISI mark. 75mm x 47 mm x 1.70mm 100mm x 50 mm x 1.90mm



31	(A) Iron door ring of approved quality fitted and fixed with nut and washer complete. 50mm dia
32	Anodised aluminium barrel / tower / socket bolt (full covered) of approved manufactured from extruded section conforming to I.S. 204/74 fitted and fixed with cadmium plated screws: 150mm long x 10mm dia bolt 225 mm long x 10mm dia bolt
33	i) Iron hasp bolt of approved quality fitted and fixed complete (oxidised) with 16mm dia rod with centre bolt and round fitting. 200mm long
34	Iron catch hook of approved quality fitted and fixed to shutter and chowkat. 6mm dia x 225 mm long
35	Supplying, fitting and fixing hinge cleat in position excluding the cost hinge and other fittings. b) with 75mm iron Butt-hinge iii) Local Sal.
36	125 mm wooden buffer block sal.(I) with salsiliguri
37	Number plaque of building (plaque size up to 225 mm x 225 mm) made of sand cement plaster (1 : 2) on face of wall or plinth with 50 mm size letters P.W.D and the number of the structure formed thereon (in sunk type) including painting the letters and the number complete as per direction.(Cement - 1 kg/No.)
38	R.C. shelves (1:1.5:3) either precast or cast in situ with stone chips and necessary reinforcement upto 1% (0.8% main and 0.2% distribution bars), shuttering etc. and 10 mm. thick cement plaster (1:4) including neat cement finishing and cutting chase fitting and fixing in position, mending good damages as necessary complete. In ground floor.(b) 37.5 mm. Thick panels. SAIL/ TATA/RINL
39	Band moulding (horizontal or vertical) rectangular section, made with cement plaster (1:4) complete. In ground floor.(i) Projection upto 25 mm.(a) Depth or width (75 mm to 100 mm) (Cement 1.25Kg/Mtr.)
40	Renewing throating, nosing or drip course moulding with 15 mm. thick cement plaster (1:4) complete. (Cement 0.7Kg/Mtr.) In ground floor
41	Supplying, fitting and fixing Fan Hook for ceiling with 1 metre long 16mm dia rod complete including mending damages .
42	Supplying, fitting and fixing Peet's valve fullway gunmetal standard pattern best quality of approved brand bearing I.S.I. marking with fittings (tested to 21 kg per sq. cm.)
43	Rain Water Pipe : Supplying, fitting & fixing UPVC pipes A- Type and fittings conforming to IS:13592-1992 with all necessary clamps nails, including making holes in walls, floor etc. cutting trenches in any soil through masonry concrete structures etc if necessary and mending good damages including joining with jointing materials (Spun Yarn, Valamoid/Bitumen/M-Seal etc) complete :110 mm Dia

### C) Laying of Clear Water Rising main

<b>Tentative Technical specification for Clear Water Bus Line &amp;Y Connection to connect Proposed busline with existing busline</b>	
<b>SL.NO.</b>	<b>Description</b>
1	<p>Supplying and delivery at site DI-K9 pipes conforming to IS 8329: 2000 DI K9 pipe : 150 mm dia</p> <p><b>For supply of Ductile Iron pipes :</b></p> <p>The successful bidder shall have to submit following certificates of the bonafide manufacturers of pipes and specials from whom the bidder will supply the materials.:</p> <p>a) Procurement of DI pipes from bonafide manufacturers are only permitted. The previous experience certificate of the manufacturer for supply of D.I. Pipes to Govt./PSU/reputable Private Sectorbodies to be submitted, but such experience is not mandatory.</p> <p>b) Certificate to ensure that the installed pipe manufacturingcapacity of the factory is sufficient to cater to the tendered requirement.</p> <p>c) Valid BIS certification of the manufacturer for each &amp; individual diameter of pipe tendered.</p> <p>d) External coating of the pipes will be bituminous /epoxy over zinc coating and inside cement mortar lining as per 15:8329:2000</p> <p>e) Certificate from the reputable Govt. Institutions/Universities is essential for eligibility to participate to ensure desired hydraulic smoothness of cement mortar lining in the DI pipe the minimum Hazen William's 'C' value of 140 corroborating the guideline of CPHEEO Manual for Water Supply and Treatment.</p> <p>f) Providing rubber gasket conforming to IS 5362:1985 for each of the joints admissible.</p> <p>g) Third Party inspection (TPI) through RITES/MECON/EIL/PDIL of the pipe is mandatory before delivery of pipes. TPI report shouldcover (I) all the parameters as per IS:8329:2000, (II)test to ensure rubber gasket quality as per IS code. The inspection charge is to be included in the quoted rates.</p> <p>h) The sampling size will be guided as per relevant IS Code.</p> <p>i) The manufacturer should have valid Certificate from Pollution Control Board.</p>

