



**GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES**

TENDER SCHEDULE

FOR THE WORK

**Improvement to Bhargavi Left Embankment
near Chaka Balanga.**

**SUPERINTENDING ENGINEER
NIMAPARA IRRIGATION DIVISION
NIMAPARA**

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GOVERNMENT OF ODISHA
OFFICE OF THE SUPERINTENDING ENGINEER
NIMAPARA IRRIGATION DIVISION, NIMAPARA
Notice Invitation of Tenders
e-Procurement Notice No.- 04 / 2026-27 on dated 29.07.2026
E-mail Id: eenidnimapara@gmail.com

1. Type of Work: - **Canal, Road, Bridge & River Embankment Works.**
2. Total No. of Work: - **28 (Twenty Eight) Nos.**
3. Bid Security (EMD) in Rupees: - **Refer to DTCN**
4. Cost of Bids in Rupees: - **Rs. 10,000/-**
5. Class of Contractors:- **"B Class"**
6. Period of Completion: - **Refer to DTCN**

Procurement Officer	Bid Identification No.	Bid Amount in Lakh Rs.	Availability & Submission of Bids on line.
Superintending Engineer, Nimapara Irrigation Division, Nimapara	NID- 74 / 2026-27 to NID- 101 / 2026-27	Rs. 84.70 to Rs. 52.64	From 06.08.2026 10.00 A.M. to 20.08.2026 5.30 P.M.

Date of opening of the Technical Bid: - **21.08.2026 at 11.00 A.M.**

Further details can be seen from the Govt. Website

www.tendersodisha.gov.in

Sd/-
Superintending Engineer
Nimapara Irrigation Division
Nimapara

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES
OFFICE OF THE SUPERINTENDING ENGINEER,
NIMAPARA IRRIGATION DIVISION, NIMAPARA. PIN-752106
Phone-06758250240, e-mail- eenidnimapara@gmail.com

INVITATION FOR BIDS (IFB)

e-Procurement Notice No.- 04 / 2026-27

Dated- 29.07.2026

1. The Superintending Engineer, Nimapada Irrigation Division, Nimapada on behalf of Governor of Odisha invites online **Percentage Rate tender** in the prescribed form to be eventually drawn in P.W.D. form No. P1 from **"B" Class** Contractor Registered with the State Govt. of Odisha or from contractors of equivalent grade / class registered with other State Govt. / Central Govt. / M.E.S. / Railways or other Govt. undertakings. All the contractors are to be registered in the State portal and must possess compatible digital signature certificate of Class-II and III for on line bidding. The website for online bidding is <http://tendersorissa.gov.in> for the work listed below.

Sl. No	Name of the work	Bid Identification No.	Tender cost (in Lakhs) (Excl. GST)	EMD (In Rs.) (Online)	Cost of Document (Online)	Class of bidder	Period of completion (in Calendar Months)	Name of Sub-Division
1	2	3	4	5	6	7	8	9
1	Construction of VRB over Nimapara Branch Canal at RD 34.065Km.	NID-74/25-26	52.64	52,700/-	10,000/-	"B" Class	6 (Six) Calendar Months	Nimapada
2	Improvement R/S Service Road to Nimapara Branch Canal from Bhubanipur to Muslim Sahi.	NID-75/25-26	68.55	68,600/-	10,000/-	"B" Class	6 (Six) Calendar Months	Nimapada
3	Improvement to Service Road on K.V. Left Embankment from RD 54.00 to 54.830Km.	NID-76/25-26	84.63	84,700/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Gop
4	Construction of VRB on N.B.C. at RD 49.950Km. near village Parichadhei.	NID-77/25-26	71.69	71,700/-	10,000/-	"B" Class	6 (Six) Calendar Months	Gop
5	Construction of VRB on N.B.C. at RD 51.150Km. near village Chadheigaon.	NID-78/25-26	66.42	66,500/-	10,000/-	"B" Class	6 (Six) Calendar Months	Gop
6	Improvement to Bijipur C/R on N.B.C. at RD 37.800Km.	NID-79/25-26	72.56	72,600/-	10,000/-	"B" Class	6 (Six) Calendar Months	Gop
7	Improvement to K.V. Left Embankment near Gop Baniasahi and Gop Bridge.	NID-80/25-26	81.58	81,600/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Gop
8	Improvement to Service Road on K.V. Left Embankment from Nagapur Kharada Sahi to Netapur Village.	NID-81/25-26	84.63	84,700/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Gop
9	Improvement to Kushabhadra Right Embankment from RD 45.180Km. to 46.200Km.	NID-82/25-26	84.63	84,700/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Gop
10	Improvement to Service Road on Left Bank of Gopinathpur Distributary from RD 1.500Km. to 3.00Km.	NID-83/25-26	82.38	82,400/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balanga
11	Construction of Guard Wall near Village Khajapur.	NID-84/25-26	83.00	83,100/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balanga
12	Construction of V.R. Bridge over Chandanpur Branch Canal at RD 9.250Km. near Makundaspur.	NID-85/25-26	59.86	59,900/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balanga

13	Improvement to Bhargavi Left Embankment near Matagajapur.	NID-86/ 25-26	83.36	83,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balanga
14	Improvement to Bhargavi Left Embankment near Chaka Balanga.	NID-87/ 25-26	83.35	83,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balanga
15	Improvement to Service Road on Left Bank of Baku Minor Mudulisahi to Kasiasasan.	NID-88/ 25-26	83.85	83,900/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balanga
16	Protection to of Bhargavi Left Embankment from RD 35.70Km. to RD 35.985Km.	NID-89/ 25-26	82.19	82,200/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balanga
17	Improvement to Bhargavi Left Embankment from RD 11.00Km. to RD 13.00Km.	NID-90/ 25-26	81.36	81,400/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balanga
18	Improvement to Siarocut of Dhanua Right bank From RD 1700 Mtr. to RD 2550 Mtr.	NID-91/ 25-26	83.44	83,500/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balanga
19	Improvement to Communication facility of Dhanua Right bank from RD 0.00 Mtr. to RD 850 Mtr.	NID-92/ 25-26	83.42	83,500/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balanga
20	Improvement to Service Road of Keutajangha Saline Embankment from RD 0.00Km. to 3.660Km.	NID-93/ 25-26	83.05	83,100/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Kakatpur
21	Improvement to Service Bank of Astaranga Minor from Village Nilakanthapur to Kuapada.	NID-94/ 25-26	82.05	82,100/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Kakatpur
22	Improvement to Service Road on Nagar Saline Embankment from RD 0.00Km. to 4.00Km.	NID-95/ 25-26	81.35	81,400/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Kakatpur
23	Protection to Scoured Portion of Devi Right Embankment near village Gopalpur by provision of Launching apron.	NID-96/ 25-26	71.39	71,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Kakatpur
24	Anti-Erosion Protection to Devi Right Embankment at RD 84.490 near village Asana.	NID-97/ 25-26	68.39	68,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Kakatpur
25	Protection to Scoured Bank of Devi Right Embankment by provision of Launching apron near Osihna, Behera Sahi.	NID-98/ 25-26	71.30	71,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Kakatpur
26	Improvement to Left Bank Service Road on Biswanathpur Minor from RD 1.30Km. to 2.50Km. (Near Village Charikpada to Palapenda)	NID-99/ 25-26	82.23	82,300/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balipatna
27	Improvement to Right Bank Service Road from RD 40.483Km. to 41.710Km. of PMC Rach-III.	NID-100/ 25-26	82.20	82,300/-	10,000/-	"B" Class	11 (Eleven) Calendar Months	Balipatna
28	Construction of VRB over Nimapara Branch Canal at RD 23.220Km. near Village Marthapur.	NID-101/ 25-26	65.36	65,400/-	10,000/-	"B" Class	6 (Six) Calendar Months	Balipatna

Total:- 28 (Twenty Eight) Nos.

2. The tender documents can be downloaded from the website identified as <http://tendersorissa.gov.in> from **06.08.2026 at 10.00 A.M to 20.08.2026 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 of work. The Bid will be received through e-Procurement Portal from **06.08.2026 at 10.00 A.M to 20.08.2026 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 **Dt. 21.08.2026 at 11.00** AM in the Estimating Branch of Nimapada Irrigation Division, Nimapada in the presence of tenderers or their authorized agents.

The bidders who participated in the online bidding can witness opening of the bid from any system logging on to the portal away from the opening place. The bid 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 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.
4. No tenderer will be permitted to furnish their tender in their own manuscript.
5. Bidder shall transfer online the Bid Security @ 1% of the amount put to tender for each work through a process as mentioned in DTCN through e-procurement portal.

The lowest preferred bidder is required to produce documents in original i.e. Registration Certificate (R.C.), GST Registration Certificate, GSTIN, PAN Card, Affidavit regarding authenticity of the tender documents.

The Technical Bid (Cover- I) is to be submitted through the e-procurement portal with documents such as Bid Security Declaration, scanned copies of valid GST Registration Certificate, valid Contractor Registration Certificate, PAN Card, Undertaking/Certificates duly filled, Affidavit about the authentication of the tender documents, No Relation Certificate and documents required as per the relevant clauses of DTCN with Bill of Quantity i.e. Financial Bid (Cover- II).

- (a) Providing facilities to the Engineer contractor
- i) As per works Department No.FR-11/2001/10003/00 Bhubaneswar dtd 24.05.2001, 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 03 (three) nos. of EMD exemption during the financial year 2026-27** and to show the original registration certificate to the tender inviting authority as and when required for confirmation. The bid will be liable to be disqualified for non-submission of affidavit in support of EMD exemption in the manner mentioned above.
- (d) The exemption from deposit of Bid Security/EMD at the time of participation in tender & concessional payment of Performance Security @ 25% of the value of Performance Security to Local Micro & Small Enterprises (MSEs) and Start-ups as extended vide Works Department O.M. No. 503/W dt 17.01.2022 will no more exist w.e.f the date of issue of the Works Department Office Memorandum No. 4281/W, Dated 05.03.2025.
7. As per works Department Office Memorandum No. 632 Date. 09.01.2026 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.
8. (a) The **SC/ST** Contractor desirous of availing the price preference shall submit an affidavit clearly mentioning that being an **SC/ST** Contractor, he/she intends to avail the price preference as per para-2 of works Department Resolution No. 27748 dated 11.10.1997 **failing such submission it shall be presumed that the bidder is not interested in availing the price preference.**
 - (b) 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 as per works Department Office Memorandum No. 632 Date. 09.01.2026
 9. The plans specifications and scope for the work can be seen in the office of the **Superintending Engineer, Nimapada Irrigation Division, Nimapada** during any working days.
 10. 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, Nimapada Irrigation Division, Nimapada.**

Complaint at a future date that plans and specifications have not been seen by the tenderers can not be entertained.
 11. The bidder can resubmit his bid through online e-procurement mode out of which the system shall consider only the last bid submitted to the portal.
 12. Every tenderer is expected before quoting his rates to inspect the site of the proposed work. He should also inspect the quarries and approach road to quarries and locality of the work and satisfy himself about the quality and availability of materials including the medical aids, labour and foodstuff etc. In every case the materials must comply with the relevant specifications. The contractors would, however, be responsible for procurement of materials from authorized sources and voluntarily disclose the source of procurement for the purpose of billing. Besides, the bidder would be required to submit the details of quarry for procurement while submitting the bids.

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 be encountered during its progress and to have quoted labour rates and materials, leads, 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. In the course of awarding a work, the Department may desire the analysis of the rate arrived for against any item(s) of work. The estimated cost is excluding GST. The rate of item basing on which estimate cost has been derived are excluding GST or different components to arrive such rates.
 13. Each tenderer must quote a definite percentage upto two decimal points. Tenders containing indefinite terms such as 'as estimated rates or schedule of rates or percentage basis will not be considered.
 14. If any further necessary information is required the bidder can seek clarification on the bids within 7 days from the start of sale of bid document. The employer response for the queries raised by the bidder will be posted in the portal.
 15. All rates should be for finished items of work unless otherwise mentioned in the tender schedule.
 16. BOQ in MS Excel format shall be made available to the bidder through e-procurement portal. The bidder shall download that particular excel sheet and fill in the rates in figures at the appropriate locations. The total amounts shall be calculated automatically and shall be visible to the bidder. The bidder is not supposed to change or modify the format of the excel sheet in any form. Bidders are to submit only the original BOQ updated by publisher after entering the relevant fields without any alteration/deletion/modification. Multiple BOQ submission shall lead to cancellation of bid. If the bidder does not fill rates for any items it will be considered that he has quoted the rates combinedly in

some other items. 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.

17. The bidder shall submit the documents in the designated locations bid and Financial bid. 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 in to 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. It is allowed to modify the bid through the e-procurement portal. The bidder shall have to log in 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 latest bid only will be admitted. But the bidder should avoid modification of the bid at the last moment to avoid system failure or malfunction of the 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.
24. Withdrawal of bid is also allowed in the e-procurement portal. The bidder has to click on the "withdraw" button and record the necessary justification for the same in the space provided. In addition to this he has to write a letter addressed to officer inviting the bid and upload the scanned document from portal in respective bid. The system shall not allow any withdrawal after expiry of the closure of the bid.
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 of receiving of tenders 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 along with 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 in to 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) Indefinite 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 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 earnest money will be retained in the case of successful tenderer and will be dealt with as per the terms and condition of O.P.W.D. code. **The earnest money of the unsuccessful tenderer except the three lowest tenderer should be refunded on application.** The EMD given by the other two parties except one whose tender is accepted should also be refunded within 15 days of acceptance of tender and drawl of agreement. After Award of Contract the EMD already transferred @1% shall be refunded to the successful bidder.
31. 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.
32. 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/ Kissan Vikas Patra/Bank Guarantee in favour of the Divisional Officer from any Nationalized/ Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar towards Initial security deposit/any other security deposit from the contractor or supplier.
33. Period of availability of tender On-line/ Date and time of bidding on-line/ Last date of seeking clarification/ Date of opening of tender etc. Details as follows –

Procurement Officer	e-procurement Notice No.	Availability of tender in the website: www.tendersodisha.gov.in for online bidding.		Last date & time For seeking Tender clarification	Date & time of opening of (Cover-I)	
		From	To		Technical Bid	Financial Bid
1	2	3	4	5	6	7
Superintending Engineer, Nimapara Irrigation Division, Nimapara	04 / 2026-27	06.08.2026 10.00 AM	20.08.2026 5.30 PM	17.08.2026 5.30 PM	21.08.2026 11.00. AM	To be intimated after evaluation of Technical Bid

34. 1. **Additional performance security** shall be taken on an incremental basis from the selected bidder for low bid prices in the project works as under:(**As per Works Department OM No.173 dt.03.01.2026**)
- 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 addition 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.

The applicable Additional Performance Security (APS) shall have to be furnished by the successful bidder in shape of Term Deposit Receipt pledged in favour of **Superintending Engineer, Nimapada Irrigation Division, Nimapada** / Bank Guarantee in favour of the **Superintending Engineer, Nimapada Irrigation Division, Nimapada** from any Nationalised / Scheduled Bank in India counter guaranteed by its local branch at Nimapada within seven days of issue of Letter of Acceptance (LoA) by the **Superintending Engineer, Nimapada Irrigation Division, Nimapada**. (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. (*Vide Office Memorandum No -14459/W dated 20.09.2018 of Works Department, Govt. of Odisha*).

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.

35. 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.
36. 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.
37. The date of commencement of work shall be as notified in work order.
38. On signing the agreement the site will be handed over to the contractor for execution and completion of works in all respect.
39. On no account, the contract work should be sublet to any body without the prior approval of the Tender accepting authority of the Department. In such an event the contract may be rescinded.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
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 have to abide by the C.P.W.D. safety code rules introduced by the Govt. of India, Ministry of Works, Housing and Supply in their standing order No.44150 dated 25.1.1957.
49. The tenderer shall bear various incidentals, sundries and contingencies necessitated by the work in full within the following or similar category.
 - (a) 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, haul 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. 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.
 - (b) Labour camps or hutments including conservancy and sanitation arrangements upto the satisfaction of the local health authorities should be arranged by the contractor.
 - (c) Suitable water supply including pipe water supply wherever available for the staff and labour as well as for the work.
 - (d) Fees and duties levied by the municipal canal or water supply authorities.
 - (e) Suitable equipment and wearing apparatus for the labour engaged in risky operations and medical aid to the labourer engaged for the work.
 - (f) Suitable fencing, barriers, signals including paraffin and electric signals where necessary at work and approaches in order to protect public and employees from accident.
 - (g) 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.
 - (h) The contractor has to arrange adequate lighting arrangement for the work wherever necessary at his own cost.
50. 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.
51. If a contractor removes any Govt. material or stores supplied to him from the site of the work in contravention of the provision of this clause with a view to dispose of the same dishonestly, he shall be in addition to any other liability civil or criminal arising out of this contract be liable to pay penalty equivalent to (5) five times of the price of the materials cost. The penalty so imposed shall be recoverable at any time from the sum that may be due then or at any time thereafter become due to the contractor or from his security deposit or from his other available dues with the Department.
52. Over and above these conditions including the Technical specifications the terms, conditions, rules and regulations and specifications laid down in **I.S.S.** (Indian Standard Specifications) code are also binding on the part of the contractor.
53. Deduction of income tax at source 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 1% individual pan & company / farm 2%)**
54.
 - (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.
 - (b) 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.
 - (c) 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.
 - (d) 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.
55. 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.
56. 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.
57. The transportation of quarry materials such as stone, metal, chips, sand, cement, moorum etc. to used & testing charges of construction materials are to be borne by the contractor.
 58. 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.
 59. 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.
 60. The contractor is to supply necessary labour and materials for the purpose of alignment lying recording of levels whenever required at his own cost.
 61. 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.
 62. 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.
 63. Under no circumstances, interest is chargeable for the dues or any additional dues, if any payable for the work.
 64. Government of Odisha has mandated online registration of all categories of contractors in CDMS portal (www.cdmsodisha.gov.in) vide O.M. No. 12934 dt.23.08.2018 of Works Department. As per the codal provision vide clause No. **12.4** of Appendix IX (A) of O.P.W.D. code Vol.(II) all classes of contractors are requested to register themselves in CDMS Portal. **Tender Inviting Authority will not accept any tender if contractors shall not registered under CDMS portal & their tenders will be rejected.**
 65. All correspondences & information if any required will be sent to the bidders in their provided e-Mail address in his DSC bid submission confirmation.
 66. **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.
 67. Prediction of flood/monsoon Damage:
The contractor shall make his own **Irrigation Water Supply of Water in Canal** 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 before **Irrigation Water Supply in Canal**. 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.
 68. 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 during irrigation water supply. 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.
 69. 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.
 70. 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.
 71. Dewatering from the foundation of structures when and where necessary during execution will have to be done by the contractor.

