GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES

TENDER DOCUMENT

(TECHNICAL BID)
(COVER-I)

FOR THE WORK

Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block.

ADDITIONAL CHIEF ENGINEER
ANUGOLA IRRIGATION CIRCLE, ANUGOLA

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES
OFFICE OF THE ADDITIONAL CHIEF ENGINEER
ANUGOLA IRRIGATION CIRCLE, ANUGOLA, ODISHA
Pin – 759143
email:aceangulirrigationcircle@gmail.com
Government of Odisha "e" PROCUREMENT NOTICE
Bid Identification No. ACEAIC- 05/2026-27

Sl. No.	Name of work	Estimated cost	Class of Contractor	Period of completion	Date and Time of availability of bid document in the portal	Last date/time for receipt of bid in the portal	Name & Address of the Officer Inviting Bid
01	Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block.	Rs.418.71 lakh (Approx.)	"A" Class	8 (Eight) Calendar Months	29.10.2026 at 10.00 AM	13.11.2026 up to 5.30 PM	Additional Chief Engineer, Anugola Irrigation Circle, Anugola

Further details can be seen from the e-Procurement Portal http://tendersodisha.gov.in.
Any corrigendum/ addendum/cancellation will be displayed in the **Govt.Website only**.

-sd/-
Additional Chief Engineer,
Anugola Irrigation Circle, Anugola

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SECTION–1

NOTICE INVITING TENDER (N.I.T.)

&

DETAILED TENDER CALL NOTICE

CONTRACTOR

SUPERINTENDING ENGINEER
ANUGOLA IRRIGATION DIVISION, ANUGOLA

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES
OFFICE OF THE ADDITIONAL CHIEF ENGINEER
ANUGOLA IRRIGATION CIRCLE, ANUGOLA, ODISHA
Pin – 759143, email :aceangulirrigationcircle@gmail.com
Government of Odisha "e" PROCUREMENT NOTICE
Bid Identification No. ACEAIC- 05 /2026-27

The Additional Chief Engineer, Anugola Irrigation Circle, Anugola on behalf of Governor of Odisha invites on-line percentage rate tenders in double cover system through e-procurement for execution of the works noted below. The bid should be submitted by eligible class of contractors as mentioned below registered with State Government & contractors of equivalent grade / class registered with Central Government / MES / Railway to be eventually drawn in P-1 form through On-line in the Govt. website www.tendersodisha.gov.in. The bidders should have necessary portal enrolment (with own digital signature certificate). The registered bidders outside Odisha state can also participate in this on-line tender process after necessary portal enrolment but shall have to subsequently undergo registration with appropriate authority of the state government within a month of acceptance of bid. The bidders registered outside the state are required to submit an undertaking in the form of an affidavit, that they are not registered under the GST Act in the state of Odisha as they have not started any business in the state and they have no liabilities under the Act. But the successful bidder registered out side the state has to produce GST Clearance Certificate in the form GST before signing of agreement.

SL No.	Bid Identification No.	Name of the work	Value of Work (Excluding GST)	EMD/Bid Security (Rs.) (On-line)	Cost of Bid Document (Rs.) (On-line)	Class of Contractor	Period of Completion
1	2	3	4	5	6	7	8
01	ACEAIC-05 /2026-27	Protection to Right scoured bank of river Brahmani near village Santhapada under Talcher Block.	Rs.4,18,29,178.52/-	Rs.4,18,292/-	10,000/-	"A"	08(Eight Calendar Months)
02		Flood Protection to Left scoured bank of river Aunli near village Patakamunda of Chhendipada Block.	Rs.4,18,70,747.37/-	Rs.4,18,707/-	10,000/-	"A"	08(Eight Calendar Months)

2. **E.M.D.** & Cost of Tender Document required: The bidder shall transfer the EMD and Cost of Bid Document On-line as mentioned for the specified work in Column 5&6 in the above table through a process as mentioned in DTCN.

3. Mode of Submission of Tenders: Tender should be submitted online in **www.tendersodisha.gov.in**

4. Availability of Tender for Online Bidding: **From 10.00 A.M. of Dt.29.10.2026 to Dt. 13.11.2026 up to 5.30 P.M.**

CONTRACTOR

SUPERINTENDING ENGINEER
ANUGOLA IRRIGATION DIVISION, ANUGOLA

5.	Date & Time for Opening of Technical Bid :	**Dt.16.11.2026 at 11.30 A.M. in the O/O the Additional Chief Engineer, Anugola Irrigation Circle, Anugola.**

6. The bid must be accompanied with required **EMD/Bid Security and Cost of Tender Documents** specified for the work in Col. 5 and 6 of the table above through **ONLINE** mode only. The bidder shall transfer the required amount through electronic payment mode like Internet Banking/ NEFT/RTGS of designated banks (SBI/ICICI Bank/HDFC Bank) and their Aggregator Banks as per *Works Dept. Office Memorandum No. 17254 /W Dt.05.12.2017*. Only those bidders who successfully remit the EMD/Bid Security and cost of tender documents on submission of bids would be eligible to participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. The Tender Inviting Authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.

7. The bidders exempted from payment of EMD will be able to participate in the tender directly by uploading EMD Declaration towards their eligibility for such exemption. Schedule Caste/Schedule Tribe Contractors desiring to avail price preference as per relevant Govt. Circulars are required to submit an Affidavit to that effect. The bidders must upload all the documents in **PDF** format.

8. Bid document consisting of qualification, information and eligibility criteria of bidders, plans, specification and schedule of quantities along with rates of the works are available in web-site **www.tendersodisha.gov.in** and the set of terms and conditions of contract and other necessary documents can be seen in the web-site till last date of availability of tender online for bidding.

9. The bids for the works shall remain **valid for a period of 90 days** from the **last date of receipt of bids**. If any bidder / tenderer withdraws his bid / tender before the said period or makes any modification in the terms and conditions of the bid, the EMD deposited at the time of submission of tender shall stand forfeited.

10. Additional Performance Security (As per Works Department OM No.173 dt.03.01.2026) shall be obtained from the bidder when the bid amount is less than estimated cost put to the tender. In such an event, only the successful bidder who has quoted less bid price / rates than the estimated cost put to tender shall have to furnish the Additional Performance Security as per the following rate.
Additional performance security shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under.
(I) **Where the bid price is below 0% but not below 10% of the project cost put to bid,** no additional performance guarantee/security percentage is required.

(II) **Where the bid price is below 10% but not below 20% of the project cost put to bid,** the additional performance guarantee/security percentage shall be incremented by 0.1% for every percentage of bid price below 10% of the project cost put to bid starting at 11% with the additional bid performance guarantee being 0.1% and this additional performance guarantee percentage shall be applied on the bid price.

(III) **Where the bid price is 20% or more below of the project cost put to bid**, the additional performance guarantee percentage shall be incremented by 0.2% for every percentage of bid price below 20% of the project cost put to bid in additional to 1% of the bid price and this additional performance guarantee percentage shall be applied on the bid price.

(IV) The additional performance guarantee percentage shall be rounded off to the next lower percentage based on whether the decimal point of the percentage of bid price is below 0.5% or next higher percentage based on whether the decimal point of the percentage of bid price is 0.5% or more.

(V) The additional performance security shall be treated as part of the performance security.

(VI) Justification for abnormally low bids shall be scrutinized by the Technical Committee and recommended to the competent authority for Acceptance of Tenders as per Para-6.3.15 of OPWD Cde Volume-I. An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analyses, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid/Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes), either at the estimated cost put to tender or less than the estimated cost put to tender, the tender accepting Authority will finalize the tender through a transparent lottery system, where all the concerned bidders/their authorized representatives, the concerned SE/EE of the concerned Division and Divisional Accounts Officer (DAO) will remain present.

If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the L1 bidder (decimal

up to two numbers will be taken for all practical purposes) after availing 10% price preference as per Para 2 of Works Department Resolution No.27748 dated 11.10.1977, the tender shall be finalized by the tender accepting authority through a transparent lottery system along with other categories of contractors.
The Additional Performance Security (APS) shall be in shape of National Savings Certificate/Post Office Savings Bank Account/Post Office Time Deposit Account / Kishan Vikash Patra / Deposit Receipt of any Nationalized/ Scheduled Bank duly **pledged in favour of the Superintending Engineer, Anugola Irrigation Division, Anugola** within **seven days** of issue of Letter of Acceptance (LoA) by the Division Officer (by e-mail)to the successful bidder otherwise the bid of the successful bidder shall be cancelled. Further proceeding for blacklisting shall be initiated against the bidder. If the APS is submitted in shape of Bank Guarantee by the bidder. then the validity of the Bank Guarantee should be for a minimum period equal to the period allowed for completion of the work plus defect liability period of one year and one month extra for transaction period.

11. The Technical Bid Document consisting of qualification information and eligibility criteria of bidders, plans, specification etc. and the Financial Bid consisting of the Bill of Quantities (BOQ) of works are available in web-site **https://tendersodisha.gov.in .** The bidder must upload scanned copies of valid Contractor Registration Certificate, GST Registration Certificate, PAN card, No Relation Certificate, Affidavit about the authenticity of documents / Bid Security Declaration / price preference, credentials establishing minimum eligibility criteria etc. in **PDF** format otherwise the bid shall be declared as non-responsive & liable for rejection.

12. The Original documents along with a set of its Xerox Copies against the scanned copy of Affidavit, R.C. (Registration Certificate), GST, PAN and other requisite documents submitted through web-site should be produced in the **O/o the Additional Chief Engineer, Anugola Irrigation Circle, Anugola for verification on demand after opening of the bid.**

13. Other details including details of Portal Registration, Submission of Bid, Resubmission and Withdrawal of Bid can be seen in the bidding document which is available in web-site **www.tendersodisha.gov.in**.

14. Any addendum / corrigendum /cancellation of above tender will be published in the web-site **www.tendersodisha.gov.in**. The system shall generate a mail to those bidders who have already uploaded their tenders and those bidders if they wish, can modify their tenders.

15. **The authority will not be held responsible for any technical problem/failure of network/ Malfunction or Interruption of server during the schedule dates of online bidding.**

16. The on-line bidder shall digitally sign on all statements, documents, certificates uploaded by him owning responsibility for their correctness/authenticity as per IT ACT 2000. If any of the information is found to be false/fabricated/bogus, his/her EMD/Bid Security shall stand forfeited and his/her registration in the portal shall be blocked and bidder is liable to be blacklisted.
17. The bidder should mention his/her valid **E-Mail Address/Phone No.** in the separate sheet for communication regarding the tender. The date of time of the lottery if required will be intimated to the qualified bidders through their valid **E-Mail Id/ Contact Number** provided in the tender website.
18. All the existing provision of OPWD Code with amendment from time to time will be applicable in deciding the tender. All correspondence regarding the tender process will be communicated by **valid E-mail address** provided in the tender website. All bidders are requested to check their E-mail from time to time regarding the tender. No claim whatsoever will be entertained for non-receipt of communication in hard copy.
19. Engineering contractors who are desirous availing the facility of exemption of EMD is required to submit the affidavit in original to the effect that he has not yet availed the facility for more than 02(two) works during the current financial year. Name of the works and authority to whom the tenders has been submitted must be mentioned in affidavit, failing which, the tender will be liable for rejection. However the original registration license of the Engineering contractor should be produced at the time of opening of tender.

20. Amendment to Para 3.5.18 of OPWD code vol-I & rule-29 of Appendix-IX of OPWD code Vol-II "The single tender received in 1st call shall be cancelled without opening of the bid & fresh tender will be invited "as per Office Memorandum No.16 dt. 01.01.2015 of Works Department Govt. of Odisha and as per "Works Department O.M. No. 16, dt. 01.01.2015 implies that single tender received in the first call shall be cancelled without opening of bid and in case when more than one tender have been received in the first call and only a single tender is found to be responsive, the same is also liable to be cancelled due to lack of competitive price bidding. (Vide lr. No. 4410 dt. 19.02.2018 of DOWR & Memo no. 4714 dt. 13.02.2018 of the E.I.C, W.R., Bhubaneswar.

21. Agreement shall be drawn only after due verification of ISD & APS of the successful bidder. If any fake documents are detected, criminal proceedings will be initiated against the defaulting bidder and action will be initiated for black listing through the license issuing authority.
22. Imposition of penalty in EOT/Deviation in case of complete work will be as per the DOWR Lr. No.699 dt. 07.01.2021.
23. **Authority reserves the right to reject any or all the tenders without assigning any reasons thereof. No renderer can demand the cause of rejection of his offer.**
24. A bidder can submit only one bid for a particular work, submission of more than one bid by a bidder for a particular work will liable for rejection of all such bids.
25. **Name and Address of the Officer Inviting Bids.**

Additional Chief Engineer,
Anugola Irrigation Circle, Anugola ,Odisha-759143,
email :aceangulirrigationcircle@gmail.com

-sd-
Additional Chief Engineer
Anugola Irrigation Circle, Anugola

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES
OFFICE OF THE ADDITIONAL CHIEF ENGINEER
ANUGOLA IRRIGATION CIRCLE, ANUGOLA
At: Hakimpada, PO-Hakimpada,Dist- Anugola – 759143
Odisha
email :aceangulirrigationcircle@gmail.com

DETAILED TENDER CALL NOTICE

1. The Additional Chief Engineer, Anugola Irrigation Circle, Anugola on behalf of Hon'ble Governor of Odisha**,** invites on-line **percentage rate** tender for the work **"Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block"** through website in prescribed form to be eventually drawn on P1 Agreement Form from the Registered contractor of **" A" Class"** registered under Water Resources, Works and other Departments of Govt. of Odisha. C.P.W.D., Railway or military Engineering Services, Air and Naval or other State Govt., Govt of India, Central Govt. undertakings are also eligible to tender for the work. This invitation for Bids is open to eligible bidders who are registered in the portal. Successful Bidders registered under other state Govt. / CPWD / MES / Railway, Air & Naval has to register under State PWD before signing of the Agreement within a month of acceptance of bid.

2. The tender documents can be downloaded from the website identified as http://tendersodisha.gov.in from **29.10.2026 at 10.00 A.M to 13.11.2026 upto 5.30 P.M**. The bidder for participation in online bidding will have to remit online Rs.10,000/-(Rupees ten thousand) only for each set. The Bid will be received through e-procurement portal from **29.10.2026 at 10.00 A.M to 13.11.2026 upto 5.30 P.M**. Each set of bid document contains Technical Bid (Cover-I) and Price Bid (Cover-II) i.e. an intelligent bill of quantity in MS Excel format. The cover-I bid will be opened on **16.11.2026 at 11.30A.M in the O/o Additional Chief Engineer, Anugola Irrigation Circle, Anugola** in presence of the tenderer or their authorized agents. The bidders who participated in the on-line bidding can witness opening of the bid from any system logging on to the portal away from opening place. The bids can only be opened by the pre-designated officials only after the opening time mentioned in the bid. In the event of the specified date of bid opening being declared a holiday the bid will be opened at the appointed time and location in the next working day.

3. The value of the work tendered for is **Rs. 4,18,70,747.37/-**

4. The bidders shall prepare the documents and upload the scanned typed document in PDF format and BOQ in excel format (or as specified in the portal) in appropriate place.

5. No tenderer will be permitted to furnish their tender in their own manuscript.

CONTRACTOR

SUPERINTENDING ENGINEER
ANUGOLA IRRIGATION DIVISION, ANUGOLA

6. EMD/ BID SECURITY DEPOSIT

(a) The bid must be accompanied with the EMD / Bid Security shall transfer **online** specified for the works in the table Col- 05 above as part of its bid through process as mentioned in the DTCN.

(b) The bids without "EMD / Bid Security**"** will be summarily rejected. **Engineer contractor** who wants to avail EMD Exemption shall have to furnish scan copy of affidavit. **SC/ST contractors** desires of availing benefit as per Works Department **Resolution No. 16262 dated 30.10.2018 (Item No.1)** must submit affidavit for the same.

Bidders registered as S.C. & S.T. Contractor up to "B" Class desiring to avail concession(s)/ price preference as per prevailing rules should apply for the same in writing in shape of Affidavit and upload necessary document and affidavit in support of their claim along with their bid, failing which their case may not be considered for availing price preference as per the rule. No claim in this regard after opening of the bid will be entertained.

1. (a) **Providing facilities to the Engineer contractor**

i) As per works Department No.FR-11/2001/10003/00 Bhubaneswar dtd 24.5.01, 5% price preference allowed to the Engineer contractor in the tender rates has been withdrawn.

ii) The Engineer contractor shall have to execute the work if awarded to him under his direct supervision and he will not be allowed to execute such work through his Power of Attorney Holder.

(b) Adjustment of earnest money given with other tenders previously and submitted in other tenders shall not be entertained.

(c) Engineering Contractor desirous to avail EMD exemption have to submit affidavit with uploading the same in the e-procurement portal declaring therein to the effect that they have not yet availed 2 (two) nos. of EMD exemption during the financial year 2025-26 and to show the original registration certificate to the tender inviting authority as and when required for confirmation.

2. The EMD will be forfeited in any of the following cases.

a) If the bidder withdraws the bid after bid opening during the period of bid validity.

b) If the bidder does not accept the correction of the bid price.

c) In the case of a successful bidder if the bidder fails within the specified time limit to

(i) Sign the agreement or

(ii)Furnish the required performance security.

d) If any of the statements, documents, certificate uploaded by the bidder through e- procurement portal, is found to be false / fabricated / bogus; the bidder will be black listed and his EMD / Bid Security forfeited.

7. For a particular work a bidder can submit only one tender paper. If a bidder submits more than one bid for a particular work through e-Procurement portal the system shall consider only the last bids submitted through portal.

8. The tender is to be submitted in two covers. Cover-I(Technical Bid) which is to contain in pdf form, copy of **(i) Valid Original Contractors Registration Certificate (CDMS), (ii) Valid and active GST Registration Certificate, (iii) Original affidavit regarding authenticity of documents, (iv) No relation certificate, (v) Valid & active PAN Card & (vi) Bid Security /EMD in online mode (vii)All other required documents along with the technical bid duly filled-in as per the relevant clauses of this DTCN & NIT and special conditions if any and Cover-II(Financial Bid)is to contain BoQ in (xls)** and any other special condition if any specifically mentioned by Officer Inviting Tender. During submission of Bids through the e-Procurement Portal, the bidder shall only submit single copy of the document. He is required to check the documents uploaded with the requirement asked for in the bid. Only after satisfying that all the documents have been uploaded, he should activate submit button. His bids shall not be considered responsive and action as per relevant clause shall be taken if he does not provide the required documents or provided illegible document. Clarity of the document may be ensured by taking out a sample printing.

9. The bidder can seek clarification on the bids as per mentioned date to the deadline for submission of bid from the

authority inviting tender (AIT) and **Superintending Engineer, Anugola Irrigation Division, Anugola.** The AIT's response will be forwarded through the e-mail ID of the enquirer.

10. An applicant or any of its constituent partners of whose contract for any work has been rescinded or who has abandoned any work in the last three years having the contracted work is in-complete prior to the date of the bid, shall be disqualified.

11. All charges towards quality control test will be borne by the contractor.

12. The work is to be completed in all respect within 08 (Eight) calendar months from the date of issue of work order.

13. The plans specifications and scope for the work can be seen in the office of the **Superintending Engineer, Anugola Irrigation Division, Anugola** during any working days.

14. The tenderers shall carefully study the tentative drawings and specifications applicable to the contract and all documents which form part of the agreement to be entered into by the accepted tenderer and detailed specifications for Odisha and other relevant specifications and drawings which are available with the tender document or with the **Superintending Engineer, Anugola Irrigation Division, Anugola**.

Complaint at a future date that plans and specifications have not been seen by the tenderers can not been entertained.

15. Every tenderer is expected before quoting his rates to inspect the site of the proposed work. He should also inspect the quarries and locality of the work and satisfy himself about the quality and availability of materials including the medical aids, labour and food stuff etc. In every case the materials must comply with the relevant specifications.

The tenderer will be deemed to have Satisfied himself, that the Rates quoted by him in the tender will be adequate to complete the work according to the specifications and conditions attached to and that he has taken into account all conditions, difficulties that may have been countered during its progress and to have quoted labour rates and materials, octroi and other duties, excluding GST but including cess, royalty, lead, lifts, de-lifts loading and unloading and freight for materials and all other charges necessary for the completion of the work to the entire satisfaction of the Engineer-in-charge of the work and his authorized subordinates. Complaints at future date that the availability of materials, labour or any other factor have been misjudged cannot been entertained. It should be understood clearly that no claim whatsoever will be entertained after-wards on the plea of non availability of proper quantity and quality of materials including food stuff or for any other.

16. Each tenderer must quote a definite percentage excess or less up to **two decimal** of the amount of work which will be included in the contract. Tenders containing indefinite terms such as estimated rates or schedules of rates will not be considered. During submission of Bids through the e- Procurement Portal, an intelligent Bill of Quantity in Microsoft Excel format shall be made available to the bidder. The bidder shall fill percentage excess or less of the tender amount and should not leave any cell blank. The line item total in words and the total amount shall be calculated by the system and shall be visible to the bidder.

17. The bidder shall submit the documents in the designated locations of technical bid (Cover-I) and Financial bid (Cover-II). Submission of bid documents shall be effected by using DSC of appropriate class and thus shall be in encrypted form. The bidder shall only submit single copy of the document. He is required to check the documents uploaded with the requirement asked for in the bid. Only after satisfying that all the documents have been uploaded he should activate submit button. His bid shall not be considered responsive and action as per relevant clause shall be taken if he does not provide the required document or provides illegible documents.

Clarity of the document may be ensured by taking out a sample printing.

18. All royalties payable, Income taxes & Surcharges as applicable will be borne by the contractor as admissible. It is implied that the quoted rates are inclusive of such elements.

19. Labour Welfare Cess @ 1% will be deducted from the work bill of the contractor as per resolution No. 12653 dt.15.12.2008 of Labour & Employment Department, Government of ODISHA.

20. Request for raising and lowering the rates or dealing with any point in connection with the tender will not be considered.

21. Conditional tenders will not be taken into consideration.

22. The tender containing extraneous conditions not covered by the tender notice are liable for rejection and quotations should be strictly in accordance with the tender call notice. Any change in the wording will not be accepted.

23. During submission of Bids through the e-Procurement Portal, it is allowed to modify the bid. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam. If the bidder fails to submit his modified bids within the designated time of receipt, the bids already in the system shall be taken for evaluation. During submission of Bids through the e-Procurement Portal, withdrawal of bid is allowed. The bidder must click on the "withdraw" button and record the necessary justification for the same in the space provided. In addition to this, he must write a letter addressed to the Officer inviting the bid and upload the scanned document to portal in respective bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

24. On **no account** the contract work should be sublet to anybody without the prior approval of the competent authority of the Department. In such an event the contract may be rescinded with penalty as will be deemed proper as per decision of the competent authority.

25. The e-procurement portal system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the portal time displayed in the system shall be the time to be followed by the bidder.

26. All tenders received will remain valid for 90 days from the last date mentioned for receipt of tenders (online) and validity of tenders can also be extended if required without any monetary compensation.

27. No Relation Certificate

The contractor shall have to furnish certificate alongwith the tender to the effect that he is not related to any officer in the rank of an Assistant Engineer and above in the State P.W.D. or Under Secretary and above in the Water Resources Department., If the fact subsequently proved to be false the contract will be rescinded. The earnest money and the total security will be forfeited and shall be liable to make good the loss or damage resulting from such cancellation.

28. While determining the validity of tenders the following points shall be taken into consideration by the authority empowered to accept tenders and his decision in the matter shall be final.

(a) Any special condition which does not find place in the tender notice and which are not acceptable.
(b) In definite conditions which will make it difficult for access to the financial implications.
(c) Tenders being incomplete in some important respects.

(d) Incomplete schedule of time for completion of the work.
(e) Failure to furnish the specified bid security.
(f) Tendered rates being unduly low and unworkable.
(g) Rates in different items of a tender being irrational.

29. The Department reserves the right of authority to reject any or all tenders received without assigning any reason whatsoever.

30. The tenderer whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him of acceptance of his tender shall sign agreement in the P.W.D. **Form No. P1** for the fulfillment of the contract in the office of the **Superintending Engineer, Anugola Irrigation Division, Anugola** as directed. The security deposit and the amount withheld according to the provision of P1 agreement shall be retained as security for the due fulfillment of this contract. The written agreement to be entered into between the contractor and the Govt. shall be the foundation of the rights of both the contractor and the Govt. and the contract shall be deemed to be in-complete until the agreement has first been signed by the contractor and then by the proper officer authorized to enter into the contract on behalf of the Govt. The security will be refunded one year after completion of the work and payment of the final bill and will not carry any interest.

31. If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes) either at the estimated cost put to tender or less than the estimated cost put to tender, the tender accepting authority will finalize the tender through a transparent lottery system, where all bidders / their authorized representatives, the concerned SE/Executive Engineer of concerned Division and DAO will remain present.

The time and venue of the lottery shall be intimated to the respective bidders through their e-mail only. No other communication in this regard will be made.

32. The tenderer whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him of acceptance of his tender make an Initial security deposit @ 2% of the accepted tender amount in shape of NSC /Post Office Savings Bank Account / Post Office Time Deposit Account / Kisan Vikas Patra / Bank Guarantee in favour of **Superintending Engineer, Anugola Irrigation Division, Anugola** from any Nationalised / Schedule Bank in India counter guaranteed by its local Branch at Bhubaneswar /e-Bank Guarantee executed on the National e-Governance Services Limited (NeSL) Digital Document Execution Portal towards E.M.D./Initial Security Deposit/any other Security Deposit from the Contractor or Supplier and sign agreement in the P.W.D. form No.P1 (Schedule XLV No.61) for the fulfillment of the contract in the office of the **Superintending Engineer, Anugola Irrigation Division, Anugola**, District–Anugola,Odisha.

The security deposit of Initial Security money according to the provision of P1 agreement shall be retained as Security for the due fulfillment of this contract. Failure to enter into the required agreement and to make the security deposit as above shall entail forfeiture of the earnest money. The written agreement to be entered into between the contractor and the Govt. shall be the foundation of the rights of both the contractor and the Govt. and the contract shall be deemed to be incomplete until the agreement has first been signed by the contractor and then by the proper officer authorized to enter into the contract on behalf of the Govt. The bids of the technically qualified bidders will be opened for evaluation of the price bid.

As per Works Department Office Memorandum No.17941/W Dtd.08.10.2026 the Additional Performance Security (APS) shall be obtained from the selected bidder, on an incremental basis, where the accepted bid price is lower than the Cost Put to Tender, in the following manner:

I. The Additional Performance Security (APS) shall be calculated as a percentage of the accepted Bid Price of the selected bidder.

II. For the purpose of determining the APS, the percentage by which the accepted Bid Price is lower than the Cost Put to Tender shall be calculated and rounded off.

III. The rounded-off percentage so determined shall be referred to as the Rounding off of Percentage Less (ROPL) of accepted Bid Price and shall form the basis for calculation of the APS in accordance with the applicable incremental rate prescribed under this Office Memorandum.

IV. Rounding Off of Percentage Less (ROPL) of accepted Bid Price, i.e. the percentage by which the accepted Bid Price is less than the Cost Put to Tender, Shall be as follows:

- Where the decimal fraction is less than 0.50, the percentage shall be rounded off to the next lower whole percentage.
- Where the decimal fraction is 0.50 or above, the percentage shall be rounded off to the next higher whole percentage.
- For avoidance of doubt, 13.25% less shall be reckoned as 13% less, whereas 13.50% less, shall be reckoned as 14% less, for the purpose of determining the applicable APS under this Office Memorandum.

V. Calculation of Additional Performance Security:

- Where the accepted bid price is such that the ROPL is upto (-)10%, no additional performance security is required.
- Where the accepted bid price is such that the ROPL is below (-)10% but not below (-)20%, the additional performance security percentage shall be incremented by 0.2% for every percentage of ROPL below (-)10%; for avoidance of doubt, if ROPL is (-)13%, then APS shall be @ 0.2% x (13-10) = 0.6% of accepted bid price.
- Where the accepted bid price is such that the ROPL is below (-)20% but not below (-)30%, the additional performance security percentage shall be incremented by 0.3% for every percentage of ROPL below (-)20% in addition to 2% of the accepted bid price; for avoidance of doubt, if ROPL is (-)24%, then APS shall be @ 0.3% x (24-20) + 2% = 1.2% + 2% = 3.2% of accepted bid price.
- Where the accepted bid price is such that the ROPL is below (-)30% or more, the additional performance security percentage shall be incremented by 0.5% for every percentage of ROPL below (-)30% in addition to 5% of the accepted bid price; for avoidance of doubt, if ROPL is (-)37%, then APS shall be @ 0.5% x (37-30) + 5% = 3.5% + 5% = 8.5% of accepted bid price.

VI. The additional performance security shall be treated as part of the performance security.

VII. The provision of additional performance security shall be applicable to all forms of tender except Turnkey Tender.

VIII. Justification for abnormally low bids shall be scrutinized by the Technical Committee and recommended to the Competent Authority for Acceptance of Tender as per Para 6.3.15 of OPWD Code, Vol-I for the approval of the Additional Performance Security (APS). An abnormally low bid is one in which the Bid price, in combination with other elements of the Bid, appears so low that it raises material concerns as to the capability of the Bidder to perform the contract at the offered price. Procuring Entity may, in such cases, seek written clarifications from the Bidder, including detailed price analysis of its Bid price in relation to scope, schedule, resource mobilization, allocation of risks and responsibilities, and any other requirements of the bid document. If, after evaluating the price analysis, the procuring entity determines that the Bidder has substantially failed to demonstrate its capability to deliver the contract at the offered price, the Procuring Entity may reject the Bid / Proposal. However, it would not be advisable to fix a normative percentage below the estimated cost, which would automatically be considered as an abnormally low bid.

IX. If more than one bid is quoted (decimal up to two numbers will be taken for all practical purposes, in percentage rate tenders) as lowest, either at the estimated cost put to tender or less than the estimated cost put to tender, the

Tender Accepting Authority will finalized the tender through a transparent lottery system, where all the concerned bidders / their authorized representatives, the concerned SE/EE of the concerned Division and DAO will remain present.

X. If the rate quoted by the SC and ST Category Contractors comes to the rate quoted by the lowest bidder (decimal up to two numbers will be taken for all practical purposes, in percentage rate tenders) after availing 10% price preference as per Para 2 of Works Department Resolution No.16262 dated 30.10.2018, the tender shall be finalized by the Tender Accepting Authority through a transparent lottery system along with other categories of contractors.

The applicable Additional Performance Security (APS) is being obtained from the Successful Bidder when the Bid amount is less than estimated cost put to tender as per following table in shape of N.S.C. / Post Office Savings Bank Account / Post Office Time Deposit Account / Kisan Vikash Patra / Bank Guarantee pledged in favour of **Superintending Engineer, Anugola Irrigation Division, Anugola** from any Nationalized Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar / in shape of e-Bank Guarantee executed on the National e-Governance Services Limited (NeSL) Digital Document Execution portal **as per Works Department Office Memorandum No. 1499/W, dtd.01.02.2023** within seven days of issue of Letter of Acceptance (LoA) by the Divisional Officer (by e-Mail) to the successful bidder otherwise the bid of the successful bidder shall be cancelled and the Earnest Money Deposit / Bid Security shall be forfeited. Further, proceeding for Blacklisting shall be initiated against the bidder as per amendment to Para 3.5.5 (v) of OPWD Code, Volume-I vide Works Department Office Memorandum No. 14459/W dated 20.09.2018.

The security will be refunded after one year on completion of the work in all respect provided the final bill is passed and will not carry any interest. Any defect noticed during the period of one year after the actual date of completion shall be rectified by the contractor at his own cost. Failure to comply such rectification the cost involved to carry out the defective work shall be met from his dues available with Department. (Ref. works Deptt order No.17823/WE dt. 11.10.2006. The e-procurement portal system shall generate the award of the contract letter and intimate the bidder in his e-mail after acceptance of the tender.

33. Before acceptance of tender, the successful bidder will be required to submit a work programme and milestone basing on the financial achievement so as to complete the work within the stipulated time and in case of failure on the part of the agency to achieve the milestone liquidated damage will be imposed.

34. The contractor shall sign as a token of final acceptance of the plans, sections and agreements for the work prior to take up the work for execution.

35. The date of commencement of work shall be as notified in work order.

36. On signing the agreement the site will be handed over to the contractor for execution and completion of works in all respect.

37. The authority reserves the right to make such increase or decrease in quantity of items of works mentioned in the scheduled attached to the tender notice as may be considered necessary for the satisfactory completion of the contract work.All such increase or decrease shall in no way invalidate/vitiate the contract rates.The contractor shall not be entitled for any compensation on this account, except grant of extension of time where considered necessary.

38. The work may be splitted up and distributed among several contractors if considered necessary on the exigency of the circumstances of the work and the contractor is not entitled to any compensation on this account.

39. That for the purpose of jurisdiction in the event of any dispute if any, the contract would be deemed to have been entered into within the State of Odisha and it is agreed that neither party to the contract will be competent to bring a suit in regard to the matter by this contract at any place outside the State of Odisha.

40. Under section-12 of contract labour (Regulation and Abolition Act 1970) the contractor who undertakes execution of work through labour, should produce valid license from licensing authority of labour department (

labour license) to start the work.

41. The contractor shall be liable to fully indemnify the Department of any compensation under workmen compensation Act VII of 1993 on account of the workmen employed by the contractor and full amount of compensation paid will be recovered from the contractor. In the event of any claim sub-judice before any court of law, the claim amount shall be kept withheld till final disposal.

42. Contractor is required to abide by the fair wages clauses as introduced by Govt. of Odisha and will not pay less than the Fair wages fixed by Govt. to the labourers engaged by him for the work.