2	Supplying of MS pipe including Coating MS : 150 mm dia
3	<p>Carrying CI/DI pipes with specials and valves and lowering placing in position and laying carefully inside the trenches in proper alignment and gradient etc. including earth work in excavation of adequate width as per specification having min. clear cover from top of pipe is 1.10mtr. below existing ground level in any kind of soil including mixed with boulder, road sub-grade and its flank, but excluding moorum and laterite and stone etc. without damaging the existing telephone/electric cable etc. (in case of damaged if any type of cable line during execution, necessary damaged charges as applicable by the respective authority will be borne by the agency in his own cost) preparing the bottom surface for continuous bedding of pipe line and laying pipes, fitting, fixing specials and valves with bailing out water if any including carriage of pipes, specials and valves from local depts. store within 8KM and back filling the trenches with excavated earth in layers to original condition as per specification and direction of EIC. The surplus materials after execution of work are to be return to the depts. store.</p> <p>N.B: i) Any deviation from required clear cover of 1.10mtr., due to site adverse condition, prior permission is to be obtained from the EIC in exceptional situation and payment will be made on prorated basis over the rate of entire item.</p> <p>ii) No payment will be made without hydraulic test of the pipe line either part or full.</p> <p>iii) The pipes, specials and valves, rubber gasket will be supplied at the agency's own cost.</p>
4	Making flange joint to DI/CI pipes, specials and valves where necessary with supply of required rubber insertion and nut bolts, washers etc. of approved quality and type all complete as per specification and direction of EIC (Nut and bolts shall be of TATA/GKW)
5	Cutting DI pipe (all class & type) to required length with cutting device etc. and grinding the cutting portion with file as per direction and satisfaction of EIC.
6	Chamfering the spigot end of all type/class of DI pipe for proper using of push joint by means of grinder set at site for proper joint etc. all complete as per direction of EIC.
7	Supply of D.I. special (Mechanical joint, flanges, spigot, flange adapter, bend, tee, reducer etc. as per IS:1538 and 5331 with latest amendment offer rate for KG including all taxes, duties, charges as applicable & payable on delivery to destination which includes unloading, stacking, carriage (Payment will be made as per book weight) (As per IS code 7181-1986)
8	Supply and delivery of CIDF sluice valve (Special type) PW-1.00 of different dia make with CI double flanged non rusting spindle sluice valves conforming to IS 14846 -2000 with latest amended having body dome/bonnet and cover of C.I.Gr-F.G 210mtr. spindle of IS-6603 G.R-12/Gr-13 non-magnetic, nuts seat rings are of Gunmetal as per IS:318 LTB-2 flanges and drilled to IS:1538 Part IV & VI valves are suitable for max. working pressure of 10kg/cm <sup>2</sup> (seat test) and body tested to 15kg/cm <sup>2</sup> N.B: The above item should be procured from the reputed manufactures as per depts. approved vendor list. 150 mm dia. With cap
9	Cast iron kinetic double orifice type air release valve having small orifice elastic ball resting on gun metal orifice nipple large orifice vulcanite ball seating on modulated seat ring, valve with built-in-Kinetic features, isolating sluice valve mounted in horizontal position and operated by a metre wheel gearing: inlet faced and drilled to IS 1538 Table 4 & 6. valve suitable for maximum working pressure of 10 kg/CM <sup>2</sup>

10	Construction of different dia Sluice valve /Air valve /Washout chamber in different sizes for village road where light traffic run and for main road where heavy traffic run as deptt.approved drawing with 25cm thick brick work (1:6) over cement concrete (4:2:1) over a single B/F soling over150mm.thick sand filling in foundation including earth work in excavation and disposal of excess earth from work site with RCC (1:1.5:3) cover slab 100mm / 150mm thick slab on top of chamber with 1% reinforcement in RCC cover slab with necessary opening for operation of valve all complete including cost of labour& materials as per Departmental Dwg. [Reinforcement type:- SAIL/ TATA/RINL]
11	Filling the pipe line with water, testing hydraulically as per I.S 3114-1965 (Article-6) in section of a length not exceeding 500mtr. for head of pressure as per specification including supplying installing and fixing all equipments such as diesel pump set, blank flange, pressure gauge, valve, pressure pump and all other tools and plants including drilling topping and plugging of necessary holes to pipes, blocking ends providing temporary thrust block and subsequent blocking of holes and other jointing materials and dismantling and removal of the same including disposal of water etc. all complete as per specification and direction of EIC. The rate is inclusive of cost of requisite water to be arranged by the contractor (Recovery rate of water @ Rs.10.00/m3, if contractor used water from deptt. source).
12	Cleaning thoroughly the inner surface of pipe line including specials and valves by flushing with water and subsequently disinfection of the same pipe line by flushing again with water containing bleaching powder resulting in residual chlorine not less than 15mg/ltrs. after 24hrs. of such filling including laboratory testing of water samples obtain from the disinfested pipe line and disposal of water from the pipe line after completion of the work. The rates including of cost of requisite water to be arranged by the contractor) (The rate of water @Rs. 10/m3 may be recovered,if the contractor used water from deptt. source). A) For CI/DI Pipe
13	Submission of complete detailed drawing of distribution system, rising main etc. after execution of work showing position of different types of valves, fittings/specials sluice valve chamber with location, node to node wise in the sanctioned drawing as completion drawing of the water supply scheme as per direction and satisfaction of EIC. The list of dia wise fitting/specials, different pipes ;of valve used in the rising main should be shown in the completion drawing (not separate) with verified by SAE & AE in-charge of the scheme. The above drawing will be submitted in 5 copies.
14	Bituminous pucca road (approx. 450mm depth) cutting by using gaiti, chisel, hammer etc. and picking up the withdrawing excavated materials and remove the same within distance of 30mtr. at least all complete for fixing/crossing all dia of pipe line as per direction of EIC (width of cutting for trench as per 7634(part2)2012,Table-3)
15	Dismantling all types of plain cement concrete works, stacking serviceable materials at site and removing rubbish as directed within a lead of 75 mtr in Ground Floor including roof up to 150 mm thick.
16	Removal of rubbish, earth etc. From the working site and disposal of the same beyond the compound, in conformity with the Municipal/ Corporation Rules for such disposal, loading into truck and cleaning the site in all respect as per direction of Engineer-In-Charge.
17	Making barricading of excavation trenches of road width upto 15mtr. to avoid any accident by providing 75mm dia bamboo post placed vertically & horizontally with the help of 6" size iron rail as per direction and satisfaction of EIC. (Applicable where critical situation arise and take up the work as per direction of EIC)