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

72. Incase of discrepancy revealed between **P₁ form** and Detailed Tender Call Notice, condition in P₁ form shall prevail over the Detailed Tender Call Notice.
73. No claim for idle labour etc. on any account will be entertained by the Department.
74. The clause of printed form of **P₁ contract** with latest addition/ deletion/ corrections/ substitution etc. will also be binding.
75. **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)
76. **THE CONTRACTOR HAS TO MENTION PERCENTAGE EXCESS OR LESS OVER THE AMOUNT PUT TO TENDER.**
77. 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.
78. 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.
79. 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.
80. **Joint Ventures** are not allowed in this tender.

Sd/-
Superintending Engineer
Nimapada Irrigation Division
Nimapada

Memo No. 5475 // Dated 29.07.2026

Copy submitted to the Deputy Director (Advertisement), Information and Public Relation Department Odisha, Bhubaneswar. for favour of information and necessary action.

Enclosure:- 'e'-Procurement Notice with soft copy. No. - **04 of 2026-27**

**Sd/-
Superintending Engineer**

Memo No. 5476⁽³⁾ // Dated 29.07.2026

Copy submitted to the Engineer-in-Chief, Water Resources, Odisha, Secha Sadan, Bhubaneswar/ Chief Engineer & Basin Manager, Mahanadi Kathajodi System, Bhubaneswar / Additional Chief Engineer, Central Irrigation Circle, Bhubaneswar for favour of kind information and necessary action.

Enclosure:- 'e'-Procurement Notice No. - **04 of 26-27**

**Sd/-
Superintending Engineer**

Memo No. 5477⁽²⁾ // Dated 29.07.2026

Copy submitted to the Director, Monitoring and Evaluation, O/o the E-I-C, W.R., Odisha, Secha Sadan, Bhubaneswar / Head, State Portal Group, IT Centre, Odisha, Secretariat, Bhubaneswar for favour of kind information and necessary action. The Tender Call Notice may please be floated in the DOWR Web-site for online bidding by the intending bidders on or before **11 - 00 AM dt. 06.08.2026.**

Enclosure:- 'e'-Procurement Notice with soft copy. No. - **04 of 26-27**

**Sd/-
Superintending Engineer**

Memo No. 5478⁽³⁾ // Dated 29.07.2026

Copy submitted to the Collector & District Magistrate, Puri / Collector & District Magistrate, Khordha / Superintendent of Police, Puri / Superintendent of Police, Khordha for favour of information and necessary action.

Enclosure:- 'e'-Procurement Notice No. - **04 of 26-27**

**Sd/-
Superintending Engineer**

Memo No. 5479 // Dated 29.07.2026

Copy to the Superintending Engineer, Rural Development, Nimapada // Superintending Engineer, Road and Building, Puri // Executive Officer, N.A.C., Nimapada // Block Development Officer, Nimapada for information & wide circulation.

**Sd/-
Superintending Engineer**

Memo No. 5480 // Dated 29.07.2026

Copy forwarded to all Sub-Divisional Officers under this Division / Sr. D.A.O. / Asst. Executive Engineer (Estimator) / Divisional Cashier for information and necessary action. The Sub-Divisional Officers are instructed to paste one copy of Tender Call Notice at their Sub-Division Office Notice Board for wide circulation.

Enclosure:- 'e'-Procurement Notice No. - **04 of 26-27**

**Sd/-
Superintending Engineer**

Memo No. 5481 // Dated 29.07.2026

Copy to 'NOTICE BOARD'.

Enclosure:- 'e'-Procurement Notice No- **04 of 26-27**

**Sd/-
Superintending Engineer**

SECTION – 1

DETAILED TENDER CALL NOTICE

GOVERNMENT OF ODISHA
DEPARTMENT OF WATER RESOURCES,
OFFICE OF THE SUPERINTENDING ENGINEER,
NIMAPARA IRRIGATION DIVISION, NIMAPARA
DETAILED e-PROCUREMENT NOTICE NO.- 04 of 2026-27
Bid Identification No- NID – 87 of 2026-27

1. The Superintending Engineer, Nimapara Irrigation Division, Nimapara on behalf of Hon'ble Governor of Orissa invites **Percentage Rate** tender on-line in the prescribed form to be eventually drawn in P.W.D. form no. P-1 from **"B" Class** Contractors registered with the State Govt. of Orissa or from contractors of equivalent grade / class registered with other State Govt. / Central Govt. / M.E.S. / Railways or other Govt. undertakings. All the contractors are to be registered in the State portal and must possess compatible digital signature certificate of Class-II and III for on line bidding. The website for online bidding is <http://tendersorissa.gov.in> for the work. **"Improvement to Bhargavi Left Embankment near Chaka Balanga."**

2. The tender documents can be downloaded from the website identified as <http://tendersodisha.gov.in> from **10.00 A.M. of Dt. 06.08.2026 to 5.30 P.M. of Dt. 20.08.2026**. The bidder for participation in on line bidding will have to pay/transfer **Rs. 10,000/- (Rupees Ten Thousand)** only on-line towards Cost of Bid Document through payment gateway of designated banks. The Bid will be received through e-procurement portal from **10.00 A.M. of Dt. 06.08.2026 to 5.30 P.M. of Dt. 20.08.2026**. Each set of bid document contains detailed e-Procurement Notice and an intelligent bill of quantity. The **Technical bid (Cover-I)** will be opened on **Dt. 21.08.2026 at 11.00 A.M. hours** in the office chamber of Superintending Engineer, Nimapara Irrigation Division, Nimapara in presence of the tenderers 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 last date of receipt of documents and 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 **mentioned in Col. 04 of IFB (excluding GST)**.

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.

6. **Bid security/E.M.D.**

@ 1% of the amount put to tender i.e. **Rs. 83,400 /-** only must accompany the tender. The bidder shall pay/transfer the required amount of E.M.D./ Bid Security by online as mentioned in the Tender Details through payment gateway of designated banks and in no other form. **A bidder shall make electronic payment using his/her internet banking enabled account with designated Banks or their aggregator banks. A bidder having account in other Banks can make payment using NEFT/RTGS facility of designated Banks. For submission of bids through e-procurement portal, the bidder shall scan all the written pages of the Contractor's License (R.C.), PAN Card, VAT/GSTIN Clearance, Affidavit regarding authentication of documents & No Relationship Certificate, etc. and upload to the system in designated place. 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 as per works Department Office Memorandum No. 632 Date. 09.01.2026.**

As per works Department Office Memorandum No. 632 Date. 09.01.2026 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 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. In that case, the L-2 bidder, if fulfils other required criteria, would be called for drawing agreement for execution of work subject to condition that the L-2 bidder negotiates at par with the rate quoted by the L-1 bidder, otherwise the tender will be cancelled. Adjustment of E.M.D. given with other tenders previously and submitted in other tenders shall not be entertained.

The bidders shall have to furnish the original documents to the Superintending Engineer, Nimapara Irrigation Division, Nimapara as & when required for verification of the tender. The original Affidavit should be retained by the bidder with him. The successful bidder have to submit the original Affidavit to the Executive Engineer, Nimapara Irrigation Division, Nimapara before drawal of the Agreement.

7. As per works Department No.FR-11/2001/10003/00 Bhubaneswar dt.24.5.01, Engineer-Contractor shall have to furnish EMD or surrender original license prior to opening of bid for getting exemption facility, failing which the tender will be liable for rejection.

Exemption of EMD to the Engineer contractor will be allowed for a maximum of three works in a financial year and the fact of awarding a work with Exemption of EMD should be entered in the Original Registration Certificate of the Engineer Contractor. Engineer contractor desirous to avail the exemption of E.M.D. is required to submit an affidavit to the effect that he/she has not yet availed the facility for more than two works during the current financial year.
8. The work is to be completed in all respect within **6 (Six) Calendar Months** from the date of issue of work order.
9. The plans specifications and scope for the work can be seen in the office of the Superintending Engineer, Nimapara Irrigation Division, Nimapara during bidding period.
10. 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 Orissa and other relevant specifications and drawings which are available with the tender document or with the Superintending Engineer, Nimapara Irrigation Division, Nimapara.

Complaint at a future date that plans and specifications have not been seen by the tenderers cannot be entertained.
11. The bidder can resubmit his bid through online e-procurement mode out of which the system shall consider only the last bid submitted to the portal.
12. Every tenderer is expected before quoting his rates to inspect the site of the proposed work. He should also inspect the quarries and approach road to quarries and locality of the work and satisfy himself about the quality and availability of materials including the medical aids, labour and foodstuff etc. In every case the materials must comply with the relevant specifications.
13. 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 be encountered during its progress and to have quoted labour rates and materials, entry tax and other duties, leads, 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.
14. If any further necessary information is required the bidder can seek clarification on the bids within 7 days from the start of sale of bid document from office of the Superintending Engineer, Nimapara Irrigation Division, Nimapara.
15. The quoted percentage should be for finished items of work unless otherwise mentioned in the tender schedule.
16. An intelligent BOQ in MS Excel format shall be made available to the bidder through e-procurement portal. The bidder shall download that particular excel sheet and fill in the percentage equal / excess / less in figure only at the appropriate locations. The total amounts in case of percentage rate tender shall be calculated automatically and

shall be visible to the bidder. The bidder is not supposed to change or modify the format of the excel sheet in any form.

17. The bidder shall submit the documents in the designated locations of bid. 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. Bidders desirous to hire machineries or equipments from out side the State are required to furnish 2% (Two percent) of the amount put to tender as bid security. Tender not accompanied with bid security and security for hired machineries as specified above shall be liable for rejection.
19. All taxes, fees, royalties payable under the local rule including GST, Income taxes & Surcharges, etc. as applicable will be borne by the contractor as admissible. It is implied that the quoted rates are inclusive of such elements except GST.
20. It is allowed to modify the bid through the e-procurement portal. The bidder shall have to log in 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 latest bid only will be admitted. But the bidder should avoid modification of the bid at the last moment to avoid system failure or malfunction of the 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.
21. Withdrawal of bid is also allowed in the e-procurement portal. The bidder has to click on the “withdraw” button and record the necessary justification for the same in the space provided. In addition to this he has to write a letter addressed to officer inviting the bid and upload the scanned document from portal in respective bid. The system shall not allow any withdrawal after expire of the closure of the bid.
22. 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.
23. All tenders received will remain valid for **90 days** from the date of receipt of tenders and validity of tenders can also be extended if required without any monetary compensation.
24. The contractor shall have to furnish certificate along with 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 Assistant Secretary and above in the Water Resources Department.
25. While determining the validity of tenders the following points shall be taken in to 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) Indefinite 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.
26. The Department reserves the right of authority to reject any or all tenders received without assigning any reason whatsoever. Bidders should note that the acceptance of their bids is entirely at the discretion of the officer to whom the duty is entrusted and no bidders can demand the cause of rejection of their offer.
27. The tender may not (at the discretion of the competent authority) be considered unless accompanied by attested true copies of Registration of Firms/S.S.I. unit/ EPM rate contract holder certificate, PAN Card, GST Clearance Certificate in prescribed form & affidavit as the case may be and **the original certificates are to be submitted by the date & time fixed, failing which the bid of the tenderer will be rejected.** Attested true copy of work done certificate is to be furnished along with the tender obtaining from the concerned Superintending Engineer.
28. The earnest money will be retained in the case of successful tenderer and will be dealt with as per the terms and condition of O.P.W.D. code. The earnest money of the unsuccessful tenderer will be refunded on application after the tender is finally accepted.
29. 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 as per OPWD Code Vol. II, Appendix-XXXIV. All other conditions of black listing of Contractors remain as per the said rule are also applicable.

30. The tenderer whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him shall make an initial security deposit in the form of NSC / Postal Time Deposit / Post Office Bank Account / Deposit Receipt of Schedule Bank / Kissan Vikas Patra duly pledged in favour of the **Superintending Engineer, Nimapara Irrigation Division, Nimapara** and in no other form as earnest money shall be 2% of the value of the tendered amount to be accepted and sign agreement in the P.W.D. form No.P-1 for the fulfillment of the contract in the office of the **Superintending Engineer, Nimapara Irrigation Division, At /Po –Nimapara, Dist – Puri, Orissa**.

The tenderer whose tender is selected for acceptance shall within a period of seven days upon intimation being given to him required to deposit Additional Performance Security for acceptance of his tender failing which the bid shall be cancelled and the E.M.D. shall be forfeited. Further, proceeding for blacklisting shall be initiated against bidder. In such an event, the successful bidder who have quoted less bid price/rates than the estimated cost put to tender shall have to furnish the exact amount of differential cost i.e. estimated cost put to tender minus the quoted amount as Additional Performance Security in shape of Term Deposit Receipt of Scheduled Bank duly pledged in favour of the Superintending Engineer, Nimapara Irrigation Division.

Additional Performance Security shall be obtained from the successful bidder when the bid amount is less than estimated cost put to 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 as per the **Rate of Additional Performance Security (APS) fixed by the State Government issued vide Works Department Office Memorandum No. 173/ dated 03.01.2026 & further clarification by Works Department Govt. Odisha vide office memorandum No. 632 Dt. 09.01.2026** in shape of Term Deposit Receipt pledged in favour of Divisional Officer / Bank Guarantee in favour of the Superintending Engineer, Nimapara Irrigation Division, Nimapara from any Nationalized / Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar **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 **Works Department Office Memorandum No. 14459 dtd. 20.09.2018**. The time period of such fixed deposit must be more than the duration of work.

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 addition 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.**

The Additional Performance Security deposit to be made as per fixed the following rate of Additional Performance Security.

Sl. No.	Quoted bid price in comparison to the amount put to tender	Additional Performance Security to be deposited by the successful bidder.
i.	Below 0% but not below 10 %	No Additional Performance Security
ii.	below 10 % but not below 20%	0.1% APS for every 1% below 10% (applied on bid price)
iii.	20% or more below	1% + 0.2% for every 1% below 20% (applied on bid price)

The security deposit together with the earnest money, Initial Security money and the amount withheld 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 initial 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 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 carryout the defective work shall be met from his dues available with Department. (Ref. works Deptt order No. 17823 /US 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 agreement.

31. Tenderer, whose tender is accepted must submit "programme of work" at the time of execution of agreement in prescribed format for approval of Engineer-in-charge.
32. 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.
33. The date of commencement of work shall be as notified in work order.
34. On signing the agreement the site will be handed over to the contractor for execution and completion of works in all respect.
35. On no account, the contract work should be sublet to any body. In such an event the contract may be rescinded.
36. 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.
37. 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.
38. 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 Orissa 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 Orissa.
39. Under section12 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 before signing of Agreement.
40. 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.
41. Contractor is required to abide by the fair wages clauses as introduced by Govt. of Orissa and will not pay less than the Fair wages fixed by Govt. to the labourers engaged by him for the work.
42. 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 in 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.
43. The contractor will have to submit the Superintending Engineer, Nimapara Irrigation Division, Nimapara, monthly return of labour both skilled and unskilled employed by him on the work.

44. 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.
45. 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. The contractor shall make his own arrangement to shift men and machineries at his own cost before, during and after natural calamities.
46. 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 for the extra items of work of any item of work is taken up.
47. The tenderer shall have to abide by the C.P.W.D. safety code rules introduced by the Govt. of India, Ministry of Works, Housing and Supply in their standing order No.44150 dated 25.1.1957.
48. The tenderer shall bear various incidentals, sundries and contingencies necessitated by the work in full within the following or similar category.
- (a) Rent, royalties and other charges of materials & all other taxes including GST, labour welfare cess, 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. No tenderer will however be liable to pay for temporary occupation of land owned by Govt. at the site of the work.
 - (b) Labour camps or hutments including conservancy and sanitation arrangements up to the satisfaction of the local health authorities should be arranged by the contractor.
 - (c) Suitable water supply including pipe water supply wherever available for the staff and labour as well as for the work.
 - (d) Fees and duties levied by the municipal canal or water supply authorities.
 - (e) Suitable equipment and wearing apparatus for the labour engaged in risky operations and medical aid to the labourer engaged for the work.
 - (f) Suitable fencing, barriers, signals including paraffin and electric signals where necessary at work and approaches in order to protect public and employees from accident.
 - (g) 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.
 - (h) The contractor has to arrange adequate lighting arrangement for the work wherever necessary at his own cost.
49. In case of delay in acquisition of land handling 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.
50. The department will have the right to supply at any time in the interest of the work and departmental material to be used in the work and the contractor shall use such materials at the stock issue rate fixed by the Department by adding + 10 percentage in a particular item of work or market rate whichever is higher.
51. If a contractor removes any Govt. material or stores supplied to him from the site of the work in contravention of the provision of this clause with a view to dispose of the same dishonestly, he shall be in addition to any other liability civil or criminal arising out of this contract be liable to pay penalty equivalent to (5) five times of the price of the materials cost. The penalty so imposed shall be recoverable at any time from the sum that may be due then or at any time thereafter become due to the contractor or from his security deposit or from his other available dues with the Department.
52. 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.
53. 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.
54. (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.
- (b) The rates quoted by the contractor in the tender for works shall exclude GST that to be levied on turnover on works contract according to the Laws and Regulations as applicable from time to time.
- (c) Deduction of GST at source will be made from each running account bill for the work at the rate as amended from time to time.
55. 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.
56. **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 with A.E. in charge of the work in the Office of the Superintending Engineer, Quality Control Division, Bhubaneswar before the procurement for testing and acceptance. The transportation & testing charges of construction materials will be borne by the contractor.**
57. 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.