43. In case of any complaint by the labourer about the non payment of his wages as per latest minimum wages Act., the Superintending Engineer will have the right to investigate and if the contractor is found to be at fault, Superintending Engineer may recover such amount due in any form from the contractor and pay such amount to the labourer directly under intimation to the local labour office of the Govt. The decision of the Superintending Engineer is final and binding on the contractor.

44. The contractor will have to submit the monthly return of labour both skilled and unskilled employed by him on the work site **to the Superintending Engineer, Anugola Irrigation Division, Anugola**.

45. The contractor should keep himself in touch with the Engineer-in-charge for smooth execution of the work and arrange adequate labour depending on the workload and working space available. No claim for detention for labour on any account will be entertained.

46. No compensation will be paid by the Department for any damage done by rain, flood, cyclone & earthquake tide or by any other natural calamities during the execution of the work.

47. It should be understood clearly that no claim whatsoever will be entertained in regard to extra items of work or extra quantity of any item besides estimated amount, unless written order is obtained from the Engineer-in-charge and rates settled before the extra items of work or extra quantity of any item of work is taken up.

48. The tenderer shall bear various incidentals, sundries and contingencies necessitated by the work in full within the following or similar category.

49. Rent, royalties and other charges of materials & all other taxes including ferry tolls, conveyance charges and other cost on account of land and buildings including temporary building and temporary electric connection to work site as well as construction of coffer dam, construction of service road, diversion road and its maintenance till completion of work required by the tenderer for collection of materials, storage housing of staff other purpose of the work will be paid by the contractor. No tenderer will however be liable to pay for temporary occupation of land owned by Govt. at the site of the work. GST on works contract as applicable at the time of payment of R/A bill shall be paid extra over the gross amount of R/A bill.

50. Labour camps or hutments including conservancy and sanitation arrangements upto the satisfaction of the local health authorities should be arranged by the contractor.

51. Suitable water supply including pipe water supply wherever available for the staff and labour as well as for the work.

52. Fees and duties levied by the municipal canal or water supply authorities.

53. Suitable equipment and wearing apparatus for the labour engaged in risky operations and medical aid to the labourer engaged for the work.

54. Suitable fencing, barriers, signals including paraffin and electric signals where necessary at work and approaches in order to protect public and employees from accident.

55. Compensation including cost of any suit for injury to persons or property due to neglect of any major precautions also become payable due to operation of the workmen compensation Act.

56. The contractor has to arrange adequate lighting arrangement for the work wherever necessary at his own cost.

57. In case of delay in acquisition of land handing over possession of work site no compensation will be admissible but extension of time will be allowed if applied in prescribed format within due time to keep the

contract in force.

58. Over and above these conditions including the Technical specifications the terms, conditions, rules and regulations and specifications laid down in I.S.I. code are also binding on the part of the contractor.

59. Deduction of income tax at source and surcharge on income tax will be made from each running account bill for the work at the rate as per Income Tax Act and as amended from time to time. (Present rate 2% + surcharge)

60. (a) The rates quoted by the contractor shall be deemed to be exclusive of GST on all the materials that he will have to purchase for performance of this contract.

61. The rates quoted by the contractor in the tender for works shall exclusive of GST that may be levied on turnover on works contract according to the Laws and Regulations as applicable from time to time.

62. Deduction of GST at source will be made from each running account bill for the work at the rate of 2% prescribed by Odisha Goods & Service Tax Act-2017 or amended from time to time.

63. 1 % (One percent) of the gross amount of the bill will be deducted from the contractor bill towards labour cess as per Odisha building and other construction workers (RE & CS) rules 2002 and Amendment during 2008 and as amended by Govt. from time to time.

64. The amount on royalties of different materials as utilized by the contractor in the work will be recovered from his bill, basing on the rate fixed by the Govt. or as amended from time to time during the period of execution.

65. Schedule of quantity accompanies the tender notice: It shall be definitely understood that the Government do not accept any responsibility for the correctness and completeness of this schedule and this schedule is liable for alternations or omissions, deductions or additions as set forth in the condition of contract and such omissions, deductions, additions or alternations shall in no way invalidate/ vitiate the contract and no extra monetary compensation will be entertained.

66. Sample of stone, metal, chips, sand, cement, moorum etc to be used are to be deposited noting the quarry under dated initial of the tenderer in the Office of the **Concerned SDO, Flood Sub-division,Anugola** before the procurement for testing and acceptance. The transportation & testing charges of construction materials will be borne by the contractor.

67. Items of works not covered by the tender notice shall be paid at the current schedule of rates of the State and those not covered by the said schedule of rate will be paid on actual analysis approved by the competent authorities prevailing during the period of execution of work.

68. All preliminary works such as vats, mixing platforms etc are to be done by the contractor at his own cost. No payment will be made for benchmarks, level pillars, profiles, benching and leveling the ground where required. The rates to be quoted should be for finished items of works inclusive of such incidental items of works.

69. After the work is finished all surplus materials and debris's should be removed from 100 Mtr. clear away from the site of the work. Preliminary work such as vats, mixing platforms etc. should be dismantled and all materials removed from the site and premises shall be made neat and clean and this is inclusive of the rates quoted by him.

70. The contractor is to supply necessary labour and materials for the purpose of alignment lying recording of levels whenever required at his own cost.

71. The contractor should arrange necessary tools and plants such as Pumps, Excavator, Trucks, compressors, Tippers, batching plants, Concrete Mixer, steel shutter plates etc. required for the efficient execution work at his own cost. The running charges of such plant and cost of consumables and conveyance are to be borne by the contractor. Any deviation from this may lead recession of contract.

72. In the event of delay in supply of design reasonable extension of time shall be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any circumstances.

73. Under no circumstances, interest is chargeable for the dues or any additional dues, if any payable for the work.

74. An affidavit shall be furnished by the contractor at the time of submission of tender paper about the authentication of tender documents. The scanned copy of the affidavit is to be uploaded through the e-procurement portal along with the technical bid. The affidavit in original is to be produced before the officer inviting tender after opening of the tender positively.

75. Prediction of flood/monsoon Damage:

The contractor shall make his own arrangement at his cost to shift the machineries, equipment's, materials, labourer and departmental machineries if hired by the contractor to a safe place prior to flood. The work shall have to be resumed after the flood come to normal. No extension of time for the completion of the work may be considered by the Department if the discontinuance of the work is beyond the reasonable attempts of the contractor to such eventualities.

76. The debris, sand and other materials, accumulated in the work area during flood shall be removed by the contractor as required for continuing the work at his own cost. By any chance, if any excavated portion that could not be filled up with concrete by the contractor, gets filled up during the monsoon period with earth such removal will not be paid again. The contractor will have to re-excavate the same at his own cost.

77. It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangements may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and payment made, against any damages either during working season or during the flood. The department accepts no liability, what so ever for any damage or loss of men, materials, machinery and type of hindrance caused to the progress of work.

78. The contractor should provide at his own cost adequate protection measures to the completed works at the end of working season or work in progress against such eventuality till completion and handing over the entire work to the Department.

79. Dewatering from the foundation of structures when and where necessary during execution will have to be done by the contractor and no extra payment will be made on that account. The rate of respective items of work is inclusive of the dewatering.

80. The term dewatering shall mean the execution or operation of the items due to standing water as well as due to percolation water.

81. No claim for idle labour etc. on any account will be entertained by the Department.

82. The clause of printed form of **P_1 contract** with latest addition/ deletion/ corrections/ substitution etc. will also be binding.

83. GENERAL INSTRUCTION TO CONTRACTORS as per DoWR letter No.20415 dt.14.09.2015

(a) Any agency or contractor executing a work should be aware about the local festivals like Makar Sankranti, Raja Sankranti , Chaiti Parab, Danda Nata or any such festivals which may effect the work schedule. Therefore, the contractor should engage more work forces during working period available at his disposal to complete the work as per schedule.

(b) In the peak summer season, working hour is curtailed by the Labour Department to avoid exposure to personnel to the scorching sun and heat. It is the duty of the agency to increase the number of work force and to employ the existing work force during morning and afternoon hours as per Government orders.

(C) Rainfall is a normal occurrence during monsoon in Odisha. So, unless there is unusually heavy rainfall resulting in a declared calamity, the contractor is not eligible for any extension of time. The contractor should plan the deployment of workforce and machinery , so as to complete the work as per schedule considering ordinary vagaries of nature.

The same applies for borrow area ponding also. The contractor should foresee possible ponding of borrow area in monsoon and like wise lift more quantity of soil/ other materials during dry period, so as to complete the work as per schedule.

(d) The contractor should take up the work with due diligence in the acquired land without waiting for acquisition of entire land. This should be completed in proportionally less period depending on

the quantum of available work front.

(e) The Agency should plan his work programme and mobilize men and machineries considering the canal closure programme of a particular system or area. Khariff / Rabi closure can't be imposed arbitrarily on the farmers as per the convenience of the agency. Closure of canal for the interest of work will be solely at the discretion of the Engineer-in- charge and can't be claimed as a matter of right.

(f) There will be always be standing crop before harvesting season as per crop schedule and this fact has to be clearly understood by the agency. Extension of time on this ground may not be considered by the Division officer.

(g) Only the day(s) of elections to the Local Bodies / Assembly / Parliament will be treated as non working day(s)

84. Definitions

In the contract (as hereinafter defined) the following words and expressions will have the meanings here by assigned to them.

a) Approved / Approval – Means approved in writing.

b) Construction Plant – Means all equipments, appliances or things of whatsoever nature required for the execution, or completion, maintenance of the works or temporary works but does not include materials or other things intended to form or forming part of the permanent work.

c) Contract – means the instruction and information for tenderers General and Special conditions of the contract, Technical Specification, drawings, tender (including the schedule of quantities and tender prices) the formal agreement and all agenda and attachment related to the above.

d) Contractor – means the particular person, firm or corporation with whom the contract has been made for executing the work.

e) Drawing – Means the drawings referred to in the specifications, any modifications of such drawings approved in writing by the **Superintending Engineer, Anugola Irrigation Division, Anugola** and such other drawings as may from time to time be furnished or approved in writing by the Engineer-in-Charge.

f) Engineer-in-Charge–Means the Superintending Engineer, in-charge of the work specified or parts of the works under the contract, or such other departmental assistants or sub-ordinates to whom the Superintending Engineer, in-charge may have delegated certain duties, acting separately within the scope of particular duties entrusted to them.

g) Government – Means Government of Odisha, Department of Water Resources.

h) I.S.S. / B.I.S. – Means Indian Standard Specifications / Bureau of Indian Standard.

i) Temporary Works – Means all temporary works of every kind required for the performance of the contract.

j) Specification – Whenever the terms "Specification" is used, apart from a specified standard specification, it shall mean the specification or plan prepared for a particular site as instructed to the contractor in executing that item of work.

k) Year - Means Financial Year.

85. The contractor has to mention percentage excess or less over the amount put to tender.

86. The contractor will write percentage excess or less upto two decimal point only if he writes the percentage

excess or less upto more than two decimal point, the two decimal point shall only be considered without rounding up.

87. A bidder can submit only one tender paper for a particular work, submission of more than one tender paper by a bidder for a particular tender will liable for rejection of all such tender papers as per Works Department Letter No.4985/W dt.28.03.2007.

88. The single tender received in the first call shall be cancelled without opening of the bid. The acceptance of a single tender received, even after retendering should have prior approval of the next higher authority as per Works Department Memorandum No.16 dt.01.01.2015.

89. Security for the due fulfillment of a contract should invariably be taken. The security may be taken in shape of N.S.C/Post Office Savings Bank Account/Post Office Time Deposit Account/Kisan Vikas Patra/Bank Guarantee in favour of the Divisional Officer from any Nationalized Schedule Bank in India counter guaranteed by its local Branch at Bhubaneswar/e-Bank Guarantee executed on the National-Governance Services Limited (NeSL) Digital Document Execution Portal towards E.M.D/Initial Security Deposit/any other security deposit from the contractor or supplier.

SECTION–2

INFORMATION AND

INSTRUCTION TO TENDERERS

SECTION-2

1. Preparation of Tender Documents

The intending tenderer shall log in to the e-procurement portal identified as http://tendersodisha.gov.in and download the technical bid (Cover-I) and price bid (Cover-II) in shape of a bill of quantity in MS Excel format. As per the requirement of the bid document the bidder will fill up the required informations and fill up the percentage in figures on the bill of quantity in MS Excel sheet. The bidder is to scan his registration certificate, GSTIN, PAN Card, Affidavit, No relation certificate and certificate issued by competent authorities required for fulfilling the eligibility criteria specified in the bid document for the work. The bidder is also required to scan the other documents as specified in the bid document.

2. Method of submission of Tender Documents

The tenderer shall upload the scanned copy / copies of the documents and information as per requirement of the bid documents through the e-procurement portal. All documents and scanned copies are to be uploaded in the designated location of the technical bid (Cover-I) except the filled up bill of quantity in excel sheet. The filled up intelligent bill of quantities in Excel format will be uploaded in the designated location of price bid (Cover-II). The bidder is required to upload the required documents in appropriate location of Technical and Financial bid failing which the bid will be rejected. All the uploaded documents should be clear and legible. Before activating the submit button the clarity of the document may be ensured by taking out a sample copy.In the e-procurement tendering system the bidder is required only to submit the required information as per bid document instead of submitting the entire technical bid document. The "online" bidder shall digitally sign on all statements, documents, clarifications uploaded by him owning responsibility for their corrections/ authenticity. **If any of the information furnished by the bidder is found to be false/ fabricated/ bogus, the bidder will be blacklisted.**

2.1. The tender documents duly filled in and signed by the intending tenderer should be submitted in on-line through prescribed website only.

2.2 If the intending tenderer is an individual, the documents shall be signed by the individual above his full type written name and current address.

2.3 If the intending tender is a proprietary firm it shall be signed by the proprietor above his full name and with his current address.

2.4 If the intending tenderer is a firm in partnership it shall be signed by a partner holding the power of attorney for the firm in partnership in which case a certified copy of power of attorney shall accompany in the pre-qualification documents.

2.5 If the intending tenderer is a limited company or Corporation, it shall be signed by a duly authorized person holding the power of attorney in which case certified copy of power of attorney shall accompany.

2.6 All witness and sureties shall be of person of status and probity and their full names,occupation and address shall be stated below their signatures.

2.7 The agency will install display board mentioning information about the work at work site after drawl of the agreement at his own cost.

3. Opening of Tender Documents.

The tender documents (Technical Bid) will be **opened on 16.11.2026 at 11.30A.M** in the office of the **Additional Chief Engineer, Anugola Irrigation Circle, Anugola** in the presence of tenderers or their authorized representative, who wish to be present.

4. DELETED.

5. Final Decision making authority

The competent authority reserves the right to accept or reject or disqualify any of the tender of prequalification without assigning any reasons and its decision shall be final.

6. Further Clarification

The **Superintending Engineer, Anugola Irrigation Division, Anugola / Additional Chief Engineer**, **Anugola Irrigation Circle, Anugola** may be contacted during office hours on any working days for any further clarification. Online clarification may also be obtained as per the date line mentioned in the NIT.

7. Sample of all material:

The Contractor shall supply sample of all materials fully before procurement for the work fortesting and acceptance at his own cost as may be requiring by the concerned Superintending Engineer.

8.**Trial Boring :** The foundation level as indicated in the body of the departmental drawing is purely tentative and for the general guidance only. The Department have no responsibility for the suitability of actual strata at the foundation level. The contractor has to conduct his own boring before starting the work and get the samples tested at his own cost to ascertain the S.B.C. and credibility of the strata at founding level. While quoting his rates for tender the contractor shall take in to account of the above aspects.

9.From the commencement of the works to the completion of the same, they are to be under the contractor's charge. The contractor is to be held responsible to make good all injuries, damages and repairs occasioned or rendered necessary to the same by fire orother causes and they hold the Govt. of Odisha harmless for any claims for injuries to person or structural damage to property happening from any neglect, default, want of proper care or misconduct onthe part of the contractor or any one in his employment during the execution of the work. Also, no claim shall be entertained for loss due to earth quake, flood, cyclone, epidemic, riot or anyother calamity whether natural or incidental damages so caused will have to be made good by the contractor at his own cost.

10. Where it will be found necessary by the Department, the Officer-in-Charge of the work shall issue an site order book to the contractor to be kept at the site of the work with pages serially numbered. Orders regarding the work whenever necessary are to be entered in his book by the PWD Officer-in-Charge with their dated signatures and duly noted by the contractor or his authorized agents with their dated signature. Orders entered in his book and noted by the contractor's agent shall be considered to have been duly given to the contractor for following the instructions of the Department. The site order book shall be the property of the Department and shall not be removed from the site of work without written permission of the Engineer (Superintending Engineer) and to be submitted to the Engineer-in-Charge every month.

11. The tenderer should conduct three bores at each pier and SBC of soil at foundation level and abutments location and furnish the test results in conformity with IRC code at his own cost before execution of the work and rates quoted by the contractor should be inclusive of such bores and SBC tests etc without any extra cost to the Department.

Procedure to participate in online bidding e-procurement

1. PARTICIPATING IN THE BID IN THE E-PROCUREMENT PORTAL: The Contractor/ Bidder intending to participate in the bid is required to register in the Portalusing his /her active personal/ official e-mail ID as his Login ID and attach his/her valid Digital Signature Certificate (DSC) to his/her unique Login ID. The DSC used must be of appropriate class (Class II or Class III) issued from a registered Certifying Authority such as n-Code , Sify,TCS,MTNL etc. He/She has to submit the relevant information as asked for about the firm/ contractor. The portal registration of the bidder/ firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/ documents such as (i) PAN and (II) Registration Certificate (RC)/ GST Registration Certificate and GSTIN (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC/GST Registration Certificate and GSTIN. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication bidder can participated in the online bidding process.

   Contractor not registered with Government of Odisha, can participate in the e-procurement after necessary enrollment in the portal but have to subsequently register themselves with the appropriate registering authority of the Sate Government before award of the work as per prevalent registration norms of the State.

   a. To log on to the portal the Contractor/Bidder is required to type his/her *user name* and password. *The* system *will again ask to* select the DSC and confirm it with the password of DSC. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique ID, password and DSC combination and authenticates the login process for use ofportal.

   b. The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.

   c. The tender documents uploaded by the Tender Inviting Officer in the website https://tendersodisha.gov.in will appear in the section of "UpcomingTender" before the due date of tender sale. Once the due date has arrived, the tender will move to "Active Tender" Section of the *home page*. Only a small notification will be published in the newspaper specifying the work details along with *mention* ofthe specific website for details. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Invitation for Bid' after which the same will be removed from the list of Active tenders. Any bidder can view or download the bid documents from the website.

d. Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption.

e. The *software* application has the provision of payment of cost of tender document through payment gateways of *authorized* bankers by directly debiting the account of the bidders.

Bidders participating through Joint Venture shall declare the authorized signatory through Memorandum of Understanding duly registered and enroll in the portal in the name and style of the joint venture company. It is mandatory that the DSC issued in the name of the authorized signatory isused in the portal.

In the case of any failure, malfunction, or breakdown of the electronic system used during the e-procurement process, the tender inviting officer shall not accept any responsibility for failures or break downs other than in those systems strictly within their own control.

Any third party/company/person under a service contract for operation of e-procurement system in the State or his/their subsidiaries or their parent companies shall be ineligible to participate in the procurement processes that are undertaken through the e-procurement system irrespective of who operates the system.

For submission of Bids through the E-Procurement Portal, the bidder shall upload the scanned copy/copies of document in prescribed format wherever warranted in support of eligibility criteria and qualification information. The online bidder shall have to produce the original documents in support of the scanned copies and statements uploaded in the portal before the specified date as per DTCN.

Each bidder shall submit only one bid for one package. A bid is said to be complete if accompanied by cost of bid document and appropriate bid security. The system shall consider only the last bid submitted through the E-Procurement portal.

The bidder may ask question related to tender online in the e-procurement portal using his/her DSC, provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/Bid. The Officer inviting the Bid/ Procurement Officer-Publisher will clarify quarries related to the tender.

The details of drawings and documents pertaining to the works available with the officer inviting the Bid as well as in the office of the Superintending Engineer as mentioned in the Contract Data will be open for inspection by the bidders. The bidder is required to download all the documents for preparation of his bid. It is not necessary for the part of the Bidder to up-load other Bid documents (after signing) while up-loading his bid. He is required to up load documents related to his eligibility criteria and qualification information and Bill of Quantities duly filled in. It is assumed that while participating in the bid, the bidder has referred all the drawings and documents. Seeking any revision of rates or backing out of the bid claiming for not having referred to any or all documents provided inthe Bid by the Officer Inviting the Bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.

Any addendum / corrigendum/ cancellation of tender shall be published in the websitehttps://tendersodisha.gov.in, notice board Only, and such notice shall form part of the bidding documents.

The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to check the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender inviting authority is not responsible for communication failure of system generated mail.

All the volumes/documents shall be uploaded / provided in the portal by the Officer inviting the bid. The bidder shall carefully go through the document and prepare the required documents and upload the scanned documents in Portable Document Format to the portal in the designated locations of Technical Bid. He will fill up the rates of items or percentage in the BOQ downloaded for the work in designated Cell and up loads the same in designated locations of Financial Bid. Bidders are to submit only the original BoQ uploaded by publisher after entering the relevant fields without any alteration/deletion/modification. Multiple BoQ submission shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than Zero value in the specified cells. In the percentage rate tender, the bidder quoting Zero value is valid and will be taken as Schedule of Rates. Submission of document shall be affected by using DSC of appropriate class.

2. PAYMENT OF EMD/ BID SECURITY AND COST OF BID DOCUMENTS: The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under DTCN in online mode. Non-submission of bid security within the designated period shall debar the bidder from participating in the on-line bidding system.

The EMD or Bid Security payable along with the bid is 1% of the estimated contract value (ECV) or as mentioned in the bid document.

The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender (price bid). In the eventuality of failure on the part of the lowest successful bidder to procedure the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority. In such as situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L-1 bidder.

Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption.

Government of Odisha has introduced e-payment gateway in to the portal for payment of cost of Bid and Bid Security/ Earnest Money Deposit. The process of using e-payment gateway is mentioned in the "***Procedure for Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids***".

FORMAT AND SIGNING OF BID: (Logging to the Portal)-The Contractor/ Bidder is required to type his/her Login ID and Password.The system will again ask to select the DSC and

confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, Password and DSC combination and authenticates the login process for use of portal.

3.1 The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience within the final date and time of submission. The bidder shall only submit single copy of the required documents and Price Bid in the portal. In the Financial bid, the bidder can not leave any figure blank. He has to only write the figures; the words will be self generated. The Bidders are advised to upload the completed Bid document well ahead of the last date & time of receipt to avoid any last moment problem of power failures etc.

3.2 The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including Declaration form, price bid etc and store in the system.

3.3 The bidder shall log on to the portal with his DSC and move to the desired tender for uploading the documents in appropriate place one by one simultaneously checking the documents. Once the Bidder makes sure that all the documents have been up-loaded in appropriate place he clicks the submit button to submit the bid to the portal.

3.4 The bids once submitted can not be retrieved or corrected. Tender cannot be pre-opened and cannot be submitted after due date and time. Therefore only after satisfying that all the documents have been uploaded, the Bidder should activate submit button.

3.5 In the e-procurement process each processes are time stamped. The system can identify each individual who has entered in to the portal for any bid and the time of entering into the portal.

3.6 The Bidder should ensure clarity of the document uploaded by him to the portal especially the scanned documents by taking out sample printing. Non-submission of legible documents may render the bid non-responsive. However, the Officer inviting the Bid if so desires can ask for legible copies or original copies for verification within a stipulated period provided such document in no way alters the Bidder's price bid. If the Bidder fails to submit the original documents within the stipulated date, his bid security shall beforfeited.

3.7 SUBMISSION OF BIDS:-

The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid and a Financial Bid. The Technical bid generally consists of GSTIN, PAN, Registration Certificate, Affidavits and any otherinformation required by OIT. The Financial Bid shall consist of the Bill of Quantities (BOQ) and any other price related information/undertaking including rebates.

Bidders are to submit only the original BOQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration/ deletion/ modification.Multiple BOQ submission by bidder shall lead

to cancellation of bid. In case of items rate tender , bidders shall fill in their rates other thanzero value in the specified cells without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.

The bidder shall upload the scanned copy/ copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF)to the portal in the designated locations of Technical Bid.

a. The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BOQ) published by the Officer Inviting Tender. The bidder shall type rates in figure only in the rate column of respective items(s) without any blank cell in the rate column in case of item rate tender and type percentage excess or less upto two decimal place only in case of percentage rate tender.

b. The bidder shall log on to the portal with his/ her DSC and move to the desired tender for uploading the documents in appropriate place one by one simultaneously checking the documents.

c. Bids cannot be submitted after due date and time. The bids once submitted can not be viewed, retrieved or corrected. The Bidder should ensure correctness of the Bid prior to uploading and take print out of the system generated summery of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher/opener before the due date and time of opening.

d. Each process in the e-procurement is time stamped and the system can defect the time of login of each user including the Bidder.

e. The Bidder should ensureclarity/legibility of the document uploaded by him to the portal.

f. The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

g. The bidder should check the system generated confirmation statement on the status of the submission.

h. The bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.

i. The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.

j. The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the bidder to upload the drawing and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has refered all the drawings and documents uploaded by the Officer Inviting the Bid.

k. The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.

l. Seeking any revision of rates for backing out of the bid claiming for not having referred to any or all documents provided in the bid by the officer inviting the bid will be construed as plea to disrupt the bidding process and in such cases the bid security shall be forfeited.

m. The 'Online bidder' shall digitally sign on all statements documents, certificates uploaded by him, owning responsibility for their correctness/ authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false/ fabricated/ bogus, his EMD/BID Security shall stand forfeited and his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

4 SECURITY OF BID SUBMISSION:

All bid data uploaded by the Bidder to the portal will be encrypted by the DSC of the opener(s). The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

The Bid shall be received in encrypted format by the system which can only be decrypted /opened by the authorized openers only on or after the due date and time.

5 DEADLINE FOR SUBMISSION OF THE BIDS:

The online bidding will remain active till the last date and time of the bid submission. Once the date and time (Server date and time) is over, the bidder will not be able to submit the bid. The date & time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer inviting the Bid.

RESUBMISSION AND WITHDRAWAL OF BIDS:

Resubmission of bid by the Bidders for any number of times before the final date and time of submission is allowed.

Resubmission of bid shall require uploading of all documents including price bid afresh.

If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.

The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of Internet of traffic jam of power failure etc.

The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of aletter addressing to the Procurement Officer Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.

6 LATE BIDS:

6.1. The system shall reject submission of any bid through portal after closure of the receipt time. For all purpose the server time displayed in the e-procurement portal shall be the time to be followed by the bidder and concerned officers.

7 MODIFICATION AND WITH DRAWAL OF BIDS:

In the E-Procurement Portal, it is allowed to modify the bid any number of times before the final date and time of submission. The bidder shall have to log on to the system and resubmit the documents as asked for by the system including the price bid. In doing so, the bids already submitted by the bidder will be removed automatically from the system and the latest bid only will be admitted. But the bidder should avoid modification of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power

failure. If the bidder fails to submit his modified bids within the designated time of receipt, the bid already in the system shall be taken for evaluation.

In the E-Procurement Portal, withdrawal of bid is allowed. But in such case he has to writea letter with appropriate reasons for his withdrawal addressed to the Officer inviting the bidand upload the scanned document to portal in the respective bid before the closure date and time of receipt of the bid. The system shall not allow any withdrawal after expiry of the closure time of the bid.

8. **OPENING OF THE BID:**

8.1. Bid opening date is specified during tender creation or can be extended with corrigendum. This date is available in IFB, tender document as well as the home page of portal. Bid opening can be done by the authorized users which are defined during the tender publication / approval stage. The bids are encrypted using the public keys and can be decrypted only on or after the Bid Opening due date and time. The bid openers private key will be required to open the bids and all the openers have to log on to the portal during that time.

8.1.1. The bidders who participated in the online bidding can witness opening of the bid from any system logging on to the portal with the DSC away from opening place. Contractors are not required to be present during the bid opening at the opening location if they so desire.

8.1.2. Each activity is date and time stamped with user details. For time stamping, server time is taken as the reference.

8.2. In the event of the specified date of bid opening being declared a holiday for the Officer inviting the Bid/Engineer-in-Charge, the bids will be opened at the appointed time on the next working day.

8.2(a) Combined bid security for more than one work is not acceptable.

8.3. In case bids are invited for more than one package, the order for opening of the “Bid” shall be that in which they appear in the “Invitation for Bid”.

8.4. The Bid openers; who have been pre-defined shall log on to the portal with their respective DSC. Unless all the Officers who have been declared as Opening officers, log on the portal with their DSC the Tender cannot be opened.

8.5. In case of non-responsive tender the officer Inviting tender should complete the e-Procurement process by uploading the official letter for cancellation/ re-tender.

EVALUATION OF BIDS:-

All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that “the documents as available in the portal containing..... nos. of pages”.

8.5.1. After opening of technical bid, the bidder may be asked in writing / online (in their registered e-mail ID) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents required for Technical Evaluation. The Officer Inviting Tender may ask for any other document of historical nature during Technical Evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the bidders price bid. Non submission of legible documents may render the bid non-responsive. The authority inviting bid may reserve the right to accept any additional document.

8.5.2. The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.

8.5.3 The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.

8.5.4. Immediately, on receipt of these clarifications, the Evaluating Officers; predefined in the system for the bid, will finalize the list of responsive bidders. They will log on to the site with their DSC and record their comments on the Technical evaluation page in the system. The Officer Inviting the Bid if also the accepting authority, shall log on to the system with his digital signature and check the technical evaluation. He can either accept or pass on to the evaluating officers for re-evaluation. Upon acceptance of technical evaluation by the Accepting authority in the system, the system shall automatically generate letter to all the responsive bidders and the system shall forward the letter to all the responsive bidder that their technical bid has been evaluated responsive with respect to the data/information furnished by him and the letter shall also intimate him the date & time of opening of financial bid. The system shall also inform the non-responsive bidders in their e-mail ID that their bid has been found non-responsive.

8.6. The Technical evaluation of all the bids shall be carried out up as per the information furnished by the Bidders. But evaluation of the bid does not exonerate the bidders from checking their original documents and if at a later date the bidder is found to have misled the evaluation through wrong information, action as per relevant clause of DTCN shall be taken against the bidder/contractor.

8.7 The Procurement officer-Evaluators will evaluate bid and finalized list of responsive bidders. Opening of price bid and evaluation of lowest bidder is subject to satisfaction of other qualification information.

8.7.1 The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.

8.7.2 The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.

8.7.3 At the time of opening of “Financial Bid”, the names of the bidders whose technical bids were found responsive will be announced and the bids of only those bidders will be opened. The remaining bids will be rejected.

8.7.4 The responsive bidders’ name, the bid prices, the item wise rates, the total amount of each item in case the item rate tender and percentage above or less in case of percentage rate tenders will be announced. any discounts and withdrawals, and such other details as the officer inviting the tender may consider appropriate, will be announced by him or his authorized representatives at the time of opening.

8.7.5 The Financial bid of the bidders shall be opened one by one by the designated officers. The system shall auto-generate the Comparative statement.

8.7.6 The Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

8.7.7 Procurement Officer-Openers shall sign on each page of the download BOQ and the Comparative Statement and furnish a certificate to that respect.

8.7.8 System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concern Chief Engineer/ Head of Department.

9. **CLARIFICATION AND NEGOTIATION OF BIDS:**

9.1. For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdowns of unit rates.

9.2. On opening of the price bid the system shall arrange the financial bids in order of their value (L1 first, followed by L2, L3 ….) for subsequent evaluation. The evaluation status (Sheet) will be visible to all the participating bidders after opening on their respective logins. Each activity is recorded in the system with date and time stamping.

10. **NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**

10.1. In the E-Procurement Portal, the system shall generate the template of award letter and the Officer Inviting the Bid shall mention the amount of Performance Security and additional security required to be furnished in the letter and intimate the bidders in his e-mail ID.

10.2. The Employer/ Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This letter of Acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution and completion of the works by the contractor as prescribed by the contract and the amount of performance security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.

10.3. The Contractor after furnishing the required acceptable Performance Security and Additional Performance Security, " Letter of Proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer-Publisher. The Procurement Officer-Publisher shall up load the summery and declare the process as complete.

10.4. If the L1 bidder does not turn up for agreement after finalisation of the tender then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. Besides the consortium/ JV/firm where such an agency/ firm already happens to be or is going to be a partner/ member/ proprietor, he/ they shall neither be allowed for participation in bidding for three years nor his/ their application will be considered for registration and action wll be initiated to blacklist him/ them. In that case, the L2 bidder, if fulfils other required criteria would be called for drawing agreement for execution of work subject to condition that the L2 bidder negotiates at par with the quoted by the L1 bidder, otherwise the tender will be cancelled.

11. BLOCKING OF PORTAL REGISTRATION

11.1 If the registration Certificate of the contractor is cancelled/ suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.

11.2 The portal registration blocked in the ground mentioned in the above Para- 11.1 shall be unblocked automatically in receipt of revocation order of cancellation/ suspension/ blacklisting from the concerned authority.

11.3 The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.

11.3.1 Fails to furnish original Technical Documents before the designated officer within the stipulated date and time.

11.3.2 Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period (including till the extended bid validity period)

11.3.3 Fails to execute the agreement within the stipulated date.

11.3.4 If any of the information furnished by the bidder is found to be false/ fabricated/ bogus.Accordingly the officer Inviting Tender shall recommended to the Chief Manager (Tech) State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix-XXXIV of OPWD code Volume-II.

The minimum period of blocking of Portal Registration shall in no case be less than 180 days.