18	Ordinary Cement concrete (mix 1:1.5:3) with graded stone chips (20 mm nominal size) excluding shuttering and reinforcement if any, in ground floor as per relevant IS codes.
19	Hire and labour charges for shuttering with centering and necessary staging upto 4m using approved stout props and thick hard wood planks of approved thickness and required bracing for concrete slabs, beams, column lintel curved or straight including fitting, fixing and striking out after completion of works (upto roof of ground floor). (f) 25 mm to 30 mm shuttering without staging in foundation
20	Reinforcement for reinforced concrete work in all sorts of structure including distribution bars stirrups, binders etc initial straightening and removal loose rust if necessary cutting requisite length hooking and bending to correct shape placing in proper position and binding with 16 gauge black annealed wire at every intersection, complete as per drawing and direction (i) Tor steel/Mild Steel.[Reinforcement type:- SAIL/ TATA/RINL]
21	Brick work with 1st class bricks in cement mortar (1:6) (a) In foundation and plinth
22	Supplying of MS pipe including Coating MS : 100 mm dia ,MS : 150 mm dia
23	Supply of M.S. blank Flange as per IS-6392 TABLE 20 Thickness 12mm
24	Flange joint to C.I./D.I./M.S. pipes and specials including supply of rubber gasket, nuts, bolts, washers etc. of best quality to make the joint watertight at required hydraulic pressure all complete as per specification & direction of the Engineer-in-charge.
25	Supplying, fitting and fixing of D.I. Mechanical flexible Flange Socket Tailpiece suitable for making flanged connection with the plain barrel of C.I. Spun Pipes (as per IS : 1536) and D.I. Pipes (as per IS : 8329). The Tailpieces to be supplied complete with Sealing Rubber Gasket of EPDM quality (IS:5382/1985 Type-4) , Cast Iron Follower Glands and Mild Steel Nut Bolts (Zinc Coated) . The whole assembly should be mechanically and hydraulically tested to the provisions as laid down in IS: 1538. Fitting and fixing should be in proper position with proper care of main pipe line for leak proof condition.

- I. Supplying and laying of Air valve as per direction of EIC as per with departmental approved drawing.
- II. Hydraulic testing as per IS and disinfection of pipe line using bleaching powder will be within the bidder's scope. The residual chlorine after 24 hrs. should be 15 mg/lit. Water after disinfection is to be tested from any Govt. Laboratory/ Govt. Engineering College/ NABL accredited lab.
- III. Final drawing after laying, showing position of valves etc. is to be submitted in 6 (six) copies.

**Laying** of D.I. (K-9) pipes with all D.I. Specials and valves **including Supply and delivery** at site ISI marked Socket and Spigot jointing system centrifugally cast **DI (K9) Pipes** conforming to IS 8329-2000 (Third revision) in standard length 4 m, 5 m, 5.50 m, 6 m for push-on joint (rubber gasket) with internal cement mortar lining and external protection by metallic zinc coating with finish layer of bituminous /epoxy coating on outside as per IS: 8329-2000 specification with necessary jointing material rubber gasket (IS: 5382:1985) and **M.S. Pipes** including transportation, loading unloading and stacking at site including supply of polyethylene sleeves, including earth work in excavation in trenches, shoring (if necessary) of adequate width having minimum depth to keep the top surface of pipe 1.10 m below of the existing ground level in any kind of soil mixed with boulder, metal crust, concrete pavement, any road sub-grade and its flank etc., dewatering the trenches, preparing the bottom surface of the trenches for continuous bedding including sand filling (if necessary) & **Over-Ground** installation to cross small ditches etc. supported with RCC pillars, construction of **Steel Bridge, Way Leave Permission** as & where necessary and fitting, fixing, jointing (all types of joints) valves, specials etc. as per requirement, in

position, cutting, chamfering of pipes as required, carriage of materials from store to work site (if any), constructing sluice valve chambers including supply and fitting in position sluice valve of different dia. & supply and fitting in position D.I. Specials, Thrust Blocks as per requirement, filling of the trenches with excavated materials, **consolidating the same in layers**, guarding trenches with temporary bamboo railing for safety where necessary, emergency horizontal auger boring (for roads other than NH and Railway) where necessary, removing the surplus materials from the site as per Municipal rules in vogue including all labour charges, tools and plants, hydraulic pressure testing, cleaning and disinfection of pipes etc. complete in all respect as per IS 12288-1987 (latest edition) and **Temporary Roads Restoration for vehicular movement** as per instruction of E.I.C. For Jack Pushing/HDD Technique work under the NH, Rail etc. the necessary permission from the competent authority to be obtained by the agency on behalf of the concerned Division of MED. The bidder should facilitate the process including submission of drawings and all other formalities in this regard. The quoted rate should include the cost of such process. Only the charges / demand for Restoration fees Licence fee/NOC fees raised by NH/Railway Authority will be borne by the TIA/EIC separately.