58. 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.
59. 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.
60. The contractor is to supply necessary labour and materials for the purpose of alignment lying recording of levels whenever required at his own cost.
61. 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.
62. 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.
63. Under no circumstances, interest is chargeable for the dues or any additional dues, if any payable for the work.
64. An affidavit shall be furnished duly swear in before Superintending Magistrate / Notary as per the format enclosed in **Annexure-I** by the contractor along with his tender about the authentication of tender documents. The scanned copy of the affidavit is to be uploaded through the e-procurement portal along with the bid. **The Affidavit in original is to be submitted by the successful bidder to the Superintending Engineer, Nimapara Irrigation Division, Nimapara before drawl of the agreement failing which his/her tender will be rejected.**
65. 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.
66. 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.
67. 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.
68. 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.

The term dewatering shall mean the execution or operation of the items due to standing water as well as due to percolation water.
69. The quantities in respect of the items for which quoted rates are more than 25% of the estimated rates are not allowed to be varied by more than five percent. In case, if it exceeds the limit approval of the competent authority should be obtained prior to execution.
70. Incase of discrepancy revealed between F₂ form and Detailed Tender Call Notice, condition in F₂ form shall prevail over the Detailed Tender Call Notice.
71. No claim for idle labour etc. on any account will be entertained by the Department.
72. The clause of printed form of F₂ contract with latest addition/ deletion/ corrections/ substitution etc. will also be binding.
73. All the measurement of earthwork is to be done by level section measurement, which will be accepted by contractor from time to time. Prior written approval of the Superintending Engineer will be taken in case of pit measurement with size of pits etc. where level section measurements can not be made.
74. For section measurement, levels will be taken in presence of the contractor at suitable interval and will be recorded in the level book before commencement of the work. The level should be accepted by the contractor and initial section be signed by him in token of acceptance. The final levels will be taken after completion of the work in presence of the contractor on the same position, as in the case of initial level. The measurement of earth work for filling sections will be recorded on finished compact section and payment will be made on level sections only as mentioned in the BOQ.
75. The measurement of fine dressing & turfing will be taken after satisfactory full growth of the turf.

76. Borrowing earth is the entire responsibility of the contractor. No extra cost will be considered for whatsoever reason.
77. Royalty of the materials will be deducted as per the prevailing rates of Revenue Department.
78. The successful tenderer is to produce the original labour license of the concerned District before drawal of agreement.
79. Authority reserves the right to reject any or all the tenders without assigning any reasons thereof.

Address of Communication :

Superintending Engineer,
Nimapara Irrigation Division, Nimapara,
PIN-752106, Odisha
Tel. Ph. No-06758-250240
Email-ID: eenidnimapara@gmail.com

**Superintending Engineer
Nimapara Irrigation Division
Nimapara**

SECTION – 2
INFORMATION AND
INSTRUCTION TO BIDDERS

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 Detailed e-Procurement Notice along with Tender Schedule in shape of an intelligent 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 overall percentage equal / excess / less in figures on the intelligent MS Excel sheet. The bidder is to scan his registration certificate, VAT/GST Clearance Certificate, PAN Card, Affidavit, labour licence, No relation certificate and certificate issued by competent authorities required for full filling the minimum qualification criteria specified in the bid document for the work. The bidder is also required to scan the RC books and other papers relating to the machineries and other documents as specified in the bid document.

2. Method of submission of Tender Documents

- 2.1 The tenderer shall upload the scanned copy / copies of the documents and informations 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 bid except the filled up intelligent excel sheet. The filled up intelligent bill of quantities in Excel format will be uploaded in the designated location of Tender Schedule. The bidder is required to upload the required documents in appropriate location of 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 informations as per bid document instead of submitting the entire technical bid document. The "on-line" 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 black listed and his EMD / Bid Security forfeited.
- 2.2 The informations required as per bid documents may be provided in the specified format annexed to the bid document.
- 2.3
- 2.4 If the intending tenderer is an individual, the documents shall be digitally signed by the individual while uploading the tender through e-procurement portal.
- 2.5 If the intending tender is a proprietary firm it shall be digitally signed by the proprietor while uploading the tender through e-procurement portal.
- 2.6 If the intending tenderer is a firm in partnership it shall be digitally 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 technical bid documents.
- 2.7 If the intending tenderer is a limited company or Corporation, it shall be digitally signed by a duly authorized person holding the power of attorney in which case certified copy of power of attorney shall accompany.
- 2.8 All witness and sureties shall be of person of status and probity and their full names, occupation and address shall be stated below in the appropriate place.
- 2.9 The agency will install display board mentioning information about the work at worksite after drawal of the agreement at his own cost.

3. Opening of Tender Documents.

The Technical Bids will be opened on Dt. 21.08.2026 at 11.00 A.M. in the office chamber of Superintending Engineer, Nimapara Irrigation Division, Nimapara in the presence of tenderers or their authorized representative, who wish to be present.

4. Final Decision making authority

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

- 5 Where it will be found necessary by the Department, the Officer-in-Charge of the work shall issue an 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 order book shall be the property of the PWD 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.

SECTION – 3
GENERAL RULES & DIRECTIONS

**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 tender pasted on a board hung up in the office of the Superintending Engineer, Nimapara Irrigation Division, Nimapara.

This notice will state the work to be carried out, the items and approximate quantities thereof as well as the date for submitting and opening tenders also the amount of earnest money to be deposited and the amount of the security deposit by the successful tenderer and the percentage if any to be deducted from bills. Copies of the specifications, designs and drawings and any other documents required in connection with the submission of tender signed for the purpose of identification by the Sub-divisional Officer/Superintending Engineer shall also be open for inspection by the contractor at the office of the Sub-Divisional Officer/Superintending Engineer during office hours.
2. In the event of the tender being submitted by a firm it must be signed separately by each member 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 be signed by the several partners, except where the contractors are described in their tender as 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 in the office of the Sub-Divisional Officer/Superintending Engineer before the tender form is issued if a form 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 his tender.
5. **The amount of earnest money to be deposited will be 1% (through online).**
6. Any person who submits a tender shall fill up the usual printed form stating at what rate he willing to undertake each item of the work. Incomplete tender and tender rate he willing to undertake each item of the work specified in the said form of invitation to tender or which contain any other conditions of any sort, or omit to note the time within which the work can be finished or which are not accompanied by the required earnest money will be liable to rejection. 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. Tender shall bear the name of the work to which they refer written outside the envelope.
7. The Engineer 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. In the event of tender being rejected the document for the earnest money forwarded therewith shall thereupon be returned to the tenderer.
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-in-charge who opened the tenders will, if he is competent to accept the tender, inform the tenderer of the selected tender who shall thereupon sign copies of the specification and other documents with the tender. The tenders to the selected tender shall also deposited the required amount of the security money within the prescribed time. If the tenderer fails to deposited the required amount of the security money within the prescribed time the Engineer-in-charge may reject the tender.

If the Engineer-in-charge is not competent to accept the tender himself, he will inform the tenderer of the tender which he decides to recommended for acceptance, such tender shall thereupon sign forthwith copies of the specification and other documents mentioned in rules 1 and 4 and shall deposit the required amount of the security money within the prescribed time. The tender with the specification and other documents signed by the tenderer 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.
10. When a tender is selected for acceptance, the tenderer shall deposit the required amount of the Initial Security Deposit in prescribed format duly pledged in favour of **Superintending Engineer, Nimapara Irrigation Division, Nimapara**. No tender shall be finally accepted until the required amount of the security money has been deposited.
11. The amount of Initial Security Deposit to be deposited by the tenderer whose tender is selected for acceptance shall be 2 (two) percent of the accepted value of the work.

Balance of the security money outstanding after signing of the contract will be recovered from the each bill as applicable as per codal provision.

Taxes as per provisions of Government shall be deducted from the bills of tenderer.

12. When the required amount of the security money has been deposited the Engineer shall scrutinize all pages of the form of item, Rate Tendered and Contract for works that the form has been properly filled up and signed by the contractor and the signature witnessed. He shall then, sign the Agreement.
13. 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. 15443 dt.01.08.2005.)
14. The earnest money deposited is liable to be forfeited to Govt. if the tenderer backs out from the offer before acceptance of the tender by the competent authority.
15. **T.D.S (Tax Deducted at Source) towards GST & CESS etc. will be deducted from the bill at the prescribed rate as amended from time to time.**
16. **GST (Goods and Services Tax) has come into force with effect from 1st, July, 2017. GST as applicable will be paid extra after gross bill amount prepared vide Section-15 and Section 142 (11-C) of Odisha Goods and Service Tax Act 2017.**

TENDER FOR WORKS

I / We hereby tender for the execution for the Government of Orissa for the work specified in the under written memorandum at the rates specified therein a period of **6 (Six) Calendar Months** days from the date of written order to commence and in accordance in all respects with the specifications designs and other documents referred to in rule. I here of and subject to the annexed conditions of contract and with such materials as are provided for by and in all other respects in accordance with such condition so far as applicable.

MEMORANDUM

- a) If several sub-works are included they should be detailed in a separate sheet.
- (a) Name of Work:- : **Improvement to Bhargavi Left Embankment near Chaka Balanga.**
- :
- :
- :
- (b) Estimated Cost
- (c) Tender Amount
- (d) Agreement Amount
- (e) E.M.D **Rs.**
- e) This deposit will be 2 percent of the estimated cost of the work.
- (e-1) Initial security deposits deposited before the commencement of the work. : **Rs.**
Total I.S.D.- Rs.
- (e-2) Additional Performance Security Deposit (Furnished) : **Rs.**
- f) This percentage from bills will be credited to the contractor's security
- (f) Security deposits to be deducted from bills. :
- (g) Time required for the work from date of written order to commence : **6 (Six) Calendar Months**
- (h) Date of written order to commence :
- (i) Schedule date of commencement of work :
- (j) Schedule date of completion of work :
- (k) Total number of item of works tender for :

- 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.

** Signature of witness to one tender's signature

Dated theDay of2021

*

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 theDay of2021

**Superintending Engineer
Nimapara Irrigation Division
Nimapara**

SECTION – 4
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 the sale 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 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 be strictly observed by the contractor **Compensation for delay** 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 equal to $\frac{1}{2}$ % on the amount of the estimated cost if the whole work as shown by the tender for every day that the work remains uncommenced, 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 his authorised, are fully complied with by the contractor to the Superintending Engineer's satisfaction). And ensure good progress during execution of the contractor shall be bound, in all cases in which the allowed for any work exceeds one month, to complete one fourth of the whole work before one the whole time allowed under contract has elapsed of the work, before one half of such time has and three-fourth of the work before three-fourth of time has elapsed. In the events of the contractor comply with the condition, he shall be liable to pay compensation an amount equal to one third percent on the said estimated cost of the whole work for every 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. shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by E.E. or his authorized agents are fully complied with by the contractor to the E.Es satisfaction.

agents
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(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 Orissa, 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 notwithstanding be exercisable in the event of any clause or clauses thereof he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor for past and future compensation shall remain unaffected in the event of the 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 belonging to the contractor or procured by him and intended to be used for the execution of the work or any thereof paying or all wing for the same in the account at 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 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.

Contractor remain liable to pay compensation if action not taken under clause-5

or
part
the

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

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 Superintending Engineer within 30 days of the date of the hindrance on account of which he desires such extension as aforesaid and the Superintending Engineer shall, 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 contractor whether he claims compensation for delay.

Extension of time

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 such completion, 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 (to be 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, 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 of dirt 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 dirt 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 on the 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) own cost 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 account of 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 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-

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

in-charge or his subordinate shall prepare a bill from such list which shall be binding on the contractor in all respects.

Clause – 7 The final bill shall be prepared by the offices 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 If the specification of estimate of the work provides for the use of any special description of materials to be supplied from the Engineer-in-charge's store, or it is required that the contractor shall use certain stores to be provided by the Engineer-in-Charge under the conditions of this contract [such materials and stores and the prices to be charged thereof as herein after mentioned being so far as practicable for the convenience of the contractor, but not so as in any way to control the meaning or effect of his contract are specified in the schedule or memorandum here to annexed] the contractor shall be supplied with such materials and store noted in the annexed schedule as are required from time to time to be used by him for the purposes of the contract only, and the value of the full quantity of materials and stores so supplied at the rates specified in the said schedule may be set off or deducted from any sums then due, or there after to become due to the contractor under the contract or otherwise or against or from the security deposit, or the proceed of sale thereof if the same is held in Government securities, the same or a sufficient portion thereof being in this case sold for the purpose. All materials supplied to the contractor shall remain the absolute property of Government and shall not any account be removed from the site of the work, and shall at all time be open to inspect by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the Engineer-in-charge's store, at the prevailing market rate or at the issue rate which ever is less if by a notice in writing under his hand he shall so require, but the contractor shall not be entitled to return any such materials unless with such consent and shall have no claim for compensation no account of any such materials so supplied to him as aforesaid being unused by him, or for any wastage in or damage to any such materials.

**Store
supplied by
Government**

Clause - 8(a) "If a contractor removes any materials or stock so supplied to him from the site of the work in contravention of the provision of this clause with a view to dispose of the same dishonestly, he shall in addition to any other liability, civil or criminal, arising out of this contract be liable to pay a penalty equivalent to five times the price of the said materials or stock according to the stipulated rate. The penalty so imposed shall be recoverable from any sum, that may be then, or at any time there after may become due to the contractor; or from his security deposit, or the proceeds of sale thereof ".

Clause - 8 (b) Owing to difficulty in obtaining certain materials in the open market the Government have undertaken to supply materials specified in the schedule here to annexed. There may be delay in obtaining materials by the Department and the contractor is therefore required to keep himself in touch with day position regarding the supply of materials from the

Engineer-in-charge and to so adjust the progress of the work that their labour may not remain idle nor may there be any other claim due to or arising from delay in obtaining the materials. It should be clearly understood that no monetary claim whatsoever shall be entertained by the Government on account of delay in supplying materials. However extension of time for the completion of work can be granted on timely application by the contractor vide clause 5.

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 in-charge and lodged in his office and to which the contractor entitled to have access at such office for the purpose of inspection office hours and the contractor shall, if he so require be entitle at expense to make or cause to make copies of the specifications and such designs, drawings and instructions as aforesaid.

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

Engineer-
shall be
during
his own
of all

Sub clause – 9 The work should be done strictly in accordance with the relevant specifications of the I.S.I. Codes. If the work is not covered by the specification of I.S.I. it should be done in accordance with the provision in the Orissa 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 to the original specifications, drawing, designs and instruction that to him to be necessary advisable during the progress of the work and contractor shall be bound to carry out the work in accordance with instruction which may be given to him in writing signed by the in-charge and such alteration shall not invalidate the contract and at work which the contractor may be directed to do in the manner above as part of the work shall be carried out by the contractor on the same conditions in all respect on which he agreed to do the main work, and same time rates as are specified in the tender for the main work., The

**Alteration in
specification
and designs**

**Extension of time
in consequence
of alterations**

or additions
may appear
the
any
Engineer-
additional
specified
at the
time for

the completion of the work shall be extended in the proportion that the additional work includes bears to the original contract work 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 on rate is specified in this contract then such class of work shall be carried out at the on rates specified on this contract than such class of work shall be carried out at the rates entered in the sanctioned schedule by rates of the locality during the period when the work being carried on and if such 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 Engineer-in-charge does not agree to this rate he shall by notice in be at liberty to cancel his order to carry out such class or work and carry it out in such manner as he may consider advisable.

Do not invalidate contract

if the writing arrange to

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

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

or to be of the

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 accompanied by 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 paid in respect of the work carried out or expenditure incurred by him prior to the 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 Orissa shall for any reason whatsoever not require the whole thereof as specified in the be carried out the Engineer-in-charge shall give notice in the fact to contractor who shall have no claim to any payment compensation whatsoever on account of any profit or advantage, which he might have derived from the execution of in full but which he did not derive in consequence of the full of the work not having been carried out, neither shall he have 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.

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

tender to writing of or the work amount any claim

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, imperfect or unskillful workmanship or materials of any inferior description, or that any materials or provided by him for or execution of the work are unsound or of a inferior to that contracted for or other wise not in accordance contract. The contractor shall on demand in writing from the in-charge specifying the work materials or articles complained with standing that the same may have been inadvertently passed, and paid 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 to be specified by the Engineer-in-charge in his demand aforesaid then the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding the days his failure to do 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 the expense in all respects of the contractor.

Action and compensations payable in case of bad work.

with articles quality with the Engineer-of not certified

Clause – 13

All work under or in course of execution or executed in pursuance the contract shall at all times be open to the inspections and supervision of the Engineer-in-charge and his subordinates and contractor shall at all times during the usual working hours, and other times at which reasonable notice of intention of Engineer-charge his subordinates to visit the works shall have been given contractor either himself be presented to receive orders and instructions, or have a responsible agent duly accredited in 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

of the

Contractor or responsible agents to be present

at all in- to the writing

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 building, in which they may be working or any building, road, enclosure or grass land, or cultivated ground continuous to the premises on 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 from the 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 the Engineer-in-charge shall be

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

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 out work 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 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 neighbourhood.

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 neighbourhood.

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 to allow 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 the cost 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 Two Diploma Holders belonging to State of Orissa. Like wise 'A' class contractor shall employ him one Graduate Engineer or Two Diploma holders under the contractor shall be full time & continuous and they should not be superannuated, 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 Orissa. The Chief Engineer, Roads Orissa 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.

Employment of Graduate Engineers & Diploma Holders

the under the

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 otherwise 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 in writing 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 had been rescinded under clause 3 hereof and in addition the contractor, shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

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-charge may be noticed in writing rescind the contract and the security deposit of the contractor shall there upon stand forfeited and be absolutely at the disposal 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.

Changes in constitution of firm

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 the circle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

Clause – 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 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 of measurement, the Engineer-

Lump sums in estimates

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.

- 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 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 Orissa 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 Orissa.
- 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/GST, income tax, royalty, fair weather charges and tollage, where necessary.

Clause 31 - Price Adjustment

As Per Office Memorandum No. 0755690024019 / 15847/W, dated 19.11.2019 of Commissioner-cum-Secy. to Govt., Govt. of Odisha, Works Department.

ANNEXURE-A

31.1 : Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants in accordance with the following principals and procedures 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 or extensions granted by the Engineer and shall not apply to the work carried out beyond the stipulated time for reasons attributable to the contractor.