SECTION – 3

GOVERNMENT GUIDELINES

GOVERNMENT GUIDELINES

Appendix - I

Executive Instruction regarding calling for and acceptance of tenders in e-Procurement in Govt. of Odisha.

Government of Odisha
Works Department

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Office Memorandum

File No.07556900042013 (Pt-II) – 7885/W Dated 23.07.2013

Sub: Codal Provision regarding e-Procurement

After introduction of e-procurement in Government of Odisha, necessary guidelines / procedures has been issued in Works Department Office Memorandum No.1027 dt.24.01.2009 which consists of the procedural requirement for e-procurement of tenders. After careful consideration Government have been pleased to make following modifications to codal provisions by way of addition as Appendix – IX(A) of OPWD Code Vol.II) as follows:

(Appendix-IX (A) of OPWD Code, Vol-II)

Executive instructions regarding calling for and acceptance of tenders in e-Procurement.

1. This office memorandum consists of the procedural requirement of e-procurement and shall be made part of the Detailed Tender Call Notice or Instruction to Bidder for all "works" tenders hoisted in the portal.
2. The e-procurement portal of Government of Odisha is "https://tendersodisha.gov.in".
3. Use of valid Digital Signature Certificate of appropriate class (Class II or class III) issued from registered certifying authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-Procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration have decided to hoist all tenders costing 10 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and DEPARTMENT OF WATER RESOURCES. Government of Odisha also welcomes hoisting of tenders by any other departments, authority, corporations, local bodies etc. of the State with prior approval from Works Department. Works Department is the Nodal Department for the implementation of e-Procurement in the State.
7. The e-procurement shall be operated compliant to relevant provisions of OGFR/ OPWD code/ Accounts code/ Government statues including any amendments brought from time to time to suit to the requirement of the best national practice.
8. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.
9. Contractor not registered with Government of Odisha, can participate in the e-Procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management "Department" is the Administrative Department, Organisation or wing is the Chief Engineer or highest tender accepting authority or equivalent officer, Division is the Superintending Engineer or equivalent Officer and Subdivision is the Assistant Engineer or equivalent officer.

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11. The e-Procurement software assigns roles for operation of the module for specific function. The terminologies used in the portal and their respective functions in the software are as follows.

a. Application Administrator (NIC & State Procurement Cell)

i. Master Management
ii. Nodal Officer Creation
iii. Report Generation
iv. Transfer of Officer's login ID.
v. Blocking & unblocking of officer's and bidder's login ID.

b. Nodal Officer (At organization level not below the Superintending Engineer or equivalent rank)

i. Creation of Users
ii. Role Assignment
iii. Report Generation
iv. Transfer of Officer's login ID.
v. Blocking & unblocking of officer's Login ID.

c. Procurement Officer Publisher (Officer having tender inviting power at any level)

i. Publishing of Tender
ii. Publishing of Corrigendum / addendum / cancellation of Tender
iii. Bid Clarification
iv. Uploading of Pre-Bid minutes.
v. Report generation.

d. Procurement Officer Administrator (Generally sub-ordinate officer to Officer Inviting Tender)

i. Creation of Tender
ii. Creation of Corrigendum / addendum / cancellation of Tender
iii. Report generation.

e. Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender)

ii. Opening of Bid

a. Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender)

i. Evaluating Bid

b. Procurement Officer-Auditor (Procurement Officer Publisher and/or Accounts Officer / Finance Officer)
i. To take up auditing

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12. **NOTICE INVITING BID (NIB) or INVITATION FOR BID (IFB):**

a. The Notice Inviting Bids (NIB) and Bid documents etc., shall be in the Standard formats as applicable to conventional Bids and will be finalized / approved by the officers competent as in the case of conventional Bids.

b. The officers competent to publish NIB in case of conventional Bids will host the NIB in portal. Simultaneously, a notification should also be published in the newspapers, as per existing rules preferably, in the following format, to effect economy:-

Government of Odisha "e"procurementNotice
Bid Identification No.----------
1. Nameofthework: ……
2. Estimatedcost: Rs……
3. Period of completion ----------
4. Date&Time of availability of bid document in the portal _____
5. Last Date / Time for receipt of bids in the portal _____
6. Name and address of the O.I.T.:……..
Further details can be seen from the e-procurement portal "https://tendersodisha.gov.in"

c. The tender documents published by the Tender Inviting Officer (Procurement Officer Publisher) in the website https://tendersodisha.gov.in will appear in the "Latest Active Tender". The Bidders/ Guest Users can download the Bid documents only after the due date & time of sale. The publication of the tender will be for specific period of time till the last date of submission of bids as mentioned in the 'Notice inviting Bid' after which the same will be removed from the list of "Latest Active tenders".

13. **ISSUE OF ADDENDA/ CORRIGENDA/ CANCELLATION NOTICE:**

a. The Procurement Officer Publisher (Officer Inviting Tender) shall publish any addendum/ corrigendum/ cancellation of tender in the website https://tendersodisha.gov.in, notice board and through paper publication and such notice shall form part of the bidding documents.

b. The system generates a mail to those bidders who have already uploaded their tenders and those bidders if they wish can modify their tenders. The bidders are required to watch the website till last date and time of bid submission for any addendum/ corrigendum/ cancellation thereof. Tender Inviting Authority is not responsible for communication failure of system generated mail.

14. **CREATION AND PUBLISHING OF BID:**

a. All the volumes/documents shall be uploaded in the portal by the tender creating officer (Procurement Officer Administrator) and published by the Officer Inviting Tender (Procurement Officer Publisher) using their DSCs in appropriate format so that the document is not tampered with

b. The tender document comprise the notice inviting tender, bid document/ SBD, drawings in .pdf format and the schedule of quantities / BoQ in .xls format to be uploaded by the Officer Inviting Tender.

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c. Procurement Officer Administrator creates tender by filling up the following forms:

i. BASIC DETAILS

ii. COVER CONTENT: The Procurement officer Administrator should briefly describe the name and type of documents to be uploaded by the bidder in the following format:

(a) For Double cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical/ Finance	Tender Cost, EMD, VAT, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
		BoQ	.xls

(b) For Two Cover/Packet:

Sl No	Cover Type	Document Description	Type
1	Fee/ Prequal/ Technical	Tender Cost, EMD, VAT, PAN, Contractor RC	.pdf
		Affidavits, undertakings and any other document as per SBD/DTCN.	.pdf
2	Finance	BoQ	.xls
		Special condition if any specifically mentioned by Officer Inviting Tender	.pdf

iii. TENDER DOCUMENT: The Procurement Officer Administrator should upload the NIT in .pdf format.

iv. WORK ITEM DETAILS

v. FEE DEATILS: The Procurement Officer Administrator should mention the cost of tender paper and EMD amount as laid down in DTCN/SBD.

vi. CRITICAL DATES: The Procurement Officer Administrator should mention the critical dates of tender such as publishing date, document download start date & end date, seek clarification start date & end date (optional), bid submission start date & closing date, bid opening date as per DTCN/SBD.

vii. BID OPENER SELECTION: The Procurement Officer creator can select two / three / four bid openers for a particular bid. If required the bid openers can also be selected within an organization from other procurement units (Circles /Divisions).

viii. WORK ITEM DOCUMENTS: The Procurement Officer Administrator should upload the digitally signed tender document (SBD/DTCN) or any other addition document/drawings in .pdf format and Bill of Quantities in .xls format.

ix. PUBLISHING OF TENDER: The Procurement Officer Publisher shall publish the tender using his/her DSC after detail scrutiny of the fields created and documents uploaded by the Procurement Officer Administrator. Procurement Officer Publisher can publish tenders for multiple procurement units using multiple DSCs procured for each post separately. After being relieved from the additional charges he has to surrender the additional DSCs to the Nodal Officer of the concerned organisation.

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15. **PARTICIPATION IN BID:**

a. **PORTAL REGISTRATION**: The Contractor/Bidder intending to participate in the bid is required to register in the portal using his/her active personal/official e-mail ID as his/her Login ID and attach his/her valid Digital signature certificate (DSC) to his/her unique Login ID. He/She has to submit the relevant information as asked for about the firm/contractor. The portal registration of the bidder/firm is to be authenticated by the State Procurement Cell after verification of original valid certificates/documents such as (i) PAN and (ii) Registration Certificate (RC) / VAT Clearance Certificate (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC/ VAT Clearance. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication bidder can participate in the online bidding process.

i. Bidders participating through Joint Venture shall declare the authorised signatory through Memorandum of Understanding duly registered and enrol in the portal in the name and style of the Joint venture Company. It is mandatory that the DSC issued in the name of the authorised signatory is used in the portal.

ii. Any third party/company/person under a service contract for operation of e-Procurement system in the State or his/their subsidiaries or their parent companies shall be ineligible to participate in the procurement process that are undertaken through the e-Procurement system irrespective of who operates the system.

b. **LOGGING TO THE PORTAL**: The Contractor/Bidder is required to type his/her *Login ID* and password. *The* system *will again ask to* select the DSC and confirm it with the password of DSC as a second stage authentication. For each login, a user's DSC will be validated against its date of validity and also against the Certificate Revocation List (CRL) of respective CAs stored in system database. The system checks the unique Login ID, password and DSC combination and authenticates the login process for use of portal.

c. **DOWNLOADING OF BID**: The bidder can download the tender of his choice and save it in his system and undertake the necessary preparatory work off-line and upload the completed tender at his convenience before the closing date and time of submission.

d. **CLARIFICATION ON BID**: The bidder may ask question related to tender online in the e-procurement portal using his/her DSC; provided the questions are raised within the period of seeking clarification as mentioned in tender call notice/Bid. The Officer Inviting the Bid / Procurement Officer-Publisher will clarify queries related to the tender.

e. **PREPARATION OF BID**

i. The bids may consist of general arrangements drawings or typical or any other drawings relevant to the work for which bid has been invited. Bidder may download these drawings and takeout print for detail study and preparation of his bid. Any other drawings and documents pertaining to the works available with the Officer Inviting The bid will be open for inspection by the bidders.

ii. The Bidder shall go through the Bid carefully and list the documents those are asked for submission. He shall prepare all documents including cost of Bid Document, Bid Security, Declaration form, price bid etc. and store in the system.

f. **PAYMENT OF EMD/BID SECURITY AND COST OF BID DOCUMENTS**:

i. The Bidder shall furnish, as part of his Bid, a Bid security for the amount mentioned under NIT/Contract Data. The bidder shall scan all the written/printed pages of the bid security and up load the same in portable document format (PDF) to the system in designated place of the technical BID. Furnishing scanned copy of such documents is mandatory otherwise his/her bid shall be declared as non-responsive and liable for rejection.

ii. The EMD or Bid Security payable along with the bid is 1% of the estimated contract value (ECV) or as mentioned in the bid document. The validity period of the EMD or Bid Security shall be as mentioned in the bid document. Any bid not accompanied by an acceptable Bid Security and not secured as indicated in the bid document shall be rejected as non-responsive. The bid security shall be retained till such time the successful bidder furnishes Initial Security Deposit (ISD) or Performance Security acceptable to the Officer

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Inviting the Bid. Failure of the successful Bidder to comply with the requirements shall constitute sufficient grounds for cancellation of the award and forfeiture of the Bid Security. The Bid security in the form of FD / BG shall be from a Nationalized Bank valid for a period of 45 days beyond the validity of the bid. Bid security in other form is acceptable if the bid documents provides for it.

iii. The Fixed Deposit / Bank Guarantee or any other form as mentioned in detailed tender call notice in respect of Earnest Money Deposit / Bid Security and the Bank Draft in respect of cost of Bid are to be scanned and up loaded in portable document format (PDF) along with the bid.

iv. The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender. In the eventuality of failure on the part of the lowest successful bidder to produce the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority.

v. Contractor exempted from payment of EMD will be able to participate in the tender directly by uploading documentary evidences towards his eligibility for such exemption

vi. Government of Odisha has been actively considering integrating e-payment gateway in to the portal for payment of Cost of Bid and Bid Security/ Earnest Money Deposit. The process of using e-payment gateway shall be issued separately after it is established.

16. **SUBMISSION OF BID:**

a. The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid & a Financial Bid. The Technical bid generally consist of cost of Bid documents, EMD/ Bid Security, VAT, PAN / TIN, Registration Certificate, Affidavits and any other information required by OIT. The Financial Bid shall consist of the Bill of Quantities (BOQ) and any other price related information/undertaking including rebates.

b. Bidders are to submit only the original BoQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration/ deletion / modification. Multiple BoQ submission by bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.

c. The bidder shall upload the scanned copy/copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.

d. The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the Officer Inviting Tender. The bidder shall type rates in figure only in the rate column of respective item(s) without any blank cell in the rate column in case of item rate tender and type percentage excess or less up to two decimal place only in case of percentage rate tender.

e. The bidder shall log on to the portal with his/her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.

i. Bids cannot be submitted after due date and time. The bids once submitted can not be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher/ opener before the due date and time of opening.

ii. Each process in the e-procurement is time stamped and the system can detect the time of log in of each user including the Bidder.

iii. The Bidder should ensure clarity/legibility of the document uploaded by him to the portal.

iv. The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.

v. The bidder should check the system generated confirmation statement on the status of the submission.

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vi. The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.

vii. The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.

viii. The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.

ix. The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.

f. **SIGNING OF BID:** The 'online bidder' shall digitally sign on all statements, documents, certificates uploaded by him, owning responsibility for their correctness / authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false / fabricated / bogus, his EMD/Bid Security shall stand forfeited & his registration in the portal shall be blocked and the bidder is liable to be blacklisted.

17. **SECURITY OF BID SUBMISSION:**

a. All bid uploaded by the Bidder to the portal will be encrypted.

b. The encrypted Bid can only be decrypted / opened by the authorised openers on or after the due date and time.

18. **RESUBMISSION AND WITHDRAWAL OF BIDS:**

a. Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.

b. Resubmission of bid shall require uploading of all documents including price bid afresh.

c. If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.

d. The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.

e. The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the Procurement Officer Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.

19. **OPENING OF THE BID:**

a. Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids cannot be opened before the specified date & time.

b. All bid openers have to log-on to the portal to decrypt the bid submitted by the bidders.

c. The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.

d. In the event of the specified date of bid opening being declared a holiday for the Officer Inviting the Bid, the bids will be opened at the appointed time on the next working day.

e. Combined bid security for more than one work is not acceptable.

f. The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice Inviting Bid and before bid opening. Further, action on bid documents shall be taken by the new incumbent of the post.

g. In case of non-responsive tender the officer inviting tender should complete the e-Procurement process by uploading the official letter for cancelled / re-tender.

20. **EVALUATION OF BIDS :**

a. All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that "the documents as available in the portal containing _____ nos. of pages".

b. The bidder may be asked in writing/ online (in their registered e-mail ids) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The Officer Inviting Tender may ask for any other document of historical nature during Technical Evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the Bidder's price bid. Non submission of legible documents may render the bid non-responsive. The authority inviting bid may reserve the right to accept any additional document.

c. The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.

d. The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.

e. The Procurement Officer-Evaluators; will evaluate bid and finalize list of responsive bidders.

f. The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.

i. The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorised representative who wish to be present.

ii. At the time of opening of "Financial Bid", bidders whose technical bids were found responsive will be opened.

iii. The responsive bidders' name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.

iv. Procurement Officer-Openers shall sign on each page of the downloaded BOQ and the Comparative Statement and furnish a certificate to that respect.

v. Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.

vi. System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concern Chief Engineer / Head of Department.

21. **NEGOTIATION OF BIDS:**

a. For examination, evaluation, and comparison of bids, the officer inviting the bid may, at his discretion, ask the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.

22. **NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT:**

a. The Employer/Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of Acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution & completion of the Works by the contractor as prescribed by the contract & the amount of Performance Security and Additional Performance Security required to be furnished. The issue of the letter of Acceptance shall be treated as closure of the Bid process and commencement of the contract.

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b. The Contractor after furnishing the required acceptable Performance Security & Additional Performance Security, "Letter to Proceed" or "Work Order" shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer –Publisher. The Procurement Officer-Publisher shall up load the summary and declare the process as complete.

c. If the L-1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding for three years and action will be taken to blacklist the contractor. Besides the consortium / JV / firm where such an agency / firm already happens to be or is going to be a partner/member/proprietor, he/ they shall neither be allowed for participation in bidding for three years nor his/ their application will be considered for registration and action will be initiated to blacklist him / them and the tender will be cancelled.

23. **BLOCKING OF PORTAL REGISTRATION:**

a. If the Registration Certificate of the Contractor is cancelled /suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.

b. The portal registration blocked in the ground mentioned in the above Para-23. a shall be unblocked automatically in receipt of revocation order of cancellation / suspension/ blacklisting from the concerned authority.

c. The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech.) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.

i. Fails to furnish original Technical / Financial (Tender Paper Cost, EMD/Bid Security) instruments before the designated officer within the stipulated date and time.
ii. Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.
iii. Fails to execute the agreement within the stipulated date.
iv. If any of the information furnished by the bidder is found to be false / fabricated / bogus.

Accordingly the Officer Inviting Tender shall recommend to the Chief Manager (Tech.), State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix- XXXIV of OPWD Code, Volume-II.

24. **GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION:**

a. UNBLOCKING OF PORTAL REGISTRATION:

Unblocking of portal registration of a contractor shall be done by a Committee consisting of the following members.

EIC (Civil)-cum-CPO,	-	Chairman
Engineer-in-Chief (WR)		Member
Concerned Chief Engineer	-	Member
Sr. Manager (Finance), SPC	-	Member
Officer Inviting Tender	-	Member
Chief Manager (Technical), SPC	-	Convener

b. The Chief Manager (Tech), State Procurement Cell will be the convener and he will maintain all records for this purpose. The Committee shall meet not less than once in a month if required & shall consider the recommendation of the officer inviting tender for unblocking of portal registration. The quorum of the meeting will be four.

c. The minimum period of blocking of Portal Registration shall in no case be less than 90 days. After blocking of Portal Registration, the Contractor whose Portal Registration has been blocked may file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury Challan showing deposit of Rs. 10,000/- (Rupees ten thousand) only (non-refundable) under the head of accounts '0059 -

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Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech), State Procurement Cell.

d. On receipt of recommendation from the concerned Chief Engineer along with the copy of challan as mentioned above, the Chief Manager (Tech) being the member Convener of the Committee shall place the case before the Committee for examination and taking a decision in this regard. After examination the Committee may recommend for unblocking of the portal registration of said contractor if the Committee is satisfied that the fault committed by the contractor is either unintentional or done for the first time.

e. After scrutiny by the State Procurement Cell if it is found that the portal registration of a contractor has been blocked for the 2nd time the Chief Manager (Tech), SPC may not consider his case to be placed before the Committee and may advice the concerned officer inviting tender to issue show cause notice to the contractor asking him to explain as to why his portal registration shall not remain blocked. On receipt of show cause reply from the contractor the officer inviting tender shall examine the same & if considered proper he may report to the Chief Manager (Tech), SPC along with his views furnishing the copy of the show cause reply for placement of the same before the Committee for taking a decision in respect of blocking/ unblocking. If the Committee found that the contractor is in habit of committing such fault again and again intentionally the committee may advice the concerned officer inviting tender to initiate proceeding for blacklisting as per the existing rule.

1. These amendments shall take effect from the date of issue of the order.
2. This amendment is an addition to the existing provision and will be placed below Appendix-IX to OPWD Col, Vol-II.
3. Accordingly Office Memorandum No.1027 dt.24.01.2009 stands modified.
4. This has been concurred in by the Finance Department vide their UOR No.3-WF-1 dt.04.01.2013.

Sd/19.07.2013
E.I.C-cum-Secretary to Govt.

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Appendix – II

Online Receipt of Tender Paper Cost & Earnest Money Deposit
through e-Procurement Portal
as per Works Department Letter No.17276/W Dt.06.12.2017

Government of Odisha
Works Department

***

Office Memorandum
File No.07556900012016–17254/W Dt.05.12.2017

Sub: Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

1. The State Government have formulated rules and procedures for Electronic receipt, accounting and reporting of the receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. "https://tendersodisha.gov.in".

2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as **SBI/ICICI Bank/HDFC Bank** for all Government Departments, State PSUs. Statutory Corporations, Autonomous Bodies and Local Bodies etc. in phases (ANNEXURE-I). The process outline as well as accounting and reporting structure are indicated below :

a) It will be carried out through a single banking transaction by the bidder for multiple payments like **Cost of Tender Paper and Earnest Money Deposit on submission of bids.**
b) Various payment modes like **Internet banking/ NEFT/RTGS** of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
c) Reporting and accounting of the **e-receipts** will be made from a single source.
d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.

3. Only those bidders who successfully remit their **Cost of Tender Paper and Earnest Money Deposit on submission of bids would be eligible to** participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.

4. Banking arrangement:

a) Designated Banks **(SBI/ICICI Bank/HDFC Bank)** payment gateway are being integrated with e-Procurement portal of Government of Odisha (https://tendersodisha.gov.in)
b) The Designated Banks participating in **Electronic receipt, accounting and reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids** will nominate a **Focal Point Branch** called e-FPB, who is authorized to collect and collate all e-Receipts. Each such branch will act as the Receiving branch and Focal Point Branch notwithstanding the fact that the bidder might have debited his account in any of the bank's branches while making payment.

5. Procedures of bid submission using electronic payment of tender paper cost and EMD by bidder:

a) Log on to e-Procurement Portal: The bidders have to log onto **the** Odisha e-Procurement portal (https://tendersodisha.gov.in) using his/her digital signature certificate and then search and then select the required

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active tender from the "Search Active Tender" option. Now, submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.

b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum no.7885, dt.23.07.2013.

c) **Electronic payment of tender paper cost and EMD:** Then the bidders have to select and submit the bank name as available in the payment options

i. A bidder shall make electronic payment using his/her **internet banking** enabled account with designated Banks or their aggregator banks.

ii. A bidder having account in other Banks can make payment using **NEFT/RTGS** facility of designated Banks.

- Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.

d) **Bid submission:** Only after receipt of intimation at the e-Procurement portal regarding successful transaction by bidder the system will activate the 'Freeze Bid Submission' button to conclude the bid submission process.

e) **System generated acknowledgement receipt for successful bid submission:** System will generate an acknowledgement receipt for successful bid submission. The bidder should make a note of **'Bid ID'** generated in the acknowledgement receipt for tracking their bid status.

6. Settlement of Cost of Tender Paper;

a) **Cost of Tender Paper:** In respect of Government receipts on account of **Cost of Tender Paper,** the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number.** The State Procurement Cell shall generate Bank-wise-head-wise challans separately for **Cost of Tender Paper** and instruct the designated Banks to remit the money to the State Government account under different heads. In respect of the cost of tender paper received through the e-procurement portal, the remittance to the Cyber Treasury account will be made to the Head of Account 0075-Misc, General Services-800-Other Receipts -0097-Misc. Receipts-02237-Cost of Tender Paper.

b) For the time being, the State Procurement Cell (SPC) will use over the counter payment facility of the Odisha Treasury portal. Thereafter, remittance through NEFT & RTGS will be facilitated through the Odisha Treasury portal.

c) Similarly, in case of State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc., **Cost of Tender Paper,** the e-Procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of tender paper collected with reference to **Bid Identification Number.** The State Procurement Cell shall generate Bank-wise list of challans and instruct the designated Banks to remit the money through the Odisha Treasury portal. The cost of tender papers will be credited to the registered Bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc.

d) Bank will refund (in case the Tender Inviting Authority (TIA) issues such instructions) the tender fee, EMD to the bidder, in case the tender is cancelled before opening of Bid as per direction received from TIA through e-procurement system.

e) Back-end Transaction Matrix of Electronic receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids is enclosed in the Annexure.

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7. Settlement of Earnest Money Deposit on submission of bids:

a) The Bank will remit the **Earnest Money Deposit on submission/ cancellation of bids** to respective bidders accounts as per direction received from TIA through e-procurement system.

8. Forfeiture of EMD :

Forfeiture of **Earnest Money Deposit on submission of bid** of defaulting bidder is occasioned for various reasons.

a) In case the **Earnest Money Deposit on submission of bid** is forfeited, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority.

b) The Tender inviting authorities of the Government Departments will deposit the forfeited **Earnest Money Deposit on submission of bid,** in the State Government Treasury under the appropriate head (8782-Cash Remittances and Adjustments between the officers rendering accounts to the same Accounts Officer-102-P.W.Remittances-1683-Remittances-91028-Remittances into Treasury) after taking the amount as a revenue receipt in their Cash Book under the head 0075-Misc. General Services-00-101 -Unclaimed Deposits-0097-Misc, Receipts-02080-Misc. Deposits and submit the detail account to DAG (Puri) as a deposit of the Division.

c) By clicking submit button, system will initiate the forfeiture of EMD. System will not allow the evaluator to edit the initiation after clicking the submit button. Forfeiture option can be carried out in phased manner like one bidder at a time.

9. Role of the Banks:

a) Make necessary provision / customizations at their end to enable the provision for online payments / refunds as per this document.

b) Provide necessary real-time message to bidders regarding successful or unsuccessful transactions during online payment processes and redirect them to e-Procurement website with necessary transaction reference details enabling them to submit their bids.

c) The bank shall ensure transfer of funds from the pooling account to the Government Head/current account of PSUs/ULBs within the next bank working day as per the directions generated from e-Procurement portal.

d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.

e) Refund of amount to bidders as per the XML file provided by e-Procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

10. Role of State Procurement Cell:

a) Communicate requirements of Government departments/ State PSUs/ Autonomous Bodies/ ULBs online payment requirements to National Informatics Centre / the authorised Banks for mapping/ customization.

b) In every working day, the State Procurement Cell shall generate MIS from the e-Procurement portal to ascertain the tender paper cost received in the e-Tendering process separately bank-wise for the Government Department and the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NEFT/RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.

c) The State Procurement Cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender inviting authorities for their record.

d) State Procurement Cell shall monitor the progress of e-Tendering by different Government departments / State PSUs/ Autonomous Bodies / ULBs through an MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.

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e) The e-Procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.

f) e-procurement system will provide a web service for payment gateway (PG) provider to pull the encrypted refund and settlement details in XML file against a day.

g) Similarly, payment gateway (PG) provider will provide a web service to pull the refund and settlement status against a day

h) e-procurement system will update the status accordingly for reconciliation report.

11. Role of National Informatics Centre :

a) Customize e-Procurement software and web-pages of Government of Odisha (https://tendersodisha.gov.in) to enable the provision for electronic payment.

b) The NIC, Odisha will modify / rectify the errors in electronic data relating to the Chart of Account.

c) NIC will provide an interface to organisations to download the electronic receipt data.

d) Enable automatic generation of daily XML files from e-Procurement system and ensure delivery of the same to the authorised Banks for enabling automatic refund/settlement of funds.

e) NIC shall enable the e-Procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the State Government account using the Odisha Treasury portal.

12. Role of Cyber Treasury :

a) The cost of the tender paper deposited by the SPC using the Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the accounts to A.G (O) as per the established process.

b) The Cyber Treasury will provide MIS as required to the SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

13. Redressal of Public grievances :

a) The State Procurement Cell, Odisha, National Informatics Centre, Odisha and the e-FPB will have an effective procedure for dealing with, public complaint for e-Receipt related matters. In case, any mistake is detected by any of the stakeholders in reporting of receipt of tender paper cost and EMD, either suo moto or on being brought to its notice, the State Procurement Cell, Odisha, National Informatics Centre, Odisha unit, Cyber Treasury and the bank will promptly take steps for rectification. The e-Focal Point Branch of the participating Banks, National Informatics Centre, Odisha and the State Procurement Cell, Odisha will notify the contact number and address of the Help Desk for resolution of any dispute regarding e-Receipt.

14. Applicability and modification of existing rules / orders:

The modalities prescribed in this Office Memorandum for downloading of tender paper, submission and rejection of bid, acceptance of Bids as well as refund and forfeiture of earnest deposit will be applicable for electronic submission of bids through e-procurement portal. Existing provisions regulating cost of tender paper, earnest money deposit in OPWD Code and OGFR would stand modified to the extent prescribed.

15. These arrangements would be made effective after signing of MOU between the designated Banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e-Procurement Portal.

1. This shall take effect from the date of issue of this Office Memoradum.
2. Accordingly, relevant existing codal/ contractual provision exist vide Office Memorandum No.6785/W Dt.09.05.2017 of Works Department stands modified to the above extent.
3. This has been concurred in by the Finance Department vide their UOR No.-39-WF-I Dt.09.11.2017.

Sd/05.12.2017

E.I.C-cum-Secretary to Govt.

[For any Technical related queries please call at Help desk numbers of State Procurement Cell (SPC), Govt. of Odisha – 1800 3456 765, 0674-2530998, 2530996]

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ANNXURE-I of Appendix - II

Back-end Transaction Matrix of Electronic receipt and remittance of Cost of Tender Paper and Earnest Money Deposit on submission of bids.

	Cost of Tender Paper on submission of bids	**Earnest Money Deposit on submission of bids**
Government Departments	I. The payment towards the **cost of Tender Paper**, in case Government Departments, shall be collected in separate Pooling accounts opened in Focal Point Branch called e-FPB of respective designated banks [as stated in Para 2] at Bhubaneswar on T+1_day. II. With reference to the Notice Inviting Tender/ Bid Identification Number, the amount so realized is to be remitted to Government Account under the Head Of Account 0075-Misc. General Services-800-Other Receipts-0097-Misc. Receipts-02237-Cost of Tender Paper through Odisha Treasury Portal after opening of the bid.	I. In case of tenders of Government Departments, amount towards **Earnest Money Deposit** on submission of bids shall be collected in a pooling account opened for this purpose at Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account within two working days on receipt of instruction from TIA through refund and settlement of e-procurement system. II. In case of forfeiture of **Earnest Money Deposit** on submission of bids, the e-Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.
State PSUs Statutory Corporations, Autonomous Bodies and Local Bodies.	I. In case of State PSUs, Statutory corporations, Autonomous Bodies and Local Bodies etc. the amount towards **Cost of Tender Paper,** on submission of bids shall be collected in separated pooling accounts opened in Focal Point Branch called e-FPB of respective designated Banks at Bhubaneswar on T+1 days. II. The **Paper cost** will be transferred to the respective current accounts of concerned State PSUs, Statutory Corporation, Autonomous Bodies and Local Bodies etc. after opening of bid.	I. Amount towards **EMD** on submission of bids shall be collected in a separate pooling account of Focal Point Branch called e-FPB of respective designated banks at Bhubaneswar and the banks will remit the amount to respective bidder's account on receipt of instruction from TIA through refund and settlement of e-procurement system within two working days from receipt of such instruction. II. In case of forfeiture of **Earnest Money deposit** on submission of bids, the e- Procurement portal will direct the Bank to transfer the EMD value from the Pooling Account of SPC to the registered account of the tender inviting authority within two working days of receipt of instruction from TIA.

