

# GOVERNMENT OF ODISHA



**GOVERNMENT OF ODISHA  
DEPARTMENT OF WATER RESOURCES**

**TENDER DOCUMENT (e - Procurement)  
(Tender Document)**

**e-procurement Notice No.SE,NID. 01/2026-27(01-02)**

**Bid Identification No.: SE, NID-01/2026-27 (02)**

**Tender document for the work**

Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26

**SUPERINTENDING ENGINEER  
NABARANGPUR IRRIGATION DIVISION  
NABARANPUR**

## **PARTICULARS OF TENDER**

1	Name of the work	Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26
2	Estimated Cost	<b>Rs. 37.50 Lakhs/-</b>
3	Tender Value	<b>Rs.31.51 Lakhs/- (Excluding GST)</b>
4	E.M.D	<b>Rs.31,600/-</b>
5	Period of completion	<b>2(Two) month</b>
6	Class of Contractor	<b>(‘B’&amp;‘C’) Class</b>
7	Cost of Bid Documents	<b>RS.6,000/-</b> (Non-refundable) On-line
8	Availability of Tender in web site	<b>From Dt.08.07.2026 10.00 A.M. to Dt.22.07.2026 up to 5.00P.M.</b>
9	Bidding Period starts from	<b>From Dt.08.07.2026 10.00 A.M. to Dt.22.07.2026 up to 5.00P.M.</b>
10	Date of opening of Technical Bid (online)	<b>At 11.00 A.M. on Dt.23.07.2026</b> in the office of the Superintending Engineer, Nabarangpur Irrigation Division, Nabarangpur

# GOVERNMENT OF ODISHA

## BID DOCUMENTS

**NAME OF WORK:** Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26.

The bid document contains: Technical **bid Bill of quantities**

Sd/-

**SUPERINTENDING ENGINEER  
NABARANGPUR IRRIGATION DIVISION  
NABARANGPUR**

## **C O N T E N T S**

### **SECTION**

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# **SECTION – 1**

**NOTICE INVITING TENDER (N.I.T.)**

GOVERNMENT OF ODISHA  
DEPARTMENT OF WATER RESOURCE  
OFFICE OF THE SUPERINTENDING ENGINEER,  
NABARANGPUR IRRIGATION DIVISION  
NABARANGPUR, DIST-NABARANGPUR (ODISHA)

Email ID- senidivision@gmail.com

Lr no. 1100


Dated. 02.07.2026

**E-PROCUREMENT NOTICE**  
**BID IDENTIFICATION NO-SE-NID- 01 /2026-27 (01-02)**

1. Nature of the work – Bank Protection work.
2. Total Nos. of works – 02(Two) No.
3. Tender cost of the works – 43.41 to 31.51 Lakhs (excluding GST)
4. Class of Contractor – ‘C’ & ‘B’ Class
5. Period of completion - 02(Two) month
6. Other details as follows:

Procurement Officer	Bid Identification No.	Availability of Bid on-line		Last date & time of seeking tender clarification	Date & Time & Place of opening of Tender
Superintending Engineer, Nabarangpur Irrigation Division, Nabarangpur.	SE-NID-01/2026-27(01-02)	08.07.2026 (10.00AM)	22.07.2026 (up to 05.00 PM)	10.07.2026 up to 5.00 PM	23.07.2026 at 11.00 AM in the O/o the Superintending Engineer, Nabarangpur Irrigation Division, Nabarangpur.


Further details can be seen from the Government web site [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in)  
Addendum/Corrigendum/Cancellation if any required will be published in Govt. website only.

  
2.7.2026  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1101

Dated. 02.07.2026

Copy forwarded to the Manager, Information and Public Relation Department, Govt. of Odisha, Bhubaneswar for information and wide circulation. He is requested to publish the **e-procurement notice** in any one local English Daily & Two local Odiya Dailies newspaper in minimum space and send a copy of the newspaper to this office for reference and record.

  
2.7.2026  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

**SECTION – 2**  
**SCOPE OF WORK**  
**&**  
**GENERAL INFORMATION**

# SCOPE OF WORK

## PROJECT OUT LINE:

The work:

Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26.

## SCOPE OF WORK:

**The present tender for the work includes** Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26.

## GENERAL INFORMATION

**1.1** The information and data relating to work and site conditions described hereafter represents the site condition in a general way. It shall be presumed that the contractor satisfies himself as to nature and location of work in general, land, local conditions particularly on the power and handling, storage of materials, disposal of soil, foundation data and bore hole data etc., before arriving at his rate. The department therefore will not bear any responsibility for any interference on the site condition and consequence thereof.

### **1.2. Availability of labour:**

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

### **1.3. Towns**

**Nabarangpur is a habituated locality of Nabarangpur District.**

### **1.4. Access to site:**

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

### **1.5. Availability of Diesel and Lubricants:**

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

### **1.6. Electric Power for construction purpose:**

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

**1.6.2.** The contractor shall enter agreement with Southern Electricity Supply Company (TPSODL) for taking electricity consumption and payment as per requirement of the contractor.

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

**1.6.4. Tariff Rate:**

The tariff rate for consumption of electricity will be in accordance with Electricity (supply) Act, 1948 and Southern Electricity Supply Company (General Conditions of Supply) Regulations 1981 as amended from time to time.

**1.6.5. Observance of Rules**

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

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

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

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

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

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

**1.7. Housing** Private houses may be available to some extent at the project site. Land for the construction of temporary houses for the labour will be provided free of charge during the period of contract to the extent Government lands.