(b) The price adjustment shall be determined during each month from the formula given in 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, if any, during the month, less the amount of secured advance recovered, if any during the month. It will exclude value for works executed for extra items under variations.

31.2 : To the extent that full compensation for any rise or fall in cost to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices

included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

The formula (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 preceding 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, New Delhi.

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 the 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 preceding 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

(iii) Price adjustment for increase or decrease in the cost of Steel Procured by the Contractor shall be 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.

S₀ = The all India wholesale price index for steel (Mild Steel long Products) on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry , Government of India, New Delhi.

S₁= 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 for Bitumen Component

Price adjustment for increase or decrease in the 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.

B₀ = The official retail price of bulk bitumen at the IOC / BPCL depot at nearest center on the day 28 days prior to date of opening Bids.

B₁= The official retail price of bulk bitumen at the IOC / BPCL depot at nearest center for the 15th day of 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 the cost of pipe shall be paid in accordance with the 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 paid or 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} = All India wholesale price index of pipe on 28 days preceding 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 the 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 consideration due to changes in rates for local labour.

L₀ = 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.

L₁= The minimum wages for unskilled labour as Notified by Government of Odisha as prevailed on the last date of month previous to the one under Consideration.

Pl= Percentage of labour component of the work.

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

(V) Price adjustment for increase or decrease in cost 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.

F₀ = 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 date of opening Bids.

F₁= The official retail price of HSD at the existing consumer pumps of IOC /BPCL /HPCL at nearest center for the 15th day of 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 lubricant group.

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

(vi) Price adjustment for increase or decrease in the 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.

P₀ = The all India wholesale price index for manufacture of machinery for mining, quarrying and construction on 28 days preceding the date of opening of Bids, as published by the Ministry of Commerce and Industry , Government of India, New Delhi.

P₁= 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 Rods', '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 the items in WPI 1993-94 series:

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

31(e) : APPLICATION OF ESCALATION CLAUSES:

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 alteration in the price of such material, wages of labour and /or price of P.O.L 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 a position to supply.

Percentage table

Sl. No.	Category of Works		% Component (Cost wise)		
			Lab our (Pi)	POL (Pf)	Steel (Ps) + Cement (Pc) + Bitumen (Pb) + Pipes (Ppi)+ Plant and machinery Spare & Component (Pp)+ Other Materials*
1	R & B works (% of components)	Road works	5	5	90
		Bridge Works	5	5	90
		Building works	5	5	90
2	Irrigation	Structural works	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 consider @ 5% each ,Steel, cement, Pipes, others 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 and shall form part of the Bid Document”

C.L No.31 of F2/PI Contrac ts Sl.No	Index Descriptio n	Source of index	Ba se val ue *	Base Date *	Weightag e of Item**
31 (a) (i)	Other Materials	All India Whole sale price index (all commodities) as published by the Economic Advisor to the Govt of India, Ministry of Commerce and Industry.			

31 (a) (ii)	Cement	Whole sale price index for cement (Ordinary Portland cement) as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry.			
31 (a) (iii)	Steel	Whole sale price index for Steel (Mild Steel-Long Products) as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry			
31 (a) (iv)	Bitumen (VG-30)	Official retail price of bulk bitumen at the nearest IOC/HPCL depot			
31 (a) (V)	Pipes	Whole sale price index for the type of Pipe under consideration, as published by the office the Economic Advisor to the Govt. of India, Ministry of Commerce and Industry			
31 (b)	Labour	Minimum Wage notified by the Labour and Employees State Insurance Department of Govt. of Odisha, India			5%
31 (C)	POL	Official retail price of HSD at the nearest IOCL/HPCL/BPCL Consumer pump depot			5%
31 (d)	Plant and Machiner y	Whole sale price index for Manufacture of Machinery for Mining, Quarrying and Construction as published by the office the Economic Advisor to the Govt. of			

		India, Ministry of Commerce and Industry			
			To tal		100%

- Values to be filled up at the time of drawl 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 removed by 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 100'-0" 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 price 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 Orissa, 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) Under the provision of the Minimum Wages Act, 1948 & minimum wages (Central Rules, 1950) the contractor is bound to allow or cause, to allow to the labourers directly or indirectly employed in the works one day rest for six days continuous work and pay wages at the same rate as for duty, in the event of default. The Superintending Engineer or Sub-Divisional Officer concerned shall have the right to deduct the sum not paid on account of wages for weekly holiday to labourers and pay the same to the persons entitled there to from any money due to the contractor.
- (h) 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.
- (i) The contractor shall submit by the 4th & 10th 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 contend of damage and injure caused by them and (5) the number of female workers who have been allowed maternity benefit according the clause [K] and the amount paid to the Government a sum not exceeding Rs.70.00 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.

- (j) 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 be complied with all the rules framed by Government from time to time for the protection of health and sanitary arrangement for workers employed by the Orissa Public Works Department and its contractor. This will apply to work places having 50 or more workers.
- (k) 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 Miscarriage :-** 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.70.00 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.

MODEL RULES FOR HEALTH & SANITARY ARRANGEMENTS FOR WORKERS EMPLOYED BY ORISSA P.W.D. OR IT'S CONTRACTORS

1. **Application :** These rules shall apply to all construction work in charge of Orissa Public Works 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 accessitile 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° 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 (in particulars cases the Superintending Engineer shall have the power to vary the scale where necessary) | No. of seats 3 per 100 |
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 made by 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 layer 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 shall not be constructed on a lower standard than the following.
- Thatched huts
 - Mud floors and walls.
 - 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.
- b) Where the number of women workers is more than 50 the contractor shall provide one hut and Dhai to look after the Children of women workers.
- c) The size of creche shall vary according to the number of women workers.

- d) 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.

CONTRACTOR'S LABOUR REGULATIONS

1. **Short title :-** These regulation may be called “ The Orissa 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 the work, **'mentioned in the Tender Call Notice'**. directly or indirectly through a sub-contractor or other person, by an agent on is behalf.
- (a) Fair wages means wages whether for time or piece work prescribed by the **Nimapara Irrigation Division, Nimapara** 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 places on 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/ **Nimapara Irrigation Division, Nimapara** for the district in which the work is done.
- (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 contractor the wages earned by him shall be paid before the expiry of the day succeeding the one on 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 for which 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 Orissa 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 such fines 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 that wage 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 be maintained 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 Orissa 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 contractor in 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 Orissa 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 Orissa 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 Orissa in that behalf shall be final.

Clause 34 Deleted

Clause - 35 **Departmental supply of materials**

Before issue of Departmental materials to the contractor, he shall furnish Bank Guarantee of any of the Nationalised 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 - 36 The terms and conditions of the agreements have been read/ explained to me and certify that I/We clearly understand them.

ADDENDUM TO CONDITION OF CONTRACT :

- 1.1. 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").
- 1.2 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.
- 1.3 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 along with 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 P-1..

2. TIME CONTROL

2.1 Progress of work and Re-scheduling programme

- 2.1.1. 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.
- 2.1.2. 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.
- 2.1.3. 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, $\frac{1}{4}^{\text{th}}$ of the whole of the work before $\frac{1}{4}^{\text{th}}$ of the whole time allowed under the contract has elapsed, $\frac{1}{2}$ of the whole of the work before $\frac{1}{2}$ of the whole time allowed under the contract has elapsed, $\frac{2}{3}$ of the whole of the work before $\frac{3}{4}^{\text{th}}$ of the whole time allowed under the contract has elapsed.
- 2.1.4. 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.
- 2.1.5. 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.
- 2.1.6. The Engineer-in-Charge's approval of the programme shall not alter 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.
- 2.2. Extension of the completion date.
- 2.2.1. 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.

2.2.2. 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.

2.2.3. In case 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 nevertheless use constantly his best endeavors to prevent or make good the delay and shall do all that may be reasonably required to the satisfaction of the Engineer-in-Charge to proceed with the works.

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 trade men engaged by Engineer-in-Chief, in executing work not forming part of the contract.
- v. In case of variation is issued which makes it impossible for completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work and which would cause the contractor to incur additional cost, or.
- vi. Any other cause, which in the absolute discretion of the authority mentioned, in contract data is beyond the contractor's control.

2.2.4 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.

2.2.5 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.

2.3 Compensation for delay.

2.3.1 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 this condition shall not exceed 10% of the Tendered Value of work or to the Tendered Value of the 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 the Contractor under this or any other contract with the Government. In case the contractor does not 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. Withholding of 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), the 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.

2.4 Management Meetings

- 2.4.1 Either the Engineer or the Contractor may require 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.
- 2.4.2. 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 writing to all who attended the meeting.

2.4.3 AMENDMENT OF CODAL/CONTRACTUAL PROVISIONS

Annexure-I

1) Amendment to Para-3.4.16 (a) (VII) of OPWD Code by Substitution

Note:- (vii) For the purpose of estimate, the approved quarry lead is to be provided judiciously. Engineers in charge would be responsible for ensuring the quality of the materials supplied. The contractors would, however, be responsible for procurement of materials from authorized sources and voluntarily disclose the sources of procurement for the purpose of billing. Besides, the bidder would be required to submit the details of quarry for procurement while submitting the bids.

Annexure-II

2) Amendment to Para – 3.4.14 Note-I of OPWD Code Vol – I by inclusion

Note – 1 If L1 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. In that case, the L2 bidder, if fulfils, other required criteria would be called for drawing agreement for execution of work subject to the condition that L2 bidder negotiates at par with the rate quoted by the L1 bidder otherwise the tender will be cancelled. In case a contractor is black listed, it will be widely published and intimated to all departments of Government and also to Govt of India agencies working in the state.

Annexure-III

3) Amendment to Appendix-IX, Clause-36 of OPWD Code, Vol-II by inclusion

Clause No.-36. If the rate quoted by the bidder is less than 15 % of the tendered amount, then such a bid shall be rejected and the tender shall be finalized basing on merits of rest bids. But if more than one bid is quoted at **14.99 % (Decimals up to two numbers will be taken for all practical purposes)** less than the estimated cost, the tender accepting authority will finalise the tender through a transparent lottery system, where all bidders/ their authorized representatives, the concerned Superintending Engineer and DAO will remain present.

Annexure-IV

4) (A)- Amendment to Para-3.5.5 (V) Note –II of OPWD Code, Vol-I by modification.

Note – (ii) Additional performance security shall be deposited by the successful bidder before signing of the Agreement when the bid amount is less than the estimated cost put to tender. In such an event, the successful bidder who have quoted less bid price/rates than the estimated cost put to tender shall have to furnish the exact amount of differential cost i.e. estimated cost put to tender minus the quoted amount as Additional Performance Security in shape of Term Deposit Receipt of Schedule Bank duly pledged in favour of the Superintending Engineer, Nimapara Irrigation Division, Nimapara within seven days, otherwise the bid shall be cancelled and the security deposit shall be forfeited. Further, proceeding for blacklisting shall be initiated against bidder.

(B) – Amendment to Para- 3.5.5 (V) Note-III of OPWD Code Vol-I by inclusion

Note – (III) 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 Superintending Engineer, Chief Engineer & 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 worked 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 % Contract Value
Before 10 to 20 % of contract period	=	3 % of Contract Value
Before 5 to 10% of contract period	=	2 % Contract Value
Before 5 % of contract period	=	1 % of Contract Value

Annexure-V

5)Amendment to Para – 3.2.8 Note-II of OPWD Code. Vol-I by inclusion

Note-II In case of tender accepted below schedule of rate, the tender amount excluding Percentages shall be treated as sanctioned amount and allotment will be limited to that extent. Any deviation in scope of work affecting the agreement amount in such an agreement will be governed by the relevant provisions of OPWD Code.

Annexure-VI

6)Amendment to Appendix – XXX (Bills) Clause 21 of OPWD Code Vol-II & to the Clause-8 of F2 Contract

Bills Clause – 21 For Works above values Rs.5.00 lakh in civil works and work value above Rs.1.00 lakh in electrical/PH works the J.E.s & A.E.s will be required to submit bill for each ongoing work on 20th or next working day of every month to the concerned E.E. The E.E. on receipt of the bill will take steps for payment of the same by 30th or the next working day during the month. The E.E. in charge of the Division will furnish a certificate to the Chief Engineer with copy to the concerned S.E. that the bills for all ongoing months have been paid failing which action will be initiated against the erring officer.

Annexure-VII

7)Amendment to Para-3.5.18 Note-VIII of OPWD Code Vol – I

Note – VIII – 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.

Modification to Notes regarding acceptance of Single Tender.

(Works Department Office memorandum No.- 07556900052014 – 16 / W, dated.01.01.2015)

Notes:- (iii) Para- 3.5.18 – 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.

Rule-29 of Appendix – IX – When in response to a notice calling for tenders, only a single tender is received in the first time, the tender shall be cancelled without opening of the bid and fresh tender be invited publicly. If single tender is received, even after retendering then the approval of the next higher authority should be obtained, if the tender is otherwise in order and acceptance.

GENERAL INSTRUCTIONS TO CONTRACTORS

(DoWR letter No.-20415/DoWR dated 14.09.2015)

- 1) Any agency or Contractor executing a work should be aware about the local festivals like Makar Sankranti, Raja Sankranti, Chaiti Parba, Danda or any such festivals which may affect 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.
- 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 workforce 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 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.
The same applies for borrow areas ponding also. The Contractor should foresee possible ponding of borrow area in monsoon and likewise lift more quantity of soil/other materials during dry period, so as to complete the work as per schedule.
- 4) 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.
- 5) 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.
- 6) 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 ground may not be considered by Divisional Officers.
- 7) Only the day(s) of elections to the Local Bodies / Assembly / Parliament will be treated as a non-working day(s).

8. Office Memorandum No 5984/W, dtd. 27.04.2021 of Works Department, Govt. of Odisha as per the followings on revision of OPWD code.

**GOVERNMENT OF ODISHA
WORKS DEPARTMENT**

No. 07556900052021 (Pt.) 5984

/W., Dated 27.04.2021

OFFICE MEMORANDUM

Subject: Bid Security / Earnest Money Deposit (EMD)

As per amendment to Para 3.5.19 (a) (b) of OPWD Code, Volume-I, Security for the due fulfillment of the contract should invariably be taken. The security may be taken in the shape of N.S.C / Post Office Savings Bank Account / Post Office Time Deposit Account / Kissan Vikas Patra / Bank Guarantee in favour of the Divisional Officer from any Nationalised / Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar towards E.M.D.

2. The State Government is in receipt of many representations that on account of slowdown in economy due to the pandemic, there is acute financial crunch among vendors. Which in turn is affecting timely execution of the contracts. It has also been represented that this may affect the ability of vendors to bid in tenders and hence reduce competition. Besides, Government of India have made provision in Rule-171 of General Financial Rule, 2017 asking the bidders for executing a "**Bid Security Declaration**" in lieu of Bid Security with stipulation that if they withdraw or modify their bids during period of validity etc., they will Be suspended for the time specific in the tender documents.

3. Considering the difficulties faced by the vendors and to facilitate competition in wake of slowdown of the economy due to COVID-19 pandemic, it is hereby decided that **no provisions regarding Bid Security should be kept in the Bid Documents and only provision for "Bid Security Declaration" should be kept.** Further, wherever, there are compelling circumstances to ask for Bid Security, the same should be done only with the approval of the next higher authority to the authority competent to finalize the tender.

4. These instructions shall be deemed to be a part of OPWD Code and Rules made there under.

5.The above instructions will be applicable for all the tenders issued till 31.12.2021.

By order of Governor

(Dr. Krishan Kumar)

Commissioner-cum-Secretary to Government

9. Office Memorandum No 8952/F, dtd. 18.03.2021 of Finance Department of Odisha

GOVERNMENT OF ODISHA

WORKS DEPARTMENT

No. 07556900052021 (Pt.) 5992

/W., Dated 27.04.2021

OFFICE MEMORANDUM

Subject: Performance Security

To ensure due performance of contract **Performance Security** is to be obtained from the successful bidder who is awarded the contract as per codal provision under Rule-13 of Appendix-VIII of OPWD Code, Volume-II. As per Rule-13 of Appendix-VIII of OPWD Code, Volume-II, the contractor has to deposit 1% of the bid amount at the time of drawal of Agreement as initial security deposit. Besides, Contractors of Super, Special, A and B Classes will be required to furnish Security Deposit by way of deduction from their bills at the rate of 5% of the gross amount of each bill whereas in case of C & D Class Contractors, such deduction will be made at the rate of 3% of the gross amount of each bill. As per Note-I of Para 3.5.19 of OPWD Code, Volume-I. in case of execution of work under Special Contract Agreement, an insurance policy of guarantee bond from two well known wealthy persons of probity, nominated by the contracting firm and approved by the Chief Engineer for a sum equivalent to 10% of the contract amount may be taken.

2. On account of slowdown in economy due the Pandemic COVID-19, the State Government is in receipt of many representations that there is acute financial crunch among many commercial entities and contractors. Which in turn is affecting timely execution of the contracts. It has also been represented that this may affect the ability of the contractors to bid in tenders and hence reduce competition. Requests are being received for reduction in quantum of Security Deposits in the Government contracts. Besides, Government of India have also reduced the rate of Performance Security from **five to ten per cent to three percent** of the value of the contract.

3. In view of the above, **the State Government is pleased to reduce Performance Security from existing five to ten per cent to three per cent of the value of the contract for all existing contracts.** However, the benefit of reduced Performance Security will not be given in the contracts under dispute wherein arbitration / court proceedings have been already started or are contemplated.

4. All tenders / contracts issued / concluded till **31.12.2021** should also have the provision of reduced Performance Security.

5. In all contracts where Performance Security has been reduced to 3%, in view of the above stipulations, the reduced percentage of Performance Security shall continue for the entire duration of the contract and there should be no subsequent increase of Performance Security even beyond **31.12.2021**. Similarly, in all contracts entered into with the reduced percentage of Performance Security of 3%, there will be no subsequent increase in Performance Security even beyond **31.12.2021**.

6. Wherever, there is compelling circumstances to ask for Performance Security in excess of three per cent as stipulated above, the same should be done only with the approval of the next higher authority to the authority competent to finalise the particular tender. Specific reasons justifying the exception shall be recorded.