(All materials like D.I. pipes and rubber gaskets, M.S Pipe, Sluice valve, Air Release valve, Drain valve, D.I. Fittings, Mechanical Joints etc., where necessary, including all other construction materials will be supplied by the agency)

***(N.B. - Above Quantities may vary to some extent as per site condition. The bidders are requested to inspect the sites properly)***

**(D). Electrical installation and instrumentation system of Deep tubewell and pump house**

1. Design, provide, supply, and install the electrical equipment and instrumentation equipment at proposed deep tube well and pump house as per the detailed specifications
2. Testing & commissioning
3. All kinds of internal, external illumination will be within the bidder's scope.

## (E).Operation and maintenance

Operation & Maintenance of the Deep tubewells, pump houses, clear water rising main, electro-mechanical arrangement etc. for the period of five Years after 3 (three) months trial run from Tube wells to ESRs at deploying adequate number of working personnel for round the clock operation including supply & delivery of Chlorine at site as per requirement, specification including guarding arrangement & direction of E.I.C. and training of Municipal Staff.

## (E).Road Crossing By HDD method

Tentative Technical specification for Road Crossing By HDD method	
SL.NO.	Description
1	Drilling, Lowering & Installation of M.S. Pipe along trenchless crossing at any depth by H.D.D. technique with all cranes & masonries as per specification and direction of Engineer-in-Charge
2	Earth work in excavation of foundation trenches or drains, in all sorts of soil (including mixed soil but excluding laterite or sandstone) including removing, spreading or stacking the spoils within a lead of 75 m. as directed. The item includes necessary trimming the sides of trenches, levelling, dressing and ramming the bottom, bailing out water as required complete. Excavation of a "Drive Pit" & Reception Pit for H.D.D. Technique as per approved drawing of the concerned Authority, specification and direction of the Engineer-in-charge and all complete in all respect.
3	Supply of M.S Casing pipe Including Coating
4	Supply of M.S Carrier pipe Including Coating
5	Gas cutting of M.S. pipes and/or M.S. plates of different thickness all complete as per specification and direction of the Engineer-in-Charge.
6	Field welding of M.S. plates by means of electric arc welding as per relevant I.S. specification using standard electrodes including edge preparation and charges of deployment of electric generator set with fuel, lubricant and all other tools and plants all complete as per specification and direction of the Engineer-in-Charge
7	Cast iron kinetic double orifice type air release valve having small orifice elastic ball resting on gun metal orifice nipple large orifice vulcanite ball seating on moduled seat ring, valve with built-in-Kinetic features, isolating sluice valve mounted in horizontal position and operated by a metre wheel gearing: inlet faced and drilled to IS 1538 Table 4 & 6. valve suitable for maximum working pressure of 10 kg/CM <sup>2</sup> .
8	Lowering, fitting and fixing of all types of valves in proper position and alignment using chain pulley block or crane (for diameter above 250 mm) by providing temporary support, as required, gaskets, nuts & bolts etc. all complete as per specification and direction of the Engineer-in-Charge.
9	Supply of M.S. Flange (slipper type) as per IS-6392 TABLE 17 Thickness -20mm -22mm
10	Earth work in filling in foundation trenches or plinth with good earth, in layers not exceeding 150 mm. including watering and ramming etc. layer by layer complete. (Payment to be made on the basis of measurement of finished quantity of work) (a) With earth obtained from excavation of foundation.

11	For HDD method under the NHAI/PWD, Indian Railway etc. the necessary permission from the competent authority to be obtained by the agency on behalf of the concerned Division of MED. The bidder should facilitate the process including submission of design & drawing and getting the approval from the competent authority. The quoted rate should include the cost of such process. Only the charges / demand for Restoration fees /Licence fee/NOC fees raised by NHAI/PWD/ Indian Railway Authority will be borne by the EIC separately.
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**Location& Description of Work :-**Khirpai Municipality Area, District:- Khirpai

### **(F) Over Head Reservoirs**

Over Head Reservoir :-

Sl. No.	Name of Works	Proposed Capacity	Plot details
1	Over Head Reservoir at Zone - 1	100 cum	Within Khirpai Municipality.
2	Over Head Reservoir at Zone - 2	150 cum	Within Khirpai Municipality.

• **For Over Head Reservoirs :**

- i) Geo-technical investigation, Detailed Design & drawing of foundation part only approved from IIT / NIT /Govt Engineering College as per specification and instruction of the Engineer- in Charge.
- ii) Clearing of site for Construction and Commissioning of R.C.C. Over Head Reservoir (OHR) (ESR Type) of 100&150 cum capacity.
- iii) Construction and Commissioning of R.C.C. Over Head Reservoir (OHR) (Intze Type) of 100 & 150 cum capacity with 20 meter. staging height as per departmental drawing & specification etc.
- iv) Head works including supply of all materials as required complete.
- v) Supplying, fitting & fixing necessary CIDF /D.I Pipes, CIDF sluice valves and specials with valve chambers in all respect.
- vi) The bidders need to follow the departmental drawing, specification and instruction of the Engineer- in Charge.
- vii) The contractor has to supply all materials required to complete the work. The quality, source, brand, make etc. have to be approved by the EIC prior to supply at site.
- viii) Before execution the agency needs to submit Mix design report for concrete of different grade as per requirement from Govt. approved (NABL accredited) laboratory or from IIT / NIT /Govt Engineering College.
- ix) The contractor has to complete all the structural work in all respect including plastering, protective and decorative acrylic weather coat colouring, testing, disinfecting etc. as per approved drawing, specification and instruction of EIC.
- x) The contractor has to Supply, Fitting, fixing of mosquito net, M.S Ladder, G.I. Railing, Lightening conductor with proper earthing, aviation lamp, water level indicator, Sluice valve, DI Pipes(For Inlet, outlet, over flow, wash out etc.), Duck foot bends, specials, CIDF valves and valve chambers etc. as per departmental design & drawing complete in all respect as per direction of E.I.C.