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ଶ୍ରମ ଆୟୁକ୍ତ, ଓଡ଼ିଶାଙ୍କ କାର୍ଯ୍ୟାଳୟ, ଭୁବନେଶ୍ୱର

+++

ବିଜ୍ଞପ୍ତି ସଂଖ୍ୟା ୮୩୨୩ / **ତା** ୦୮.୧୦.୨୦୨୨

ଯେହେତୁ ଓଡ଼ିଶା ସରକାରଙ୍କ ଶ୍ରମ ଓ କର୍ମଚାରୀ ରାଜ୍ୟ ବୀମା ବିଭାଗଙ୍କ ଦ୍ୱାରା ଜାରି ହୋଇଥିବା ବିଜ୍ଞପ୍ତି ସଂଖ୍ୟା ୫୩୦୮ ତା ୧୮.୦୭.୨୦୨୪ ରିଖ ଅନୁଯାୟୀ ରାଜ୍ୟରେ କାର୍ଯ୍ୟରତ ଅଣକୁଶଳୀ, ଅର୍ଦ୍ଧକୁଶଳୀ, କୁଶଳୀ ଓ ଉଚ୍ଚକୁଶଳୀ ଶ୍ରମିକ ବର୍ଗ ପାଇଁ ସର୍ବନିମ୍ନ ଦୈନିକ ମଜୁରିକୁ ପୁନଃ ନିର୍ଦ୍ଧାରଣ କରାଯାଇ ଓଡ଼ିଶା ଗେଜେଟର ବିଜ୍ଞପ୍ତି ସଂଖ୍ୟା ୧୩୬୭ ତା ୧୮.୦୭.୨୦୨୪ ରିଖରେ ପ୍ରକାଶିତ ହୋଇଥିଲା;

ଯେହେତୁ ଉକ୍ତ ବିଜ୍ଞପ୍ତି ଅନୁଯାୟୀ, ଶିଳ୍ପ ଶ୍ରମିକଙ୍କ ପାଇଁ ଉଦ୍ଦିଷ୍ଟ ସର୍ବଭାରତୀୟ ଉପଭୋକ୍ତା ମୂଲ୍ୟ ସୂଚକାଙ୍କର (ଆଧାର ୨୦୧୬=୧୦୦କୁ ଗ୍ରହଣ କରି) ପ୍ରତ୍ୟେକ ସଂଖ୍ୟା ବୃଦ୍ଧି ଉପରେ ଟ୨.୬୦କା ହାରରେ ବର୍ଷକୁ ଦୁଇଥର ଯଥା - ୧ ଏପ୍ରିଲ୍ ଏବଂ ୧ ଅକ୍ଟୋବରରେ ସ୍ୱତନ୍ତ୍ର ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତା (VDA) ପୁନଃ ନିର୍ଦ୍ଧାରଣ କରାଯାଇ ଶ୍ରମ ଆୟୁକ୍ତ, ଓଡ଼ିଶାଙ୍କ ତରଫରୁ ଅଧିସୂଚନା ଜାରି କରାଯାଇଥାଏ;

ଯେହେତୁ ବିଗତ ଅର୍ଦ୍ଧବାର୍ଷିକରେ ଶିଳ୍ପ ଶ୍ରମିକଙ୍କ ପାଇଁ ଉଦ୍ଦିଷ୍ଟ ଖାଉଟି ମୂଲ୍ୟ ସୂଚକାଙ୍କ ସଂଖ୍ୟା ହାରାହାରି ୧୪୭.୫୦ ରୁ ବୃଦ୍ଧି ପାଇ ୧୪୯.୮୦ ରେ ପହଞ୍ଚିଛି ଏବଂ ତଦ୍ଦ୍ୱାରା ଏହା ୨.୩୦ ପଏଣ୍ଟ ବୃଦ୍ଧି ପାଇଛି ଏବଂ ଏହି ପରିପ୍ରେକ୍ଷୀରେ ୧ ଅକ୍ଟୋବର, ୨୦୨୬ ଠାରୁ ଆରମ୍ଭ ହେଉଥିବା ଅର୍ଦ୍ଧବାର୍ଷିକ ଅବଧି ପାଇଁ ଉକ୍ତ ଆଧାରରେ ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତା (VDA) ବୃଦ୍ଧି କରିବା ଆବଶ୍ୟକ ପଡୁଅଛି;

ସୁତରାଂ , ମୁଁ ଶ୍ରୀ ଇନ୍ଦ୍ରମଣି ତ୍ରିପାଠୀ, ଭା.ପ୍ର.ସେ., ଶ୍ରମ ଆୟୁକ୍ତ, ଓଡ଼ିଶା, ଉପରୋକ୍ତ କ୍ଷମତା ଆଧାରରେ ଏତଦ୍ଦ୍ୱାରା ଅଧିସୂଚିତ କରୁଛି ଯେ, ଅଣକୁଶଳୀ, ଅର୍ଦ୍ଧକୁଶଳୀ, କୁଶଳୀ ଓ ଉଚ୍ଚକୁଶଳୀ ଶ୍ରମିକ / କର୍ମଚାରୀଙ୍କୁ ତା ୧ ଅକ୍ଟୋବର, ୨୦୨୬ ରିଖରୁ ପୂର୍ବରୁ ଧାର୍ଯ୍ୟ କରାଯାଇଥିବା ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତାରେ ଅତିରିକ୍ତ ଭାବେ ଦୈନିକ ୬ ଟଙ୍କା ବୃଦ୍ଧି କରାଗଲା । ତଦନୁଯାୟୀ, ତା ୧ ଅକ୍ଟୋବର, ୨୦୨୬ ରିଖରୁ ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତା ସହିତ ଦୈନିକ ସର୍ବନିମ୍ନ ମଜୁରି ନିମ୍ନୋକ୍ତ ପ୍ରକାରରେ ଧାର୍ଯ୍ୟ କରାଗଲା ।

କର୍ମଚାରୀଙ୍କ ବର୍ଗ	ତା ୦୧.୧୦.୨୦୨୬ ରିଖ ପୂର୍ବରୁ ପ୍ରଚଳିତ ଦୈନିକ ସର୍ବନିମ୍ନ ମଜୁରି (ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତା ସହିତ)	ତା ୦୧.୧୦.୨୦୨୬ ରିଖରୁ ଦୈନିକ ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତାରେ ବୃଦ୍ଧି ପରିମାଣ	ତା ୦୧.୧୦.୨୦୨୬ ରିଖରୁ ଦୈନିକ ସର୍ବନିମ୍ନ ମଜୁରି ସହିତ ପରିବର୍ତ୍ତନୀୟ ମହଙ୍ଗା ଭତ୍ତାର ପରିମାଣ
ଅଣକୁଶଳୀ	୪୬୨ ଟଙ୍କା	୬ ଟଙ୍କା	୪୬୮ ଟଙ୍କା
ଅର୍ଦ୍ଧକୁଶଳୀ	୫୨୨ ଟଙ୍କା	୬ ଟଙ୍କା	୫୨୮ ଟଙ୍କା
କୁଶଳୀ	୫୬୨ ଟଙ୍କା	୬ ଟଙ୍କା	୫୬୮ ଟଙ୍କା
ଉଚ୍ଚ କୁଶଳୀ	୬୨୨ ଟଙ୍କା	୬ ଟଙ୍କା	୬୨୮ ଟଙ୍କା

ଶ୍ରମ ଆୟୁକ୍ତ, ଓଡ଼ିଶା

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SECTION – 4

GENERAL RULES & DIRECTIONS

ODISHA PUBLIC WORKS DEPARTMENT (FORM P-1)

PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS GENERAL RULES & DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. The work proposed for execution by contract will be notified in a form of invitation to tenderpostedthroughGovt.website**www.tendersodisha.gov.in**

This notice will state the work to be carried out, the items and approximate quantitiesthereof as well as the date for submitting and opening tenders also the amount of earnestmoney to be deposited and the amount of the security deposit by the successful tendererand the percentage if any to be deducted from bills. Copies of the specifications, designsand drawings and any other documents required in connection with the submission of tender signed for the purpose of identification by the Sub-divisional Officer/SuperintendingEngineer shall also be open for inspection by the contractor at the office of the Sub-DivisionalOfficer/ Superintending Engineer during office hours.

2. In the event of the tender being submitted by a firm it must be signed separately by eachmember thereof, or in the event of the absence of any partner, it must be signed on his behalf by a person holding a power of attorney authorizing him to do so.
3. Receipts for payment made on accounts of works, when executed by a firm must also besigned by the several partners, except where the contractors are described in their tenderas a firm in which case the receipts must be signed in the name of the firm by one of the partners, or by some other person having authority to give effectual receipts for the firm.
4. The memorandum of work tendered for and the memorandum of materials to be supplied by the Public Works Departments and their issue rates shall be filled in and completed inthe office of the Sub-Divisional Officer/Superintending Engineer before the tender from is issued if a from is issued to an intending tender without having been so filled in and completed, he shall request the office to have this done before he completes and delivers hi stender.
5. The amount of earnest money to be remitted will be1%(online).
6. Any person who submits a tender shall fill up the usual printed form stating at what rate heis willing to undertake each item of the work. Incomplete tender and tender rate he is willing to undertake each item of the work specified in the said form of invitation to tender or whichthey contain any other conditions of any sort, or omit to note the time within which the workcan be finished or which are not accompanied by required earnest money will be liable torejection. No single tender shall include more than one work, but contractors who wish to tender for two or more work shall submit a separate tender for each tender.
7. The Engineer-in-charge or his duly authorized assistant will open the tenders in the presence of any intending contractors who may be present at the time and will enter the amounts of the several tenders in a comparative statement in a suitable form.
8. The Engineer-in-charge shall have the right of rejecting all or any of the tenders.
9. In the event of a tender being selected for acceptance the Engineer who opened the tenders will, if he is competent to accept the tender, inform the tenderer of the selected

tender who shall there upon sign copies of the specification and other documents with the agreement. The tenderer of the selected tender shall also deposit the required amount ofthe security money within the prescribed time. If the tenderer fails to deposit the required amount of the security money within the prescribed time the Engineer-in-charge may reject the tender.

If the Engineer is not competent to accept the tender himself, he will inform the tenderer of the tender which he decides to recommended for acceptance, such tenderer shall there upon sign forthwith copies of the specification and other documents mentioned inrules 1 and 4 and shall deposit the required amount of the security money with in the prescribed time. The tender with the specification and other documents signed by thetenderer will then be forwarded for acceptance to the Engineer who is competent to accept the same. If the said Engineer rejects the tender the security money deposited shall be refunded to the tenderer.

1. When a tender is selected for acceptance, the tenderer shall deposit the required amount
2. of the security money. No tender shall be finally accepted until the required amount of the security money has been deposited.
3. The amount of security money to be deposited by the tenderer whose tender is selected for acceptance shall be 2 (two) percent of the estimated value of the work, failing which tender shall be liable to rejection.

   Taxes as per provisions of Government shall be deducted from the bills oft enderer.
4. When tender has been selected for acceptance and the required amount of the security money has been deposited the Engineer shall scrutinize all pages of the form of item, Rate Tendered/quoted percentage in case of percentage tender and Contract for works to see that the form has been properly filled up and signed by the contractor and the signature witnessed. He shall then,if he is competent to accept the tender,sign the acceptance of the tenders or if he is not so competent to, shall send the form for signature of the acceptance to the officer competent to accept it.
5. All tenderers are required to submit a list of works, which are in hand at the time of submitting their tenders. The list of works are required to be submitted in the proforma by the Superintending Engineer under whom he has executed the work in order to judge their past performance (vide Works Department Circular No.15443dt.01.08.2005.)
6. If the tenderer backs out from the offer before acceptance of the tender by the competent authority then he/she will be suspended for a period of three years.
7. T.D.S (Tax Deducted at Source) towards GST will be deducted at the rate prescribed in the Odisha Goods &Service TaxAct-2017or as amended from time to time.

TENDER FOR WORKS

I / We hereby tender for the execution for the Government of Odisha for the work specified in the under written memorandum at the rates specified therein in a period of 08 **(Eight)** calendar months from the date of written order to commence and in accordance in allrespects with the specifications designs and other documents referred to in rules thereof andsubject to the annexed conditions of contract and with such materials as are provided for by andinall other respects inaccordanc ewith such condition so far asapplicable.

MEMORANDUM

a) If several sub-works are included they should be detailed in a separate sheet.	(a)	NameofWork	:	**"Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block"**
	(b)	Estimated Cost (Bill of Quantity)	:	**Rs.4,18,70,747.37**
	(c)	E.M.D	:	**Rs.4,18,707.00**
d)**This deposit Will be 2 percent Of the estimated Cost of the work.**	(d)	Initial security deposit (including earnest money) to Be deposited before the Commencement of the work.	:	**Rs.4,18,707.00**
e) This percentage from bills will be credited to the contractor's security	(e)	Percentage to be deducted from bill (As Security Deposit).	:	
	(f)	Time required for the work from date of written order		**8(Eight) calendar months**
	(g)	Date of written order to commence	:	
	(h)	Total number of work tendered for	:	**04(Four) items only**

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Signature of contractor before submission of tender	Should this tender be accepted I/We hereby agree to abide by and fulfill the terms and provision of the said condition of contract annexed here to so far as applicable, or in defaults thereof to forfeit and pay to the Governor of Odisha or his successors in office, the sum of money mentioned in the said conditions.
	Dated the ……..Day of ……..2026
Signature of witness to one tenderer's signature	Witness : Address: **CONTRACTOR**
Signature of Officer by whom accepted	The above tender is hereby accepted by me on behalf of the Government of Odisha.
	Dated the ……..Day of ……..2026

Additional Chief Engineer
Anugola Irrigation Circle, Anugola

Agreement No……P1 Certified that this agreement contains …….Pages only
(Schedule XLV-Form No.-61)

Superintending Engineer
Anugola Irrigation Division,Anugola

Signature of Contractor

SUPERINTENDINGENGINEER
ANUGOLA IRRIGATION DIVISION, ANUGOLA

SECTION – 5

CONDITION OF CONTRACT

CONDITION OF CONTRACT

Clause 1- All compensation or other sum of money payable by the contractor to Government under the terms of his contract may be deducted from, or paid by thesale of a sufficient part of his security deposit or from the interest arising there from, or from any sums which may be due or may become due to the contractor by Government on any account what so ever

Compensation for delay

and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within ten days there after make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by, sale of the security deposit or any part thereof.

Clause 2 (a) The time allowed for carrying out the work as entered in the tender shall bestrictly observed by the contractor and shall be reckoned from the date on which the written order to commence work is given to the contractor, The work shall throughout the stipulated period of the contract be carried on with all due diligence (time being deemed to be of the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount as mentioned in clause 2.3.1 of OPWD Code of Volume-I, if the whole work as shown by the tender for every day that the work remains un-commenced, or unfinished after the proper dates (The work should not be considered finished until such date as the Superintending Engineer shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by the Superintending Engineer, or hisauthorised, agents are fully complied with by the contractor to the Superintending Engineer's satisfaction). And further to ensure good progress during execution of the work the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete one fourth of the whole work before one fourthof the whole time allowed under contract has elapsed one half of the work, beforeone half of such time has elapsed and three-forth of the work before three-forth ofsuch time has elapsed. In the events of the contractor failing to comply with the condition, he shall be liable to pay as compensation as mentioned in clause 2.3.1 of OPWD Code of Volume-I on the said estimated cost of the whole work forevery day that the due quantity of work remains incomplete, provided always that the entire amount of compensation to be paid under the provision of this clause shall not exceed 10% on estimated cost of the work as shown in the tender.

The work should not be considered finished until such date as the E.E./S.E.shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by E.E./S.E. or his authorized agents are fully compliedwith by the contractor to the E.Es/S.Es satisfaction.

(b) If there are possibilities of exceeding this compensation amount as mentioned in clause (a) 10% of the estimated cost or in any case in which under any clause or clauses of this contract the contractor shall have tendered himself liable to pay compensation amounting to the whole of his security deposit in the hands of Govt. (whether paid in one sum or deducted by installments) the Superintending Engineer on behalf of the Governor of Odisha, shall have power to adopt any of the following courses as he may deem best suited to the interest of Government.

Action when whole security deposit is forfeited

(i) To rescind the contract (of which rescission notice in writing to the contractor under the hand of the Superintending Engineer shall be conclusive evidence) 20% of the value of left over work will be realized from the contractor as penalty.

(ii) To employ labour paid by the Public works Department and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certificate of the Superintending Engineer shall be final and conclusive against the contractor) and crediting him with the value of work done, in all respects in the same manner and at the same rates as if it had been carried out by contractor under the terms of his contract, the certificate of the Superintending Engineer as to the value of the work done shall be final and conclusive against the contractor

(iii) To measure up the work of the contractor, and to take such part of the work of the contract as shall be unexecuted out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Superintending Engineer shall be final and conclusive) shall be borne and paid by the original contractor may be deducted from any money due to him by Govt. under the contract or otherwise or from his security deposit or the proceeds of sale thereof or a sufficient part thereof.

In the event of any of the above courses being adopted by the Superintending Engineer the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements or made any advances on account of or with a view to, the execution of the work or the performance of the contract. And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed under this contract, unless and until the Superintending Engineer shall

have certified in writing the performance of such work and the value payable in- respect thereof and he shall only be entitled to be paid the value so certified.

(iv) Security deposit of contractor for each work will be refunded only **one year** after the date of completion of work provided the final bill has been paid and defects if any rectified.

Clause-3 In any case in which any of the powers, conferred upon the Superintending Engineer by clause 3 thereof, shall become exercisable and the same shall not be exercised the non exercise thereof shall not constitute a waiver of the conditions here of and such powers shall not withstanding be exercisable in the event of any failure cases if defaults by the contractor of which by any clause or clauses thereof he is declared liable to pay compensation amounting to the whole of his security deposit, and

Contractor remain liable to pay compensation if action not taken under clause-3

the liability of the contractor for past and future compensation shall remain unaffected in the event of the Superintending Engineer putting in force the powers vested in him under the preceeding clause he may if he so desire, take possession of all or any tools, plants, materials & stores, in or upon the works or the site thereof or belonging to the contractor or procured by him and intended to be used for the execution of the work or any part thereof paying or all wing for the same in the account at the contract, rates, or in case of these not being applicable ; at current

market rates to be certified by the Executing Engineer whose certificate thereof shall be final; otherwise the Superintending Engineer may give notice in writing to the contractor or his clerk of the works, foreman or other authorized agent required him to remove such tools, plants, materials or stores from the premises (within a time to be specified in such notice) and in

Power to take possession of or require removal of or sell contractor plants

the event of the contractor failing to comply with any requisition to the Superintending Engineer may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects and the certificate of the Superintending Engineer as to the expense of removal and the amount of proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause – 4 If the contractor shall desire on extension of time for completion of the work, on the ground of his having been unavoidable hindrances in its execution or any other ground he shall apply in writing to the

Extension of time

Superintending Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the Superintending Engineershall, if in his opinion (which shall be final) reasonable be shown therefore, authorize such extension of time if any, as may in his opinion, be necessary or proper. The Superintending Engineer shall at the same time inform the contractorwhether he claims compensation for delay.

Clause – 5 On completion of the work, the contractor shall be furnished with a certificate by the Superintending Engineer (here-in-after called the Engineer-in-charge) of suchcompletion, but no such certificate be given, nor shall the work be considered to be complete until the contractor shall have removed from the area of premises (tobe distinctly marked by the Superintending Engineer in the site plan) on which the work shall be executed, all scaffolding surplus materials and rubbish and cleaned off the dirt from all wood work doors, windows, walls,

Final Certificate

floors or other parts of any building in upon or about which the work is to be executed, or of which he may have had possession for the purpose of the execution thereof nor until the work shall have been measured by the officer of the PWD in accordance with the rules of the department whose measurements shall be binding and conclusive against the contractor the contractor shall fail to comply with the requirements of this clause as removal of scaffolding surplus materials and rubbish and cleaning ofdirt on or before the date fixed for the completion of the work the Engineer-in- charge may at the expenses of the contractor, remove such scaffolding surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirts as aforesaid and the contractor shall forth with pay the amount of all expenses incurred and shall have no claim in respect of any such scaffolding, or surplus materials as aforesaid except for any sum actually realized by the sale thereof

Sub clause – 5 "If in the opinion of the Engineer-in-charge which shall be final and binding onthe contractor occupation or utilization of a portion of the work completed in no way interferers with the progress for rest of the work, the same may be occupied or utilized by or on behalf of the Govt. under the written order of the Engineer-in- charge to get the defects of any rectified by the contractor at his (Contractor) owncost within six months from the date of completion of the whole work provided that the contractor will not be allowed any other concession either in the shape of extensions of stipulated period or any other monetary compensation on accountof such occupation or use.

Clause – 6 A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer- in-charge for all works executed in the previous month, and the Engineer-in-charge or his subordinate shall take the requisite measurement for the purpose of having the

Payment on intermediate certificate be regarded as advance & bill to be submitted monthly

same verified and the claim as far as admissible' adjusted if possible before the expiry of ten day from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge or his subordinate shall measure up the said work in the presence of the contractor whose countersignature to the measurement list will be sufficient warrant and the Engineer-in-charge or his subordinate shall prepare a bill from such list which shall be binding on the contractor in all respects.

Provided that, if any balance of the 7% security is outstanding from each such payment shall be deducted so much, not exceeding 5% as may be necessary to make up the balance of the security. All such intermediate payments shall be regarded as payment by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed and taken away and requiring or re-erected, or be considered as an admission of the due performance of the contract, or any part thereof in any respect, or the actual of any claim nor shall it conclude, determine or effect in any way the powers of the Engineer-in-charge under these conditions or any of them as the final settlement or adjustment of the accounts or otherwise, or in any other way vary or effect the contract.

Clause – 7 The final bill shall be prepared by the officers of the P.W.D. in accordance with the rules of department in the presence of the contractor within one month of the date fixed for completion of the work.

Clause – 8 DELETED

Clause - 9 The contractor shall execute the whole and every part of the work in the most substantial and workman like manner and both as regards materials and otherwise in every respect in strict accordance with the specification. The contractor shall also confirm exactly fully and faithful to the design, drawings & instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access at such office for the purpose of inspection during office hours and the contractor shall, if he so require be entitle at his ownexpense to make or cause to make copies of the specifications and of all such designs, drawings and instructions as aforesaid.

Works to be executed in accordance with specification drawing & orders etc.

Sub clause – 9 The work should be done strictly in accordance with the relevant specificationsof the I.S.I. Codes. If the work is not covered by the specification of I.S.I. it shouldbe done in accordance with the provision in the Odisha Detailed Standard Specifications (O.D.S.S). In case, the work is not covered by O.D.S.S. the work should be executed as per the instruction of the Engineer-in-charge.

Clause – 10 The Engineer-in-charge shall have power to make any alterations in or additions to the original specifications, drawing, designs and instruction that may appear to him to be necessary advisable during the progress of the work and

Alteration in specification and designs

the contractor shall be bound to carry out the work in accordance with any instruction which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the

Extension of time in consequence of alterations

contractor on the same conditions in all respect on which he agreed to do the main work, and at the same time rates as are specified in the tender for the main work., The time for the completion ofthe work shall be extended in the proportion that the additional work includes bears to the original contract work

Do not invalidate contract

and the certificate of the Engineer-in-charge shall be conclusive as to such proportions. And if the additional work includes any class of work for which norate is specified in this contract then such class of work shall be be carried out at the rates entered in the sanctioned schedule of rates of the locality during the period when the work being carried on and if such last mentioned class of work is not entered on the scheduled of rate of the district then the contractor shall within seven days of the date of his receipt of the order to carry out the work inform the Engineer-in-charge of the rate which is it his intention to charge for such class of work, and if the Engineer-in-charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable.

Rates of works not in estimate of schedule or rate of the district.

No deviations from the specification stipulated in the contract or additional items of work shall ordinarily be carried out by contractor nor shall any altered. Additional or substituted work to be carried out by him unless the rates on the substituted altered of additional items have been approved and fixed in writing by the Engineer-in-charge.

The contractor shall be bound to submit his claim for any additional work done during any month on or before the 5th days of the following month accompaniedby copy of the order in writing of the Engineer-in-charge for the additional work and that the contractor shall not be entitled to any payment in respect of such additional work if he fails to submit his claim within the aforesaid period.

Provided always that if the contractor shall commence work incur any expenditure in regards thereof before the rates shall have been determined as lastly herein before mentioned, then and in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to such rates as shall be fixed by the Engineer-in-charge. In the event of dispute the decision of the Superintending Engineer of the circle will be final.

Clause – 11 If at any time after the commencement of the work the Government of Odisha shall for any reason whatsoever not require the whole thereof as specified in the tender to be carried out the Engineer-in-charge

No compensation for alteration in or restriction of work to be carried out.

shall give notice in writing of the fact to contractor. Who shall have no claim toany payment or compensation whatsoever on account of any profit or advantage, which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by reason of any alternations having been made in the original specification, drawing, designs and instruction which shall involve any curtailment of the work as originally contemplated.

Clause – 12 If it shall appear to the Engineer-in-charge or his subordinate in charge of the work that any work has been executed with unsound,

Action and compensations payable in case of bad work.

imperfect or unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for execution of the work are unsound

or of a quality inferior to that contracted for or other wise not in accordance with the contract, the contractor shall on demand in writing from the Engineer-in- charge specifying the work materials or articles complained of not with standing that the same may have been inadvertently passed, certified and paid for forth with rectify or remove and reconstruct the work so specified in whole or part, as the case may require or as the case may be remove the materials or articles so specified and provided other proper and suitable materials or articles at his own proper charge and cost and in the event of his failing to do so within a period tobe specified by the Engineer-in-charge in his demand aforesaid then the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days while his failure to do so shall continue and in the case of any such failure the Engineer-in-charge may rectify or remove and re-execute the work or remove and replace with other

the materials or articles complained of as the case may be at the risk and theexpense in all respects of the contractor.

Clause – 13 All work under or in course of execution or executedin pursuance of the contract shall at all times be open to the inspections and supervision of the Engineer-in-charge and his subordinates and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of intention of Engineer-in- charge or his subordinates to visit the works shall have been given to the contractor either himself bepresent to receive orders and instructions, or have a responsible agent duly accredited in writing present for that purpose, Orders given to the contractor's agent shall be considered to have the same force as if they had been given to the contractor himself.

Works to be open to inspection

Contractor or responsible agents to be present

Clause – 14 The contractor shall give not less than five day's notice in writing to the Engineer- in-charge or his subordinate in-charge of the work before covering up or other wise placing beyond the reach of measurement of any work in order that the same may be measured and correct dimensions thereof be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or placed beyond the reach of measurement any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of work and if any work shall be cover up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the contractor's expense, or in default thereof no payments or allowance shall be made for such work or the materials with which the same was executed.

Notice to be given before work is covered up

Clause – 15 If the contractor or his work people or servants shall break, deface, injure or destroy any part of a work, in which they may be working or any building, road, enclosure or grass land, or cultivated ground continuous to the premises on which work or any part of it being executed, or if any damage shall happen to the work while in progress from any cause whatever or any imperfection become apparent in it within six Months fromthe date of final certificate of its completion shall have been given by the Engineer-in-charge, as aforesaid the contractor shall make the same good at his own expense, or in default the Engineer-in-charge may cause the same to be made good by other workmen, and deduct the expense(of which the certificate of

Contractor liable for damage done and for imperfections for 6 months after certificate

the Engineer-in-charge shall be final) from any sums that may be then or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof and the contractor shall be liable to pay any part of the expenses not so recovered by the Engineer- in-charge.

Clause – 16 The contractor shall supply at his own cost all materials (except such special materials if any as may in accordance with the contract be supplied from the Engineer-in-charge's stores) plant, tools, appliances, implements, ladders, cordage, tackle scaffolding and temporary works requisite or proper for the proper execution of the work whether original altered or substituted and whether included in the specification or other documents forming Part of the contract or referred to in these conditions or not or which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-charge as to any matter as to which under this conditions he is entitled to be satisfied which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of setting outwork and counting, weighing and assisting in the measurement of examination at any time and from time to time the work or materials, failing him so doing the same may be provided by the Engineer-in-charge at the expenses of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof. The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall be bound to bear the expenses of defence to every suit, action or other proceeding at law that may be brought by any persons for injury sustained owing to neglect of the above precautions, and to pay any damages and cost which may be awarded in any such suit action or proceeding to any such person or which may with the consent of the contractor be paid to compromise any claim by any such person.

Contractor to supply plants, ladders, scaffolding etc.

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

Clause – 17 No female labour shall be employed within the limits of a cantonment. The contractor shall not employ for the purpose of this contract any labour below the age of twelve year, and shall pay to each labourer; for the work done by such labour, wages not less than the wage paid for similar work in the neighborhood.

Explanation : Fair wages means wages whether for time or piece work prescribed by State P.W.D. provided that where higher rates have been prescribed under the minimum wages Act 1948 wages at such higher rates would constitute "Fair wages" [W/D No.22059 dated 16.8.77.

The Superintending Engineer shall have the right to enquire into and decide any complaints alleging that the wages paid by the contractor to any labourer for the work done by such labourer is less than the wages paid for similar work in the neighborhood.

The officer in charge of the work shall have the right to decide whether labourer employed by the contractor is below the age of twelve years and to refuse toallow any labourer whom he decides to be below the age of twelve years to be employed by the contractor.

Clause – 17 (a) The contractor shall, if so required by the Engineer-in-charge employ one more Engineering Graduate or Diploma holder as apprentices at his own cost if thecost of work as shown in the tender exceeds Rs.2,50,000/- The apprentices will be selected by the Chief Engineer. The period of employment will commence within one month after the date of work order and would last till the date when 90% of work is completed. The stipend to be paid to the apprentices, should not be less than Rs.200/- per day in case of graduate Engineers and not less than Rs.150/- per day in case of Diploma holders. The number of apprentices to be employed should be fixed by the Chief Engineer in a manner so that total expenditure does not exceed 1% of the tender cost of the work.

Clause – 17 (b) Special class Contractor shall employ under him one Graduate Engineer and TwoDiploma Holders belonging to the State of Odisha. Like wise 'A' class contractor shall employ under him one Graduate Engineer or

Employment of Graduate Engineers & Diploma Holders

Two Diploma holders under the contractor shall be full time & continuous and they should not besuperannuated, retired, dismissed or removed personnel from any State Govt. or Central Govt. service/public Sector undertakings, private companies and firms or be ineligible for appointment to Government service. The contractor shall pay them monthly emoluments which shall not be less than the emoluments of the personnel of equivalent qualification employed under the State Government of Odisha. The Chief Engineer, Roads Odisha may however, assist the contractor with names of such unemployed Graduate Engineer and Diploma holders if such help is sought

for by the contractor. The names of such Engineering personnel appointed by the contractor should be intimated to the tender receiving authority along with the tender.

Each bill of the Special Class or 'A' class contractor shall be accompanied by an employment Roll of the Engineering personnel together with a certificate of the Graduate Engineer or Diploma holder is employed by the contractor to the effect that the work executed as per the bill has been supervised by him.

Clause – 18 The contract shall not be assigned or sublet without the written approval of the Superintending Engineer and if the contractor shall assign or sublet his contract or attempt so to do, or become insolvent or commence any insolvency proceedings or make any composition with his creditor or attempt so to do, or if any bribe gratuity, gift loan, perquisite reward or advantage pecuniary of other wise shall either directly or indirectly be given, promised or offered by the contractor or any of his servants to agents to any public officer or person in the employee of Government in any way relating to his office of employment or if any such officer or person shall become in any way directly or indirectly in the contract, the Superintending Engineer may thereupon by notice inwriting rescind the contract and the security deposit of the contractor shall there upon stand forfeited and be absolutely at disposal of Government and the same consequences shall ensure as if the contract has been rescinded under clause 3 hereof and in addition the contractor, shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Work not to be sublet.

Contractor may be rescinded and security deposit forfeited subletting bribing or if contractor become in solvent

Clause – 19 All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

Sum payable by way of compensation to be considered as reasonable compensation with out reference to actual loss

Clause – 20 In the case of a tender by partners any changes in the constitution of the firm shall be forthwith notified by the contractor to the Engineer-in-charge for his information.

In case of failure to notify the change in the constitution within fifteen days the Engineer-in-chargemay be noticed in writing rescind the contract and the security deposit of the contractor shall there upon stand forfeited and be

Changes in constitution of firm

absolutely at the deposal of Government and the same consequences shall ensure as if the contract had been rescind under clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any works therefore actually performed under the contract.

Clause – 21 All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects by Superintending Engineer of thecircle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

Clause – 22 DELETED

Clause – 23 When the estimate on which a tender is made includes lump sums in respect of the items of work involved or the part of the work the contractor shall be entitled to payment in respect of the item of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not, in the opinion of the Engineer-in-charge capable ofmeasurement, the Engineer-in- charge may by his discretion pay the lump sum amounts entered in the estimate, and the certificate in writing of the Engineer-in- charge shall be final and conclusive against the contractor with regard to any sums payable to him under the provisions of this clause.

Lump sums in estimates

Clause – 24 In the case of any class of work for which there is no such specification as is mentioned in rule, such work shall be carried out in accordance with the circle specification and in the event of there being no circle specification, then in such case the work shall be carried out in all respects in accordance with the instructions and requirements of the Engineer-in-charge.

Action where no specification

Clause – 25 The expression 'work' or 'works' where used in these conditions shall unless there be something either in the subject or context repugnant to such construction be construed & taken to mean the works by or by virtue of contract contracted to be executed whether temporary or permanent, and whether original altered, substituted, or additional.

Definition of works

Clause – 26 Government shall be entitled to recover in full from the contractor any amount that the Government may be liable to pay under workmen compensation Act. VIII of 1923, to any workmen employed in course of execution of any part of the work covered by this contract.

Clause – 27 That for the purpose of jurisdiction in the event of dispute if any, the contract should be deemed to have been entered into within the State of Odisha and it is agreed that neither party to the contract or agreement will be competent to bring

a suit in regard to the matters covered by this contract at any place outside the State of Odisha.

Clause – 28 The Department will have the right to inspect the scaffolding and centering made for the work and can reject partly or fully such structure if found defective in their opinion.

Clause – 29 Sanitary arrangement will be made by the contractor at his own cost for his labour camp.

Clause – 30 The contractor shall bear all taxes including sales tax, income tax, royalty, fair weather charges and tollage, where necessary.

Clause-31: Price Adjustment

: Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principles and procedures and as per formula given in following Paras.

(a) The price adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date of extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.

(b) The price adjustment shall be determined during each month from the formula given in following Paras.

(c) Following expressions and meanings are assigned to the work done during each month :

R= Total value of work done during the month. It would include the amount of secured advance granted, it any, during the month, less the amount of secured advance recovered, it any during the month. It will exclude value for works executed for extra items under variations.

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

The formula (e) for adjustment of prices are :

31(a) (i) : Adjustment of Other Materials Component

Price adjustment for increase or decrease in cost of local materials other than cement, steel, bitumen, pipe and POL procured by the contractor shall be paid in accordance with the following formula :

$V_M = 0.85 \times P_m/100 \times R \times (M_1-M_0)/M_0$

$V_M =$ Increase or decrease in the cost of work during the month under consideration due to changes in rates for local materials other than cement, steel, bitumen and POL.

$M_0 =$ The all India wholesale price index (all commodities) on 28 days proceeding the date of opening of Bids, as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

M_1 = The all India wholesale price index (all commodities) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, NewDelhi.

P_m = Percentage of local material component (other than cement, steel, bitumen and POL) of the work.

31(a) (ii) : Adjustment for Cement Component

Price adjustment for increase or decrease in cost of cement procured by the contractor shall be paid in accordance with the following formula :

$V_C = 0.85 \times P_C/100 \times R \times (C_1-C_0)/C_0$

V_C = Increase or decrease in the cost of work during the month under consideration due to changes in rates for cement.

C_0 = The all India wholesale price index for Ordinary Portland Cement (OPC) on 28 days proceeding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

C_1 = The all India wholesale price index for Ordinary Portland Cement (OPC) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_C = Percentage of Cement Component of the work.

31(a) (iii) : Adjustment for Steel Component

Price adjustment for increase or decrease in cost of steel procured by the contractor shallbe paid in accordance with the following formula :

$V_S = 0.85 \times P_S/100 \times R \times (S_1-S_0)/S_0$

V_S = Increase or decrease in the cost of work during the month under consideration due to changes in rates for steel.

S_0 = The all India wholesale price index for steel (Mild Steel long products) on 28 days proceeding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

S_1 = The all India wholesale price index for steel (Mild Steel long products) for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_S = Percentage of steel component of the work.