7. The relevant provision of the OPWD Code stands amended accordingly.

By order of Governor,

(Dr. Krishan Kumar)

Commissioner-cum-Secretary to Government

10. Office Memorandum No 4559/W, dtd. 05.04.2021 of Works Department of Odisha
Additional Performance Security in case of Abnormally Low Bids (ALBs)

- i) Additional Performance Security (APS) is being obtained from the Successful Bidder when the Bid amount is less than estimated cost put to tender to the extent of exact amount of differential cost of estimated cost put to tender minus the quoted amount in shape of Term Deposit Receipt pledged in favour of Divisional Officer/Bank Guarantee in favour of the Divisional Officer from any Nationalized Scheduled Bank in India counter guaranteed by its local branch at Bhubaneswar 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/ dated 2009 2018
- ii) The State Government is in receipt of many representations that on account of slowdown in economy due to the pandemic COVID-19, there is acute financial crunch among many contractors, which in turn is affecting timely execution of the contracts It has also been represented that this may affect the ability of the contractors to bid in tenders and hence reduce competition Requests are being received for reduction in quantum of Additional Performance Security in the Government Contracts
- iii) In view of the above, the State Government is pleased to fix the following rate of Additional Performance Security,

Sl. No.	Range of Difference between the estimated cost put to tender and Bid amount	Additional Performance Security to be deposited by the successful bidder
i.	Below 5%	No Additional Performance Security
ii.	From 5% and above and below 10%	50% of (Difference between estimated cost put to tender and Bid Amount)
iii.	From 10% and above	150% of (Difference between estimated cost put to tender and Bid Amount)

- iv) This shall take effect from the date of issue of this Office Memorandum
- v) The codal provision exists in Works Department Office Memorandum No. 14459/W dated 2009 2018 stands modified to the above extent with effect from the date of issue of this Office Memorandum.

**GOVERNMENT OF ODISHA
FINANCE DEPARTMENT**

No. 8475 /F.,
PT15-FIN-COD-MISC-0007-2019

Dt. 05.04.2022

OFFICE MEMORANDUM

Sub: Performance Security

The State Government have made provision for reduction of the rate of Performance Security from 5-10% to 3% of the value of the contract vide FDOM No. 8952/F dated 18.03.2021. The aforesaid provision of reduced performance security have been extended further up to **31.03.2022** vide FDOM No. 290 dated 05.01.2022.

Now, the State Government, after careful consideration, have been pleased to extend the dateline as prescribed in 8952/F dated 18.03.2021 up to **31st December, 2022**.

By Order of the Governor

(Vishal Kumar Dev)

Principal Secretary to Government

**GOVERNMENT OF ODISHA
FINANCE DEPARTMENT**

No. 8484 /F.,
FIN-COD-MISC-0007-2019

Dt. 05.04.2022

OFFICE MEMORANDUM

Sub: Bid Security / Earnest Money Deposit (EMD).

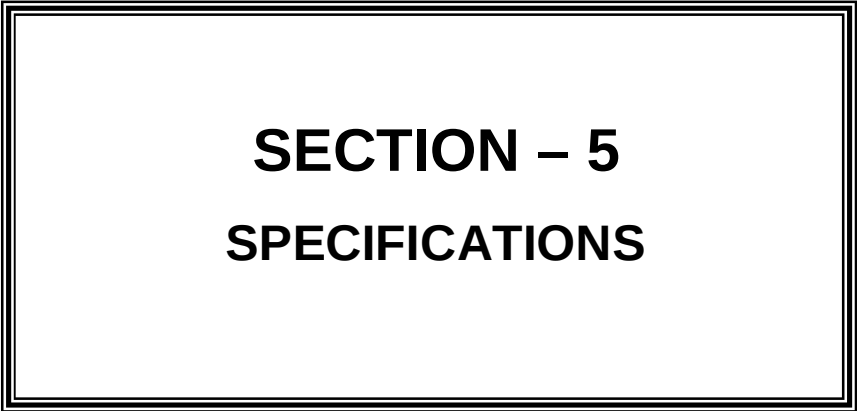
The State Government, after careful consideration of the difficulties faced by the vendors and to facilitate competition in wake of slowdown of the economy due to the COVID-19 pandemic, have decided that no provision regarding "Bid Security" should be kept in the bid documents and only provision for "Bid Security Declaration" shall be kept vide FDOM No. 8943 dated 18.03.2021. The aforesaid provision has been extended further up to 31st March, 2022 vide FDOM No 281/F Dated 05.01.2022.

Now, the State Government, after careful consideration, have been pleased to extend the dateline, as prescribed in FDOM No 8943 dated 18.03.2021 up to **31st December, 2022.**

By Order of the Governor

(Vishal Kumar Dev)

Principal Secretary to Government

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SECTION – 5

SPECIFICATIONS

1.0 GENERAL INFORMATION

1. Description of work to be executed

i) River Embankment / Canal Road / Saline Embankment / Canal Bank / Bridges / Building works / **Canal Maintenance**

2. Location of Work site :

The site is situated in Puri Sadar / Kakatpur / Naugaon / Nimapara / Astaranga / Gop / Baliana / Balipatna / Sakhigopal / Balanga / Satyabadi Block.

3. Transport Communication Facilities

Private vehicles and trucks are plying through frequently from Bhubaneswar to Nimapara/ Puri/ Sakhigopal & work site. The contractor has to make arrangement to transport all his construction equipments, construction Materials and labour to work site at his own cost.

4. Climate

The Project area has moderated climate with mean temperature from 18⁰C to 42⁰C during summer month. The rainy season is generally confined to four months from 15th June to 15th October.

5. Availability of Labour :

Both Semi- Skilled & unskilled labour required for the work are available in project area and it is preferable to engage local labourer, However the Contractor must make his own arrangements for labour / machineries / equipments.

6. Availability of Petrol, Diesel and other lubricants:

The nearest petrol pumps for procurement of petrol, diesel and other lubricants are available at Sakhigopal / Nimapara / Haripur / Astaranga / Balanga / Baliana / Balipatna / Bhubaneswar / Sakhigopal / Uttara / Kakatpur / Jogeswarpur / Gop / Pipili / Puri. The contractor shall make his own arrangement for procurement of same at his own cost required for the machineries and equipments engaged for the work.

7. Electricity Supply:

The Contractor shall make his own arrangement for extension of electric connection at his own cost if so required by him.

8. Housing Facilities:

Private house may not available in the vicinity of the work site. The Contractor shall make his own arrangement for housing the Labourers, workers and staff at the work site.

9. Medical Aid :

The Contractor shall make first aid arrangement at his own cost in accordance with rule and regulations of prevailing Labour Act.

2.0 GENERAL SPECIFICATION

- 2.1 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 from 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. These changes in the drawing can be done without in 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 the Superintending Engineer will prepare revised additional drawings and specifications and may be required to suit the stage of the work.
- 2.2 Where the drawings are not consistent with the text of the specifications, the text shall govern.
- 2.3 The rates shall be for finished items of works as per description in the schedule of quantities and according to drawings, specification and conditions of the contract. The rates quoted shall be for execution of finished items of work & the specifications of which confirm to the details furnished in the Agreement 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 in succeeding Para for the convenience of the tenderers but are not exhaustive. Omission of any such items here in but required for delivering finished items of work, shall not be plea, that such items are not covered by the rates quoted.
- 2.3.1 Formation and maintenance of haul roads including river and drainage crossings within the work site and the existing approaches and haul roads, if any, under the control of the Department may be made use of but improvement, if required, shall be done by the contractor at his own cost.
- 2.3.2 Labour and material required for the construction of reference points, bench marks, pillars, diversions, signboards, road signals etc. for setting out works shall be at contractors cost.
- 2.3.3 Scaffolding and gangways as and when required for the work will be done by the contractor at his own cost. No additional payment in this regard, will be entertained.
- 2.3.4 The rate includes all leads, lifts & delifts.
- 2.3.5 Form work complete includes cost of materials, labour, maintenance, erection dismantling and removal.
- 2.3.6 Construction of coffer dam, dewatering of any water, that may accumulate in the areas required for carrying out the items under schedule of quantities, includes the initial dewatering of the pond formed after the formation of coffer dam or any type of cross bund and all seepage that may accumulate in the area before of during construction.
- 2.3.7 Protection of the components of work during the rainy season & irrigation supply shall be the responsibility of the contractor. The responsibility for the safety of the structure rests, entirely on the contractor and any damages that may occur, has to be made good by the contractor at his own cost.
- 2.4 The sequence of construction adopted by the contractor shall have to be approved by the Engineer-in-Charge.
- 2.5 The contractor has to make his own design for coffer dam or any type of cross bund required during course of execution. All materials for the coffer dam of cross bund shall be arranged by the contractor at his cost. The contractor shall maintain the coffer dam/cross bund till completion of the work.
- 2.6 Quality Control :**
- 2.6.1 Before collecting materials required for execution of the respective items of work as 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 laboratory i.e Quality Control Division, Bhubaneswar.
- 2.6.2 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.
- 2.6.3 On the basis of satisfactory test results confirming to technical specification, collection of materials shall be started in the field. The testing of materials shall be checked in the field Laboratory by the Junior Engineer/ Assistant Engineer of the Department as well as staff of A.R.O./ Superintending Engineer of Quality Control Division, Bhubaneswar. If the field test result is found unsatisfactory, the materials shall be rejected and action taken to remove the same from work site by the contractor at his own cost. In no case the defective materials shall be used in the work.
- 2.6.4 On receipt of notice from the Engineer-in-charge and on observation of Superintending Engineer of Quality Control Division, Bhubaneswar, the contractor will rectify the defect in stipulated 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.

- 2.7 A quarry chart indicating possible source of materials may be seen in the office of the Superintending Engineer, Nimapara Irrigation Division, Nimapara. The contractor must however satisfy himself that materials as per required specifications and quantity are available in those quarries. No extra payment will be made due to non-availability of materials 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 material and the department does not accept the responsibility if the materials are not available in full quantity and quality.
- 2.8 No claim for cost and carriages of water whatsoever will be entertained.
- 2.9 Decision regarding usefulness of excavated materials rests fully on the Engineer-in-Charge. However he may take advice of Quality Control Organization or higher authorities if required.

3.0-SETTING OUT OF WORK

- 3.1.1 Temporary bench marks shall be fixed at every 0.5 Km interval connecting permanent bench marks available near major structure site. The Contractor shall establish additional reference Bench Marks as may be needed at his own cost for facilitation the setting out and taking levels for measurement of work, with the approval of the Engineer-in-charge.
- 3.1.2 Before starting any work and during 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-in-Charge. 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..
- 3.1.3 Centre line of the canal shall be marked at 30M.intervals. Profiles of canal in filling and in moderate cutting shall be marked at 50M.intervals in straight reaches and at 25M. intervals in curves.

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.

- 3.1.4 The check profiles shall be located 15meter apart or longer as directed by the Engineer-in Charge to serve as a guide for execution on all slopes and steps to the elevations. All important levels and all reference points with respect to bench marks and reference lines shall be fixed and co-related by the contractor as per directions of the Engineer-in-Charges.
- 3.1.5 The zones of full cutting section, full filling section, partial cutting and filling sections shall be separated by conspicuous demarcation in the field. The curves in canal alignment shall be marked on the ground by fixing pegs at very closer intervals and joining the peg-point by dug-belling to a suitable depth. The locations of different structures indicated in construction drawing shall also be clearly marked on the ground along with 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 spoil dumping zones shall clearly be demarcated in the field; these zones should be at last 2m. beyond the location of catch water drains.
- 3.1.6 To ensure accuracy in execution of cutting, the canal embankment, spoil banks and the structures, their layout shall be given in an appropriate manner with pegs, suitably placed.

3.2 CLEARING AND GRUBBING

- 3.2.1 The portion of the right-of-way where required for construction the work under these specifications shall be cleared of all tree, bushes, rubbish and other objectionable matter. Trees designated by the Engineer-in-charge shall not be cut and shall be protected from injury. Such cleared material shall be disposed off as described in sub-paragraph "C". The clearing operation shall be in accordance with clauses 4.1, 4.1.1., 4.2 and 4.3. of I.S 4701-1982 Indian Code of Practice for earth work in canals.
- 3.2.2 The area described or shown on the relevant site plan shall be cleared of all obstructions, loose stones and of all kinds of rubbish. 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.

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 the property of Government and shall be disposed off as per the direction of Engineer-in-charge. All holes or hollows, whether originally existing or produced by digging up roots shall be carefully filled up with earth and leveled off, as directed.

- 3.2.3 The disposal of cleared and grubbed material shall be in accordance with clause 4.1.1 of I.S. 4701-1982 code of practice for earthwork on canals. All waste materials to be burnt shall be piled neatly in suitable condition shall be burnt completely to ashes. Piling of waste materials for burning shall be done at such a location and in such a manner as would not cause any fire risk. Necessary precaution shall be taken to prevent spreading of fires to areas beyond the limits of cleared areas.
- 3.2.4 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 material 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 0.014 cubic meter will be made, and the rate quoted for excavation will considered to include this item. However benching will be paid as separate item, per 1(one) running meter of bench at the rate provided for in the tender documents.

3.3 USE OF WATER

The Contractor shall procure and supply water for all the items of works at his own cost as the same has been included in the price bid in the bill of quantities of the items of work for which the water is used.

3.4 DAMAGES BY MONSOON OR FLOOD / CYCLONE

Damages due to rain or flood have to be made good by the Contractor till the work is handed over to the department. The responsibility for making good to the damages rests with the Contractor. No extra cost is payable for such operations and the Contractor shall, therefore, have to take all necessary precautions to protect the work done during the construction period.

3.5 PROCEDURE FOR MEASUREMENT

Before commencement of work, initial levels to indicate existing ground levels shall be taken at 15m. Intervals longitudinally along the canal alignment. The level points transversely along the cross sections shall be maximum at 5m. Intervals in flat ground and 1.5-2M. in undulating terrain. The cross sections shall be extended beyond the limits of work to a suitable distance and minimum 5 M. beyond the toe lines of slopes on both the sides. The intervals stipulated shall be made closer depending on the topography or stipulation made by the Engineer-in-Charge.

All initial levels shall be recorded in ink in the 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 Engineer shall exercise checks strictly in accordance with the codal provisions.

Actual construction work 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 0.01sqm., volume shall be computed to nearest 0.01 cubic m.

4.0 EARTH WORK

4.1 GENERAL

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 conform to the desired standards prescribed in the relevant codes. Wherever Para of I.S. 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 Engineer-in-Charge shall be final and binding.

4.2 EXCAVATION FOR STRUCTURES

- 4.2.1 The excavation shall be carried out to the lines and grades as 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 paid. The classification of excavation as decided by the Engineer-in-charge is binding on the contractor. In case of dispute the decision of Superintended Engineer 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.

- 4.2.2 The excavation may be carried out manually or mechanically and as per specification, drawing and direction of Engineer-in- Charge
- 4.2.3 The excavation in all kinds of soil and D.I. Rock shall be done according to the dimensions and grades shown on the drawing.
- 4.2.4 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 45cm 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 30m from the existing structure, the same shall be carried out by chiseling. The method of drilling and blasting to be resorted to for hard rock excavation shall be approved from the Engineer-in-Charge.
- 4.2.5. The excavation shall be allowed to progress from the valley ends of the reach towards the ridge in conformity with the layout given. All useful earth from excavation shall be used in for filling the banking section, with varying leads and lifts either manually or mechanically. Excavated materials which is not useful for banking or which is in excess after meting the banking requirement of the reach shall be disposed either by head load or by mechanical means or by both in spoil bank or at any specified place with all lifts and with varying leads.
- 4.2.6 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 rehandling the excavated material which have deposited temporarily and stockpiled.
- 4.2.7 Earthwork beyond the required design will not be paid for.
- 4.2.8 Suitable earth available from cutting will economically be utilized in filling zone. No separate payment shall be allowed.
- 4.2.9 Earth filling by mechanical means will start only after completion of earth work by head load duly permitted by Engineer-in-charge.
- 4.2.10 Unless mechanical transportation is specified, surplus earth will be deposited in the spoil bank manually with initial lead & lift after meeting the requirement of canal.

4.3 EXCAVATION FOR STRUCTURES

- 4.3.1 Excavation for the foundation of structures shall be to the elevation shown on the drawings or as directed by the Engineer-in-charge. So far as practicable the materials removed in excavation for structures shall be used for back fill and embankment. All trenches in soil other than rock or hard compact soil into which men enter, shall be securely shored strutted and timbered for safety and no separate payment will be allowed. All loose stones, projecting clumps of earth, pockets of materials which might come down on the workers in the trench or any condition shall be either removed or the excavated sides adequately braced and the trench suitably guarded.

When unsuitable material is encountered in the foundation for structure, the Engineer-in-Charge will direct additional excavation to remove the unsuitable materials. The additional excavation shall be refilled by selected bedding material and compacted. In excavation in rock it shall be filled by cement concrete M-7.5.

- 4.3.2 Payment for excavation for structures shall be made at the unit price per cubic meter. The rate for excavation for structures shall include the cost of all labour and materials with construction of coffer dam and other temporary construction, cost of all pumping, dewatering, cost of all other work necessary to maintain the excavation in good order during construction, cost of removing such temporary construction where required and shall include the cost of disposal of the excavated material.

4.4 CONSTRUCTION / RAISING / STRENGTHENING OF EMBANKMENT

- 4.4.1 Raising/ strengthening of embankment shall be constructed to top widths and side slopes as shown on the drawings. The embankment shall be built to heights as directed above those shown on the drawings. The top of all the embankments shall be graded to be suitable for a road way and the top of other embankments shall be graded to scarified as directed. The extra height for settlement allowance shall be included. Before commencing over haul of material from the borrow area, levels of the banks to be formed in the sections where the over hauled materials 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. **Earth work beyond the theoretical design section will not be paid for.**

All materials shall be deposited in embankment so that cobbles, gravel and boulders are well distributed through other material and not nested in any position within or under the embankment .