- xi) Hydraulic testing of components, disinfecting tank and pipes & commissioning of the whole arrangement will be under the scope of the work.
- xii) Supplying, fitting & fixing necessary Lighting Arrangement of the OHR Compound in all respect as per approved drawing, specification and instruction of EIC.
- xiii) Construction of Guard Room in the OHR Compound including Sanitary, Plumbing & Electrical Work (Internal & External), Masonry Drain & Land development in all respect as per approved drawing, specification and instruction of EIC.

## **TECHNICAL SPECIFICATION FOR ELECTRO MECHANICAL WORKS**

### **DEEP TUBEWELLS PUMPS FOR KHIRPAI MUNICIPALITY**

**This is indicative not exhaustive, will be finalized in detail engineering.**

#### **01.00 Submersible pump motor set**

**For Zone (I-III) - Discharge  $Q=38\text{m}^3/\text{hr}$  (Tentative), Head = around 80Mt.**

#### **Pump**

**MOC Multi**

Stage,

Impeller-SS

Diffuser-CI

Pump Shaft-SS

Casing-CI

Column Pipe

Adaptor

Make- Texmo/KSB/MBH

#### **02.00 MOTOR (Squirrel cage)**

Stator-SS

Speed-2900 r.p.m

Voltage-415 ,3ph 50Hz

Starting- Star-Delta

Cable-2x3core6Sq.mm

### **3.0 VALVES AND SPECIALS**

#### **Delivery side of pumps**

The delivery side of each pump shall be provided with 1 no. Sluice Valve, 1 no. non-return valve, 1 no. Dismantling & short pieces wherever required. The diameter of the valves and joints shall be selected based on velocity of 2.0 m/sec with nearest sizes as per IS.

#### **Non-Return Valve**

The non-return valve as mentioned here in before shall be manufactured conforming to IS:5312 (Part-I)/equivalent international standard. The valves will be used for handling Raw water and to maintain unidirectional flow. The valve shall be maintenance free, leak proof and shall have low life cycle cost. The PN rating of valves shall be PN 1.6.

The non-return valve shall be single door, Ductile Iron, double flanged, conventional non-slam design. The body, door, cover shall be of ductile iron (Gr. GG40). These and body shall withstand fluid pressure of 16 kg/cm<sup>2</sup> and 24 kg/cm<sup>2</sup> respectively. The body seat, door face rings, bearing block, disc shaft, hinge pin, plug and fasteners shall be of SS 316. The bearings shall be suitable for maximum thrust imposed by the shaft during testing and in service.

The end connection shall be drilled flanged type as per IS or BS or equivalent standard. The non-return valve shall have features for quick closing (up to 85%) and slow closing from 85 to 100%. It shall have a bypass valve with cock. The valve shall be marked to indicate the direction of flow.

The design and construction of the non-return valves shall be non-slam type and the disc shall be so balanced that it will not bump against the valve body while the pump is in operation.

The surface protection of the valves shall be done by either epoxy powder coating or epoxy painting (min. paint thickness - 250 micron) for both inside and outside.

All bolts and nuts for flange connection(s) of fire pipeline (delivery & common manifold) where applicable shall be of carbon steel having tensile strength 300 N/mm<sup>2</sup>.

The valves are subject to satisfactory hydrostatic test at manufacturer's works and in presence of the department's representative for acceptance.

The MOC of other accessories to complete the individual delivery piping like Y or T bends, flanged end short piece, flanged end enlarger/ reducer or any other components required to complete the job in all respects shall be MS as per IS 226.

### **03. SLUICE VALVES**

The sluice valves shall be manufactured from closed grain grey cast iron (FG260) conforming to IS-14846 of the year 2000. Flange ends as per IS 1538 or as per other standards to match with other flanges. The body seat shall be of S.S. AISI-410 stem shall be of S.S. AISI-410 & the stem nut shall be of 9% Al-Bronze conforming to I.S.305:1981/BS2874. Body shall be of Other details are to be submitted for approval.

The seat pressure shall be 16 kg/cm<sup>2</sup> and body pressure shall be 24 kg/cm<sup>2</sup>. The valves should pass through hydrostatic test for duration of 5 minutes. Materials of construction test certificates shall be provided during supplies. The sluice valves shall be in single spindle type with gear arrangement /handwheel for easy manual operation.