Note : For the application of this clause, index of (Mild Steel long products) has been chosen to represent steel group.

31(a) (iv) : Adjustment of Bitumen Component

Price adjustment for increase or decrease in cost of bitumen shall be paid in accordance with the following formula :

$V_b = 0.85 \times P_b/100 \times R \times (B_1-B_0)/B_0$

V_b = Increase or decrease in the cost of work during the month under consideration due to changes in rate for bitumen.

B_0 = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest centeron the day 28 days prior to date of opening of Bids.

B_1 = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest centerfor the 15th day of the month under consideration.

P_b = Percentage of bitumen component of the work.

31(a) (v) : Adjustment towards differential cost of pipes

Price adjustment for increase or decrease in cost of pipe shall be paid in accordance withthe following formula :

$V_{pi} = 0.85 \times P_{pi}/100 \times R \times (P_{i1}-P_{i0})/P_{i0}$

V_{pi} = Differential cost of pipe i.e. amount of increase or decrease in rupees to be paidor recovered during the month under consideration.

P_{pi} = Percentage of pipe component of the work.

P_{i1} = All India wholesale price index of pipe for the period under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_{i0} = The all India wholesale price index of pipe on 28 days proceeding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

31(b) : Adjustment of Labour Component

Price adjustment for increase or decrease in cost due to labour shall be paid in accordance with the following formula :

$V_L = 0.85 \times P_l/100 \times R \times (L_1-L_0)/L_0$

V_L = Increase or decrease in the cost of work during the month under considerationdue to changes in rates for local labour.

L_0 = The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last stipulated date of receipt of tender including extension, if any.

L_1 = The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last date of the month pervious to the one under consideration.

P_l = Percentage of labour component of the work.

31(c) : Adjustment of POL (fuel and lubricant) Component

Price adjustment for increase or decrease in cost of POL (fuel and lubricant) shall be paid in accordance with the following formula :

$V_f = 0.85 \times P_f/100 \times R \times (F_1-F_0)/F_0$

V_f = Increase or decrease in the cost of work during the month under consideration due to changes in rates for fuel and lubricants.

F_0 = The official retail price of High Speed Diesel (HSD) at the existing consumer pumps of IOC / BPCL / HPCL at nearest center on the day 28 days prior to the date of opening ofBids.

F_1 = The official retail price of HSD at the existing consumer pumps of IOC / BPCL /HPCL at nearest center for the 15th day of the month under consideration.

P_f = Percentage of fuel and lubricants component of the work.

Note : For the application of this clause, the price of High Speed Diesel oil has been chosen to represent fuel and lubricants group.

31(d) : Adjustment for Plant and Machinery Spares Component

Price adjustment for increase or decrease in cost of plant and machinery spares procured by the Contractor shall be paid in accordance with the following formula :

$V_p = 0.85 \times P_p/100 \times R \times (P_1-P_0)/P_0$

V_p = Increase or decrease in the cost of work during the month under consideration due to changes in rates for plant and machinery spares.

P_0 = The all India wholesale price index for manufacture of machinery for mining, quarrying and construction on 28 days proceeding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_1 = The all India wholesale price index for manufacture of machinery for mining, quarrying and construction for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.

P_p- = Percentage of plant and machinery spares component of the work.

Note : For the application of this clause, index of manufacturing of machinery for mining, quarrying and construction has been chosen to represent the plant and machinery spares group.

Regarding wholesale price index (WPI) for appropriate commodity for payment of price adjustment, due to change of base year of WPI from 1993-94 to 2004-05 & 2011-12, it is observed that, the commodity 'Bars and Rod', 'Cement', 'Heavy machinery and parts' included in the list of WPI 1993-94 series are not mentioned as such in the WPI 2004-05 & 2011-12 series. Therefore, the following items in the WPI 2004-05 & 2011-12 series shall be considered corresponding to items in WPI 1993-94 series :

Sl. No.	Item in WPI 1993-94 series	Item in WPI 2004-05 series	Item in WPI 2011-12 series
1.	Cement	Grey Cement	Ordinary Portland Cement
2.	Bars & Rods	Rebars	Mild steel long products
3.	Heavy Machinery & parts	Construction Machinery	Manufacture of machinery for mining, quarrying & construction

31(e) : APPLICATION OF ESCALATION CLAUSE :

The contractor shall for the purpose of availing reimbursement / refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further, shall at the request of the Engineer-in-Charge, furnish documents to be verified in such a manner as the Engineer-in-Charge may require any document and information kept. The contractor shall within a reasonable time of 15 days of his becoming aware of any alternation in the price of such material, wages of labour and / or price of POL give notice thereof to the Engineer-in-Charge stating that the same is given pursuant to this condition along with information relating to there to which he may be in position to supply.

Percentage Table

Sl. No.	Category of Works		% Component (cost wise)		
			Labour (P_l)	POL (P_f)	Steel (P_s) + Cement (P_c) + Bitumen (P_b) + Pipes (P_{pi}) + Plant & Machinery Spare & Component (P_p) + Other Materials*
1.	R & B works (% of component)	Road Works	5	5	90
		Bridge Works	5	5	90
		Building Works	5	5	90
2.	Irrigation works (% of component)	Structural Work	5	5	90
		Earth, Canal & Embankment work	5	5	90
3.	P.H. Work	Structural Work	5	5	90
		Pipeline Work	5	5	Pipe - 70% * Machinery + Other material-20%
		Sewer Line	5	5	Pipe - 70% * Machinery + Other material-20%

*Note :- Further break up may be worked out considering the consumption of Cement, Steel, Bitumen, Pipe and Plant & Machinery Spare Component in the concerned works and shall be provided in the bid document in shape of **"Schedule of Adjustment Data"** as an **"Appendix to Bid"** (enclosed herewith).

Appendix to Bid Schedule of Adjustment Data

[For all works, adjustment factor for Labour and POL shall be considered at the rate 5% each. Steel, Cement, Pipes, Other Materials and Machinery shall contribute to 90% of Price Adjustment and shall be calculated for each work separately during preparation of estimate, shall be approved by the authority during technical sanction as a "**Schedule of Adjustment Data**" andshall form part of the Bid Document. The cases where the original technically sanctioned estimate gets revised, the technical sanction to the revised estimate will be obtained from the competent authority as provided under Para 3.11.2 (b) of OPWD Code, Volume-I. Based on the revised technically sanctioned estimate, the Labour & the POL component shall be given the weightage of 5% each as provided in O.M. No.15847/W dated 19.11.2019 of Works Department and the weightage of 90% on steel, cement, bitumen, pipes, other materials and plant and machinery spare component shall be given as per the technically sanctioned revised estimate excluding the extra items. The revised weightage of "**Schedule of Adjustment Data**" based on revised technically sanctioned estimate shall be included as an **Addendum** to the agreement. The technical sanctioning authority shall be the competent authority for this purpose.].

Cl. No.31 of F2/P1 Contracts Sl. No.	Index Description	Source of Index	Base Value*	Base Date*	Weightage of Item**
31 (a) (i)	Other Materials	All India wholesale price index (all commodities) as published by the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			90 %
31 (a) (ii)	Cement	Wholesale price index for Cement (Ordinary Portland Cement) as published by the office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			0%
31 (a) (iii)	Steel	Wholesale price index for steel (Mild Steel-Long Products) as published by the office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			0%
31 (a) (iv)	Bitumen (VG-30)	The official retail price of bulk bitumen at the nearest IOC / HPCL deport.			0%
31 (a) (v)	Pipes	Whole sale price index for the type of Pipe under consideration, as published by the office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			-
31 (b)	Labour	Minimum Wage notified by the Labour and Employee's State Insurance Department of Government of Odisha, India.			5.0%
31 (c)	POL	Official retail price of HSD at nearest IOCL / HPCL / BPCL Consumer Pump Deport.			5.0%
31 (d)	Plant and Machinery	Wholesale price index for manufacture of machinery for mining, quarrying and construction as published by the office of the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			0%
			Total		100.00%

* Values to be filled up at the time of drawal of contract.

** Values to be filled up in the bid document.

Clause – 32 After the work is finished all surplus material and debris are to be removedby the contractor and preliminary works such as vats, mixing platforms etc. are to be dismantled and all materials removed from site. The ground up to 100m wide from the building should be cleared and dressed.

FAIR WAGE CLAUSE

Clause – 33(a) The contractor shall pay not less than fair wage to labourers engaged by him on the work.

Explanation: "Fair wages" means wages, whether for time or piece work prescribed by the State Public works Department provided that where higher rates have been prescribed under the Minimum Wages Act. 1948 wages at such higher rates would constitute "Fair wages" (W.D. No.22059 dt.16.8.77)

(b) The contractor shall, not with standing the provisions of any contract to contrary cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub contractors in connection with the said work, as if the labours had been immediately employed by him.

(c) In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all regulation made by Government in regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions unauthorisedly made, maintenance of wages register, wage cards, publication of scale of wages and other terms of employment, inspection and submission of periodical returns and all other matters of a like nature.

(d) The Superintending Engineer or Sub-Divisional Officer concerned shall have the right to deduct, from the money due to contractor, any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non fulfillment of the conditions of the contract for the benefit of workers non payment of wages or of deductions made from his or their wages, which are not justified by their terms of the contract'" or non-observance of the regulations, money so deducted should be transferred to the workers concerned.

(e) Vis-à-vis the Government of Odisha, the contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub contractor.

(f) The regulations aforesaid shall be deemed to be part of this contract and any breach there of shall be breach of this contract.

(g) The contractor shall at his own expense provide or arrange for the provision of foot wear for any labour doing cement mixing work and black topping of roads (The contractor has undertaken to execute under this contract) to the satisfaction of the Engineer-in-charge and on his failure to do so Government shall be entitled to provide the same and recover the cost from the contractor.

(h) The contractor shall submit by the 4^{th} & 10^{th} of every month, to the Engineer-in-charge a true statement showing in respect of the Second half of the preceding month and the first half to the current month respectively (1) the number of labours employed by him on the work (2) their working hours (3) the wages paid to them (4) the accident that occurred during the said fortnight showing the circumstances under which they happened and the content of damage and injure caused by them and (5) the number of female workers whohave been allowed maternity benefit according the clause [K] and the amount paid to the Government a sum not exceeding **Rs.478.00** for each default of materially incorrect statement. The amount levied as fine decision of the Superintending Engineer shall be final in deducting from any bill due to contractor.

(i) In respect of all labour directly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with a cause to becomplied with all the rules framed by Government from time to time for the protection of health and sanitary arrangement for workers employed by the Odisha Public Works Department and its contractor. This will apply to work places having 50 or more workers.

(j) Maternity benefit rules for female worker employed by contractor, Leave and pay during leave shall be regulated as follows.

1- Leave : (i) **In case of Delivery:-** Maternity leave not exceeding 8 weeks, 4 weeks up to including the day of delivery or 4th weeks following that day.

(ii) **In case of Mis carriage :-** Up to 3 weeks from the date of miscarriage.

2. Pay (i) **In case of Delivery:-** Leave pay during maternity leave will be at the rate of women's average daily earnings calculated on the total wages earned on the days when full time work was done during a period of three months immediately preceding the date of which she gives notice that she expects to be confined or at the rate of **Rs.478.00** a day which ever is greater.

(ii) **In case of Miscarriage :** Leave pay at the rate of average daily earnings calculated on the total wages earned on the days when full time work was done during a period 3 months immediately preceding the date of such miscarriage,

Conditions of grant of Maternity Leave: No maternity leave benefit shall be admissible to a women unless she has been employed for a total period not less than 6 months immediately preceding the date on which she proceeds on leave.

Clause 34 Incentive should be paid in respect of individual project for new construction / substantial additional or improvement works, the minimum value of which is mentioned below.

Name of Work	**Minimum Value**
1. Building work / PH work	Rs.40.00 lakhs
2. Road work	Rs.3.00 crores
3. Irrigation work	Rs.10.00 crores

Incentive will be paid with approval of next higher authority of tender accepting authority on completion of original work before original time schedule. Incentive need not be included in the estimate. Specific budget provision may be made under State Plan out of which the incentive shall be met.

For availing incentive clause in any project which is completed before the stipulated date of completion, subject to other stipulations it is mandatory on the part of the concerned Superintending Engineer to report the actual date of completion of the project as soon as possible through fax or e-mail so that the report is received within 7 (seven) days of such completion by the concerned SE, CE & the Administrative Department. The incentive for timely completion should be on a graduated scale of 1 (one) percent to 5 (five) percent of the contract value. Assessment of incentives may be works out for earlier completion of work in all respect in the following scale.

Before 30% of contract period	=	5% of Contract value
Before 20 to 30% of contract period	=	4% of Contract value
Before 10 to 20% of contract period	=	3% of Contract value
Before 5 to 10% of contract period	=	2% of Contract value
Before 5% of contract period	=	1% of Contract value

Clause 35 The royalty of materials will be recovered from the work bill in case failure of production of proper receipt from quarry holder or Revenue Department after proper verification from concerned Tahasildar.

MODEL RULES FOR HEALTH & SANITARY ARRANGEMENTS FOR WORKERSEMPLOYED BY ODISHA P.W.D. OR IT'S CONTRACTORS

1. **Application :** These rules shall apply to all construction work in charge of Odisha PublicWorks Department which are expected to continue for a year or more.

2. Definitions :

(i) "Work Place" means a place at which an average of fifty or more workers are employed in connection with construction work

(ii) Large work place means a place at which an average of 500 or more workers are employed in connection with construction work.

3. First Aid :

(a) At every work place there shall be maintained in a readily accessible place first aid appliances including and adequate supply or sterilizer dressing and sterilized cotton wool. The appliances shall be kept in good order and in large work places they shall be readily available during working hours.

(b) At large work places where hospital facilities are not available within easy distance of the workers, first aid posts shall be established and run by a trained compounder.

(c) Where large work places are remote from regular hospitals an indoor ward shall be provided with one bed for every 250 employees.

(d) Where large work places are situated in cities towns or in their suburbs and no beds are considered necessary owing to the proximity of city, town hospitals, an ambulance shall be provided to facilitate removal of urgent cases to these hospitals. At the work place some conveyance facilities such as a car shall be kept readily available to take injured persons or person to the nearest hospitals.

4. Drinking Water :

(a) In every work places, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of water fit for drinking.

(b) Where drinking water is obtained from an intermittent public water supply each work place shall be provided with storage where such drinking water shall be stored.

(c) Every water supply of storage shall be at a distance of not less than 50 feet from any latrine, drain or other sources of pollution where water to be drawn from an existing well which is within such proximity of latrine drain or any other sources of pollution the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with tray door which shall be dust and water proof.

(d) A reliable pump shall be fitted to each covered well the tray door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

(e) The temperature of drinking water supplied to workers shall not exceed 90^0 F.

5. Washing and Bathing Place :

(i) Adequate washing and bathing places shall be provided separately for men and women.

(ii) Such places shall be kept in clean and drained condition

6. **Scale of Accommodation in Latrines and Urinals :-** There shall be provided within the premises of every work place latrines and urinals in an accessible place; and the accommodation, separately for each of them shall not be less than the following.

(a)	Where the number of persons employed does not exceed 50.	No. of seats 1
(b)	Where the number of persons employed exceeds 50 but does not exceed 100	No. of Seats 3
(c)	For every additional 100 particulars cases the Superintending Engineer shall have the power to vary the scale where necessary)	No. of seats 3 per 100(in

7. **Latrine and Urinals for Women :** If women are employees, separate latrines and urinals separate from that for women and marked in the vernacular in conspicuous letter “for women only” shall be provided on the scale laid in rule.

Those for men shall be similarly marked “ for men only” A poster showing the figure of a men and women and shall also be exhibited at the entrance of Latrines for each sex. There shall be adequate supply of water close to the urinals and latrines.

8. Latrines and Urinals : Except in work places provided with water flushed latrines connected with a water borne sewerage system, all latrines shall be provided with receiptable on dry- earthen system which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. The receiptables shall be tarred inside and out side at least once a year.

9. **Construction of Latrines :** The inside wall shall be constructed of masonry or stone materials and shall be cement washed inside and outside at least once a year. The dates of cement washing shall be noted in register maintained for this purpose, and kept available for inspection.

10. **Disposal of excreta :** Unless otherwise arranged for by the local sanitary authorities arrangements for proper disposal of excreta by incineration at the work place shall be madeby means of a suitable incinerator approved by as, Director of Public Health of Municipal Medical Officer or Health at the case may be, whose jurisdiction the work place is situated. Alternatively excreta may be disposed off by putting a laver of night soil at the bottom of pucca tank prepared for the purpose and covering it with 6’ layer of waste or refuse and than covering it up with a layer of earth for a fortnight (when it will turn in to manure).

11. **Provision of shelters during rest :** At every work place, there shall be provided free of cost two

suitable sheds one for females and the other for rest for the use of labourers. The height of the shelter shall be less than 11 feet from the floor level the lowest part of the roof.

12. **Creche :** At every work place at which more than 50 women workers are employed, there shall be provided only one hut for the use of children under the age of 6 year , belonging to such women and shall be used for infant's games and play and their bed room. The huts shallnot be constructed on a lower standard than the following.

i) Thatched huts
ii) Mud floors and walls.
iii) Planks spared over the mud floor and covered with matting.

The hut shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision for sweepers to keep the place clean. There shall be two dhai in attendance. Sanitary utensil shall be provided to the satisfaction of the Health Officer of the area concerned. The use of the hut shall be restricted to Children, their attendants and mothers of the children.

a) Where the number of women workers is more than 50 the contractor shall provide one hutand Dhai to look after the Children of women workers.
b) The size of creche shall vary according to the number of women workers.
c) The crèche shall be properly maintained and necessary equipments like toys etc. Shall be provided.

13. **Canteen :** A cooked food canteen :- on a moderate scale shall be provided for the benefit of workers whenever it is considered expedient.

14.

CONTRACTOR'S LABOUR REGULATIONS

1. **Short title** :- These regulation may be called " The Odisha Public Works Department / Electricity Department Contractor's Regulations".

2. **Definition :** In these Regulations, unless otherwise expressed or indicated the following words and expressing shall have the meaning hereby assigned to them respectively,

that is say: "Labour" means workers employed by a contractor for **"Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block"**

(a) directly or indirectly through a sub-contractor or other person, by an agent on his behalf.

(b) Fair wages means wages whether for time or piece work prescribed by the **Superintending Engineer, Anugola Irrigation Division,Anugola** provided that where high rates have been prescribed under the minimum wages Act 1948 wages at such higher rates would constitute fair wages (W.D. No.22059 dt,16.8.77)

(c) "Contractor" shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.

(d) "Wages" shall have the same meaning as defined in the payment of wages Act. And include time and piece rate wages if any.

3. Display of notices regarding ways, etc.:-

The contractor shall:-

(a) Before he commences his work on contract display, and correctly maintain and continue to display and correctly maintain, in a clean and legible condition in a conspicuous placeson the work, notice in English and in the local Indian language spoken by the majority of the workers giving the rate of wage prescribed by State Public Works Department/ **Anugola Irrigation Division,Anugola** for the district in which the work isdone.

(b) Send a copy of such notices to Engineer-in-charge of the work.

4. Payment of Wages :-

(a) Wages due to every worker shall be paid to him direct.

(b) All wage shall have to be paid in cash in current coin or currency or in both.

5. Fixation of wages periods :-

(a) The contractor shall fix the wage period in respect of which the wages be payable.

(b) No wage period shall exceed one month.

(c) Wage of every workman employed on the contract shall be paid before the expiry of ten days, after the last day of the wage period in respect of which the wages are payable.

(d) When the employment of any worker is terminated by or on behalf of the contractorthe wages earned by him shall be paid before the expiry of the day succeeding the oneon which his employment is terminated.

(e) All payment of wages shall be made on a working days

6. Wage book and wage cards etc.

1) The contractor shall maintain a wage book of each worker in such forms as may be convenient, but the same shall include the following particulars:-

   a) Rate of daily or monthly wages.

   b) Nature of work on which employed.

   c) Total number of days worked during each wage period.

   d) Total amount payable for the work during each wage period.

   e) All deductions made from the wages with an indication in each of the ground forwhich the deduction is made.

   f) Wage actually paid for each wage period.

2) The contractor shall also maintain a wage card for each worker employed on the work.

3) The Superintending Engineer may grant an exemption from the maintenance of wage bond, wages cards to a contractor who, in his opinion may not directly or indirectly employ more than 100 persons on the work.

7. Fines and deduction, which may be made from wages.

1) The wages of a worker shall be paid to him without any deductions of any kind except the following.

a) Fines.

b) Deduction for absence from duty, i.e. from the place or places where by terms of his employment he is required to work. The amount of deductions shall be in proportion to the period for which he was absent.

c) Deduction for damage to or loss of goods expressly entrusted to the employed person for custody' or for loss on money for which he is required to encount where such damage or loss is directly attributable to his neglect or default.

d) Any other deduction which the Odisha Government may from time to time allow.

2) No fines shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing abuse against suchfines or deduction.

3) The total amount of fines which may be imposed in any one wage period on a works shall not exceed a amount equal to Five paise in a rupee of the wages payable to him in respect of thatwage period.

4) No fine imposed on any worker shall be recovered from him by installments after the expiry of 60 days from the date on which it was imposed.

8. Register of fines, etc.

1) The contractor shall maintain a register of fines and of all deduction for damage or loss. Such register shall mention the reason for which fine was imposed or deduction for damage or loss was made.

2) The contractor shall maintain a list in English and in the local Indian language clearly defining acts and omissions for which penalty of fine can be imposed. It shall display such list and maintain it in a clean and legible condition in conspicuous place on the work.

9. Preservation of register:

The wage register, the wage cards and the register of fines, deduction required to bemaintained under these regulations shall be preserved for 12 months after date of the last entry made in them.

10 Powers of Labour Welfare Officers to make investigation or enquiry

The labour Welfare Officers or any other persons authorized by the Government of Odisha on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and the provision of these regulations. He shall investigate into any complaint regarding default made by the contractor, sub contractorin regard to such provisions.

11. Report of Labour Welfare Officers:

The Labour Welfare Officers or others authorized as aforesaid shall submit a report of the results of his investigation of enquiry to the Superintending Engineer concerned indicating the extent, if any, to which the default has been committed with a note that necessary deductions from the contractor's bill be made and the wages and other dues be paid to the labourers concerned.

12. Appeal against the decision of Labour Welfare Officers.

Any persons aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorized may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of this appeal to the Superintending Engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.

13. Inspection of registers:

The contractor shall allow inspection of wage book, card to any of his worker or his agent at a convenient time and place after due notice is received, or to the Labour Commissioner or any other person authorized by the Government of Odisha on his behalf.

14. Submission of return:

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

15. Amendment

The Government of Odisha may from, time to time add to or amend these regulations and on any question as to the application interpretation of effect of the regulations the decision of the Labour Commissioner or any other persons authorized by the Government of Odisha in that behalf shall be final.

Clause - 36 Departmental supply of materials

Before issue of Departmental materials to the contractor, he shall furnish Bank Guarantee of any of the Nationalized Bank equal to the cost of materials. The Bank Guarantee shall be valid for the entire period of agreement. The same may be refunded to the contractor only after the materials supplied to him are fully utilized in the works and cost thereof recovered from his bill (s) in full or if the materials are partly utilized in the unutilized materials are returned by him to the Department in full and in good condition and receipt thereof duly acknowledged by the concerned Department Officer.

(Works Department OM No. Codes-M-19/92-13653 dt. 5.6.93)

Clause - 37 The terms and conditions of the agreements have been read/ explained to me and certify that I/We clearly understand them.

1. ADDENDUM TO CONDITION OF CONTRACT:

The bidder / Tender whose bid has been accepted will be notified of the award by the Engineer-in-Charge prior to expiration of the validity period by cable, telex or facsimile confirmed by registered letter. This letter (hereinafter and in the conditions of contract called the ("Letter of Acceptance") will state the sum that the Engineer-in-Charge will pay the contractor in consideration of the execution, completion and maintenance of the works by the contractor as prescribed by the contract (hereinafter and in the contract called the "Contract Price").

The notification of award will constitute the formation of the contract, subject only to the furnishing of a performance security (ISD) and additional performance security in accordance with the provisions of the agreement.

The agreement will incorporate all agreements between the officer inviting the bid/Engineer-in-Charge and the successful bidder. Within 15 days following the notification of award alongwith the letter of acceptance, the successful bidder will sign the agreement and deliver it to the Engineer-in-Charge. Following documents shall form part of the agreement.

a) The notice inviting bid, all the documents including additional conditions specifications and drawing, if any, forming the bid as issued at the time of invitation of bid and acceptance thereof together with any correspondence leading thereto & required amount of performance security including additional performance security.

b) Standard P.W.D. Form P1.

2. TIME CONTROL

Progress of work and Re-scheduling programme

The Superintending Engineer / Engineer-in-Charge shall issue the letter of acceptance to the successful contractor. The issue of the letter of acceptance shall be treated as closure of the bid process and commencement of the contract.

Within 15 days of issue of the letter of acceptance, the contractor shall submit to the Engineer-in-Charge for approval and programme commensurate to clause no 3 showing the general methods, arrangements, and timing for all the activities in the works along with monthly cash flow forecast.

To ensure good progress during the execution of the work the contractors shall be bound in all cases in which the time allowed for any work exceeds one month to complete, 1/4th of the whole of the work before 1/4th of the whole time allowed under the contract has elapsed, ½ of the whole of the work before ½ of the whole time allowed under the contract has elapsed, 3/4th of the whole of the work before 3/4th of the whole time allowed under the contract has elapsed.

If at any time it should appear to the Engineer-in-Charge that the actual progress of the works does not conform to the programme to which consent has been given, the contractor shall produce, at the request of to such programme necessary to ensure completion of the works within the time for completion. If the contractor does not submit an updated programme within this period, the Engineer-in-Charge may withhold the amount of 1% of the contract value from the next payment certificate and continue to withhold this amount until the next payment after the date on which the over due programme has been submitted.

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

The Engineer-in-Charge's approval of the programme shall not after the contractor's obligations. The contractor may revise the programme and submit it to the Engineer-in-Charge again at any time. A revised programme is to show the effect of variations and compensation events.

Extension of the completion date.

The time allowed for execution of the work as specified in the contract data shall be the essence of the contract. The execution of the works shall commence from the 15th Day or such time period as mentioned in letter of award after the date on which the Engineer-in- Charge issues written orders to commence the work or from the date of handing over of the site whichever is later. If the contractor commits default in commencing the execution of the work as aforesaid, Government shall without prejudice to any other right or remedy available in

law, be at liberty to forfeit the earnest money and performance guarantee / security deposit absolutely.

As soon as possible after the contract is concluded the contractor shall submit a Time & Progress Chart for each milestone and get it approved by the Department. The Chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works, it shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-Charge and the Contractor within the limitations of time imposed in the contract documents and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per milestone given in contract data.

Incase of delay occurred due to any of the reasons mentioned below, the contractor shall immediately give notice thereof in writing to the Engineer-in-Charge but shall neverthelessuse constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

For

i. Abnormally bad weather, or
ii. Serious loss or damage by fire, or
iii. Civil commotion, local commotion of workmen, strike or lockout, by officers any of the heads employed on the work, or
iv. Delay on the part of other contractors or trademen engaged by Engineer-in-Chief, in executing work not forming part of the contract.
v. Incase of variation is issued which makes it impossible for completion to be achieved by the Intended Completion Data without the Contractor taking steps to accelerates the remaining work and which would cause the contractor to incur additional cost, or.
vi. Any other cause, which in the absolute discretion of the authority mentioned, in contract data is beyond the contractor's control.

Request for re-schedule and extension of time, to be eligible for consideration shall be made by the contractor in writing fourteen days of the happening of the event causing delay. The Contractor may also, if practicable, indicate in such a request the period for which extension is desired.

In any such case a fair and reasonable extension of time for completion of work may be given. Such extension shall be communicated to the Contractor by the Engineer-in-Charge in writing. Within 3 months of the date of receipt of such request, Non-application by the contractor for extension of time shall not be a bar for giving a fair and reasonable extension by the Engineer-in-Charge and this shall be binding on the contractor.

Compensation for delay.

If the contractor fails to maintain the required progress in terms of clause 2 or to complete the work and clear the site on or before the contract or extended date of completion he shall without prejudice to any other right or remedy available under the law to the Government on account of such breach, pay as agreed compensation the amount calculated at the rates stipulated below as the Superintending Engineer (whose decision in writing shall be final and binding) may decide on the amount of tendered value of the work for every completed day/month (as applicable) that the progress remains below that specified in Clauses 2 or that the work remains incomplete.

This will also apply to items or group of items for which a separate period completion has been specified Compensation @ 1.5% per month or for delay of work, delay to be computed on per day basis.

The existing relevant provision in the original documents shall stand modified accordingly.Provided always that the total amount of compensation for delay to be paid under thiscondition shall not exceed 10% of the Tendered Value of work or to the Tendered Value ofthe item or group of items of work for which separate period of completion is originally given. The amount of compensation may be adjusted or set-off against any sum payable to theContractor under this or any other contract with the Government. Incase the contractor doesnot achieve a particular milestone mentioned in contract data, or the rescheduled milestone

(s) in items of Clause 2.5. the amount shown against that milestone shall be withheld, to be adjusted against the compensation levied at the final grant of extension of time. Withholdingof this amount on failure to achieve a milestone, shall be automatic without any notice the contract. However, if the Contractor catches up with the progress of work on the subsequent milestone(s), thew withheld amount shall be released. In case the contractor files to make up for the delay in subsequent milestone(s) amount mentioned against each milestone missed subsequently also shall be withheld. However, no interest whatsoever, shall be payable on such withheld amount.

Management Meetings

Either the Engineer or the Contractor may requires the other to attend a management meeting. The business of a management meeting shall be review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

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

Signature of witness **signature of contractor**

Grant of EOT and imposing penalty in EOT / Deviation:-

As per the letter no. 699, dated. 07.01.2021 of DoWR, Odisha, following decision hasbeen taken regarding grant of EOT and imposing penalty in EOT / Deviation.

(i) **Basis of imposing of penalty in EOT/Deviation**.

1. In case of completion of the work in all respect, the EOT may be granted with imposition of penalty amounting to 0.2% (amount to be rounded off to the next higher value of Rs.100/-) of the value of works executed during the extended period (EOT period), subject to minimum penalty of Rs10,000/-.

2. In case of incomplete works /to rescind the contract, the contract to be closed as per the provision contained in Clause-2(b) of F2 agreement, 20% of the value of left-over workwill be realised from the Contractor as penalty.

The suggestions / recommendations of the CE/CCE with respect to imposition of penalty is to be examined by the Technical Committee of EIC, W.R and considered views may beforwarded to Government for necessary action.

(ii) Reason of hindrances for sanction of EOT attributable to the agency/not attributable tothe agency)

- Reasons of hindrances for sanction of EOT attributable to the agency.

1. The local festivals like Makar Sankranti, Raja Sankranti, Chaiti Parba, Danda Nata or anysuch festivals which may affect the work schedule.

2. In the peak summer season, working hour is curtailed by the Labour Department to avoid exposure to personnel to the scorching sun and heat. It is the duty of the agency to increase the number of work force and to employ the existing work force during morning and afternoon hours as per Government orders.

3. Rainfall is a normal occurrence during monsoon in Odisha. So, unless there is unusually heavy rainfall resulting in a declared calamity, the Contractor is not eligible for any extension of time .The Contractor should plan the deployment of workforce and machinery, so as to complete the work as per schedule considering ordinary vagaries of the nature.

4. The same applies for borrow areas ponding. The Contractor should foresee possible ponding of borrow area in monsoon n and likewise lift more quantity of soil/ other materialduring dry period so as to complete the work as per schedule.

5. The Contractor should take up the work with due diligence in the acquired land without waiting for acquisition of the entire land .This should be completed in proportionally less period depending on the quantum of available work front.

6. The Agency should plan his work programme and mobilize men and machineries considering the canal closure programme of a particular system or area. Khariff / Rabi closure can't be imposed arbitrarily on the farmers as per the convenience of the agency. Closure of canal for the interest of work will be solely at the discretion of the Engineer-in- charge and can't be claimed as a matter of right.

7. There will always be standing crop before harvesting season as per crop schedule and this fact has to be clearly understood by the agency. Extension of time on this groundmay not be considered by Divisional Officers.

- Reasons of hindrances for sanction of EOT not attributable to the agency.

1. Only the day(s)of elections to the Local Bodies/Assembly/Parliament will be treated as anon-working day(s)
2. Unless there is unusually heavy rainfall resulting in a declared calamity, the Contractor isnot eligible for any extension of time.
3. Force majeure.
4. Abnormally bad weather, cyclones etc.
5. Civil commotion, local commotion of workmen, strike or lockout, affecting any of thetrades employed on the work.
6. Delay on the part of other contractors engaged by the Engineer-in-charge in executingwork nor forming part of the contract.
7. In case a variation/additional work is issued which makes it impossible for completion tobe achieved by the intended Completion Date without the contractor taking steps to accelerate the ;remaining work and which cause the contractor to incur additional cost.
8. Any other cause, which in the absolute discretion of the authority mentioned, contractdata is beyond the contractor's control.

(iii) Application for EOT as per Codal provision (Para 3.5.30 of OPWD Code)

The application for Extension of Time for completion of the work on the grounds of unavoidable hindrance or any other grounds shall be positively submitted by the contractor within 30 days of such hindrance. This should be strictly followed.

SECTION–6

TECHNICAL SPECIFICATION

TECHNICAL SPECIFICATION

CHAPTER – 1

1.0 GENERAL INFORMATION

1.1 The work under specification pertaining to "**Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block**" The information and data relating to work and site conditions described hereafter represents the site condition in a general way. It shall be presumed that the contractor satisfies himselfas to nature and location of work in general, land, local conditions particularly on the power and handling, storage of materials, disposal of soil, foundation data and bore hole data and etc., before arriving at his rate. The department therefore will not bear any responsibility for any inference on the site condition and consequence thereof.