- 4.4.2 In conjunction with construction of embankments, the contractor shall construct operation and maintenance roads and earth ramps adjacent to the canal and structures at his own expense. Suitable material from required excavation shall be placed as embankment for the roads and ramps. If sufficient suitable material is not available from required excavation the Engineer-in-charge may direct excavation from borrow areas. Decision of Superintending Engineer on suitability/ usefulness of excavated material for use in embankment section is final.
- 4.4.3 Embankment not be compacted shall be formed conforming to clause 6.6.1 to I.S. 4701-1982. The embankments shall be built in layers not exceeding 30 {thirty} cm. in thickness. Embankment 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 material dumped from the top. Embankment built 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 distributed the compacting effect of the equipment to the best practicable advantage.
- 4.4.4 All materials required for the construction raising /widening of embankment and backfilling around the structures which are not available from canal excavation, excavation for structure or from excavation of other ancillary works shall be obtained from the approved borrow areas arranged by contractor at his own cost. Shallow cut will be permitted in the borrow areas if unstratified materials with uniform moisture contents are encountered. Each designated borrow area shall be fully exploited before switching over to the next designated borrow area. Haphazard exploitation of borrow pits shall not be permitted. The type of equipment used and the operations in the excavation of materials in borrow areas 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. No excavation is allowed within a distance of five times the height of embankment from the outer toe. Borrow pits shall be operated so as not to impart the usefulness or mar the appearance of any part of the work or any other property. After excavation the borrow area will be dressed suitably.
- 4.4.5 All areas required for borrowing earth for embankment shall be cleared of all tree stumps, roots, bushes, rubbish and other objectionable materials. Construction and maintenance of approach roads and haulage road will be the responsibility of the contractor. The Department will have full right of way to those roads for inspection purposes. No extra payment is admissible as this is deemed to have been included in the unit bid price for earthwork in the bill of quantities being contingent to the main work.
- 4.4.6 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. Only suitable materials as per specification shall be excavated, loaded and conveyed to the point of placement in the embankment. Unsuitable material 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.
- 4.4.7 Construction of embankment shall begin at the toe of the fill and in no case shall embankment be widened by material damped from the top. The material shall be placed in the earth fill in the continuous horizontal layers not more than 30Cm. in thickness. The inside proud section shall not be 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. During construction a small transverse slope from center towards edges should be given to avoid pools of water forming due to rains.
- 4.4.8 Embankment materials shall be placed only when the weather conditions are satisfactory to permit accurate control of the moisture content in the embankment materials. The contractor shall provide suitable protection works to protect the slope from erosion due to rain water. No payment what-so-ever shall be made for providing such protection work and rectifying the monsoon damages.
- 4.4.9 In the mechanically compacted earth fill, settlement allowance shall be varied according to actual percentage of compaction, i.e. (100% - %actual compaction). For uncompacted earth fill, settlement allowance of 12.5% should be provided. The base width of the embankment shall not be increased to maintain the design slopes 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.

- 4.4.10. The slopes of particular reach of the earth fill which has been completed in the manner described earlier shall be dressed neatly to the designated line and grade. Extra earth work done at sides are to be dressed and reused in the embankment.

5.0-MISCELLANEOUS ITEMS OF WORK

5.1 ROUGH STONE DRY PACKING

5.1.1 DESCRIPTION OF ITEMS

Rough stone dry packing in aprons and revetments with approved quality of hard granite stones of 30 cm size and above size as specified in BOQ to required shape with all leads, lifts and delifts including cost, carriage, taxes, royalty etc. of stone, labour for preparation of surface for packing, dewatering if required and all other incidental charges etc. complete as per drawing, specifications and direction of the Engineer-in- Charge.

5.1.2 GENERAL :

The pitching materials shall consist of the most durable rock fragments of approved quality selected for the purpose. Stone shall be used from the surplus usable excavated rubble or from the approved quarries, if required and shall be subjected to thorough inspection and approval by the Engineer. The quality of individual stones shall be dense, sound and resistant to abrasion and shall be free from cracks, seams, shale partings, conglomerate, bands and other defects that would tend to increase unduly their susceptibility to destruction by water and weathering action. The shape of individual stones shall be angular. Stone having thickness less than 50% of their maximum dimensions shall not be used for pitching.

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 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.

Pitching shall be hand placed on upstream slope of the canal embankment. The thickness of pitching shall be as indicated on the drawings. The thickness shall be measured normal to the slope of the embankment. Launching apron shall be hand placed in horizontal layers and upstream and down stream of the structures and its thickness shall be as indicated on the drawings.

Before laying the pitching/ launching apron on level ground or on sides of the banks, the receiving surface shall be trimmed to the required slopes and profiles put by means of lines and plates 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 larger stones shall be placed in the bottom course and for use as headers for subsequent courses.

All interstices between adjacent stones shall be filled with spalls of proper sizes and wedged in with hammer to ensure tight packing.

5.1.3 MEASUREMENT AND PAYMENT

Measurement for payment will be made on the basis of volumetric measurement of finished stone packing. The unit rate is inclusive of trimming the earth to required profile, slopes and grade and/ or preparing level at suitable intervals as directed, to have uniform base.

5.2 TURFING:

5.2.1 DESCRIPTION OF ITEMS

Fine dressing and turfing the slopes of canal banks with compacted dub grasses including cutting & conveying the turf by mechanical means & placing the turf with all leads, lifts and delifts including watering up to full size growth of the grass and all other incidental charges etc. complete as per direction of the Engineer-in-charge. (Full payment will be made only after survival of the turf).

5.2.2 GENERAL:

The turf shall be of good approved quality 'dub grass' not less than 15cm size. The contractor shall have to arrange the 'dub grass' at his own cost. The contractor shall have to make good the damages to the slopes of the embankment due to rain cuts etc. and bringing it to proper profile before the turf is laid. The turf shall be laid to

finished designed slope and profile, rammed for compaction and be watered up to green growth of the grass. There will be deduction of 20% quantity of earth work if the agency fails to complete the turfing work.

5.2.3 MEASUREMENT AND PAYMENT

Measurement for payment of turfing shall be made after full and satisfactory growth of the turf. Measurement shall be made on square metre basis and the unit rate shall be for 1 sqm of the area. The rate shall include cost of all labour, cost, conveyance including cost of watering and all other incidental charges to complete the work as per specification and direction of Engineer-in-charge.

6.0 - SPECIFICATION FOR EARTH WORK IN THE CONSTRUCTION OF EARTH

EMBANKMENT FOR ROAD WORK :

6.1.1 SCOPE

The specification shall apply to the construction of embankment & of miscellaneous backfills with materials obtained either from excavation for road construction, borrow-pits or either selected borrow areas. All embankment shall be constructed in accordance with the specifications & in conformity with the alignment level, cross sections & dimensions shown in the plans or as started by the Engineer-in-Charge.

- 6.1.1 **MATERIAL:** The scope of these specifications are restricted to soil alone, being the construction material. The soil used for embankments shall be free from stumps, tree roots, rubbish or other material likely to deteriorate or effect the stability of the embankment. Only materials considered suitable by the Engineer-in-Charge shall be utilized for the construction & that considered unsuitable shall be disposed of as directed by him.

- 6.1.2 For the purpose of these specification soil will be taken to include gravel or moorum.

- 6.1.3 The selection of the materials to be used in the construction of embankment shall be made as per the directions of the Engineer-in-Charge according to soil survey & laboratory investigation conducted by him.

- 6.1.4 Quality control test such as gradation, P.I. Standard proctor test, deleterious constituents, natural M.C etc. shall be performed as directed by the Engineer-in-Charge & no extra payment will be made in this regard.

6.2.1 EXCAVATION OF BORROW PITS:

- 6.2.2 As far as possible no borrow pits should be dug on road land. Before deciding to dig borrow pits on road land, earth for the embankment should be obtained.

- (i) from cutting of nearby sections of the road.
- (ii) from excavation improving sight distances at nearby curves.
- (iii) by sectioning an adjacent bullah or waterway where necessary
- (vi) by excavating cuts to lead drainage water away from the road
- (v) by excavating side drains & catch water drains
- (vi) from waste land outside the road land
- (vii) from bums above the general ground level with the road land
- (viii) by excavating tanks
- (ix) from land acquired temporarily outside road land
- (x) from soil mounds resulting from the digging of well & borrowings from fields in the vicinity of the road

- 6.2.3 Borrow pits should be rectangular in shape with one side parallel to the central line or the road. If no road land, they could be dug as near the road boundary as possible.

- 6.2.4 No borrow pits should be dug within 6 mtr. (16 ft.) of the final section of the road embankment, after making due allowance for future development.

- 6.2.5 Borrow pits should not be dug continuously. Ridges of not less than 8 mtr. (25 ft.) width should be left at intervals not exceeding 30 mtr. (100 ft.) Small drains should be cut through the ridges, in necessary to facilitate drainage.
- 6.2.6 When it becomes necessary to borrow earth from temporarily acquired cultivatable lands, the depth of borrow pits should not exceed 45cm. (1.5 ft.). The top soil to a depth of 15cm (6") should be stripped & stacked a side. Thereafter soil may be dug/cut to a further depth not exceeding 30 cm. (12") & used in forming the embankment. The top soil should then be spread back on the land. It is most important to adopt this practice when soil borrowed is from rich cultivatable land.

6.3 CONSTRUCTION PRELIMINARY OBSERVATIONS:

- 6.3.1 Clearing & Grubbing:** Prior to the commencement to earth work the site shall be cleared of construction, including building, fences, abandon drainage structures & vegetation such as tree, roots undergrowth, grass, rubbish etc. except where it may be desirable to retain the vegetation for appearance shade or other reasons. Complete clearance shall be carried out within the actual construction limits.

All trees & shrubs which are not expected to interfere with the construction & use of the highway should be preserved. Cost of removal of ordinary vegetation & minor jungle growth & disposal thereof as directed by the Engineer-in-Charge shall be included in the tender rate & shall not be paid for as extra.

- 6.3.1 Three stumps should be not extend more than 1ft. above the original ground nor should they be closer than 2 ft. to any sub-grade shoulder or slope surface. On areas to be cleared beyond the embankment & earthwork lines, stumps must be cut down below ground level so that appearance may not by unsightly.
- 6.3.2 The removal bush & stumps shall in cases be cleared away to waste lands preferably burnt no locations away from the road side. Materials possessing any salvage value should be stacked as directed by the Engineer-in-Charge.
- 6.3.3 Care shall be taken to see that unsuitable waste materials are disposed off in such a manner that there is no likelihood of its getting mixed with the materials proposed to be used for embankment construction.
- 6.3.4 **COMPACTING ORIGINAL GROUND:** In all cases where condition permit, the original ground shall be consolidated as much as reasonably possible or as directed by the Engineer-in-Charge by rolling or other means. Any empty pockets or depressions left in the soil as a result of clearing grubbing operations shall be filled & compacted. Nothing extra shall be paid for these operations.
- 6.3.5 Where so directed by Engineer-in-Charge any unsuitable materials occurring in the embankment foundation shall be removed & replaced by approved materials.
- 6.3.6 Where the embankment is to be placed on steep sloping ground the surface of the ground shall be benched in step or trenched or broken up in such manner that the new materials will have bond with existing surface & the cost thereof shall be included in the tendered rate.
- 6.3.7 Where the embankment is to be placed over an existing road surface, the surface shall be scarified, so as to provide sample bond between old & new materials.
- 6.3.8 Embankment work shall not proceed until the foundation have been inspected by the Engineer-in-Charge for satisfactory & approved.

6.4 CONSTRUCTION PLACING OF EMBANKMENT MATERIALS:

- 6.4.1 Only materials as approved by the Engineer-in-Charge shall be utilized in the embankment. The work shall be so planned & executed that the best available materials are saved for the top portion of the embankment & sub-grades. Approved materials shall be obtained from approved area.
- 6.4.2 **EMBANKMENT SLOPES:** The embankment shall be built to have side slopes as shown in the drawings or as directed by the Engineer-in-Charge of the work.
- 6.4.3 **PLACING SOIL IN LAYERS:** To obtain adequate compaction, the embankment shall not be placed until the layer under construction has been thoroughly compacted to satisfy the requirements laid down here after.

To ensure correctness, the execution of the toe-lines on the embankment shall be marked carefully with pages at close interval. The profile with due allowance for settlement shall be set up with the help of bamboos & string. The earth work of the embankment will be carried on uniformly in layer according to these profiles. Due care shall be exercised to ensure the loose thickness of each layer does not exceed the specified limit.

- 6.4.4 Layers exceeding 9" in loose depth shall be permitted only when the Engineer-in-Charge is satisfied that the compaction plant proposed to be used will achieve the specified compaction throughout the whole depth of the layer. Provided further that when a VRR is used the thickness of the loose layer shall not exceed the length of the tamping feet by more than 2". The embankment materials shall be deposited in layer not more than 9" loose thickness unless otherwise specified & compacted to 100% proctor density at O.M.C with V.R.R.
- 6.4.5 Unless otherwise directed, the soil shall be spread uniformly over the entire width of the embankment.
- 6.4.6 If the soil shall less than the desired moisture content water shall be added to it either in the borrow pits before excavation is made, or after the soil is spread loosely on embankment without any extra charge. Addition of water may be made in the former case through flooding or irrigating the borrow area & in the latter case through sprinkling the water either directly from a hose line or from a truck mounted water tank.
- 6.4.7 If the soil as delivered to the road formation is too wet, it shall be dried, by aeration & exposure to Sun, till the moisture content is acceptable for compaction.
- Should circumstances arise where owing to wet weather the moisture content of certain soil can not be reduced to the appropriate amount by aeration, the compaction of these soils shall be suspended.
- 6.4.8 After adjusting the moisture content the soil shall be processed by the means of graders, borrows rotary mixers or other suitable equipment, until the layers are uniformly wet without any cost of Govt.
- Clods or hard lumps of earth shall be broken down to size preferably of the order of 5 cm. (2") but under no circumstances shall be maximum size of such clods exceed 15cm. (5") when being placed in the body of the embankment & the maximum size shall not exceed 6 cm. (2.5") when being placed on the top to a depth of 50 cm. (18") of the embankment.
- 6.4.9 **MOISTURE CONTENT & DENSITY:**
- The moisture content of each layer of soil at the time of compaction should be as directed by the Engineer-in-Charge. The M.C. of each layer of soil at the time of compaction should be at O.M.C. However, the tolerance limits for this MC of the soil with respect of OMC are between 1% above the optimum & 2% below the optimum value. The soil spread in layers shall be thoroughly compacted to the required densities & stipulated by IRC in their code 31.32 para 15.3, 15.4, 15.5 & 16. Each layer will be tested in field, for density & pronounced accepted by the Engineer-in-Charge before the next layer is laid.
- 6.4.10 The surface of the embankment shall at all times during construction be maintained as such a cross fall as will shed water & prevent pounding.
- 6.5 EMBANKMENT AROUND STRUCTURES**
- 6.5.1 The filling around & over culverts & other structures in the embankment area shall be carried out independently of the work on the main embankment. The embankment shall be brought up simultaneously in equal layer on each side of the structure to avoid displacement & unequal pressure.
- 6.5.2 The soil in such cases shall be deposited in layers not exceeding 6" loose thickness & shall be compacted thoroughly & to the satisfaction of the Engineer-in-Charge. Where it may be impracticable to use power rollers or other heavy equipment, the compaction shall be carried out by mechanical tampers or other approved methods.
- 6.6 FINISHING OPERATIONS:**
- 6.6.1 After the earthwork is completed & consolidated, sectioning shall be done to bring it to its true final shape. The embankment shall be finished in conformity with the alignment levels, cross sections & dimensions shown on the plans. Where the alignment of the road is in a curve, the tops of the embankment shall be formed with the supervening & the increased widths shown on the drawing or as the Engineer-in-Charge may direct without any extra cost to Govt.
- 6.6.2 Finishing operation shall include the work of shaping & dressing the shoulders road bed & the side slopes to conform to the typical cross section shown on the plan & shall be paid extra. Both the upper and lower ends of the side slopes shall be rounded off to improve appearance & to merge the embankment with a adjacent terrain.
- 6.6.3 When the earth work operations have been substantially complete the road way area shall be cleaned of all the debris & ugly scars existing near the coming areas etc. Every reasonable effort shall be made to avert objectionable appearance without any extra payment.

7.0 - CONCRETE

7.1 DESCRIPTION OF ITEMS

- 7.1.1** Cement concrete M-10/M-15 grade with 40mm/20mm & down graded hard granite crusher broken aggregates as specified in BOQ free from weathered skin surface, dust and any other deleterious materials including cost, carriage, royalty, taxes etc. of all materials including machine mixing, watering, compacting with vibrators, hoisting and laying in position for a finished smooth surface and curing with all leads, lifts and delifts including hire and running charges of machineries, construction & removal of coffer dam and dewatering if required with all other incidental charges etc. complete as per specification, drawing and direction of Engineer-in-charge.
- 7.1.2** Cement concrete M-20 grade with 40mm/20mm & down graded hard granite crusher broken aggregates as specified in BOQ free from weathered skin surface, dust and any other deleterious materials including rigid smooth centering and shuttering, cost, carriage, royalty, taxes etc. of all materials including machine mixing, watering, compacting with vibrators, hoisting and laying in position for a finished smooth surface and curing with all leads, lifts and delifts including hire and running charges of machineries construction & removal of coffer dam and dewatering if required with all other incidental charges etc. complete as per specification, drawing and direction of Engineer-in-charge
- 7.1.3** Reinforced Cement concrete M-20 grade with 20mm & down graded hard granite crusher broken aggregates as specified in BOQ free from weathered skin surface, dust and any other deleterious materials including rigid smooth centering and shuttering, cost, carriage, royalty, taxes etc. of all materials including machine mixing, watering, compacting with vibrators, hoisting and laying in position for a finished smooth surface and curing with all leads, lifts and delifts including hire and running charges of machineries construction & removal of coffer dam and dewatering if required with all other incidental charges etc. complete as per specification, drawing and direction of Engineer-in-charge
- 7.1.4** Reinforced Cement concrete M-25 grade with 20mm & downgraded hard granite crusher broken chips as specified in BOQ free from weathered skin surface, dust & any other deleterious materials including rigid smooth centering and shuttering, cost, carriage, royalty, taxes etc. of all materials including machine mixing, watering, compacting with vibrators, hoisting and laying in position for a finished smooth surface and curing with all leads, lifts and delifts including hire and running charges of machineries, construction & removal of coffer dam and dewatering if required with all other incidental charges etc. complete as per specification, drawing and direction of Engineer-in-charge
- 7.1.5** Reinforced cement concrete M-30 grade with 20mm & down graded hard granite crusher broken chips as specified in BOQ free from weathered skin surface, dust and any other deleterious materials including rigid smooth centering and shuttering, cost, carriage, royalty & taxes of all materials except steel with machine mixing, watering, compacting with vibrator, hoisting & laying in position for a finished smooth surface and curing with all leads, lifts & delifts including hire & running charges of machineries, construction & removal of coffer dam and dewatering if required with all other incidental charges etc. complete as per specification, drawing and direction of Engineer-in-charge.