**04.00 MAJOR COMPONENTS OF AUTOMANUAL STAR DELTA PANEL**

QTY	DESCRIPTION	RATING	
<b>A. INCOMER Comprising of:</b>			
1	4PMCCBTMDRELEASEWITHO/C,S/C ROMFORABOVE	100A/25KA	
2	DIGITALAMMETER96SQMM	0-60A	
3	DIGITALVOLTMETER96SQMM	0-500V	
4	ASS	10A	
5	VSS	10A	
6	CT,15VA,CL.1TAPEWOUND	60/5A	
7	INDICATIONLAMPSLEDTYPE(RED,YELLOW)	230VAC	
8	INDICATIONLAMPSLEDTYPE (BLUE)	230VAC	
9	TPMCBFOR METERING	6A	
12	POWER TERMINAL 4WAY	150A	
<b>B. AUTO PHASE CORRECTOR:</b>			
1	S1VMR7SPPRELAY	415VAC	
2	ELECTROMAGNETIC RELAY	80A	
3	SPMCBFOR CONTROL	6A	
4	ON DELAY TIMER	230VAC	
5	INDICATIONLAMPSLEDTYPE(R,Y)	230VAC	
6	INDICATIONLAMPSLEDTYPE(B)	230VAC	
<b>OUTGOING FEEDERS</b>			

C.	20KWSDSCOMPRISINGOF:		
1	3PMCB	63A	
2	DIGITALMOTORPROTECTIONRELAY(BOCR-DS3)	5-60A	
3	3POWERCONTACTOR230VACCOIL	40A	
4	1NO/1NCAUXILARYCONTACTBLOCKFORABOVECONTACTOR		
5	3POWERCONTACTOR230VACCOIL	40A	
6	1NO/1NCAUXILARYCONTACTBLOCKFORABOVECONTACTOR		
7	3POWERCONTACTOR230VACCOIL(FORCAPACITOR)	18A	
9	3PMCBFORCAPACITOR	25A	
10	SPMCBFORCONTROL	6A	
11	ONDELAYTIMER(FORCAPACITOR)	230VAC	
12	STARDELTA TIMER	230VAC	
13	ILLUMINATEDPUSHBUTTON(GREEN)	5A	
14	ILLUMINATEDPUSHBUTTON(RED)	5A	
15	EMERGENCYPUSHBUTTON(RED)	5A	
16	INDICATIONLAMPSLEDTYPE (AMBER)	230VAC	
17	A/MSELECTORSWITCH	16A	
18	U/V,O/V&SPPRELAYDIGITAL	415VAC	
19	POWERTERMINAL3WAY	150A	

**Technical Specification/Scope of Work of Major E/M Equipment for EACH DEEP TUBE WELL. TOTAL 11 No. JOB. (7 Nos in Phase-I & 4 Nos in Phase-II)**

**This is indicative not exhaustive, will be finalized in detail engineering.**

Sl.No.	Description of Items	Quantity	Unit
1	Supply & delivery of pumping machinery submersible pump excluding panel for unmanned operation, MK- Texmo/KSB/MBH) From 20HP to 25HP inclusive of column pipe, valve special, submersible cable connection from motor to starter & starter to main switch	1	No

2	Supply, Delivery & Installation of 415V, 3Phase, 50hz Auto-manual 20 KW Star-Delta starter Control Panel for Sub. P/M Set. (as per enclosed details) Mk- Sellwin/Electromech/ AC Power/Equivalent as per direction of EIC.	1	No
3	Supply, Delivery at site 1.1KV grade Alrmoured cable of size 3.1/2 core 35sqmm confirming to 1554/7098(PT)1988 Mk- Havel or equivalent.	20	Mtr
4	Supply of HT rubber mat of size 3' x 6'.	18	Sq.Ft
5	Supply & delivery of 1200mmsweep A.C Ceiling Fan (Orient PSPO, Summer cool / New bridge) without regulator with all accessories.	1	No
6	S&FM Stop clamp 12x80mm section for Sub P/M Set in two halves.	2	Sets
7	S&F safety clamp for the P/M Set 6mmx40 mm section.	1	No
8	Replacement by S&F pressure gauge of range 0-200sq in with cock.	1	No
9	Split type M.S fabricated suitable tubewell cover for the tubewell non-sig with necessary damping arrangement including holes for column pipe, air pipe & cable entry.	1	item
10	Construction of supporting pillar supporting platform for the resting of valves for easy operation with neat cement finish as per direction of EIC.	2	Nos

11	Supply, painting best quality weather thermal resistance paint appv quality two coats with necessary smoothening of surface and application primer incl material, labour and hire charge of tools & plants etc all complete.	3	Sq M
12	Replacement by S&F of protecting device comprising of wire rope clamps etc.	1	No
13	Flange joint to CI/DI/MS pipes and specials incl supply of rubber gasket, nuts, bolts, washer set of quality to make the joint water tight as reqd hydraulic pressure and direction of EIC.	4	Nos
14	installation of pumping machinery with valves, pipe & pipe specials short piece, depth gauge, pressure gauge including hoisting of column pipe, making all electrical and water line inter-connection complete as per direction including supply of necessary materials as reqd. for the work.	1	No
15	Supplying and fixing sheet steel main switch on angle iron frame on wall 100/125-amp 415V TPN with fuse on L & N Make-Havells/ Flora.	1	No
16	Supplying and fixing sheet steel main switch on flat iron frame on wall 15/16-amp, 240 V DP with fuse on L & N Make-Havells/Flora.	1	No
17	Supplying and fixing compression type gland complete with brass gland, brass ring & rubber ring for dust & moisture proof entry of XLPE/PVC cable for 3 1/2 core upto 35 sq mm.	8	Nos
18	Finishing end of XLPE/PVC armoured cables by crimping method incl. Supplying fixings solderless socket (dowels make), tapes, anti-corrosive paste & jointing materials 35 sq mm 3.1/2 core.	8	Sets