1.2 Availability of labour:

Labour required for the work may be available to some extent at the project area. The contractor must, however, make his own arrangements to fulfill his requirement.

1.3 Towns

Chhendipada is a developed town with Bus facilities is about 14 kms (avg) distance from working site.

1.4 Access to site:

The site is accessible by all weather existing roads.

The department shall not be liable for compensation due to hindrance caused by the regular pedestriantraffic, and in the event of breakdown in communication for closure of the roads due to repairs or for any reason. It is the responsibility of the contractor to make all arrangement for development and maintenance of haul road and approach road as per his requirement as and when required.

1.5 Availability of Diesel and Lubricants :

Pumps for supply of diesel, petrol and other lubricants are located at **Chhendipada**

1.6 Electric Power for construction purpose:

The Contractor himself is to arrange for requirement of power for the work.

The contractor shall enter agreement with Tata Power Central Odisha Distribution Limited (TPCODL) for taking electricity consumption and payment as per requirement of the contractor.

The electrical energy consumed by the contractor shall be measured by suitable metering arrangement to be installed by the contractor on approval of TPCODL at the point of supply. The meter will be sealed in presence of the contractor or his authorized agent and readings will be taken every month for finding the electricity consumed.

Tariff Rate:

The tariff rate for consumption of electricity will be in accordance with Electricity (supply) Act, 1948and Tata Power Central Odisha Distribution Limited (General Conditions of Supply) Regulations as amended from time to time.

Observance of Rules

The distribution of power to the contractor's colony, equipments etc. from the one point supply will be done by the contractor at his own cost.

The contractor shall observe all the conditions required under rule 45 (i) of Indian Electricity Rules (1956) and other pertinent rules for carrying out the electrical installation works in his premises. Power supply to the installations not satisfying the Indian Electricity Act and Rules is liableto be cut off and the department will not have any responsibility for any losses and damages caused for the above.

The contractor shall take all precautions to ensure safety of the workers engaged in his electrical lines and installations. The department will not have any responsibility for any accident thatmay occur in contractor's installation.

In case of break-down in power supply for any reason what-so-ever the department is not liable for compensation.

The contractor shall take action to rectify the defects, if any, in the installations when pointed out by the Engineer-in-charge or TPCODL in a reasonable time.

The Contractor shall permit the department to draw power required for the departmental works, if any from the contractors L.T. lines as and when required by the department. The departmentwill pay the contractor for such consumption at the prevailing tariff rate of TPCODL.

Housing

Private houses may not be available at project site but available at **Chhendipada** Land for the construction of temporary houses for the labour may be arranged by the agency at his own costs.

Medical Aid

There is a Government Hospital at **Chhendipada** which provides free treatment. The contractor shall however make at his own cost first-aid arrangements at the various work sites in accordance with the labour rules and regulations and as directed by the Engineer-in-charge.

Post, Telegraph & Telephones

Postal and Telegraphic facilities are available at **Chhendipada**. Telephone connections are also available at **Chhendipada** and the same can be availed by the contractor at his own cost.

Local Roads

The existing approach roads to the site of work to the extent available shown in the map enclosed can be used by the contractor. The contractor shall, however construct and maintain connecting roads within the working areas and in his Labour colony areas at his cost. The contractor shall construct andmaintain haul roads and other approach roads etc., as may be necessary for the proper execution of the work.

Dump Areas.

Materials excavated from the foundations and in connection with other items of work shall be dumped as directed by the engineer-in-charge from time to time. The contractor shall construct and maintain all roads to the working areas for excavation of foundations, laying of concrete etc., at his own expense.

Other Contractors.

In the matter of dumps, haul roads, diversions, excavations for the foundations etc., the contractor shall take into consideration the needs and requirements of other contractors, if any, working in the vicinity. There should be proper and adequate co-ordination between the working in the vicinity. Further the contractor shall not make or cause discontent or disturbance to the work, labour or arrangements etc. of other contractors in the neighboring and the project localities.

Use of Site.

Contractors will be permitted to use without any charge the site and all lands under the control of project organization as required for execution of work. The Contractor shall not commence any operation on such lands except with the prior approval of the Engineer-in-charge.

All areas of operations including those for his staff and labour colonies handed over to the contractor shall be cleared and handed over to the Engineer-in-charge after completion/recession of contract. While handing over, the contractor shall make good to the satisfaction of the Engineer-In-charge any damage or alteration made to areas or to other property or land handed over to him for purpose of these work.

Temporary structures may be erected by the contractor for storage sheds, office, residence etc., for non commercial use on the land handed over to him at his expenses and with the permission of the Engineer-in-charge. At the completion of the work, these structures should be dismantled and the site cleared and handed over to the department. The lands required for providing amenities in connection with the work will be given free of cost from the Government lands as shown in the plan enclosed.

Floods

In case of flash and untimely floods in the river/nalla during the working season resulting in

over-topping of coffer dam and flooding of the work area, the contractor shall make his own arrangements at his cost to shift the machineries, equipments, materials, labour and departmental machineries if hired by the contractor to a safe place. The work shall have to be resumed after receding of floods and necessary strengthening of coffer dam and dewatering will be done by the contractor at his cost. Extension of time for the completion of the procurement processes may be considered by the employer if the discontinuance of the work is beyond the all reasonable attempts of the contractor to thwart such eventualities.

The silt, debris, sand and other materials accumulated in the working area during flash floods or regular floods in the monsoon shall be removed by the contractor as required for continuing the work at his own cost. By any chance, if any excavated portion that could not be filled with concrete by the contractor gets filled up during the monsoon period with earth and silt, its removal will not be paid for again. The contractor will have to re-excavate the same at his own cost.

It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangements as may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and payment made, against damages either during working season or during the flood season the department accepts no liability, what-so-ever for any damage or loss of men, materials, machinery and work of hindrance caused to the progress of work except as provided in specific clause of General Conditions of Contract under contractor's risk and insurance.

The contractor should provide at his own cost adequate protection measures to the completed works at the end of working season or work in progress against the probable flood during monsoon till completion and handing over of entire work.

CHAPTER – 2

2. GENERAL SPECIFICATION

The enclosed drawing in the bid document gives broad dimensions and outline of the works to be executed through this contract. These drawings may however be revised / modified form time to time and supplementary additional drawing may also be issued as per necessity. During the course of execution there may be changes in dimension, specifications and shape of components. The changes in the drawing can be done without any way deviating the terms of the contract and the contractor is to execute the work as per revised drawings and specifications at the same rate as agreed upon for the work awarded under the original contract. The contractor shall do no work without proper drawings. He shall check all drawings and specifications carefully and advise the Engineer-In-charge, if any error and omission are discovered where upon he Superintending Engineer will prepare revised additional drawings and specification s as may be required to suit the state of the work. Where the drawings are not consistent with the text of the specification, the text shall govern.

The rates quoted shall be for finished items of work as per description in schedule of quantities and according to drawings, specifications and conditions of the contract. Detailed construction drawings shall be furnished by the Department. Rates quoted shall be for items of works, specifications of which confirm to details furnished in this report and provisions in Bureau of Indian Standards and shall include all general and incidental charges which will not be paid separately. Such general and incidental charges are listed below for the convenience of the tenderers but are not exhaustive. Omission of any such items herein but required for delivering finished items of work, shall not be a plea that such items are not covered by the rates quoted.

Formation and maintenance of haul roads within the work site, (i) are to be done by the contractor at his own cost. (ii) Existing approaches and haul roads, if any, under the control of the barrage organization may be made use of, but improvement, if required, shall be at contractor's cost.

Labour & material required for construction of reference points, bench marks, pillars etc. for setting out the works shall be at contractor's cost.

The rate offered includes cost of all leads, lifts and scaffolding and gang-ways as and when required for the work. No additional payment in this regard will be entertained.

Construction of coffer dam, dewatering of any water that may accumulate in the working areasas required for carrying out the items under schedules of quantities. This shall include the initial dewatering of the pond formed after the formation of coffer dam and all seepage that may accumulate in the area before construction has to be carried out.

Removal of temporary protection arrangements for the reinforcements and instrument pipes left projecting from the unfinished constructed sections to be attended to in the next working season. The reinforcement etc. have to be thoroughly cleaned and straightened before these are embedded in concrete/masonry.

Providing protection arrangements as per drawing for the reinforcement rods and instrumentation pipes, cable etc., during flood season intervening any two working seasons.

Protection works for the piers during the flood season intervening any two working seasons. This is however, indicative of the actual protection works that will depend on the location and the point of protection and should be done to the satisfaction of the Engineer-in-charge. The responsibility for the safety of the structure rest entirely on the contractor and any damage that occur have to be made good by him at his cost.

Green cutting/high pressure water jetting /chipping off old concrete surface, over which fresh concrete is to be laid, so as to remove laitance and expose coarse aggregate.

Cleaning the areas that will be covered by concrete thoroughly with air and water jet just before laying concrete and applying slurry of cement mortar 1:2.

From work complete including cost of materials, labour, maintenance, erection and removal.

Providing blocks outs (for second stage embedded metal parts of gates) with reinforcement

projecting into the block outs.

Fixing first stage embedded metal parts in the block outs.

Furnishing samples of welds to the department for testing cost of binding wire, tack welding wherever required and arrangement for movement of labourers for pouring concrete over the reinforcement such that the sag does not exceed 12 mm.

The sequence of construction to be adopted by the contractor shall have to be approved by the Chief Engineer. Normally sequence of construction shall be form a lower level to a higher level and from one end of the barrage to other or from both ends or from one end of the serviceroad to other end.

Coffer Dam and its Maintenance.(Applicable if necessary)

The contractor has to make his own design for the coffer dam and furnish the same along with this tender. The cofferdam may be designed for 25years return flood for non monsoon flows. Any material required for the coffer dam shall be arranged by the contractor. The design of the coffer dam shall be such that its section is of erodible nature and should not form an obstruction to river flow during monsoon period. The design should receive the prior approval of the Engineer-in-charge before being actually executed by the contractor. Forming the necessary coffer dam and its maintenance for the work contemplated in all the working seasons till the final completion date, shall be the responsibility of the contractor. However flash and untimely floods cannot be ruled out during the working season for which the coffer dam should be suitably constructed and maintained by the contractor at his own cost.

Equivalency of Standard and Codes.

Whenever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region other authoritative standards which ensure an equal or higher quality than the standards and codes specified will be accepted subject to the Engineer's prior review and written approval. Differences between the standards specified and the proposed alternative standards must be fully described in writing by the Contractor and submitted to the Engineer at least 28 days prior to thedate when the Contractor desires the Engineer's approval. In the event the Engineer determines that such proposed deviations do not ensure equal or higher quality, the Contractor shall comply with the standards specified in the document.

Quality Control

Before collecting materials required for execution of the respective items of work and laid down in the schedule of quantities and in the detailed specifications described hereafter in the subsequent sections, the contractor shall ensure that samples of materials proposed to be

used are first approved by the Engineer-in-charge. When directed the samples of materials proposed to be used should be furnished to the **Departmental Quality Assurance Division , Samal** for testing.

All such testing charges shall be borne by the contractor. The contractor will provide necessary assistance if required for collection of samples. The contractor is liable to pay for any test which is not included in the Agreement but required in the opinion of the Engineer- in -charge during execution of the work for which no additional payment will be made to the contractor.

On the basis of satisfactory test results confirming to technical specification, collection of materials shall be started from the quarry. The testing of materials shall be checked in the field laboratory by the Department as well as staff of Quality Assurance organization. If the field test result is found unsatisfactory, the materials shall be rejected.

On receipt of notice from the Engineer-In-Charge and on observation of **Quality Assurance Division , Samal** the contractor will rectify the defects in stipulate period at his own cost, If the defects are not rectified in the stipulated period, the Engineer-in-charge shall assess the cost, get the defect rectified and recover the same from the dues of the Contractor.

A quarry chart indicating possible sources of materials may be seen in the office of the **Superintending Engineer, Anugola Irrigation Division, Anugola.** The contractor must however satisfy himself that the materials as required as per specifications and quantity are available in those quarries. No extra payment will be made due to non-available in those quarries. No extra payment will be made due to non-availabilitymaterials as per required specification and quantity in the quarries shown in the departmental quarry chart. The quarry chart is only an indication of source of materials and the department does not accept the responsibility if the materials are not available in full quantity and quality.

No claim for carriages of water whatsoever will be entertained .

Decision regarding usefulness of excavated materials rests fully on the Engineer-In- Charge.

CHAPTER – 3

3.0 STONE WORK

3.1.1 Riprap and Coarse Gravel Protection

A. General

The Contractor shall furnish and place riprap and coarse gravel protection to the prescribed outlines and thickness provided in the drawings for the protection of the canals and structures and elsewhere as required

B. Materials

The stone required for riprap shall be in accordance with clause 4.1 of I.S. 8237 -1976 Indian code of practice for protection of slopes for reservoir embankments. The stones for riprap shall be hard and durable and shall not crumble on long exposure to water and air. The gravel protection shall be reasonably well graded and shall conform to clauses 5.15.1.1, 5.1.2, 5.1.3 and 5.2 of I.S 8237- 1976. The thickness of the stone to be used in the riprap shall be in accordance with clauses 6.3, 6.4.1 of I.S. 8237- 1976, Indian code of practice for protection of slopes for reservoir embankments.

The Contractor shall unless otherwise specifically stated in the contract be responsible for payment wherever payable of all import duties, tools, octoroi duties, seigniorage, quarry fees etc. on all materials and article that he may use.

(C) Placing :

The placing and laying of riprap with coarse gravel 'protection shall be, in accordance with clauses 6.1.6.2,6.2.1 and 6.2.2 of I.S. 8237-1985 in case the rip rap hand placed riprap, and in accordance with clause 7.1,7.2 of I.S. 8237-1976 in case the riprap is dumped riprap.

Minimum Thickness or Hand Placed Riprap

Expected Wave Height Meter	Minimum Thickness Cm
0 to 1.5	30
1.5 to 3.0	45
Larger than 3.0	60

Recommended Riprap Thickness and Gradation

Range of average Height meter	Minimum Average Rock size	Minimum Riprap Thickness cm
0 to 1.5	30	60
1.5 to 3.0	40	75
Above 3.0	70	100

(D) Measurement and Payment

Measurement and payment of riprap or. of coarse gravel protection shall be made to the outlines of the nominal thickness prescribed. Payment for riprap and coarse gravel protection shall be made at the applicable unit price per cubic meter bid therefore in the bill of quantities for riprap and coarse gravel protection which unit price shall include the cost of procuring or furnishing, hauling and placing the rock for riprap or gravel for coarse gravel protection including the rock Spalls and gravel to fill the voids in the revetment.

Forming Dry Rubble Rock Toe

(A) General

The dry rubble rock toe along with filters shall be formed to the lines and graded as shown in the drawing. The forming of dry rubble rock toe filter consists of

i. Excavation of foundation trench 45cm. deep for laying filters and forming rock toe.

ii. Laying sand filters

iii. Laying graded metal filters and

iv. Forming dry rubble rock toe.

(B) Materials

i. The filter materials should be composed of layers of fine sand coarse sand hard rock aggregates of thickness specified in plans and in schedule.

ii. The fine and coarse sand used shall be composed of clean sand, well graded, hard siliceous material, free from injurious amounts of dust lumps of clay, soft or flaky particles, shale, alkali, loam mica or other deleterious substance. If the same brought to the site is dirty it must be washed thoroughly cleaned with water so as to get rid of all soluble impurities. The sand shall be screened and the fine coarse stocked separately which materials shall confirm to the gradation specified

hereunder.

iii. The aggregate of 10 mm to 75 mm size rock fragments shall consist' of broken stone which are hard, dense and durable. The rock fragments shall be free of disintegrated and decomposed stone, soft flaky, salt, alkali, vegetable, matter and other deleterious' substance like clay, lumps etc. They should be washed clean and stacked separately as per the gradation defined hereafter.

iv. Almost all the quantity of rock chips and spalls required for breaking the aggregate and which are obtained from the spoil of canal rock blasting will be available at site. It shall be incumbent upon the Contractor to first utilize these materials to the full and the recovery of cost of the material used from such spoils from canal excavation shall be fixed by the Engineer-in- Charge, which is binding on the Contractor.

v. The gradation each filter layer shall meet the following requirement with respect to the materials in the adjacent filter layer. Each successive layer of material shall be composed of particles such that the 15% size (15% smaller than and 85% larger than the diameter) is more that 5 times that of 15% size of the layer above.

vi. The requirement for grading of the filters shall be established by the field laboratory on the basis at mechanical analysis of the adjacent fill material. Mechanical analysis shall be performed on samples which have been compacted. The test is to be conducted by the Contractor at his cost in the presence of Department Engineers to be nominated by the Engineer-in-Charge.

vii. The following gradation is however tentatively and roughly indicated for the Contractor's information.

FINE SAND

At least 15% particles should be less than 0.3mm to 0.5mm in diameter.

COURSE SAND

At least 15% particles should be less than 2.50mm to 3mm in diameter.

AGGREGATE

10mm to 75mm rock aggregate: At least 15% particles could be less than 20mm in size.

viii. Representative samples of these filter materials should be submitted by the Contractor to the Engineer-in-Charge of the work so that the mechanical analysis of the same could be carried out in the field laboratory and its gradation got tested and declared as permissible. In the event of the samples not conforming with the required gradation, the Contractor shall take such steps and perform such operation as to result in obtaining the materials of the required gradation without claiming any extra consideration beyond his quoted rate.

(C) Rock Toe

i. The rock fill at the down stream toe of the bank shall be constructed to the finished lines and grades shown in the drawings.

ii. The rock fill shall be placed in layers not exceeding 0.30 meter thickness at the time. The large rock fragments shall be placed on the outer faces of rock toe and shall be closely and firmly set with hand with their broadest side down-wards and face normal to the finished slope. At least 25% of these stones on the outer faces, should be 300mm in depth in normal to the slope and to be well embedded in the mass and should be laid with breaking joints as far as possible, so as to secure a firm and stable rock mass. For the sloping surface away from the embankment interstices between the adjacent stone on the slope shall be well filled with stones of the proper size. and tightly wedged by wooden mallets or crowbars to ensure firm packing to result in a neat and well packed surface true to the finished slope. For earth side slope the surface stones need not be thus wedged with smaller stones so as to allow free drainage of the embankment. Profiles of strings and pegs should be used to ensure that rock toe is done true, straight and to confirm neatly to the designed slopes throughout

iii. Rock spalls and stones not less than 0.014 cum in volume shall then be dumped in the interior portion so as to claim a free draining. properly graded fill with the best practicable distribution of materials and prevent large unfilled spaces being left within the rock mass. The inclusion of rock spall in the mass to amount in excess of the required to fill the voids between the large stones shall be permissible. The stones used shall consist of sound dense and durable rocks and shall be reasonably well graded.

(D) Slope and Bed Filter to Rock Toe

i. Slope and bed filter should be laid for the rock toe consisting of filter materials of specified thickness and types shown in the drawings.

ii. The specification of the materials mentioned shall be the same as given in paragraph (B), above.

iii. The thickness of the various types of filter materials shall be specified in the plans.

(E) Measurement and Payment

Measurement and payment for filters shall be in the units of cubic meter. The payment shall be made on the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of the materials and labour involved in all the operations specified for formation of filters.

Rough Stone Dry Packing for Aprons and Revetments

i. The bed or slopes to receive the packing shall first be provided as specified and passed by the Engineer-in-Charge. In case where the work. of preparation of bed and slopes such as cutting out high bund, filling in hollows, etc. or the digging of the well foundations is rather extensive, separate items should usually be provided for such subsidiary kinds of work in the schedule the agreement. But if the work involved in such subsidiary item is very little, no separate provision need made and in the absence of such provision the Contractor shall understand that his tender rate is inclusive of all such work without extra charge. If the backing is to be laid on made up ground

which is objectionable it shall so far as possible, not to be laid till the ground has completely settled if a backing of gravel, quarry rubbish or other material is to be given, it will be specified in a separate schedule item.

The size of the stone to be used for dry stone revetment should be 225 mm. and 300 mm thick or as specified.

ii. The stone shall be perfectly sound, as regular in shape as Possible free from cracks and decay and with their lengths equal to the thickness of the required apron or revetments and each stone shall not be less in size than 0.05 cubic meter unless otherwise specified or ordered by the Engineer-in-Charge having required to the nature of the stone along quarried. The smaller size stones required for filling in interstice and wedging shall only be supplied to the actual requirements for the work as defined in clause (iv) below and shall not .be used in 2 or 3 layers as a substitute for the full thickness stone, specified in clause (ill) below. The stone shall be obtained from the quarry specified.

iii. The stones shall be laid closely in position on the prepared bed and firmly set with their broadest end downwards. So that they may meet all round their bases and with the top of the stone, level with the finished surface of packing. The stones shall be laid breaking joints so far as possible in the direction of the flow of water. The stones are to be placed perpendicular to the finished surface i.e., perpendicular to the slope for revetments.

iv. Interstices between adjacent stones shall be filled in with stones of the proper size, well driven in with crowbars to ensure tight packing and complete filling of all interstices. Such filling shall be carried on simultaneously with the placing in position of large stones and shall in no case be permitted to fall behind. The final wedging shall be done only after obtaining the orders of the Engineer-in-Charge. The final wedging shall be done with the largest size chip practicable, each chip being well driven home with a hammer so that no chip is possible of being picked up or removed by hand.

v. Profiles of strings and pegs are to be put up to ensure that the pitching is done true, straight and to the proper slope throughout and revetments are in all cases to be built up from the foot of the bund to be reverted. Care is necessary that a strong toe wall or other protection is always given to the revetment which protective measures shall be shown on the plans.

vi. On completion the surfaces presented by the apron or revetment shall be even throughout free from irregularities to the required length. breadth and slope as specified or shown on the plans.

Measurement and Payment

Measurement and payment for rough stone dry packing for apron and revetment will be in the units cubic meters. The payment will be made on the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of all materials and labour involved in all the operation specified for rough stone dry packing.

CHAPTER-4
STONE PITCHING.

General

Stone protection work for loose apron of the barrage bays beyond concrete cubes both in upstream and downstream and also below the cubes of upstream of barrage are to be provided as per relevant drawings. Rough stone pitching has to be provided on the river side slope of the afflux and guide bunds. The launching apron for these bunds in continuation of the revetment to abutment shall be constructed with random rubbles.

Material for Stone pitching.

4.1.1. The pitching material shall consist of the most durable rock fragments of approved quality selected for the purpose. Stones shall be procured from the approved quarries, and if required shall be subjected to inspection and approval by the Engineer-in-charge. The quality of individual stone shall be dense, sound and free from conglomerate, bands and other defects that would tend to increase their susceptibility to destruction by water and weathering action. Stones having thickness less than 50% of their maximum dimension shall not be used for pitching.

Size of Stone

Stone shall be of minimum 30 cm in size. At least 15% of stones to be used for pitching shall have depth equal to the thickness of pitching. All stones to be used for apron shall have a minimum depth of 22.5 cm. No stones shall have any dimensions less than 20 cm. For construction of launching apron hard granite stone of size 0.30 m and above of approved quality are to be used.

Slope Cutting

The compacted embankment, the slope of which is to be protected with stone pitching, shall be trimmed to the lines and slopes as prescribed on the drawings or as directed by the Engineer-in-charge from time to time. The earth obtained from this trimming shall be laid on top of the embankment if required or as directed by the Engineer-in-Charge.

Thickness of pitching

a) Pitching shall be hand placed on the water side slope of the embankment. The thickness of pitching shall be as indicated on the drawings. The thickness shall be measured normal to the slope of the embankment. b) Launching apron shall be hand placed in horizontal layers and its thickness shall be as indicated on the drawings.

Method of Placement.

a) Before laying the pitching or launching apron on level ground or on sides of the slope of afflux or guide bunds, the receiving surface shall be trimmed to the required slopes and profiles put by means of lines and pegs at regular intervals. Depressions shall be filled up and thoroughly compacted. Pitching on inverted filter, if any shall be started from the end and built in courses upwards. Stones shall be placed by derrick or by hand and so placed that the largest dimensions are perpendicular to the face of the slope. The large stones shall be placed in the bottom course and for use as headers for subsequent courses. b) All interests between adjacent stones shall be filled with spalls if proper sizes and wedged in with hammer to ensure tight packing.

Measurement and payment

Measurement for payment will be made on the basis of cubic meter of the finished works for the respective items as mentioned earlier after deduction of minimum 1/6th towards void. The unit rate is inclusive of trimming the earth to required profile, slopes and grade and/or preparing level strips at suitable interval as directed to have uniform base, cost, conveyance, royalty and other taxes of materials, supply of equipments labour etc. complete as per direction of Engineer-in-charge.

CHAPTER – (5) SITE OF WORK

SECTION 5.1 DISCHARGE OF RECORDS

5.1.1. DISCHARGE

The Hydrological data, pertaining to the canal and the streams crossing the canal furnished in the relevant report and drawings, are for information of bidders and contractors. It should be noted that the data used in preparing these particulars were recorded at locations different from the work site. The Government (that is Govt. of Orissa) does not guarantee the reliability or accuracy of any of the data, shall assume no responsibilities for any conclusions or interpretations that may be made from them. The contractor shall undertake at his expense such studies as are necessary to assess the reliabilities and accuracy of the information presented in the Data.

SECTION 5.2. SETTING OUT OF WORK ;

(A) Permanent bench marks shall be fixed at suitable location connecting permanent bench marks fixed by Survey of India. Temporary Bench Marks shall be set up by the Department at every 0.5 Km .interval at convenient locations along the canal to serve as reference levels. The contractor shall establish additional reference Bench Marks as may be needed at his own cost for facilitating the setting out and taking levels for measurement of work, with the approval of the Engineer-in-charge. The bench mark shall be marked on a concrete pillar 30 cm. (1) x 30 cm (b) x 75 cm (d) which shall be embedded 55 cm into firm ground and projecting 20 cm above the ground. The Bench Mark pillar shall be constructed in plain cement concrete of M-10. The pillar shall be protected from being disturbed. The RL of bench marks shall be conspicuously carved and painted on the pillar.

(B) Before starting any work and ruing execution (if required), the contractor shall erect reference Bench Marks. Reference lines and check profiles at convenient locations as per the direction of the Engineer. The center line of the canal and the reference line for all alignments for demarcation purpose shall be laid by dug belling on the ground. The reference line shall comprise the base line properly bud belled on the ground with the numbered concrete/masonry RD pillar suitably spaced.

(C) Center line of the canal shall be marked by fixing pillar/stone at 30M intervals profiles of the canal in filling and in moderate cutting shall be marked at 50 M. intervals in straight reaches and at 25M. intervals in curves. A reference line shall also be marked on ground away from then outer edges of cutting and filling with pillars at suitable intervals for future reference.

To ensure correctness of execution, the edges of cutting the outer toe lines of canal in filling should be marked by fixing pillars or pegs at suitable intervals or by dug belling.

(D) The check profiles shall be located 15 meter apart or longer as directed by the Engineer-in-charge to serve as a guide for execution of all slopes and steps to the elevations and profile or profiles indicated in the approved drawings. All important levels and all reference points with respect to bench marks and reference shall be fixed and co-related by the contractor as per directions of the Engineer-in-charge.

(E) The zones of full cutting section, full filling section partial cutting and filling section shall be separated by conspicuous demarcation in the field.

The curves stipulated in construction drawings shall be carefully laid in the field by adopting approved method of curve layout. The curves shall be marked on the ground by fixing pegs at very closer intervals and joining the peg points by dug belling to suitable depth.

The locations of different structures indicated in construction drawing shall also be clearly marked on the ground along the alignment of the canal. The control structure locations of off taking canals shall also be clearly demarcated, so that unnecessary excavation or filling at these locations can be avoided.

The spoils dumping zones shall clearly be demarcated in the field. These zones should be at least 2m. beyond the location of catch water drains.

(F) To ensure accuracy in execution of cutting, the canal embankment, spoil banks and t5he structures, their layout shall be given in an appropriate manner with pegs and pillars suitably placed in relation to outer dimensions of these elements.

(G) All materials and labour for setting out works including construction of reference bench marks, reference lines, check profiles and surveys as may be required at the various states of the construction, shall be supplied by the contractor at his own cost. The cost of such works shall be deemed to have included in the cost of items in schedule.

SECTION 5.3 CLEARING AND GRUBBING;

A. CLEARING AND LEVELING SITE.

The portion of the right of way where required for constructing the work under these specifications shall be cleared of all trees bushes, rubbish and other objectionable materials. Trees designated by the Engineer- in-charge shall not be cut and shall be protected from injury. Such cleared materials shall be disposed off as provided in the sub-paragraph 'C' below or removed from the site of work before the date of completion of the3 contract as approved by the 'Engineer-in-charge. The clearing operation shall be in accordance with clauses 4.1., 4.1.1., 4.2 and 4.3 of IS: 4701-1982 Indian code of Practice for earth work in canals. Surface boulders either loose or partly embedded in the ground will have to be removed and stacked as directed.

B. GRUBBING.

The area described or shown on the relevant site plan shall be cleared of all obstructions loose stones, non required materials and rubbish of all kinds. All brushwood shall be cleared and the roots grubbed up. No trees shall be cut down and removed without the instructions of the Engineer-in-charge. Those which are cut down shall be grubbed up. The same remarks apply to jungle clearance. Trees to be preserved will be designated by the Engineer-in-charge.

The products of the clearing shall be stacked in such place and manner as may be ordered by the Engineer-in-charge and the ground shall be left in a perfectly clean condition all products of the clearing shall be property of Govt. and shall be disposed of as per the direction of the Engineer-in-charge.

All holes or hollows, whether originally existing or produced by digging up roots shall be carefully filled up with earth, well rammed to the design density and levelled off as directed.

PREPARATION OF BED;

Any hills shall be completely dug out before earth work is stated. In the absence of any separate contract schedule provision for removal of shrubs. Loose stones and digging of any hills involved in the preparation of bed, the contract rate for earth work shall be deemed to include all the work to be done in accordance with this clause. In cases where the work of preparation of bed is earth extensive, the Engineer-in-charge will usually provide a separate schedule item of such preparation, but in the absence of such schedule provision, the contractor shall understand that his tender rate is inclusive of all such work without extra charge. The contractor shall therefore examine the site before tendering and provided for all items to be done under his earth work tender rate. Old bunds will be benched or sloped as directed by Engineer-in- charge before addition of earth, the benches being 500 mm x 500 mm unless other sizes are specified. The benches or slope shall be inspected by the Engineer-in-charge or engineer designated for the purpose and approved before new earth work is keyed into them.

C. DISPOSAL OF CLEARED AND GRUBBED MATERIAL.

The disposal of cleared and grubbed materials shall be in accordance with clause 4.1.1. of IS 470-1982 code of practice for earth work on canals. All waste materials to be burnt shall be pilled neatly and when in suitable condition shall be burnt completely to ashes. Pilling of waste material for burning shall be done at such a location and in such a manner as would not cause any fire risk cleared area. Suitable materials and equipments for prevention and suppression of the fire shall be kept available at all times.

The materials to be disposed off shall be buried.

D. PAYMENT

For the clearance of light jungles, heavy jungle with or without uprooting etc. payment will be made as provided for in the tender documents. Separate payment will not be made for clearing of site and grubbing including disposal of the cleared and grubbed materials required under the above paras unless and otherwise specified in the contract document. The contractor shall include the cost thereof in the price bid in the bill of quantities of the contract for the relevant finished item of work for which clearing and grubbing as mentioned in

the above para are required. No payment towards removal of small stones and boulders of size less than 0.0014 cubic meter will be made, and the rate quoted for excavation will considered to include this item. However, payment will made for the removal of surface boulders of sizes greater than 0.14 cubic meter but less than 3 cum.

Either loose or partly embedded in the ground, at the rate quoted in bill of quantities for the actual quantity so removed based on stack measurement applicable for the relevant strata classification after deducting 40% towards voids.

Benching will be paid as separate item, per 1(one) running mtr. of bench at the rate provided for in the tender documents.

SECTION 5.4: USE OF WATER :

WATER FOR DUST ABETMENT.

A. GENERAL

The contractor shall procure and apply water for dust abatement.

Water applied for dust abatement will not be eligible for payment. The cost of procuring and applying water including all expenses for all means of conveying water to the point of use their collection, usage, and all other incidental expenses will not be paid separately including creation of source of water and the cost shall be deemed to have been included in the concerned unit price bid in the bill of quantities of the contract for the relevant finished item of work for which water for dust abatement is required.

So also the cost of procuring and applying water required for the works hall be included in the price bid in the bills of quantities for the items of work for which the water is used.

PREWETTING OF CANAL PRISM AND ADJACENT AREAS:

A. GENERAL

The contractor shall furnish all labour, materials and equipment and shall procure and apply water required for prewetting the areas under canal and embankment.

Water applied for prewetting areas as detailed above will not be eligible for payment . The cost of procuring and applying water including all expenses for all means of conveying the water to the point of use, their collection, usage and all incidental charges shall be included by the contractor in the concerned unit price bid in the bill of quantities for that item of work where the water shall be used and no separate payment for the same will be made.

SECTION 5.5 SITE DRAINAGE:

CROSS DRAINAGE:

The contractor shall handle all flows from natural drainage channel intercepted by the work under these specifications, perform any additional excavation and grading for drainage as directed and provide and maintain any temporary construction required to by past or otherwise cause the follows to be harmless to the work and property. When the temporary construction is no longer needed and prior to acceptance of the work the contractor shall remove the temporary construction and restore the site to its original condition as approved by

the Engineer-in-charge. The cost of all works and materials required by this paragraph shall be included by the contractor in the unit prices quoted in the bill of quantities and no separate payment will be made for the same.