7.2 GENERAL

Concrete shall be composed of cement, sand, aggregate, water and any other admixture as specified in recommended proportion well mixed and brought to the proper consistency. Tests shall be carried out on the concrete at specified intervals during the progress of work and the mixes modified as necessary in order to consistently secure the required strength, work ability, density and impermeability together with the maximum practicable economy. As per approval of Engineer in charge on recommendation of quality control organization the water cement ratio for the concrete will be regulated by the requirements of strength durability and workability. The concrete shall be uniform consistency and quality throughout any pour and for similar parts of the same structure. However, the consistency composition shall be such that the concrete can be worked into all corners.

The allowable slump or consistency shall be as directed. The consistency of the concrete shall be varied only by increasing or by decreasing the amount of cement paste in each batch and not by any change of water cement ratio.

The consumption of cement, coarse aggregates & sand for one cubic meter of various grade of concrete shall be calculated as per provision against scheduled of rate.

Grade of concrete	With 40mm & down graded aggregates			With 20mm & down graded aggregates		
	Cement (kg)	Coarse aggregates (cum)	Sand (cum)	Cement (kg)	Coarse aggregates (cum)	Sand (cum)

M 15	302.00	0.90	0.45	-	-	-
M 20	344.00	0.90	0.45	347.00	0.90	0.45
M 25	--	--	--	403.00	0.90	0.45
M 30	-	-	-	406.00	0.90	0.45

In case of actual consumption of cement, as per direction of Engineer-in-charge on recommendation of design mix by Quality Control Organisation for the grade of concrete if different from the above, the cost for excess or less consumption will be paid extra or deducted respectively.

7.3

STRENGTH OF CONCRETE

Grades of concrete	Compressive strength in N/mm ² on 150mm cube	
	Minimum at 7 days	Minimum at 28 days
M-15	7	10
M-20	10	15
M-25	13	20
M-30	15	30

7.4

STORAGE OF AGGREGATE

- Aggregate shall be stacked in such a way as to prevent the intrusion of foreign materials such as soil, vegetable matter etc. Heaps of fine and coarse aggregates shall be kept separate. Where different sizes of fine or coarse aggregate are procured separately, they shall be stored in separate stock piles, sufficiently away from each other to prevent the materials at the edge of the piles from getting intermixed with each other.
- The aggregates shall be stock-piled adjacent to the mixer site so as to require minimum rehandling and labour when conveyed to the mixer.
- The aggregates shall be placed on a dry patch of ground. The aggregates shall be kept free of dirt, rubbish, papers, vegetable matters etc. on the stock piles.
- To minimize moisture variation the stock piles shall be spread over as large in area as possible but left low and fairly uniform in height preferably 1.25 to 1.50 meter and the lowest layer of about 30 cm height shall be allowed to act as drainage layer and not used till end.

7.5

FORM WORKS

- Forms shall be used wherever necessary to confine the concrete and shape it to the required lines, or to ensure against contamination of the concrete by materials caving or sloughing from adjacent surface left by excavations or other features of the work.
- Form work may be of timber, steel, precast concrete panels or such other suitable materials or combination of such materials. Form work shall be substantially and rigidly constructed to the shapes, lines and dimensions required, efficiently propped and braced to prevent deformation due to placing, vibrating and compacting concrete, other incidental loads or to the effect of weather.

7.6

MIXING

- For all work concrete ingredients shall be thoroughly mixed in mechanical mixer to ensure uniform distribution of all component materials throughout the concrete at the end of the mixing period and shall be as dense as possible, plastic enough to consolidate well, Mixing shall be done as per IS.456-2000.
- Mixing shall be continued until there is a uniform distribution of the materials and the concrete is uniform in colour and consistency. The time of mixing shall be as shown in Table-1 of IS: 457-2000 reproduced herein.

Capacity of mixer	Minimum time of mixing	
	Natural aggregates	Manufactured aggregates
3 m ³ or larger	2 minutes	2½ minutes
2 m ³	1½ minutes	2 minutes
1 m ³ or smaller	1¼ minutes	1½ minutes

- The concrete as discharged from the mixer, shall be uniform in composition and consistency, Workability shall be checked at frequent intervals as per IS : 199 –1959. Mixers will be examined regularly by the Engineer-in-charge for changes in conditions due to accumulations of hardened concrete or mortar or to wear and tear of blades. Any mixer that at any time produces unsatisfactory mix, shall not be used until repaired. If repair attempts are unsuccessful, a defective mixer shall be replaced. Batch size shall be at least 10% but not in excess of the rated capacity of the mixer.
- The first concrete batch at the start of continuous mixing operation or after lapses of 30 minutes in continuous mixing operation shall be made richer by the addition of extra cement as directed.
- The full contents of the drum shall be discharged quickly to avoid segregation.

- (f) The minimum mixing period specified are conditioned on the material being fed into the mixer in a manner which will facilitate efficient mixing and an operation of the mixer at its designed speed. The following sequence of charging the mixer may be adopted.
Five to ten percent of the total quantity of water required for mixing adequate to wash the drum thoroughly shall be introduced before the other ingredients in order to prevent any caulking of the cement on the blades or side of the mixer.
- i. All dry ingredients (Cement, fine and coarse aggregates) shall be simultaneously fed into the mixer in such a manner that the period of flow for each ingredient is about the same. Eighty to Ninety percent of the total quantity of water required for mixing shall be added uniformly along with the dry ingredients.
- ii. The remaining quantity of water shall be added after all the other ingredients are in the mixer.
- iii. Portion of the coarse aggregate, however may be added last. This facilitates clearance of the chutes and removes the fine aggregate or cement adhering to the sides.
- (g) Concrete which has been kept unused for more than 30 minutes after the addition of water shall be rejected unless the concrete is in such a condition that it can be subsequently vibrated in place and its use is specifically permitted.
- (h) When the mixer is stopped, before placing again any ingredients in the mixer all hardened concrete or mortar shall be removed from inner surface of the mixer.
- (i) The re tempering of partially hardened concrete or mortar requiring renewed mixing with or without the addition of cement, aggregate or water shall not be permitted.
- (j) A representative of Engineer-in-charge shall supervise all stages of production of concrete, preparation of test specifications and site test shall be supervised.

7.7 TRANSPORTATION OF CONCRETE

Concrete shall be transported from mixer to the place of final placement as rapidly as possible by method which will prevent segregation of the ingredients or slump loss in excess of 25mm and/ or a loss in air content of more than one percent before the concrete is placed in the works. It shall be transported, laid and compacted in its final position within 30 minutes of its discharge from the mixer unless carried in properly designed agitators. Whenever the length of haul from the mixing plant to the place of deposit is such that the concrete unduly compacts or segregates suitable agitators or transit mixers shall be used for conveying concrete.

7.8 PREPARATION BEFORE PLACING CONCRETE

7.8.1 GENERAL REQUIREMENT

Concrete shall not be placed in any part until all form work required is completed as per drawing & specification and no concrete shall be deposited until the foundation has been inspected and approved by the Engineer-in-charge.

7.8.2 FOUNDATION SURFACES

- (a) Immediately before placing concrete all surfaces of foundations upon or against which the concrete is to be placed, shall be free from standing water, mud and debris. All surfaces of rocks upon or against which concrete is to be placed shall in addition to the foregoing requirement be cleaned and free from all lubricants. Objectionable coating and loose semidetached or unsound fragments are to be removed. The surface of absorptive foundations upon or against which concrete is to be placed shall be moistened thoroughly and kept sufficient wet for at least 24 hours prior to placing concrete so that moisture will not be drawn from the freshly placed concrete.
- (b) In the case of earth or shale foundations, all soft or loose soft and surface debris shall be scraped and removed.

7.8.3 R.C.C. WORK

No concrete shall be placed unless the reinforcement and centering & shuttering provided is checked, pre measured and approved by the Engineer-in-charge.

7.9 PLACING AND COMPACTING CONCRETE

7.9.1 GENERAL

- (a) All surfaces upon or against which concrete is to be laid shall be prepared in accordance with the drawings.
- (b) If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again.
- (c) All absorptive surfaces against which concrete is to be laid shall be moistened thoroughly so that moisture will not be withdrawn from the freshly placed concrete. The surfaces however shall be free from standing water. The concrete shall be deposited as nearly as possible in its final position and compacted before setting commences and should not be subsequently disturbed. Methods of placing should not be such as to avoid segregation. Care should be taken to avoid displacement of reinforcement or movement of form work. All concrete which has set before placement shall be rejected and immediately removed from site of work.
- (d) The construction joints at the end of each days work should be left vertical only at location as approved by authorised representative of the Engineer-in-charge.

7.9.2 COMPACTION

Concrete shall be thoroughly compacted during the operation of placing and thoroughly worked.

- (a) All concrete shall be compacted to produce a dense homogeneous mass with the assistance of vibrators or thappies in such a manner that it is free from pockets of coarse aggregate and is in intimate contact with surface of forms.
- (b) During placing and until curing is completed the concrete shall be protected against the harmful effect of exposure to sunlight, wind and rain as direct.
- 7.10 CURING AND PROTECTING**
- 7.10.1** All concrete shall be protected against injury until final acceptance. Exposed finished surfaces of concrete shall be protected from the direct rays of the sun.
- 7.10.2** The method of keeping formed concrete surface moist, shall be by continuous sprinkling or spraying of water as may be necessary to prevent any portion of the surface from drying during the specified curing period.
- 7.10.3** The water and other methods of curing shall be handled as not to stain concrete surfaces which shall be exposed.
- 7.10.4** The actual method of curing adopted and equipment to be used shall be subject to the approval of the Engineer-in-charge. The contractor shall have on hand and ready to install before actual concrete placement is started all equipments needed for adequate curing and protection at all location of concrete placement.
- 7.10.5** Finished concrete surfaces shall be protected from stains or abrasion. Surface or edges likely to be injured during the construction period shall be kept properly protected by leaving forms in place or erecting protective covering satisfactory to the Engineer-in-charge.
- 7.10.6** In case the curing operations are inadequate or unsatisfactory, the Engineer-in-charge shall be entitled to take such steps as he may deem necessary to make good the deficiencies and defects at the Contractor's risk and cost. Curing and protection should conform of IS: 457-1957 with the latest amendments.
- 7.11 TESTS AND STANDARDS OF ACCEPTANCE**
- 7.11.1 GENERAL**
- Testing of concrete shall be carried out by the Quality Control Organisation of the Department. The representative samples shall be taken from the site of work during laying of the concrete as desired by Engineer-in-charge for testing purpose.
- 7.11.2 SAMPLING PROCEDURE AND FREQUENCY**
- A Random sampling procedure shall be adopted to ensure that each concrete batch has a reasonable chance of being tested i.e. the sampling should be spread over the entire period of concreting and should cover all mixing units.
- 7.11.3 TEST SPECIMEN**
- Three test specimens shall be made from each sample for testing at 28 days. Additional cubes may be required for various purposes, such as to determine the strength of concrete at 7 days or at the time of striking from work, or to determine the duration of curing or to check the testing cubes by accelerated methods as described in IS: 9013-1978. The specimen shall be tested as described in IS: 516-1959.
- 7.11.4 TEST STRENGTH OF SAMPLES AND ACCEPTANCE CRITERIA**
- (a) The test strength of the samples shall be the average of three specimens. Individual variation shall not be more than 15% of the average.
- (b) Contractor shall provide necessary unskilled labour and facilities for collection of samples, curing in tanks, transportation of cores etc. and his authorized representative shall remain present at the time when the samples cores etc. are collected. Testing shall be carried out at the testing laboratories set up close to the site or at any other laboratory that the Engineer-in-charge may decide upon and the results given thereby shall be considered as correct and authentic and acceptable to the contractor. The contractor shall be given access to all operations and tests that may be carried out as aforesaid.
- 7.12 MEASUREMENT AND PAYMENT OF CONCRETE**
- Measurement and payment for cement concrete items shall be made on the basis of the actual volume of the concrete laid for finished items. The rate includes the cost of labour and materials, plant etc. involved in providing cement, slurry and mortar on concrete and construction joints shall be deemed to be included in the unit rates for the respective items. The rates shall include construction of foot bridge and traffic island, coffer dam and removal of the same, dewatering if required and all other incidental charges as produced finished item of work.
- For R.C.C. work, the cost of round tor steel rod including bending and binding etc. shall be paid as a separate item explained elsewhere.
- No claim for extra payment, in case of higher strength of concrete than designated, will be entertained.

8.0- ROAD WORKS

8.1 Scope of work

These specification cover construction of Water Bound Macadam road. The cost of restoring the existing road surface with pot hole filling and moorum topping as well as premix carpet in the canal has been included. The work covers providing all labour equipment including collection, conveyance, royalty, all taxes, stacking, spreading, rolling, watering and laying of premix asphalt carpet and seal coat.

8.2 W.B.M. road

8.2.1 General

CONTRACTOR

73 SUPERINTENDING ENGINEER

a) Base Materials (Soling Stone)

As per clause 404.2.1 of MOST the physical requirement of Base/Sub-base material shall be as per Table 400-C of I.S. 6579-1981.

Sl No.	Test	Test Method	Requirement	Remarks
1.	Los Angles Abrasion valve.	IS:2386(Part-IV)	Maxm. 40%	
2.	Impact value	IS:2386(Part-IV)	Maxm. 30%	
3.	Combined flakiness and elongation. Indians	IS:2386(Part-I)	Maxm. 30%	
4.	Water absorption	IS:6579-1981	Maxm. 2%	As per IS6579
5.	Soundness	NA ₂ SO ₄ 5 cycles.	Maxm. 20%	As per IS6579

(b) The stone metal shall be obtained from rock excavation in canal if available or quarries as approved by the Engineer prior to collection. The metal shall be of approved quality with all leads and lifts. The metal shall be obtained from hard, tough, sound, durable, stone of close texture as is locally available and reasonably free from decay and weathering. Places of the stone shall be angular and roughly cubical in shape. Round, elongated or flaky materials shall be rejected. No round or oblong pebbles or angular chips, larger or similar than the specified size shall be allowed. The size of metal shall be as per the item specified above and it shall be either machine crushed or hand broken. All unsound, weathered or disintegrated stone obtained from the upper surface layer of the quarry or other are not acceptable.

(c) Samples of metal, collected from the approved quarries shall be got tested by the contractor at his cost in the laboratory. The test results shall conform to the standard requirements laid down for metal to be used for WBM work.

(d) The physical requirements for standard size metal shall confirm to the test results in the Table below:

Type of construction	Test	I.S. for Test Method	Requirement
Base	Loss Angles	IS: 2386	50% maximum
Abrasion Value	Part - IV		
	Aggregate	IS : 2386	40% maximum
	Impact Value	Part or	
		IS-5640	
	Flakiness	IS: 2386	15% maximum
	Index	Part – 1	

(e) The grading requirements of the metal to be used for WBM shall be as under.

Grading No.	Size Range	IS Sieve	Percentage by weight passing
Gr-I	90 mm to 45 mm	125 mm	100
		90 mm	90-100
		63 mm	25-60
		45 mm	0-15
		22.4 mm	0-5
Gr- II	63 mm to 45 mm	90 mm	100
		63 mm	90-100
		53 mm	25-75
		45 mm	0-15
		22.4 mm	0-5

Gr- III	53 mm to 22.4 mm	63 mm	100
		53 mm	95-100
		45 mm	65-90
		22.4 mm	0-10
		11.2 mm	0-5
Gr – A	Size 13.2 mm	13.2 mm	100
		11.2 mm	95-100
		5.6 mm	15-35
		180 micron	0-10
		11.2 mm	100
Gr – B	13.2 mm	5.6 mm	90-100
		180 micron	15-35

- (f) Wherever any doubt exists as to whether the above requirements are satisfied. Whole or any part of the collection of metal shall be got screened by the Contractor at his cost, if so ordered by the Engineer.
- (g) For road work complete stacking of metal as per requirement shall be carried out in 2km. length before spreading. Collection shall always commence at one end of the km. and be carried towards the other end unless the Engineer directs otherwise.

8.2.2 Measurement and Payment:

Measurement for payment, will be made on cubic metre basis without any deduction for voids on finished rolled surface. The rate includes cost of collection all taxes, conveyance to the site with all leads and lifts and filling the boxes including all labour, tolls, equipment testing and other incidental expenses and labour charges for spreading the metal to the required grade and camber including filling interstices with moorum including watering and consolidation and including hire running charges of all machineries complete.

8.3 General:

- (a) Metal shall not be spread without the permission of the Engineer. Metal should be spread under careful supervision by trained coolies. The Contractor shall see that uniform spreading as per collection of metal is done the Contractor shall spread the metal fully from the stacks without keeping any balance, unless directed by the Engineer to keep some stacks in balance for making good any unevenness or depressions left during rolling work to ensure that the materials are spread to the required thickness, the road surface shall be marked on length, over which the contents of heaps are to be spreads. The bonds of earth or moorum one on either side, shall be made along the outer edge of metalling simultaneously with spreading of metal. These bonds shall be laid with a distance between them equal to the width of the road to road to metal and shall be enough to prevent the loose metal from spreading during consolidation as well as to retain water used for consolidation. Payment for bonds will not be made.
- (b) Metal shall be screened and rubbish, dust, grass etc, shall be removed and spread evenly on the prepared approved surface in grade and camber by using camber boards. The surface shall be checked at every 15m. by means of templates. While the correctness of the camber in between shall tested by strings and corrected, as required. Between the straight length and the curves and at the meeting points of the convex and concave portions of reverse curves the change in camber of the road to super elevation shall be made very gradually as may be directed by the Engineer.
- (c) Spreading of metal shall proceed only 200m. (maximum) in advance of the rolling operations. Collection and spreading of metal shall not be carried out in one and the same kilometre. At the time of rolling, all surface irregularities, hollows, depressions, humps shall be set right.