19	Laying of two cables upto 35 sq mm in underground trench in single tire formation (horizontal) the trench size 680 mm x 760 mm average depth, with brick protection on the top of each cable with 8 (eight) nos per mtr and 4 (four) nos bricks per mtr as separator between the bricks and cables and also trench to be filled up with shifted soil, levelling up and restoring surface duly rammed.	6	Mtr
20	Laying of cable upto 3/3.5 core 35 sq mm - 50 sq mm on wall/surface incl. S&FMS saddle with earthing attachment in 2x10SWG GI (hot dip) wire making holes etc. as necessary mending good damages and painting.	10	Mtr
21	Supply & Fixing bulk head light fitting (Havells make) with die cast aluminium housing & frosted glass on wall/ceiling incl. 8 Watt CFL / 100 watts GLS lamp complete set.	2	Sets
22	Supplying & fixing of 250 V, 4' long 40 W single / double FL. Tube light fittings complete with all accessories incl. FL. Tube (Phillips make). TMC 055 2 x TL-D 36W EBE.	1	No
23	S&D at site of TW single board size 14" x 16".	2	Nos
24	Supply & Fixing 240 V 6 A Piano key type switch (Brand approved by EIC) on existing sheet metal switch board having Bakelite/Perspex top cover by screws after making using for switch by cutting Bakelite/Perspex cover and making necessary connections as required.	4	Nos
25	Supply & Fixing 240 V 16/20 A Piano key type switch (Brand approved by EIC) on existing sheet metal switch board having bakelite/perspex top cover by screws after making housing for switch by cutting bakelite/perspex cover and making necessary connections as required.	4	Nos

26	Supply & Fixing 240V, 20A Plug Socket (Brand approved by EIC) without plug top and switch on existing sheet metal switch board having bakelite/perspex top cover by screws after making housing for combined plug switch by cutting bakelite/perspex cover and making necessary connections with PVC wire and earth continuity wire etc.	1	No
27	Supply, delivery, testing and commissioning of LED type 35 W outdoor type street light luminaires including LED, lamp all complete.	2	No
28	Supplying & Fixing Out door type CFL luminaire (Havells make-LHRC4185099) with deep drawn aluminium housing anodised inside & clear acrylic cover and accessories incl. for 85 watts CFL lamp incl. S&F 32mm dia GI pipe bracket, clamp, nut & bolts etc.	1	No
29	Distribution wiring in 1.1KV grade 2x22/0.3 (1.5sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire (Brand approved by EIC) in suitable size PVC casing-capping (Precision make) with 1x22/0.3 (1.5 sqmm) single core stranded 'FR' PVC insulated & unsheathed copper wire for ECC, incl. necy. PVC clips, fittings etc. to light/fan/call bell point with piano key type switch (Anchor make) fixed on sheet steel fabricated switch board with Perspex/bakelite top cover on wall incl. necy. Connections and making earthing attachment and mending good damages to building works. [PVC casing-capping and Switch board both on surface]. Average run 6mtr.	8	Pnt.
30	Supply of fabricated MS Kiosk made from 14SWG MS Angle incl. Providing AI busbar of 60 A rating for main supply transmission with proper stamping and to be fixed on pedestal as per direction of EIC.	1	No



31	Earthing with 50 mm dia GI pipe 3.64 mm thick x 3.04 Mts. long and 1 x 4 SWG GI (Hot Dip) wire (4 Mts. long), 13 mm dia x 80 mm long GI bolts, double nuts, double washers incl. S & F 15 mm dia GI pipe protection (1 Mts. long) to be filled with bitumen partly under the ground level and partly above ground level driven to an average depth of 3.65 Mts. below the ground level By TATA-Medium GI pipe.	3	Sets
32	Supplying & fixing earth busbar of galvanized (Hot Dip) MS flat 25 mm x 6 mm on wall having clearance of 6 mm from wall including providing drilled holes on the busbar complete with GI bolts, nuts, washers, spacing insulators etc. as required.	0.6	Mtr
33	Connecting the equipments to earth busbar including S & F GI (Hot Dip) wire of size No. 4 SWG on wall/floor with staples buried in side wall/floor as required and making connection to equipments with bolts, nuts, washers, cable lugs etc. as required and mending good damages.	10	Mtr
34	Supply, delivery at site and storage of glowing plastic sign board for identification mark as per direction of EIC.	12	Sq.Ft
35	Supply & fixing, fitting of lightning arrester/conductor of G.I stick of size 1x5 Mtr long x 25 mm dia with G.I flange at bottom of size 75 x 75 x 5 mm thk. with copper discharge points including grouting by cement mortar 1:4 as per direction of EIC.	1	Job

36	Connecting the equipment's/body to earth busbar including S&F25mmx6mm galvanized (HotDip)M.Sflatonwall/floor with GI shaddles as required and making connection to equipment's with bolts,nuts and washers etc.	12	Mtr
37	Supply and installation of Injector/ Diaphragm type Automatic Chlorinator forfeedingcontrolledldosagesofchlorine solution in pumping delivery line. i)Capacity0– 100lph, 10kg/cm2 Testpressure	1	Each