In addition to cross drains, longitudinal drains may the considered necessary for proper drainage. The drainage system consisting of network of cross and longitudinal drainage system will be led into out fall drains to prevent stagnation of water at the place of construction. The drains shall be constructed to the section designed and shall be either open or filled up with material to ensure free flow of water without clogging of the filled materials.

5.6 DRAINS, BERM DRAINS AND DOWEL BANKS:

A. **DRAINS:**

In connection with excavation for the canal and structures, the contractor shall perform excavation for the construction of drains, beam drains and chutes and any other drains as directed by the Engineer-in-charge.

The location grades and sections of the drains shall be as shown on the drawings and or as directed, Measurement of excavation for the above drains, will be made to the lines shown in the drawings or as directed. Payment for excavation for the above drains, channels and embankment will be made at the unit price bid in the bill of quantities for execution of canal, which unit price shall include the cost of placing the materials in embankment or otherwise disposing of the excavated materials and all work necessary to maintain the work in good order during construction.

B. **BERM DRAINAGE AND DOWEL BANKS:**

Berm drainage including drainage along the berms and Banks of the canal and longitudinal Berm drains shall be constructed where shown on the drawings as directed. The Berm drains shall be constructed to dimensions and grades shown on the drawings or as directed.

The surface of the berms shall be sloped transversely and dowel banks shall be made along with sides of the banks and berms where shown on the drawings and elsewhere where directed. The dowel banks may be made by balding of material in place following completion of a canal reach.

No direct payment will be made for construing Dowel banks and sloping berms and cost there of shall be included in the unit price per cubic meter bid in the bill of quantities for construction for canal embankment including reconstructing and remodeling.

MONSOON DAMAGES:

Damages due to rain or flood either in cutting or in banks shall have to be made good by the Contractor till the work is handed over to the department. The responsibility for de-silting and making good the damages due to rain or flood rests with the Contractor. No extra cost is payable for such operations and the contractor shall, therefore, had to take all necessary precautions to protect the work done during the construction period?

5.7 REMOVAL OF SILT AND WATER:

Accumulated silt and water in the canal and structures for the works should be removed by the contractor and payment will be made for such removal of silt and water once as provided in bill of quantities.

SECTION 5.8

PROCEDURE FOR MEASUREMENT:

Before commencement of work, initial levels to indicate existing ground levels shall be taken at 15m. Intervals longitudinally along the alignment of the canal. The level points transversely along the cross sections shall be maximum at 5 M. intervals in flat ground and 1.5-2M in undulating terrain. The cross sections shall be extended beyond the limit of work to a suitable distance and minimum 5 mtr. beyond the toe lines of slopes on both the sides. The interval stipulated shall be made closer depending on the topography or any stipulation made by the Engineer-in-charge.

All initial levels shall be recorded in ink in authenticated level books issued by the Engineer-in-charge and shall be signed by the Junior Engineer / Assistant Engineer when he records the levels. The Assistant Engineers and Superintending Engineers shall exercise checks strictly in accordance with the codal provisions.

Actual construction works shall not be allowed to start unless the above formalities are fulfilled.

If the work is awarded to any agency the level shall be recorded in the presence of the contractor or his authorized agent. The contractor or his authorized agent shall sign each page of the level book/field book in token of acceptance. These cross sections shall form the basis of all future measurements and payments. Each dimension shall be measured to the nearest 0.01m areas shall be computed to nearest
0.01 sqm. Volume shall be computed to nearest 0.01 cubic mtr.

CHAPTER- 6 EARTH WORK

SECTION 6.1: EARTH WORK – GENERAL

To the extent that they exist, plans and estimates for the Government's studies of Earth Work for construction of the canal will be available for inspection by the Bidders in the office of the concerned Engineer-in- charge. Such information is made available solely for the convenience of Bidders. The Government does not guarantee that the information is accurate or complete. Bidders are cautioned that this information is subject to revision and that the Govt. disclaims responsibility for any interpretation, deduction or conclusions, which may be made there from. It is not intended that this information will limit or prescribe the excavation and handling procedures of the contractor, and the Govt. reserves the right to utilise and distribute earth work materials during the progress of work it serves the interest of the Govt.

Drawing showing the typical section of the canal annexed to these specifications provides such details as would enable the contractor to execute the work in general conformity there-with under these specifications which have been prepared as definitely and in as much detail as possible with regard to design data presently available. These drawings will be supplemented by such additional, general and details drawings or directions as may be considered necessary or desirable as the work progresses. For all changes in approved drawing/design the recommendation of Additional Chief Engineer and approval of Chief Engineer will be essential. Where details shown on these drawings differ from the requirements of these specifications. The requirement of specifications shall govern. The contractor shall do no work without proper drawings. He shall check all drawings and specifications carefully and advise the Engineer-in-charge if any errors and commissions are discovered where upon the Superintending Engineer will prepare and lodge such revised additional drawings and specifications as may be required to suit the stage of the work. All such additional general and detailed drawings whether original or revised lodged in the office of the Engineer-in-charge and signed by him for purpose of identification shall be open for inspection by the contractor under the same terms and conditions as provided in agreement.

All works of the contract shall be executed as per the specific and relevant clause/clauses of relevant I.S. code unless otherwise specified. Materials used should, confirm to the desired standards. Prescribed in the relevant codes. Wherever a para of IS Code is cited in specification it goes without saying that the latest revision of the specification subsequently, shall apply. For purpose of relevancy or otherwise of any provision of the I.S. Code referred to the decision of the Engineer-in-charge.

SECTION 6.2. EXCAVATION OF CANAL AND FOR STRUCTURES:

CLASSIFICATION OF EXCAVATION:

The Sub-surface logging has been indicated the longitudinal section of the canal as carried out during exploration studies. This information is furnished only as a indication of nature of soil to be met with, payment shall however, be made on actual classification of soil met with during excavation.

Materials excavated shall not be classified for payment, except or otherwise provided in these specifications, materials excavated shall be measured in excavation to the lines shown on the drawings or as provided in these specifications, and all materials required to be excavated will be paid for at the applicable rates in the schedule for excavation. No additional allowance above the rates in the schedule will be made on account of any of the material being wet. Bidders and the contractors must assume all responsibility for deducing and concluding as to the nature of the materials to be excavated and the difficulties of making and maintaining the required excavations.

The classification of excavation shall be decided by the Engineer-in-charge and binding on the contractor. In case of dispute, the decision of SE. shall be final. Merely the use of explosive in excavation will not be considered in areas on the higher classification unless blasting is clearly necessary in the opinion of the Engineer- in-charge.

EXCAVATION FOR CANAL

a) The excavation may be carried out manually or mechanically and as per specification drawing and direction of Engineer-in-charge.

b) The excavation for canal in all kinds of soil and D.I .Rock shall be done according to the dimensions and grades shown on the drawing, Proud equivalent to thickness of the lining on sides and in bed on the underside of the lining shall be left unexcavated temporarily and the removal of this proud shall be done just before trimming and placing concrete for lining.

c) Blasting shall be done in such a manner as not to cause over break which in the opinion of the Engineer-in-charge is excessive. Special care shall be taken to prevent over break or loosening of material on bottom and side slopes against which concrete lining is to be placed. Final cutting in hard rock for 45 cm. shall be carried out by controlled blasting or chiseling or with the help of pneumatic pavement breakers. If excavation is required to be done within 30 m. from the existing structure, the same shall be carried out by chiseling without adopting blasting. The method of drilling and blasting to be resorted to for hard rock excavation shall be got approved from the Engineer-in-charge.

d) Except for the area of rock, all areas to be excavated for canal sections shall be pre wetted so that at the time of excavation moisture content shall be about optimum. However is case the excavated material from canal is not to be used for embankment, such pre-wetting is not necessary.

e) The excavation shall be allowed to progress from the valley ends of the reach towards the in ridge conformity with the layout given. All useful earth from excavation shall be used in for filling the banking section, with varying leads and with all lifts either manually or mechanically. Excavated materials which is not useful for banking or which is in excess after meeting the banking requirement of the reach shall be disposed as specified at Para 8.1 of I.S.Code 4701-1982 either by head lead or by mechanical means or by both in spoil bank or at any specified place with all lifts and with varying leads.

f) The degradation for tail channel and approach channel for structures and diversion of s drains nallas shall be done according to the dimension and grade as shown on the drawings or as instructed by the Engineer- in-charge.

g) The contractor shall not be entitled to any additional rate above the rates quoted in the schedule on account of the requirement for allowing additional time for drying, stock piling and re-handling the excavated materials which have been deposited temporarily and stock piled.

h) When cutting on cross sloping ground the contractor shall cut a catch water drain on the higher side to prevent water from flowing down the cutting slope.

EXCAVATION OF SOIL AND DISINTEGRATED (DI.) ROCK.

Excavation of soil shall comprise of all kinds of soil such as vegetable or organic soil, turf, sand, silt, loam, clay mud, peat, black cotton soil, loose or compact moorum, soft stiff/heavy/hard shale, stony earth mixed with gravel having 300 mm maximum diameter in one direction. Excavation of D.I. shall comprise of soling of roads/paths, hard core, macadam surface, lean, concrete, stone masonry, brick work, soft conglomerate, lime stone, sand stone, late rite, hard conglomerate and types of D. I. rock, which does not require blasting and can be quarried or split with pick axe and crow bars.

If however the contractor resorts to blasting in such strata and D.I. rocks for his convenience, no extra payment shall be made and the materials shall not be classified in higher grade.

Excavation for canal shall confirm to provisions of relevant I.S.Codes, Sides slopes are to be provided as per the approved drawings, specification and provision of I.S.Code.

6.3. EXCAVATION OF MEDIUM HARD ROCK.

This shall include all solid rock in place of such hardness and textures that it can not be removed by pick axe and crowbars and only to be removed by means of Rock Breaker. All boulders or detached pieces of solid rocks having volume greater than 3 cum. Can be classified as Medium Hard Rock .

The excavated rock and debris so obtained shall be carried and dumped /stacked separately with varying lead at places indicated by the Engineer.

The excavated materials shall be the property of the Department.

Payment for Medium Hard Rock by means of Rock Breaker shall be made as per level section (pre & finished). A closer interval for levelling may be adopted if considered necessary as per opinion of the Engineer-in- charge. Boulders having volume more than 0.3 M3 shall be pre- measured.

OVER EXCAVATION.

The canal shall be excavated to exact designed section in all kinds of soil and D.I. rock No over excavation will be allowed in such reaches. However in canal sections, taken in Medium Hard Rock formation over excavation to the extent of 10 cm. depth on an average will be allowed and paid for in the respective item. In case of over excavation beyond 10 cm depth due to poor geological formation certified by the Additional Chief Engineer and approved by the Chief Engineer payments would be made for removal of such quantity only.

DEWATERING TRENCHES AND WET EXCAVATION.

Subsoil water met within canal excavation shall be diverted to nearby drain/nalls by cutting an open channel within the canal section to be excavated, when the drain/nalla bed is higher than the subsoil water level met with, pumping shall be resorted to for dewatering below the drain nalla bed level. In case where topography of the area is such that surface water is not possible to be drained off by excavating the channel, pumping shall be resorted to till completion of the work.. No distinction shall be made as to whether the materials being excavated is dry, moist of wet, care should be taken to discharge the drained water not to cause damage to works, crops or any other property. No separate payment shall be made for dewatering by pumping of by any other method.

MEASUREMRENT AND PAYMENT

The payment shall be made on volumetric basis for the quantities excavated to the required extent. The cross sections shall be taken initially before commencement of work as stipulated in earlier para. On completion of excavation, final cross sections shall be taken at the same points longitudinally and transversely. These cross sections shall be marked on the initial cross sections and the quantities between initial and final cross section shall be worked out and paid.

In case of canal excavation in Medium Hard Rock, cross sections, shall be taken at 10 m interval longitudinally with transverse levels at 5 m. or closer intervals, as decided by the Engineer-in-charge for initial and final sections, isolated boulders having volume more than 3 cum and not covered in section measurement shall be pre measured.

SECTION 6.4 EMBANKMENTS

6.4.1. PREPARATION OF SURFACES UNDER EMBANKMENTS

The preparation of surfaces under embankment shall be in accordance with clause 6.1 &6.5 of IS 4701- 1982.

Before commencing the worm, the toe of the slope on each side of the Banks shall be locks pitted (dog belled) and marked by pegs firmly driven into the ground at intervals of about 15 meter. Profiles made by bamboos, earth, or other convenient materials and strings shall be set up for the guidance of the workmen about 15 meters apart over straight reaches and about 7.5 meters apart at curves.

Exception in areas of rock, the areas under canal embankments shall be pre-wet by sprinkling water before cleaning, grubbing or excavation of operations or embankments construction begin. The moisture content shall be optimum to a depth of one meter below the original ground surface or to impervious material whichever less as directed by the Engineer is. Whenever possible all water shall be added uniformly in one application. Areas, on the sides of the canal banks upon which the Engineer may direct spoil banks to be constructed will not require application of water.

The contractor is cautioned to control carefully the application of water and to cheek on the depth and amount of water penetration during application so as to avoid over watering, accumulation of water in depressions or excessive run off.

In at any location on embankment foundations, before and during embankment construction there is excessive moisture as determined by the Engineer, steps shall be taken to reduce the moisture by excavating drains, by allowing adequate drain time or by any other approved means.

The contractor shall not be entitled for any additional allowance above the unit prices bid in the schedule on account of the requirement for excavating drains or allowing additional time for drying, delays or increased closets due to poor traffic ability on the embankment foundations or on the haul roads, reduced efficiency of the equipment the contractor elects to use or on account of any other operational difficulties caused by overly wet embankment foundation or haul roads.

Where the ground surface under any embankment is not suitable as determined by the Engineer for a foundation for the embankment, the contractor shall strip the area under the embankment of such unsuitable material to such depth as may be directed. The material so removed shall be disposed off as provided in paragraph 3.3.4. Measurement for payment of stripping unsuitable materials under embankments shall be made only to the lines and to such depth as may be directed and payment therefore will be made at the unit prices per cubic meter bid in the bill of quantities for excavation for canal/construction of embankment.

Before beginning the construction of embankments the surface area of ground to be occupied shall be cleared of all roots and vegetable matter of any kind stripped to a suitable depth. The stumps shall be pulled or otherwise removed, and the roots grubbed. The stumps and roots removed shall be suitable disposed if.

The depth of which top soil is removed shall be adequate to remove all perishable material and any soil which may become unstable on saturation or may interfere with development of proper bond between foundation and embankment. It is not necessary to remove all the soil containing fine hair like roots but only the rather heavy mat. The underline table may offer as a guide for lines for finding depth of stripping.

Type of vegetable cover in the soil	Depth of stripping.
1. Soil containing light grass cover	5.0 to 7.5 centimeters
2. Agricultural Lands	To bottom of ploughed zone 15.0 to 20.0 centimeters

The ground surface under all canal embankments excepting rock surface where it is below the full supply level in the canal shall be scarified making open furrows not less than 20 centimeters deep below natural ground surface at intervals of not more than 1.0 (One) meter. However, where the ground surface is blow the bed level of the canal the entire surface of the foundation of embankments shall be stripped to a depth of not less than 20 (twenty) centimeters.

Immediately after preparation of the embankment foundation, the contractor shall excavate cut off trenches. Following this operation as soon as feasible and as approved by the Engineer the contractor shall place and compact embankment in the cut off trenches and place one metre of embankment over the entire embankment foundation and compact where required. This procedure will seal the foundation against loss of moisture and provide some consolidation of the foundation.

The cost of scarifying the foundation surfaces under the canal embankments and other embankments shall be paid at the unit per cubic metre bid in the bill of quantities for excavation of canal.

Payment for excavation for cut off trenches shall be made at the unit price per cubic metre bid in the schedule of quantities for excavation for canal.

Payment for compacting embankment in the cut off trenches shall be included in the unit price per cubic metre bid in the bill of quantities for watering of embankments.

Water applied for pre-wetting areas under the canal embankments and under other embankments will not be measured for payment and shall be included in unit price per cubic metre bid in the bill of quantities for excavation for canal/construction of canal embankment under the canal embankment.

In case of existing canals, where the slopes in canals and embankment portions are to be modified, benching of slopes shall be done or old bunds shall be sloped as directed by the Engineer duly clearing the surface area under slopes from all roots and vegetable matter and stumps shall be pulled or otherwise removed and roots grubbed. The stumps and roots removed shall be suitably disposed off.

The measurement of benching operation if done shall be done separately and the payment shall be made at unit price per running metre bid in the bill of quantities for that item.

6.4.2 CONSTRUCTION OF EMBANKMENTS:

A. GENERAL

Canal embankments shall be constructed to top widths and side slopes as shown on the drawings duly providing for compacted allowance of two cm. per meter height of bank for settlement. The embankment shall be built to heights as directed above those shown on the drawings. The top of all the canal embankments shall be graded to be suitable for a road way in accordance with subparagraph (b) and the top of other embankments shall be graded to scarified as directed.

Before commencing over haul of material from the borrow area, levels of the banks to be formed in the sections where the over hauled material is proposed for construction of embankments shall be taken. After completing the construction of embankment final cross section levels shall be taken and the volume shall be arrived at and payment shall be made to that quantity only.

All materials shall be deposited in embankments so that cobbles, gravel and boulders are will are well distributed through other materials and not nested in any position within or under the embankment as enunciated in clause 6.4. of IS 4701 – 1982.

In area where required excavation does not furnished suitable or adequate material for constructing embankment, material shall be obtained from area where material in excess of that required to construct the adjacent embankment is available.

Where the original ground surface is below the grade of the canal and where construction of a fill below the bottom of the canal is prescribed such fill shall be placed a a compacted embankment. Where the original ground surface is below the base of a structure, the fill required to form a suitable foundation for the structure shall be placed as compacted embankment.

b. ROADS AND RAMPS:

In conjunction with construction of canal embankments, the contractor shall construct operation and maintenance roads and earth ramps adjacent to the canal and structures where shown on the drawings and where directed at his own expense. Suitable materials from required excavation shall be placed as embankment for the roads and ramps. If sufficient material is not available from required excavation the Engineer may direct Excavation from borrow areas.

The width of road shall be provided as shown in the drawing and where the width of road is not shown on the drawings, it shall have a width of not less than 4.2 meters. The work required for construction, operation and maintenance of road and for earth ramps that obtainable with a motor grader provided for safe travel with a two wheel drive automobile in high gear to moderate speed. Special rolling or compact will not be normally required. Provided that if compaction is directed, the embankments shall be compacted in accordance with section 3.6.

c. EMBANKMENTS NOT TO BE COMPACTED :

Embankment not be compacted shall be formed conforming to clause .661 to I.S. 4701-1982. The material for these embankments shall have optimum moisture content before earth moving equipment is routed over the embankment. The embankments shall be built in layers not exceeding 30 (thirty) cm. in thickness. Embankments shall be built in approximately horizontal layers carried across the entire width of the embankments to the required slopes. Embankments shall not be widened with loose materials dumped from the top. Embankments may be built by excavation and hauling equipment or by excavating and hauling equipment shall be made in horizontal layers and shall be kept as close to level as practicable. The travel over the embankments during construction shall be routed so as to distribute the compacting effect of the equipment to the best practicable advantage.

DEPOSITING

Spoil from the pits shall be deposited on bank to each sections as are shown on the relevant plans specified or ordered by the Engineer-in-charge. Ramming breaking clods and smooth surface sectioning shall not be necessary, but a spoil banks with a neat straight toe, even slopes and even top surface shall be formed as the depositing proceeds.

Embankment built by excavating machinery depositing the materials directly from the excavation shall be made

in horizontal layers having a thickness of 30 (thirty) cm. Finer portions of the materials excavated shall be placed in that part of the embankment nearest to the water and coarser materials shall be placed in the outer part of the embankment.

d) EMBANKMENT TO BE COMPACTED:

The requirements for compacted embankments shall be as specified in section 3.6 All materials in compacting embankments shall be placed moisture and compacted as provided in Section 3.6.

The materials used for compacted embankments shall be suitable materials as determined by the Engineer-in-charge and shall be obtained from required excavation. The materials shall conform to clause 6.4 of IS 47-01-1982.

Before the materials for the Ist layer of embankment is placed, the foundation of the embankment shall be prepared as provided in paragraph 3.5.1 and shall be moistures and compacted in the manner herein after specified for each layer of compacted embankment to be placed thereon. The embankments shall be compacted to the elevation and to the top widths and side slopes shown on the drawings or prescribed by the Engineer-in- charge.

The layers shall be placed in rows approximately parallel to the axis of the bank. The base of embankment at every height is to be made to its full width of each zone as shown in the drawing plus offsets of not less than 0.45 meters beyond the finished profile on either side for compaction. No payment will be made for the off sets or for the subsequent removal and unit price quoted for the banking is deemed to be included. No additions will be allowed to the slope for full design section of the bank after the bank is raised. The embankment shall be compacted to 95% proctors density using pneumatic Tampers, frog rammers or vibratory plate compactor or power roller

Where the original ground surface is below the bottom of the canal and where compacted fill below the bottom of the canal is prescribed such fill shall be placed as compacted embankment. Where the original ground surface is below the base of structures for where slopping concrete walls or slabs extend above the original ground surface and it is practicable as determined by the Engineer-in-charge to embankments shall be constructed to lines and grades as directed to form suitable foundation for the structure of for the sloping or slabs.

BORROW AREA.
GENERAL.

a. All materials required for the construction of embankment and backfill for cut-off trench and around d the structures which are not available from canal excavation, excavation for structure or from excavation of other ancillary works shall be obtained from the designated borrow area within 5 Km after stripping as shown on drawing or as designated by the Engineer-in-charge in consultation with field laboratory. The depth of cut in all borrow areas shall be designated by the Engineer-in-charge and the cuts shall be made up to such designated depths only. Shallow cut will be permitted in the borrow areas if uncertified materials with uniform moisture contents are encountered. Each designated borrow area shall be fully exploited before switching over to the next designated borrow area. Half hazard exploitation of borrow pits shall not be permitted. The type of equipment used and the operations in the excavation of materials in borrow area shall be such as to produce the required uniformity of the mixture of materials for the embankment. The contractor has to arrange borrow earth at his own cost and responsibility. No compensation whatsoever for change in limits and locations of the borrow areas and depth of cut for getting suitable earth shall be paid to the contractor within 5 Km radius of dumping place of embankments in most practical route. The borrow area shall not be designated within a distance of five times the height of embankment from the other toe.

b. Borrow pits shall be operated so as not to impair the usefulness or mar the appearance of any part of the work of any other property. The surfaces of wasted materials shall be left in a reasonably level and even condition.

PREPARATION OF BORROW AREAS:

All areas required for borrowing earth for embankment shall be cleared of all tree stumps. roots, bushes, rubbish and other objectionable materials. Adequate lighting arrangement should be provided by the contractor.

Particulars care shall be taken to exclude all organic matter from the materials to be placed in the embankment. All cleared organic materials shall be burnt to ashes or disposed of as directed. The cleared areas shall be maintained free of vegetable growth during the progress of the work. No payment shall be admissible for preparation of the borrow areas indicated above as this deemed to have been included in unit bid price of earth work in the bill of quantities.

STRIPPING OF BORROW AREAS:

Borrow area shall be stripped of top soil, sod and any other objectionable materials to the required depth as directed by Engineer-in-charge.

The work may be done manually or with suitable machine. Stripping operations shall be limited only to designated borrow areas. Materials from stripping shall be disposed of in exhausted borrow areas or in the approved adjacent areas as directed. No extra payment shall be admissible for stripping the borrow areas as this is deemed to have been included in the unit bid price for earthwork in the bill of quantities.

BORROW AREA WATERING/ DEWATERING:

a. Borrow are watering shall be done by the contractor at his own cost wherever necessary preferably 48 hours in advance, so that materials may be carried with adequate moisture and in the manner specified by the Engineer-in-charge.

b. The initial moisture content of the materials in the borrow areas shall be estimated with the help of field laboratory tests. The optimum moisture content required for the materials in any particular borrow areas shall be obtained from the field laboratory. The additional moisture requirements as determined by the laboratory test shall be introduced into the borrow areas by watering well in advance of the excavation to ensure uniformity of moisture content. All care shall be taken to reduce excessive moisture in any of the locations of a borrow area before or during excavation to secure the materials with moisture content close to the optimum. To avoid formation of pools in the borrow areas during excavation operation, drainage ditches from borrow areas to suitable outle3ts shall be excavated, wherever necessary. Upon exhausting of all materials or abandoning the borrow areas, the pits shall be fully drained to ensure to ponding of water.

HAUL ROADS AND APPROACH ROADS:

Construction and maintenance of approach roads, and haulage roads will be the responsibility of the contractor. The department will have full right to way to those roads for inspection purposes. Proper roads sign as directed have to be provided for safety. For haulage of earth, the contractor shall construct ramps and haul roads of sufficient width along the shortest but most practicable route and shall maintain and illuminate them to a satisfactory manner. Watering of the haul road shall be done by the contractor as often as necessary to prevent raising of dust, formation of cuts and consequent deterioration of the surface. When ever service roads meant for public through fare traverse through or run close to the borrow area, the contractor shall direct the excavation and haulage operation in such a manner as to ensure uninterrupted use of the service road and safety to the public. At the haul road and service road crossing, the contractor shall install necessary cheek gates and road signs.

No extra payment is admissible as this is deemed to have been included in the unit bid price for earth work in the bill of quantities being contingent to the main work.

EARTH FILL MATREIALS.

HOMOGENEOUS EARTHFILL:

Canal embankment shall be constructed to the top width and side slopes as shown on the drawings. Suitable excavated materials available from the canal cutting, proud cutting, removal of ramps and excavation for structures shall be used for construction of banks. If suitable and adequate materials for constructing embankment is not available for excavations, the desired materials shall be obtained from borrow area designated for the purpose as per the instruction of the Engineer-in-charge.

The planning for execution should be such that all the useful excavated materials are utilized in embankment prior to utilization of borrow earth from outside. The embankment earth shall be borrowed only after getting written instruction of the Engineer-in-charge.

Only suitable materials as per specification shall be excavated, loaded and conveyed to the point of placement in the embankment. Unsuitable materials if conveyed shall be removed and disposed clear of the work site as directed by the Engineer-in-charge at the cost of the contractor. The maximum dimensions of stones, pebbles and rock fragments etc. placed in the outside zone of the embankment shall not be more than 15 cm. and the quantity of such stone shall not exceed 5% of total quantity.

ZONED EARTHFILL:

i) When a embankment section is designed zoned section, the embankment shall be divided into zones within which fill materials obtained from canal excavations having different characteristics are to be placed.

Placement of fill within these zones as shown on the drawings shall be performed in orderly sequences and in an efficient and workman like manner. The selected materials shall be filled above the key of lining.

ii.) Chemical and physical tests of the soil in the embankment shall be carried out to ensure that the soil does not contain soluble lime salt content or cohesion less fines, and quantities harmful to the embankments. The useful materials available from canal excavation, excavation of proud and excavation of structures shall be transported over the required leads, as indicated in the respective items of schedule of quantities and placed in then specified layers for embankment.

iii) In areas, where suitable and adequate materials for constructing the inner zones of the embankment is not available from the canal excavation and excavation of structures, the materials shall be obtained from the borrow areas fixed for the purpose. The borrow areas shall be excavated to the dimensions and depths actually required and as per the instructions of the Engineer-in-charge.

iv) The rest of compacted zone in the drawings shall be constructed of materials having required percentage of clay so that it can be compacted at optimum moisture content by suitable compacting equipment, to their maximum dry density. The materials shall be compacted to a density as specified on the drawings and as per standard proctor density. Water tightness of materials shall be cheque by carrying out in situ permeability tests. Permeability of impervious materials shall not be greater than 10 cm /sec. The impervious material of inner zone should preferably by free from large size particles. If this is not possible the maximum size of gravels i.e. coarse particles to be permitted shall be 40 mm and in that case gravel corrected density shall be considered for compaction standards. In no case the quantity of gravel shall exceed 10% of total quantity.

v) The rest of compacted zone may consist of any suitable material which provides support to impervious core under various conditions of saturation and draw down. If silty or sandy materials are used, compaction shall be done by using proper machinery utilizing the principle of vibro-compaction. The distribution of materials shall be such that the compacted material shall be homogeneous free from cracks, pockets or other imperfections. The maximum dimensions of stone placed in the embankment shall not be more than 15 cm. and the quantity of such stone shall not exceed 5% The excavating and placing operations shall be such that the materials when compacted shall be blended sufficiently to secure the best practicable degree of compaction, impermeability and stability. The materials shall be compacted to a density as specified on the drawings or as directed by the Engineer-in-charge.

PLACING EARTHFILL:

a. The embankment shall be constructed with earth fill of required materials as per drawing and specification. The fill shall before from lenses pockets, streaks or layer of materials differing substantially in texture or gradation from the surrounding materials. Then useful excavated materials shall be classified as impervious and semi pervious by the Engineer-in-charge. Care shall be taken to utilize the impervious materials towards the waterside of the embankment and semi pervious materials towards outer zone of the embankment as per drawing.

b. Construction of embankment shall begin at the toe of the fill and in no case shall embankment be widened by materials dumped from the top. The materials shall be placed in the earth fill in the continuous horizontal layers not more than 15 cm. In thickness after being rolled as herein specified.

The thickness of the layer shall be adjusted by the Engineer-in-charge, if the contractor satisfies the Department that the particular type of compactors used by him give the required density by carrying out trial compaction and requisite tests. The thickness of horizontal layers after compaction shall not be more than 10 cm. If compaction is performed by mechanical tampers, not more than 15 cm. If by sheep foot roller and not more than 30 cm. If compaction is performed by vibratory or pneumatic rollers or similar equipment. Initially the earth in the embankment fill shall be laid in a greater width than the designed section. Adequate extra width of about 0.6 m on either side of the embankment shall be provides so that the earth fill, up to lines of the finished slopes shall have the required compaction as per the drawing and specification. Such extra width shall be removed and utilized in the upper layers of embankment along with slopes dressing, for which no additional payment shall be made as it is deemed to have been included in bid price of earth work in embankment in the bill of quantities.

The inside proud section shall not removed if the lining work is not included under the same contract such proud section made out of borrow earth from outside only shall be paid as per bid price of the item in the bill of quantities. No payment shall be made for compaction for such proud section left.

c. No fresh layer shall be laid until the previous layer is properly watered and compacted as per the requirement. If in the opinion for the Engineer-in-charge. The surface of the prepared foundation or the rolled surface of any layer of earth fill is too dry or smooth to bound properly with the layer of materials to be placed thereon, it shall be moistened or worked with harrow scarified or other suitable equipment in an approved manner to a sufficient depth to provide a satisfactory bonding surface before the next succeeding layer of earth fill materials is placed. If the rolled surface of any earth fill is found to be too wet for proper compaction of the layer of earth fill materials to be placed thereon. It shall be raked up and allowed to dry or be worked with harrow. Scarified or any other suitable equipment to reduce the moisture content to the required amount and then it shall be compacted before the next succeeding layer of earth fill materials is placed.

d. The materials shall be deposited in rows parallel to the axis and spread in the uniform layers and shall be broken clods maximum up to 5 cm. in thickness or such thickness as directed by Engineer. The work of spreading and compaction shall be so adjusted as not to interfere with each other and in such a way that neither of the operations is held up because of non completion of rolling and watering. The excavation and placing operation shall be such that the materials when compacted shall be blended sufficiently to secure the best practicable degree of compaction, impermeability and stability. If the work is held up due to failure of machinery no claim whatsoever shall be entertained even in case the machinery is supplied by Department. The surface of banking shall at all time of construction be maintained true to required cross section.

e. During construction a small transverse slope from center towards edges should be given to avoid pools of water forming due to rains.

f. When compacting the soil against the rock abutment or walls of masonry or concrete structures, the construction surface of the embankment shall be sloped away from the rock or masonry or concrete structure leaving a minimum distance of 0.6 m and at an inclination of 3:1. If the foundation surface is too irregular to allow the use of large roller directly against the structure or rock out crop, the roller shall be used to compact the soil, as close to the structure or the out crop as possible and the portion of the embankment directly against the rock or the structure shall be compacted with pneumatic hand tampers in thin layers. The moisture content of the earth fill placed against the rock or the structure shall be slightly above the optimum to allow it to be compacted into all irregularities of the rock and this shall be determined by the field laboratory. In placing the earth fill under rock foundation the foundation shall first be prepared as detailed earlier.

g. Care shall be taken in placing the first layer of the fill above the filter layer so that no damage is caused by the hauling machinery. Sheep foot rollers shall not be employed for compaction till over the filter the thickness of the layer compacted by other means is greater by 30 cm. than the teeth of the roller drum. The soil for the first layer shall be at moisture content sufficient to enable satisfactory bonding of the fill with the filter surface.

6.4.3. WEATHER CONDITIONS:

a. Embankment materials shall be placed only when the weather conditions are satisfactory to permit accurate control of the moisture content in the embankment materials. Before closing work on embankment, in any continuous reach prior to setting of monsoon, the top surface shall be graded and rolled with a smooth wheeled roller to facilitate run off. Prior to resuming work, the top surface shall be scarified and moistened or allowed to dry as necessary and approved by the Engineer for resumption.

b. The contractor shall provide suitable protection works to protect the slope from corrosion due to rain water. No payment whatsoever shall be made for providing such protection work and rectifying the monsoon damages.