8.3.1 Measurement and Payment:

The rate for this item shall be paid on cubic meter basis and shall include cost of all the above and other incidental operation with all lead and lift except consolidation.

8.4 Collecting transporting and spreading moorum on road side as directed including consolidation.

8.4.1 General:

- (a) Material for the purpose shall be of approved quality. Any material which is found inferior shall be rejected and the Contractor shall remove the rejected material from the site at his cost the materials shall be collected from canal excavation if surplus or from quarries approved by the Engineer. The material shall be granule and giddy.

(b) Moorum:

As per CI.406.2.6 the moorum used for filling the voids in the coarse aggregate shall have:

- | | |
|---|-----------|
| (a) Liquid Limit- | Maxm. 20% |
| (b) Plasticity Index- | Maxm. 6% |
| (c) Fraction passing 75 Micron Sieve
does not exceed | Maxm. 10% |

(d) Grading (As per Table 400-8)

Grading Classification	Size of Screening	I.S. Sieve designation	Percentage by Wt. passing the I.S. Sieve
A	15.2 mm.	13.2mm	100
		11.2mm	95-100
		5.6mm	15-35
		100 microns	0-10
B	11.2mm.	11.2mm.	100
		5.6mm.	95-100
		180 microns	15-35

- (c) The material shall be got approved by the Engineer prior to collection on the site. It shall be free from all rubbish, dust and any organic materials as well as clods of black cotton soils.

8.4.2 Measurement and Payment:

Measurement for payment, shall be made on cubic meter basis. The rate includes excavating the moorum supplying all taxes, royalty conveying, with all leads and lift and labour for Spreading moorum as directed including satering and consolidation.

8.5 General:

Spreading of materials shall be started after the collection in a particular kilometre is completed. Measured and recorded in the measurement books. Permission of the Engineer shall be obtained before spreading moorum. Before spreading, it shall be seen that the formation is dressed to the required camber and grade. The moorum to be spread over the metalled surface shall be uniform. It shall be used for filling the interstices of metal and for forming a smooth running surface. Moorum blind age shall be spread evenly with a twisting motion of the baskets. No more moorum blind age shall be spread evenly with a twisting motion for gross measurements and no deduction of voids shall be made. If the moorum is to be spread over earthen embankment as a sub base or for side shoulders or as blind age, it shall be spread in a manner as directed by the Engineer to the required width and thickness. The contractor shall make good all unevenness, depressions, projection etc. during consolidation work.

8.5.1 Measurement and Payment:

Payment shall be made on cubic metre basis. Rate of this item includes all operations of spreading.

8.6 Consolidating WBM surface with rolling including watering.

8.6.1 General:

- (a) Immediately following the spreading on the coarse aggregates, rolling shall be started with there wheeled power roller of 8 to 10 tonne capacity or equivalent vibratory roller. The weight of the roller shall depend upon the type of the aggregate and shall be indicated by Engineer.

- (b) On super elevated portions where the rolling shall proceed from inner edge to outer, rolling shall begin from the edge and shall, be compacted with roller moving forward and backward. The roller shall then move inwards parallel to the centre line of the road, in successive passes uniformly lapping preceding tracks by atleast on half wheel width.
- (c) Rolling shall continue until the aggregate is thoroughly keyed and the dripping of the aggregate ahead of the roller is no longer visible. During rolling slight sprinkling of water may be done. If necessary rolling shall not be done when the sub grade is soft or yielding or when it causes a wavelike motion in the sub-grade or sub-grade or sub-base course.
- (d) The rolled surface shall be checked transversely and longitudinally with templates and any irregularities corrected by loosening the surface, adding or removing necessary amounts of aggregates and rerolling till the entire surface conform to desired camber and grade. In no case shall use of screeding be permitted to make up depression.
- (e) Blindage material, where required to be used, shall be applied, successively in two or more than layers a slow uniform rate. After each application the surface shall be capacity. Premixed with water the resulting alummy swept in with hand brooms to fill the voice property and rolled funing which water shall be applied to the wheels of the rollers. If necessary to wash down the binding material sucking to them these operations shall continue until the resulting slurry after filling the voids forms a wage ahead of the wheels of the moving roller.
- (f) After final compaction of water bond macadam course the road shall be allowed to dry overnight. Next morning hungry spots shall be filled with screening of blending materials directed. Lighting sprinkling with water if necessary and rolled. No traffic shall be allows on the road until the macadam has set. The Engineer shall have the discretion to stop hauling traffic using the completed water bound macadam course if in his opinion it would cause to the surface.

8.6.2 Measurement and Payment:

Measurement for payment will be made on square metre basis. The Unit rate is for finished work which shall include cost of watering, machinery, fuel, labour and costs all incidental operations needed to complete the work as per requirements.

8.7. Consolidation of moorum in layers as directed including watering.

8.7.1 General:

The specification for consolidation shall generally be as detailed at 8.8 above, except that consolidaton under this item has to be done on moorum on side berms.

8.7.2 Measurement and Payment:

Measurement for payment, will be on square metre basis of the area of side berms actually consolidated.

9. Supplying machine crushed stone chips at site of work, size 6mm to 12mm.

9.1 General:

Stone chips shall consist of regular fragments of clean, hard, tough and durable rock of uniform quality throughout. These shall consist of regular fragments of clean, hard, tough and durable rock of uniform quality throughout. These shall be obtained by crushing rock and shall be free of elongated and flaky pieces soft and disintegrated materials and vegetable or deleterious matter. They shall satisfy the quality requirements set forth as under.

SI No.	Test	IS for Test Method	Requirements
1.	Loss Angles	IS:2388	35% Maximum
	Abrasion value	(part-V)	
2.	Aggregate	IS:2388	30% Maximum
	Impact Value		
3.	Flakiness Index	IS:2385	30% Maximum
4.	Stripping Value	IS:6241	25% Maximum
5.	Water	IS:2386	25% Maximum
	Absorption		

Aggregates shall satisfy requirements of either of the two tests.

- (b) Size of the stone chips shall be under:
 - (i) 12mm size Passing 20mm sieve and retained on 10mm sieve.
 - (ii) 5mm size Passing 10mm sieve and retained 2.36 mm sieve
- (c) Samples of stone chips collected from the approved quarries shall be got testes by the contractor at his cost in laboratory. The test results shall confirm to the standard requirement as laid down herein above. Collection of stone chips as per approved samples shall be allowed by the engineer. Payment at full rates for the stones chips will not made till the test results form the laboratory are received and found acceptable.
- (d) Collection shall always commence from the one of the kilometre and their carried continuously towards the other end. Unless the engineer directs otherwise.

(a) Control or quality or material will be exercise by the engineer carrying out the following tests as the frequencies shown against each.

Type of construction	Test	Frequency material
Chips/bajri For open graded	(i) aggregate impact on test per (ii) Flakiness index of aggregate (iii) Strip ping value and water absorption of aggregates	100 m2 of aggregate Carpet and seal coat initially, one set of the 3 representative specimens for each source of supply Subsequently when warranted by change in the quality of change in the quality of aggregates.
	(iv) Grading of aggregates	one test per 100m3 of aggregates.

9.2 Measurement and payment:

Measurement for payment will be made on cubic metre basis without deduction for voids on the finished section. The contractor shall be responsible for preserving the materials throughout the period the contract remains in force. Use of materials shall not be allowed till the materials are complete kilometre wise. The rate includes cost of the collection of materials royalties, taxes and conveyance to the site with all leads and lift and filling boxes, including all labour tools equipment testing and other incidence expenses to the work as per specification including spreading.

10. Supplying of bitumen of penetration grade 60/70 at site of work:

10.1 General

Bitumen of grade 60/70 conforming to the IS specifications shall be supplied by the contractor at site of work and got tested at laboratory at the contractor's cost.

11 Providing 20mm thick premix carpet and 6 mm seal coat

11.1 General:

- (a) This work shall consist of laying an open graded carpet of 20mm thickness in a single course and seal cot (including of asphalt, stone ships) composed of suitable small sized aggregated premixed with a bituminous binder on a previously prepared approved base.
- (b) Qualities of materials required for 10 square metre of road surface for 20mm thick open graded premix carpet with seal coat are as given in table below:

Aggregates for carpet:	12mm size	0.12 Cubic metre
Coat stone clippings	6mm size	0.11 Cubic metre

Aggregate for seal	6mm size	Total	0.23 Ccubic metre
Coat stone clippings			0.06cubic metre

- (c) Binder for premixing quantities in terms of straight run bitumen for carpet & seal coat.

(i) For 0.28 cubic metre of 12mm and 6mm size stone chips. 1.59 kg.

(ii) Tack coat $\frac{9.07}{9.29} \times 10$ 9.76 kg.

(iii) For 0.06 cubic metre of 6mm size stone chips $\frac{6.8 \text{ kg.}}{32.46 \text{ kg.}}$

- (d) Carpet shall not be laid during rainy weather or when the base course is damp or wet or when the atmospheric temperature under shade is 1600 c or below.

- (e) The underlying base on which the bituminous carpet is to be laid shall be prepared shaped and conditioned to the specified lines, grade and cross section as directed by the engineer. The surface shall be well changed with wire brushes swept with borrows and finally dust removes with stocks as found necessary preparatory to bituminous construction. The temperature of bitumen at the time of application shall be in the range of 160⁰c to 175⁰ c.

- (f) Tack coat consists of application single coat of bituminous material to an existing road surface.

- (g) Binder shall be heated to the temperature appropriate to the grade of bitumen used and approved by the engineer. The rate of spread in terms of straight run bitumen shall be 10 kg per 10 square meter area for surface. The binder shall be applied uniformly. The tack coat shall be applied just prior to ongoing bituminous constructions.

- (h) Mixers of approved type shall be used for mixing aggregates with the bituminous binder. The binder shall be heated to the temperature approved by the engineer, avoiding local over hating and ensuring a continuous supply. Aggregates shall be dry before they are placed in the mixer after about 15 seconds of dry mixing the heated binder shall be distributed over the aggregates at the rate specified kerosene to an mixing of binder with chipping shall be contained until thoroughly coated with the bidder. The mix shall be immediately transported form the mixer to the point of use in suitable vehicles. The vehicles employed for transport shall be clean and be covered over in transit, if so directed.

- (i) The premixed materials shall be spread on the road surface with rakes to the required thickness and camber, or distributed evenly with the help of drag spreader without any undue loss of time. The camber shall be checked by means of camber boards and inequalities eventide out. As soon as surface length of bituminous material has been laid, rolling shall commence. When the roller has passed over the whole area once, any high spots or dispersions that become apparent shall be correct by removing or adding premixed materials. The contractor shall provide necessary labour for keeping the roller wheels damp during rolling so as to prevent the premix form adhering to the wheels and being picked up. The edged along the transverse of the carpet laid and compacted earlier shall be cut to their full depth so as to expose fresh surface which shall be painted with a thin surface coat of appropriate bitumen before the new mix is placed against.

- (j) Seal coat shall be applied immediately after the laying of bituminous course of carpet. Before application of seal coat materials, surface shall be cleaned free of any dust or other extraneous matter.

- (k) Coarse sand or stone dust flushing at the rate of 0.03cum/10sqm shall done on complete asphalt surface, at the contractor's cost.

- (l) Traffic may be allowed soon after final rolling when the premixed material has cooled down to surrounding temperature.

- (m) Control on quality of works will be exercised by the engineer by carrying out the following tests at the frequencies, shown against each.

SI.	Type of	Test	Frequency
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No.	Construction material		
1.	Tack coat	i) Binder temperature	At regular close intervals For application
2.	Open graded premix carpet with seal coat	ii) Rate of spread binder	Two tests per day
		i) Temperature of binder at applications	at regular close intervals
		ii) Binkers content (Vide astb d2122)	Two tests per day for work of every 3 km length in on
		iii) Rate of spread	through checks on materials & layers thickness

- n) The contractor shall at all times carry out work on the road or highway in a manner creating least interference to the traffic curing the execution of the same. For all works involving construction on existing roads or highway the contractor in accordance with the directives of the engineer, provide and maintain, during the execution of the work, a passage for traffic either along or as a part of the existing carriage way under construction.

11.2 Measurement and payment

Open graded carpet and seal coat shall be measured and paid in square metres on the basis of stone chips actually used. The rate shall include cost of.

- (i) preparation of base.
- (ii) providing all materials like fuel, lubricants kerosene and coarse sand or stone dust chip for flushing with all leads and lifts including royalty and all taxes including cost of diversion road.
- (iii) all labour, tools, equipments testing and incidentals.
- (iv) Making arrangements for control and safety of traffic.
- (v) All other incidental operations needed to complete the work as per specifications.

12. DUMPING OF HARD GRANITE STONE IN LAUNCHING APRON

12.1 General

The dumping and packing shall consist of boulders and blasted rock fragments it shall be dumped mechanically or hand placed.

12.2 Quality of dumping and surface packing stone

- i. The boulder and rock fragments shall be controlled either in quarry or in site as per suitability for quality, gradation and size.
- ii. Boulders from approved quarry is only acceptable.
- iii. The stone for dumping and surface packing should be dense, resistant to abrasion and 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. The size of stone should be of 0.030 cum & above.
- iv. The stone shall be closely packed and the interstices shall be filled with small stones.

The finished surface of the launching apron should be reasonably uniform and will be free from loose stones.

12.3 Test of stone

- i. Soundness : The rock fragments shall be tested for its soundness as per I.S - 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

12.4 Thickness of surface packing

In no case the minimum thickness of hand placed surface packing on dumped rip rap shall be less than 60 cm or 30 cm. as per the estimate and direction of the Engineer-in-charge.

12.5 Placement of stone

Dumping of stone shall be of hand placed or may be placed by machine. The stone shall be laid compactly with staggered joints and so matched and 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. The surface packing shall be hand placed which should consist of size 0.003 cum. and above laid on edge starting from the burrow. The stone shall be laid compactly with staggered joints and so matched and inter locked that they shall be keyed together with minimum of joint space and then rock fragment and spal shall be driven by a hammer into interstices to wedge the rip rap in place.

The hand placed surface packing shall perfectly be laid in one course and the layer thickness is same as of the stone size.

12.6 Measurement & payment

Pre-measurement of HG stones for dumping will be done at the site at the cost of the agency. Actual voids will be deducted from the stack measurement. The net quantity of HG stone dumping will be compared with quantity arrived from level section after deducting 1/6th voids and the payment will be made to the quantity of stone which ever is less.

13. DUMPING OF ARMORY STONE AND SURFACE PACKING IN LAUNCHING APRON

13.1 General

The dumping and packing shall consist of hard granite stone boulders and blasted rock fragments it shall be dumped mechanically.

13.2 Quality of dumping armory stone and surface packing with small stone not less than 0.75 m in any direction with a minimum weight of 1.00 tonnes.

- i. The H.G. armory stone and rock fragments shall be controlled either in quarry or in site as per suitability for quality, gradation and size.
- ii. H.G. armory stone from approved quarry is only acceptable.
- iii. The H.G. armory stone for dumping should be dense, resistant to abrasion and 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. The size of stone should be 0.75 m and more in any direction and not less than 1.00 MT in weight.
- iv. The H.G. armory stone shall be closely packed and the interstices shall be filled with small stones.

The finished surface of the spur should be reasonably uniform and will be free from loose stones.

13.3 Test of stone (To be conducted by Quality Control Authority, DOWR)

- i. Soundness : The rock fragments shall be tested for its soundness as per I.S - 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. Any other test as required.

13.4 Thickness of surface packing

In no case the minimum thickness of hand placed surface packing and dumped rip rap shall be less than 30 cm and 45 cm respectively.

13.5 Placement of stone

Dumping of H.G. armory stone shall be done mechanically. The H.G. armory stone shall be laid compactly with staggered joints and so matched and 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. The surface packing shall be hand placed which should consist of minimum size 0.30 mt. and above laid on edge starting from the burrow. The stone shall be laid compactly with staggered joints and so matched and inter locked that they shall be keyed together with minimum of joint space and then rock fragment and spal shall be driven by a hammer into interstices to wedge the rip rap in place.

The hand placed surface packing shall perfectly be laid in one course and the layer thickness is same as of the stone size.

13.6 Measurement & payment

Each armory stone will be pre-measured in all dimensions for determined the average dimension before dumping by cranes. The volume will be derived from the average dimensions. In no case the volume of each armory stone should be less than 0.42 Cum. The quantity dumped in launching apron will be calculated from level section after deducting 1/6th voids. Both the quantities will be compared and the quantity found less will be allowed for payment.

SECTION – 6

DRAWINGS

**Drawings and design sections are available in the Office of the
Superintending Engineer, Nimapara Irrigation Division, Nimapara**

SECTION – 7

FORMS

AFFIDAVIT

I, Sri Aged years Son/ Daughter /
Wife of Sri at present residing at PO
P.S. Dist, Pin Do hereby solemnly
affirm as follows.

- i. That, I possess a valid license for Execution of works contract issued by *.....
Belongs to Class & is valid up to **.....
- ii. I am submitting tenders before the Superintending Engineer, Nimapara Irrigation Division,
Nimapara for execution of the following work in response to
1. ***
- iii. I am the authorized signatory for the tender for the work / works mentioned above.
- iv. I am swearing this affidavit that all tender documents and accompanying papers those being
submitted by me before the **Superintending Engineer, Nimapara Irrigation Division,
Nimapara** are all authentic and bonafied documents in the eyes of the law of the land.
- v. I do hereby authorize and request any bank, person, firm or Corporation to furnish
pertinent information as deemed necessary and as requested by the Department to verify
this statement or regarding my (our) competency and general reputation.

That the facts stated in the affidavit are true to the best of my knowledge and belief.

Signature of Contractor

Note :

* Mention the license issuing authority.

** Mention the date up to which the license is valid.

*** Mention name of work for which tender is being submitted.

PERFORMANCE RECORD OF CONTRACTOR

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 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

NO RELATION CERTIFICATE

Certified that I / We am / are not related to any officer of Water Resources Department of the rank of Assistant Engineer and above or any officer of the rank of Assistant Secretary and above.

CONTRACTOR

CONTRACTOR

86 SUPERINTENDING ENGINEER

SECTION – 8
BILL OF QUANTITIES