## PAYMENT TERMS

<b>Terms of Payment:Itemwise break up (Civil,Electrical&amp;MechanicalWork)</b>			
1.0	Implementation of augmentation and strengthening of water supply scheme which includes Sinking of Tube wells with Electro-Mechanical works (for existing and proposed) , Supplying and laying of DI-K9 Rising Main, with temporary road restoration for vehicular movement, NH/Rail crossing by HDD method, Construction of OHRs with Geotechnical investigation & Design of OHR including Solar panel to cover the scheme area, Pump Houses, Boundary wall, Guard room, Land development, Approach road and Masonry Drain and all other allied works complete in all respect, commissioning, 3 months trial run and O&M for 5 Years after trial run within Khirpai Municipality for Water Supply Scheme under AMRUT 2.0..		
	<b>Component Breakup</b>	<b>% of Payment</b>	<b>Bid Amount</b>
A	Deep Tube Well by Direct Rotary Rig method.		100 % of Quoted Rate per meter as per BOQ multiplied by Executed Depth in meter.
	After The depth of tube well will be ascertained as per the report of SWID or field inspection by any experienced and recommended geologist.	2%	
	After submission and approval of drawing.	3%	
	After completion of work in all respect.	85%	
	After Commissioning.	10%	
B	<b>Pipe Crossing by HDD method</b>		100 % of Quoted Rate per unit as per BOQ multiplied by Executed unit
	After Completion of work along with drawing.	85%	
	Hydraulic Test and Commissioning.	15%	
C	<b>Supplying &amp; Laying of Clear Water Rising main</b>		100 % of Quoted Rate per meter as per BOQ multiplied by Executed Length in meter
	Supplying and Laying D.I. Pipe (K9)/MS pipe including Specials, Inter connection of Pipe, temporary restoration, hydraulic testing of D.I. Pipes network and submission of Completion Drawing etc.		
	After completion 30 % of laying work. Including Specials, Inter connection of Pipe, temporary restoration.	20%	
	After completion 60 % of laying work. Including Specials, Inter connection of Pipe, temporary restoration.	20%	
	After completion 100 % of laying work. Including Specials, Inter connection of Pipe, temporary restoration.	30%	
	After successful hydraulic testing of Pipes network and submission of Completion	20%	

	Drawing.		
	After Commissioning.	10%	
<b>D.Geo-Technical investigation, Design (only sub-structure i.e. foundation part), Construction and Commissioning of R.C.C. Over Head Reservoirs (ERS Type) of 100 cum /150 Cum capacity with 20 mtr. Staging height, as per departmental drawing &amp; specification etc. along with head works including supply of all materials as required complete including supplying, fitting &amp; fixing necessary CIDF /D.I Pipes pipe, CIDF sluice valves and specials with valve chambers all materials as required complete including internal electrification and yard lighting Work for the OHR Compound in all respect.</b>			
	Completion of Soil investigation work as per specification & direction of EIC and submission of report.	3%	
	Submission of Detail Design, drawing to be vetted by reputed institution like IIT/NIT/Jadavpur University/ IEST as per specifications as per direction of E.I.C and Approval by the SE, South Circle before Execution of work	2%	100 % of Quoted Rate per unit as per BOQ multiplied by Executed unit
	Completion of R.C.C. columns and bracings up to bottom of heel beam as per specifications and drawings and as per direction of E.I.C.	20%	
	On completion of R.C.C. heel beam, tank, top dome and lantern as per specifications and drawings and as per direction of E.I.C.	30%	
	On completion of All allied works like R.C.C. stair case, M.S. ladders, 900mm high G.I. pipe railings, plastering works to all exposed surfaces, non-toxic water proofing coating, painting works (Premium 100% acrylic emulsion), lightning conductors with earthing, water level indicator with copper float, guide pulley, wire boards etc. as per standard specification, water thinable non-toxic epoxy coating (techoxy or equivalent brand of approved quality) 2(two) finished coats over 2(two) of primer of same brand to the ceiling of roof dome, supplying, erection, fitting, fixing of down pipes from OHR, valves with chambers, drain etc. as per specifications and drawings and as per direction of E.I.C	30%	
	On completion of Water Tightness test, , disinfection of OHR, Site clearance including necessary dressing as per specification and Drawing and as per Direction of EIC.	10%	
	After Commissioning	5%	
E.	Supplying and laying of 150 mm dia Sluice valve and Construction of valve chamber as per direction of EIC . as per with departmental approved drawing		100 % of Quoted Rate per unit as per BOQ multiplied by Executed unit
	After Supplying and laying of Sluice valve	70%	
	After completion of valve chamber	30%	

F.	Cast Iron double flanged single door swing Non-Return Valve suitable for maximum working pressure conforming to relevant IS Code at each of the proposed deep tube well outlet including supplying of all materials to complete in all respect as per direction of EIC.		100 % of Quoted Rate per unit as per BOQ multiplied by Executed unit
	After Supplying and laying of Sluice valve	85%	
	After completion of Trial Run	15%	
G.	Supplying and laying of 80 mm dia Air valve as per direction of EIC. as per with departmental approved drawing		100 % of Quoted Rate per unit as per BOQ multiplied by Executed unit
	After Supplying and laying of Air valve	85%	
	After completion of Trial Run	15%	
H.	Operation & Maintenance of the whole Installation for the period of five Years after 3 (three) months trial run from Tube wells to ESRs at deploying adequate number of working personnel for round the clock operation including supply & delivery of Chlorine at site as per requirement, specification & direction of E.I.C. and training of Municipal Staff.		
	<b>Component Breakup</b>	<b>% of Payment</b>	<b>Bid Amount</b>
I	1 <sup>st</sup> year	10%	100 % of Quoted Rate per unit as per BOQ) multiplied by Executed unit
II	2 <sup>nd</sup> year	15%	
III	3 <sup>rd</sup> year	20%	
IV	4 <sup>th</sup> year	25%	
V	5 <sup>th</sup> year	30%	