6.4.4 MOISTURE CONTROL :

The water content of the earth fill materials prior to and during compaction shall be distributed uniformly throughout each layer of materials and it shall be between 2% to +2% of the optimum moisture content. Moisture determination of soil as well as needle moisture determination of soil shall be carried out as per I.S. 2720-1983

Laboratory investigations may impose some restriction on the lower limits of the practicable moisture contents on the basis of studies on consolidation characteristics of soil in embankment. Here in after the terms range of optimum practicable moisture content shall refer to the value as described above. As for as practicable, the materials shall be brought to the proper moisture content in the borrow area before excavation. If additional moisture is required it shall be

added preferably at the borrow area and only in limited cases/extent. If required, on the embankment by sprinkling water before rolling of a layer. If more moisture is present than required, the material shall be spread and allowed to dry before starting rolling. Moisture control shall be strictly adhering to.

The moisture content shall be relatively uniform throughout the layer of material, if necessary, ploughing, disc harrowing or blending with other materials may have to be resorted to obtain uniform moisture distribution. If the moisture content is more or less than the range of optimum practicable moisture content or if it is not uniformly distributed throughout the layer, rolling and adding of further layer shall be stopped. Further work shall be started again only when the above conditions are satisfied.

In order to have proper control of moisture content in the earth fill no earth work shall be done during rainy days. No compensation shall be made to the contractor due to held up to work for rain or fog.

SECTION 6.5 COMPACTING EARTH MATERIALS.

6.5.1. GENERAL.

Where compacting or earth materials is required the materials shall be deposited in horizontal layers and compacted as specified in this paragraph. The excavation, placing moistening and compacting operations shall be such that the materials will be uniformly compacted to the required density throughout the required section, and will be homogeneous, free from lenses, pockets, streaks, voids, laminations or other imperfections.

Having decided on the filling materials to be used standard compaction test will be conducted on the materials proposed for embankment to indicate best type of equipment to be used and the moisture content at which compaction should be done, thickness of layer and number of passes etc.

The following guide liens are prescribed for compaction of different height of earth fill in canals.

A. Earth fill up to 5 M. height:

a. When a finished reach of canal having an earth fill height upto 5 M is subjected to natural compaction by rain and own weight for two seasons or more before it carries irrigation water no compensation is required to be done.

b. When it is expected to carry water just after one season, compaction by dozer track chain is to be done. However this is not necessary if the earth fill could be subjected to profuse watering during laying of each layer.

c. If the canal will be used immediately for carrying irrigation water, compaction by sheep foot roller or by any approved method shall be done.

B. Earth fills height more than 5 M.

Canal reaches having earth fill height more than 5 m shall always be compacted by any approved method of compaction.

C. Moisture control.

The water content of the earth fill material prior to and during compaction shall be distributed uniformly throughout each layer of materials and it shall be between -5% to +2% of the optimum moisture content. As far as possible and practicable the moisture content of the materials should be brought to required level by watering of borrow area before excavation. If additional moisture is required the same should be sprinkled while laying the earth fill in layers, if the moisture content is greater than required the material shall be allowed to dry and if necessary ploughing, dis-harrowing or blending with other materials may have to be resorted to obtain uniform moisture distribution . In order to have proper control of moisture in earth fill, no embankment shall be constructed during rainy days.

COMPACTING CLAY AND SILTY MATERIALS.

Where compaction of earth materials containing appreciably amount of clay or silt is required the compaction shall be carried out in accordance with the clause 6.6.2 of IS 4701-1982. The materials shall be deposited in horizontal layers. The thickness of each horizontal layer before compaction shall not be more than 25 cm. (Loose layer) and the layer shall be to full width of the embankment. The excavating and placing operation shall be such that the materials when compacted will be blended sufficiently to secure the highest practically density and best impermeability and stability. If the surface of any compacted layer of earth fill is too dry or too smooth to bond properly with the layer of materials to be placed thereon , it shall be moistened and or scarified in an in an approved manner to provide a satisfactory bonding surface before the next succeeding layer is placed. The entire roller used on any one layer of fill shall be of the same type and same weight.

Prior to and during compaction operations, the embankment materials shall possess optimum moistures contents as required in clause 6.6.4 of IS 4701-1982. The embankment materials shall have optimum moisture content required for the purpose of compaction and this moisture content shall be fairly uniform throughout the layer. In so far as practicable the moistening of the material shall be performed at the site of excavation but such moistening shall be supplemented as required by sprinkling water at the site of compaction if necessary. If the moisture content is greater than optimum for compaction, the compaction operations shall be delayed until such time as the materials has dried to the optimum moisture content or to the level directed by Engineer-in-charge. The moisture content of soils shall be determined in accordance with I.S 2720(Part-III) 1982.

If the moisture content is not within then limit described above, the compaction operation shall not be proceeded except with the specific approval of the Engineer-in-charge., until the materials has been wetted or allowed to dry out, as may be required to obtain optimum moisture content, and no adjustment in price will be made on account of any operations of any operation of the contractor in wetting or drying the materials or on account of any delays occasioned thereby.

When the materials has been conditioned as herein before specified, it shall be compacted by rollers or by hand or power tampers. Where hand or power tampers are used to compact soils in confined areas such as under pipes and at the joints of bank connections with the structures, they shall been equipped with suitably shaped heads to obtain the required density.

The dry bulk density of the soil portion in compacted embankment materials shall be not less than 95% of the maximum dry bulk density at optimum moisture content obtained in accordance with I.S. 2720 (Part-VI) 1980 Indian Code of Practice for determination of moisture content, dry density relation using light compaction.

The dry density of soil in field shall be determined in accordance with I.S. 2720 (Part – XXVIII) 1974. Indian Code of Practice of determination of soil in pace by sand replacement or by I.S. 2720 (Part – XXIX) 1975 Indian Code of Practice for determination of dry density of soils in place by the code cutter method.

Moisture content of soil shall be determined in accordance with I.S. 2720 (Part II) 1973 Indian Code of Practice for determination of moisture content.

The optimum moisture content is the moisture content that corresponds of the laboratory maximum dry density determined in accordance with I.S. 2720 (Part – VII) 1973.

The above compaction tests will be conducted by contractor in the presence of departmental officers at the cost and the contractor shall ensure compaction, till the Engineer-in-charge or his authorized representative is satisfied that the maximum dry density at optimum moisture content is obtained and permits the laying of next layer.

COMPACTING COHESIONLESS MATERIALS

Where compaction of cohesion less, free draining materials, such as sands and gravels is required the materials shall be deposited in horizontal layers and compacted to the relative density specified below. The excavating and placing operation shall be such that the materials when compacted will be blended sufficiently to secure the best practicable degree of compaction and stability. Water shall be added to the materials as may be required to obtain the specified density by method of compaction being used.

As envisaged in clause 6.6.2.1 of IS 4701-1982 the thickness of the embankment layer shall not exceed 25 cm. (loose layer) before compaction and it should be spread over the full width of the embankment and compaction shall be done by tampers or crawler tractors or vibrating rollers. If the compaction is performed by Treads of crawler type tractor, surface vibrators or similar equipment the thickness of the layer before compaction shall not be more than 4 cm. if compaction is performed by internal vibrators the thickness of the layer shall not be more than the penetrating depth of the vibrator.

As envisaged in clause 6.6.3.1 of I.S. 4701-1982 the relative density of the compacted materials shall not be less than 70% when tested in accordance with I.S. 2720(Part-XIV) k1983 Indian Code of Practice for determination of density Index (relative density) of cohesion less soils.

COMPACTION COHESIONLESS MATERIALS CONTAININGS SOME CLAY AND SILT:

This sub-paragraph applies only to cohesion less materials and not to cohesive materials, cohesion less materials containing clay and silt may not be free draining. When compaction of cohesion less materials containing clay and silt is required, the materials shall be compacted to a dry density in accordance with either sub-paragraph

(i) and (ii) below, using whichever test that results in higher dry density of the compacted materials in the placement.

i) Dry density determined using procedure enunciated in I.S. 2720 (Part-VII) 1965 (Indian Code of Practice for termination of moisture content dry density relation using light compaction). Prior to and during compaction operation the materials shall posses optimum moisture content as determined in accordance with clause 6.6.4.1 of I;.S. 4701-1982 and the moisture content shall be uniform throughout each layer. Provided that the moisture content is ensured as required in clause 6.6.4 of I.S. 4701-1982 the dry density of take soil portion in the compacted materials shall not be less than 95% of the laboratory maximum soil dry density compacted. The field dry density shall be determined in accordance with I.S. 2720(Part-XXVIII) 1974 or IS 2720 (Part XXIX) k1975.

ii) Dry density using the relative density test as described in I.S. 2720 (Part XIV)1983 Indian Code of Practice for determination of density index (relative density) of cohesion less soils. The relative density of the compacted materials obtained shall be not less than 70% determined in accordance with clause 6.6.3.1 of I.S. 4701 – 1982 the moisture content shall be maintained as per clause 6.6.4 of I.S. 4701 – 1982,

ROLLERS AND OTHER COMPACTING EQUIPMENT :

As shown in Appendix C or IS 4701 – 1982 the following compacting equipment may be used for compacting the soils shown against them as detailed below.

Major Division	Sub-group	Suitable type of compacting equipment.
Coarse Well Grained Soils	Well Grained. Gravel, gravel and mixtures little or no fines.	Smooth wheel roller Diesel road rollers of 8 to 10 tones capacity pneumatic tyred Roller vibrating smooth wheel roller
	Well graded gravel sand mixtures with excellent clay binder	-do-
	Uniform gravel with little or no fines.	-do-
	Poorly graded gravel and gravel sand mixtures little or no fines.	-do-
	Gravel with fines, silty gravel, clayey gravel poorly graded gravel sand clay mixtures.	-do-
Coarse Grained soils, Sand & sandy clays.	1. Well graded sand and Gravelly sands, little or no fines.	Heavy vibrating plate Frog rammer, power rammer, power roller.
	2. Well graded sand with excellent clay binder.	-do-
	3. Uniform sand with little or no fines.	-do-
	4. Sands with fines silty sands, clayey sands, poorly graded sand clay mixtures.	-do-

Fine Grained Soils: Soil having low compressibility	1. Silts (in organic) and very fine sands rock flour, silty or clayey fine sands, with slight plasticity. 2. Clayey silts (inorganic)	Smoot wheel roller diesel Road Rollers of 8 to 10 tonnes capacity power rollers pneumatic tyred roller. -do-
Soils having medium compressibility	1. Organic silts of low plasticity 2. Silty and sandy clays (Inorganic of medium plasticity.) 3. Clays (inorganic of medium plasticity) 4. Organic clays of medium plasticity.	Sheep Foot Roller Frog rammer, power rammer -do- -do-
Soils having higher compressibility.	1. Micaccous or diatomaceous fine sandy and silty soils elastic silts. 2. Clay (Inorganic) c. Organic clays of high plasticity.	Smooth wheel roller diesel Road Rollers of 8 to 10 tones capacity pneumatic tyred roller. -do- -do-

The compacting equipment shall confirm to relevant India specification below.

1. Smooth wheeled roller should conform to IS 5502-1969
2. Sheep Foot roller should conform to IS 4661-1968
3. Pneumatic tyred roller should conform to IS 5501-1969
4. Vibratory plate compactor should conform to IS 5889-1970
5. Vibratory roller should conform to IS 500-1970

The methods of compaction shall conform to clause 7.2.1, 7.2.2.7,2.3 of IS 4701-1982

Unless otherwise specified compaction shall be done by mechanical compactors like standard sheep foot roller hauled by dozer or tractor. While specifications below provide that equipment of particular type and size is to be used, the use of improved compaction shall be encouraged.

Tampering rollers used for compaction of earth fill shall conform to the following requirement.

A. Roller drums:

Double drum sheep rollers shall be used for compaction. Each drum of a roller shall have an outside diameter not less than 142.25 cms. And shall not be less than 122 cm. in length. The space between two adjacent drums when on level surface shall not be less than 30 cms. And not more than 38 cms. Each drum shall be free to pivot about an axis parallel to the direction of travel.

B. Roller Weight.

The weight of the roller when fully loaded shall not be less than 7091 Kgs. And the ground pressure when fully loaded shall not be less than 40 Kgs/Sq.cm. Appropriate equipment for hauling the rollers should be used which can pull the rollers satisfactorily at a speed of 4 Kms. Per hour when drums are fully loaded. The space between the tamping feet shall be kept clear of material striking the drum as the same can reduce the effectiveness of the tamping roller.

C. Rolling.

When each layer of materials has been prepared to have the proper moisture content uniformly distributed throughout the materials, it shall be compacted by passing the tampering roller. The exact number of passes for each layer to obtain specific density shall be designated by Field Laboratory tests and tests conducted on the borrowed material. The layers shall be compacted in strips over lapping not less than 0.6 m. rolling shall commence at edges and progress towards centre longitudinally. The roller of loaded vehicles shall travel in a direction parallel to the axis of the

canal. Turns should bam de carefully to ensure uniform compaction. Rollers shall always be pulled.

6.6. TAMPING.

Roller will not be permitted to operate within one meter of concrete and masonry structures in the following location where compaction of the earth fill materials by means of roller is impracticable or undesirable the earth fill shall be specially compacted as specified further below.

i. Porticos of the earth fill in embankment adjacent to masonry structures and embankment foundation designated on the drawing as specially compacted earth fill.

ii Earth fill embankment adjacent to steep abutments.

iii Earth fill at specially designated location.

Earth fill shall be spread in layers of not more than 10 (ten) cms. In thickness when loose and shall be moistened to have the required moisture content as specified. When each layer of materials has been conditioned to have the required moisture content, it shall be compacted to the specified density by special rollers, pneumatic/ hand tampers or by other approved methods. The moisture control and compaction shall be equivalent to that obtained in the earth fill actually placed in the embankment in accordance with specifications.

6.7 TESTING:

Den sty tests shall be carried out after rolling to ascertain the state of compaction which should be measured in terms of dry density. Standard proctor density tests shall be carried out at regular intervals to account for variations in the borrow area material. Not less than three tests shall be conducted to indicate variation in the standard Procter density attained in the laboratory.

Density tests shall conducted from time to time at site to ascertain whether compaction is attained as specified. For every 1500 cums of compacted earth fill, at least one field density test shall be conducted. However, minimum four density tests shall be made per day irrespective of quantity of earth work. In case the tests show that the specified densities are not attained, suitable action shall be taken either by moisture correction or by additional rolling, so as to obtain the specified density which shall be checked again by taking fresh tests at the same locations. The test locations should be so chosen as to represent the whole layer under test. Each layer should be tested for proper compaction before a fresh layer is allowed over it.

The density to be attained after compaction should be at least 95% of proctor density predetermined by Laboratory tests.

SETTLEMENT ALLOWANCE :

In the mechanically compacted earth fill, settlement allowance of 2% should be provided. In case of earth fill of canal which has not been mechanically compacted, settlement allowance at 12% of height should be provided. Settlement allowance shall be calculated after embankments are subjected to natural compaction of one full monsoon rains. For short duration works, necessary adjustments are to be made take care of natural settlement due to rains. Accordingly extra height should be provided taking the settlement into account. The base width of the embankment shall not be increase to maintain the design slopes indicated in the drawings for additional height as settlement allowance, but the following procedure shall be adopted.

Settlement allowance shall be calculated at various levels and the elevation including settlement allowance shall be derived keeping the embankment width at the designated levels unchanged. The edges of the embankment at the increased elevations (including settlement) when joined with the point where the slope has changed earlier below, shall give the slope to be adopted for construction.

SLOPE DRESSING.

The slopes for particulars reach of the canal which has been completed in the manner described earlier shall be dressed neatly to the designated line and grade. Extra earth works done at sides are to be dressed and reused in the embankment.

MEASUREMENT AND PAYMENT

The cost of the compacting earth materials as described in this paragraph shall be paid separately in the price bid in the bill of quantities for watering and compacting earth work in canal embankment under these specifications. The unit rate of this item shall be for unit volume of earth fill watered and compacted. No extra payment shall be allowed for labourers engaged for collecting of samples for testing and rectification during compaction as may be required.

CHAPTER- 7 RIP RAP & LAUNCHING APRON

GENERAL

The dumping & packing shall consist of boulders and blasted rock tracement. It shall be dumped manually / mechanically of hand blaced riprap may be hand placed or dumped by machines. The thickness of the rip rap shall be measured normal to the slope of the embankment.

QUALITY OF RIP RAP STONE

i) Rip Rap and spall material shall be controlled in quarry for quality, gradation and size.

ii) Rip Rap and spalls obtained from rock excavation shall be checked for quality, gradation and size before lifting.

iii) The stone for Rip Rap should be dense, resistant to abrasion and is free from cracks, seams, shale partings, conglomerate bonds and other defects that would tend to increase their susceptibility to destruction by the action of water and weather.

iv) The stone shall be closely packed and the interstices shall filled with small stones. The finished surface of Rip Rap should be reasonably uniform free from loose stones.

Test for Stone

i) Soundness - The rock fragments shall be tested for its soundness as per IS-2386-Part-II.

ii) Abrasion - The rock fragments shall be tested for its abrasion as per IS-2386-Part IV.

iii) Water absorption test – As per IS-2386.

iv) Quality of stone should confirm following

standards 1 Soundness	Maximum 12 %
2. Abrasion	Maximum 40 %
3. Water absorption	Maximum 5 %

THICKNESS OF RIP RAP / LAUNCHING APPRON

In no case the minimum thickness of hand placed Rip Rap-Launching appron and dumped rip rap shall be less than 30 cm and 45cm respectively.

PLACEMENT OF RIP RAP / LAUNCHING APPRON

(i) Hand placed Rip Rap

The hand placed riprap stone shall consist of size 0.015 cum and above size and laid on edge starting from the bottom. The stone shall be laid compactly with staggered joints and so matched & interlocked that, they shall be keyed together with

minimum of joint space. Then rock fragments and spalls shall be driven by a hammer into interstices to wedge the riprap in place.

The hand placed riprap shall preferably be laid in one course and the layer thickness is same at the stone size. If two layers of stones are used the header stone extending through both layer and spaced at about 1.5m. shall be used. In two layers placing the tops layer stones shall be larger.

(ii) DUMPED RIP RAP / Launching Apron

The dumped rip rap/ Launching apron shall consist of boulders or blasted rock fragments of 30 cm and above size. It shall be dumped manually or mechanically.

iii) Methodology for construction:

The following sequence should be followed for construction of spur and launching apron.

1. The layout plan of structure should be demarcated on the natural surface as per approved design and drawing.
2. The natural surface should be excavated to the required design level as per approved drawing for formation of base of the structure. The formation surface should be free from any deleterious materials and unwanted foreign objects, loose pockets if any, should be excavated and filled with the suitable granular materials.
3. The excavated surface should be compacted by using vibro-roller. The design requirement with respect to the bearing capacity should be achieved and verified before proceeding further.
4. The excavated surface prepared should be levelled without ruts and undulation. The H.G stone should be placed on the levelled surface and the interstices among the stones should be filled up with the stone piece of same quality (40mm to 100mm).
5. The stone should be laid layer by layer interlinking with key stones placed suitably in between them.
6. The outer surface and design top surface should be finished with proper packing as per approved design and drawing.

MEASUREMENT AND PAYMENT

Thickness of riprap shall be measured at a number of locations and the payment shall be made towards the average thickness arrived out of the measurements. Payment for rip-rap shall be made at the applicable unit price per cubic meter in the bill of quantities for rip rap which unit price shall include the cost of procuring or finishing, hauling and placing the rock for rip rap including the rock spalls.

The quantity is calculated after deduction of one sixth (1/6) volume of voids from the finished level section vide letter no. 23004 dated 04.09.2021 of Chief Engineer and Basin Manager, Mahanadi Kathajodi System, office of the Engineer in Chief, Water Resources, Secha Sadan, Bhubaneswar.

CHAPTER- 8 TURFING

8.1 General

The slope protection of canal embankment will be done with turfing where stone packing is not provided. The sequence of work is described below.

1. The slope to receive turfing shall be first be prepared to proper line and passed by the Engineer-in-Charge.
2. Before the turf is laid, the slope shall be saturated with sprinkling of water. Car is to be taken to see that, the soil particles of slope are not eroded or disturbed due to excessive application of water.
3. Over saturated slope grass sods is to be laid and compacted with a light wooden compactor in order to make the roots of grass in full contact with soil.

8.2 Measurement and Payment.

The measurement of the turfing will be recorded in sq. Met of turf area after survival of sods and this includes all cost of labour, material, T & P machineries equipments and consumables required for completing a) Preparation of slopes. b) Procurement of grass sods at work sites. c) Laying and compacting grass. d) watering till survival of sods. e) any other incidental expenditure to complete the work as per specification and direction of Engineer-in-Charge.

SECTION-6
FORMS

NO RELATION CERTIFICATE

Certified that I / We am / are not related to any officer of Water Resources Department ofthe rank of Assistant Engineer and above or any officer of the rank of Assistant Secretaryabove.

CONTRACTOR

List of Relatives of the tender serving in Water Resources Department.

Sl No.	Name of the relatives	Rank	Place of present posting with office / Division / Department
1	2	3	4

1.
2.
3.
4.
5.

CONTRACTOR

FORM – A STRUCTURE AND ORGANISATION

Name of Tenderer.

Nationality of Tenderer. ……..

Office Address. ……..

Telegraphic Address ……

Telephone No: …….

Mobile No: ……..

Telex Number ……

Location of establishment ……

The tenderer is

1. An individual
2. A proprietary firm.
3. A limited company or limited corporation
4. A member of a group of companies (If yes, give names, address and present description of other companies.)
5. A subsidiary of large organization

(If yes, give names, address of the present organization)

6. if the company is subsidiary, state what involvement if any, will the parent company have in the project.

Attach the organization chart showing the structure of the organization including the namesof the Directors position of officer.

7. Number of year of experience

   a. As a prime contractor

      I. In own country

      II. Other country (specify country)

   b. In a Joint venture

      I In own country

      II Other country (specify country)

8. Name of the address of any associates the tenderer has in India who are knowledgeable in the procedure of customs, immigration takes and other information necessary to do work.

9. How many years has your organization been in business under your present name? Add what were your fields were and when you established your organization. When did you add new field (if any)?

10. Were you ever required for suspending construction for a period of more than six months continuously after you started? If so, give the names of project and reason of failure.

11. Have you ever not completed any work awarded to you? If so give name of project and reasons for not completing the work.

12.In how many projects were imposed penalties for delay? Please give details.

13. In which fields of Civil Engineering construction do you claim specialization and Interest.

14. Give details of your experience in modern concreting / Earth work and quality control.

15. Give details of your material testing laboratory.

Signature of tenderer

FORM-B FINANCIAL STATEMENT

(Must be given separately for each partner in case of joint venture)

1. Name of Firm.

2 Name of partner /Directors

3 Capital

a. Authorized

b. Issued and paid-up

4 a. Details of the work completed and tenderer's performance record for last five years.(Vide Annexure-A)

b. Details of work on hand and tenderer's performance record for last five years. (Vide Annexure-B)

3 Furnish Balance sheet and profit & loss statement with auditor's reports for the

4. Last five years , it should include the following information.

i Working capital

ii Foreign investment.

a. Turnover for 2020-2021

b. Turnover for 2021-2022

c. Turnover for 2022-2023

d. Turnover for 2023-2024

e. Turnover for 2024-2025

iii

iv Gross income

a Turnover for 2020-2021

f. Turnover for 2021-2022

g. Turnover for 2022-2023

h. Turnover for 2023-2024

i. Turnover for 2024-2025

V Total liabilities

Current ratio.

a Current assets to current liabilities

b Total liabilities to net work.

6 What is the maximum annual value of work that you can handle ?

7 Have you ever been denied tendering facilities by any Government Department/ Public sector undertaking ?

(Give details)

8 List your sources of finance?

a Own resources

b Bank credit.

C Other sources-specify if any?

9 Certificate of financial soundness by Bank (To be signed by Senior manager of a Nationalized Bank)

10 Name and address of Bank from whom reference can be obtained.

Name :

Address :

Telephone No:

Fax No :

11 Have you ever been declared bankrupt?

(if yes , please give details)

Signature of tenderer

ANNEXURE – A

FORMAT FOR PERFORMANCE RECORD OF CONTRACTORS

1. Name of the Contractor :
2. Registration No. and Date :
3. Class of Contractor :
4. Licensing Authority :
5. License valid up to :
6. Details of works executed :

Sl. No.	Jobs under execution	Agreement amount	Date of Commencement	Stipulated Date of Completion	Whether work is progressing as per programme	Reasons for delay ,if any
1	2	3	4	5	6	7

7. Whether the Contractor has requisite machineries & personnel deployed (details of machinery and personnel deployed) :
8. Whether the quality of construction is satisfactory :
9. Whether he has capability to make good the loss in time :
10. Whether the Contractor has abandoned any work in the past three years, if yes, the details thereof.
11. Whether the Contractor has entered in to any litigation in the past if yes, the details thereof.

Name of the Certifying Officer

With official seal Signature of Contractor

ANNEXURE – B

Details of the works on hand and performance for last five years as on the date of submission of pre-qualification documents in the following proforma.

(Separate form for each work)

1. Name of work_____
2. Place and Country_____
3. Total tendered cost of work _____
4. Brief description of works including principal features and quantities of main items._____

   _____
5. Details of works in hand
   i. Percentage of physical completion and amount billed for the work completed.
   ii. Cost of work remaining to be executed.
   iii. Stipulated date of completion.
   iv. Anticipated date of completion.
6. Explain for non-completion of work within stipulated time limit if so.
7. Were there any penalties /fines / stop notice / compensation /liquidated damages

imposed ?Yes or No.

If yes , give amount and explanations

8. Were there any fines, claims or stop notice filed by the employer ? (Yes or No.)/ (If yes, give amount and explanation)

Signature of Tenderer

ANNEXURE-'E'

(AFFIDAVIT)

(To be submitted in original in legal stamp paper)

I, Sri…… Aged..... year,

Son/ Daughter/ Wife of Sri ..... at present residing

At……. P.O……..P.S……..Dist……..

Pin… .....do here by solemnly affirm as follows.

i) That, I / We posses a valid license for execution of works contract issued by *…….. belongs to ……Class & is valid upto **…… .

I am submitting tenders before the Additional Chief Engineer, Anugola Irrigation Circle, Anugola for execution of work **"Flood Protection to left scoured bank of river Aunli near village Patakamunda of Chhendipada Block"** in response to 'e' procurement notice No.

ACEAIC- 05 /2026-27 (On-line).

I am the authorized signatory on behalf of contractor for the tender for the work mentioned above.

ii) I am swearing this affidavit that all tender documents and accompanying papers those being submitted by me before the Additional Chief Engineer, Anugola Irrigation Circle, Anugola including E.M.D. in any shape are all authentic and bonafide documents in the eyes of the law of the land.

That the fact stated in the affidavit are true to the best of my knowledge andbelief.

Signature of Contractor /Authorized Signatory

Note :

*Mention the license issuing authority.

* *Mention the date up to which the license is valid

CHECK LIST SUBMITTED OR NOT

01	**Form A -** Structure and Organization	Yes/No
02	**Form B -** Financial position	Yes/No
a	Balance sheet of last five years	Yes/No
b	True copies of Income Tax & Sales Tax clearance certificate for the last five years for domestic contractors.	Yes/No
3	Certificate of registration for execution of contract attached	Yes/No
4	Documentary evidence in support of statement 4-A,B,C,D & E-a of General Statement attached	Yes/No
5	Certified copy of power of attorney in case of partnership, firm, limited or Corporation attached	Yes/No
6	Documentary evidence as required in minimum pre-qualification criteria	Yes/No
7	Affidavit for authenticity of document, EMD &Tender	Yes/No

Annexure-I

DETAILS OF OTHER WORKS TENDERRED FOR AND WORKSIN HAND ON THE DATE OF SUBMISSION THE TENDER

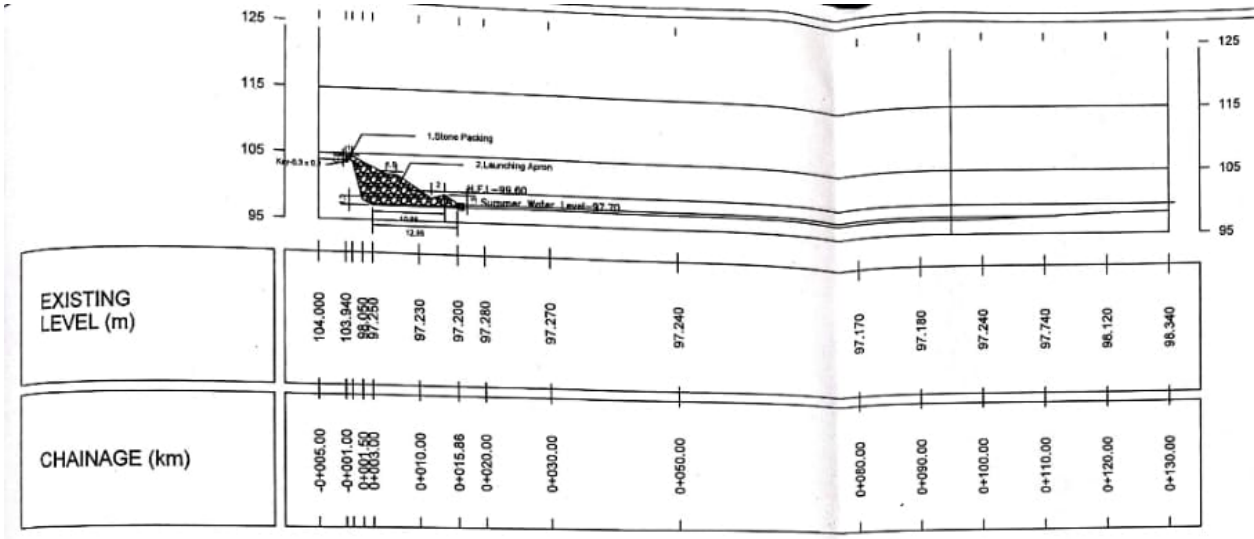
Sl No.	Name of works with No. &Date of agreement & Division / Dept. concerned	Place & Country	Work in Hand			Work Tendered for			Remarks
			Tendered cost	Cost of work remaining to be executed	Anticipated date of completion	Estimated cost	Date when decision is expected	Stipulated date & period of completion	
1	2	3	4	5	6	7	8	9	10

Annexure-II

DETAILS OF WORK SIMILAR TYPE AND MAGNITUDE CARRIEDON BY THE CONTRACTOR IN THE PAST

Sl No.	Name of works with No. & Date of agreement & Division / Dept. concerned	Place & Country	Tendered cost	Time in which completed	Date of completion	Principal Features
1	2	3	4	5	6	7

SECTION-6
DRAWINGS



CHAINAGE : -0+005.00 - 0+130.00

TYPICAL C/S AT RD 00
SCALE-1:700

HYDRAULIC PARTICULARS

50 YEAR RETURN PERIOD 1480.0 Cumecs. FLOOD DISCHARGE

SUMMER WATER LEVEL	97.70
BED SLOPE	1 IN 6000(ASSUMED)
SILT FACTOR	1.60
SCOUR FACTOR	1.50(ASSUMED)

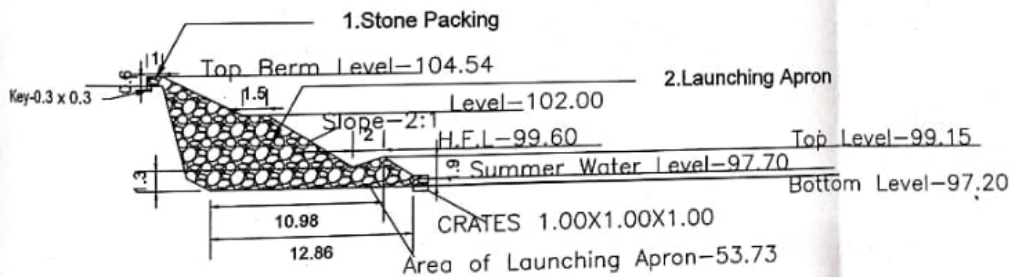
SPECIFICATIONS.

① DRY RUBBLE PACKING OF 600MM THICK WITH HARD STONES OF NOT LESS THAN 30cm(40 KG) SIZE IN ANY DIRECTION TO BE REGULARLY MAINTAINED AFTER IT GETS DISTORTED.

② DRY RUBBLE STONE SURFACE DUMPING WITH HARD STONES OF NOT LESS THAN 30 CM SIZE IN ANY DIRECTION TO BE REGULARLY MAINTAINED AFTER IT GETS DISTORTED.

GENERAL NOTES.

1. ALL ITEMS OF WORK SHALL BE EXECUTED CONFIRMING TO THE RELEVANT CODES OF BUREAU OF INDIAN STANDARDS.
2. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN m.
3. THE DRAINAGE ARRANGEMENT AND SLOPE PROTECTION WORKS TO THE SLOPE MAY BE MADE SUITABLY SO AS TO DISCHARGE THE RAIN WATER WITHOUT ANY DAMAGE TO THE PROTECTION WORKS.
4. FEASIBILITY OF THE PROTECTION WORK SHALL BE STUDIED WITH REFERENCE TO THE FIELD CONDITION.



TYPICAL C/S AT RD 00
SCALE-1:300

CHECKED

Assistant Executive Engineer
Design & Monitoring
O/O CE&BM
Brahmani Basin Samal

Asst. Executive Engineer
O/o the C. E. & B. M.
Brahmani Basin, Samal

DRG NO. 105 /2026-27

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES.
ANGUL IRRIGATION DIVISION
FLOOD PROTECTION TO LEFT SCOURED BANK OF RIVER AUNLI NEAR VILLAGE PATAKAMUNDA OF CHHENDIPADA BLOCK

RECOMMENDED

Additional Chief Engineer
Angul Irrigation Circle
Angul

APPROVED

Chief Engineer & Basin Manager
Brahmani Basin, Samal

Junior Engineer
Flood Sub-Division
Angul

Assistant Executive Engineer
Flood Sub-Division
Angul

Submitted

Superintending Engineer
Angul Irrigation Division
Angul