**1.8. Medical Aid**

The contractor shall make at his own cost first-aid arrangements at the various work sites in accordance with the labour rules and regulations and as directed by the Engineer-in-charge.

**1.9. Post, Telegraph & Telephones**

The contractor shall make at his own cost Postal and Telegraphic facilities.

#### **1.10. Local Roads**

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

#### **1.11. Dump Areas.**

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

#### **1.12. Other Contractors.**

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

#### **1.13. Use of Site.**

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

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

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

## **SECTION -3**

### **Detailed Tender Call Notice**

**GOVERNMENT OF ODISHA  
DEPARTMENT OF WATER RESOURCE  
OFFICE OF THE SUPERINTENDING ENGINEER,  
NABARANGPUR IRRIGATION DIVISION  
NABARANGPUR, DIST-NABARANGPUR(ODISHA)**

**Email- senidivision@gmail.com**

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**E-PROCUREMENT NOTICE**  
**BID IDENTIFICATION NO-SE-NID -01/2026-27(02)**

Lr.No. **1102**

Date. **02.07.2026**

The Superintending Engineer, Nabarangpur Irrigation Division Nabarangpur,,Dist-Nabarangpur on behalf of Hon'ble Governor of Odisha invites on-line percentage rate bids through e-procurement for execution of the following works. The bid should be submitted by eligible class of Contractors as mentioned below registered with State Government & Contractors of equivalent grade/class registered with Central Government /MES/ Railways through on-line in the Government website [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in). The bidders should have necessary portal enrolment with own digital signature certificate. The registered bidders outside of Odisha can also participate in this on-line tender process after necessary portal enrolment but shall have to subsequently undergo registration with the appropriate authority of the State Government within a month of acceptance of bid. The bidders registered outside of the State are required to submit an under taking in the form of an affidavit, that they are not registered under GST Act in the State of Odisha as they have not started any business in the State and they have no liabilities under the Act. But the successful bidder has to produce GST registration certificate before signing of the agreement.

Sl. No.	Name of works	Value of works (In Lakhs.)	Eligible Class of Contractor	Bid Security / E.M.D. (Rs.) on-line	Cost of bid document (in Rs) On-line	Period of completion	Bid identification no.
1	2	3	4	5	6	7	8
1.	Protection to right bank of river Indravati near Aurobinda Purnanga School(back side) at B Maliguda of Nabarangpur District for the year 2025-26	43.41 lakhs (excluding GST)	'B' Class	Rs 43,500/-	Rs.6000.00	2 months	<u>SE-NID-01/2026-27(01)</u>
2.	Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26.	31.51 lakhs (excluding GST)	'C' & 'B' Class	Rs 31,600/-	Rs.6000.00	2 months	<u>SE-NID-01/2026-27(02)</u>

- Bid document consisting of qualification, information and eligibility criteria of bidders, plans, specification and Bill of Quantities of the works are available in web site [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in) and the set of terms and conditions of contract and other necessary documents can be seen in the web site till last date of submission of Bid.
- EMD/BID SECURITY:** The bidder shall transfer online required Earnest Money Deposit (EMD/Bid security) amount specified in the table column-5 above as part of its bid through the process as mentioned in DTCN vide Office memorandum No.17254/W/Dated 05.12.2017 of Works Department, Govt Of Odisha.
- Procurement Details**

Procurement Officer	Bid Identification No.	Availability of Bid on-line		Date & time of opening of Technical bid
		From	To	
Superintending Engineer, Nabarangpur Irrigation Division, Nabarangpur.	<u>SE-NID-01/2026-27(01-02)</u>	08.07.2026 from 10.00 AM	22.07.2026 up to 05.00 PM	23.07.2026 at 11.00 AM in the O/o the Superintending Engineer, Nabarangpur Irrigation Division, Nabarangpur.


4. **Cost of Tender paper:** The bidder shall transfer online the required cost of bid document for each work towards cost of bid through the process as mentioned in the DTCN in column No.6 vide Office memorandum No 17254/W/ dated 05.12.2017 of Works Department, Govt. Of Odisha.
5. **Mode of submission / transmission of Bid:** Tender should be submitted on-line in [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in).
6. **Bid validity period of the tender is for a period of 90 days** from the last date of submission of Bid. Conditional bid is not acceptable subject to forfeiture of EMD.
7. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the State Government is allowed to work as a Contractor for a period of two years after his retirement from Government service without Government permission.
8. The Engineering contractors those who wish to avail exemption of EMD etc should have to furnish an affidavit along with tender paper to the effect that they have not availed such facility for maximum three no of works during the current financial year. failing which their case will not be considered for exemption of the EMD. The successful Engineering contractor shall have to submit the original registration license before drawl of agreement for making necessary entry in it towards EMD exemption failing which his tender will be cancelled and the registration authority will be moved for taking penal action against him.
9. The bidders are required to upload the documents such as (i) Original Contract registration Certificate, (ii) GST Registration Certificate, (iii) Original affidavit regarding authenticity of documents, (iv) no relation certificate, (v) PAN Card (vi) all other required documents along with tender, otherwise their bid will be considered as non-responsive and thus liable for rejection.  
The lowest successful bidder only is required to produce the original documents for verification purpose, with in 5(five) days from the date of opening of the tender.

10. As per O.M No 173 dated 03.01.2026 of works Department, Government of Odisha the Additional Performance Security to be deposited as per following rate.

Sl No	Range of Difference between the estimated cost put to tender and Bid amount	Additional Performance Security (APS) to be Deposited by the successful bidder
1	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.
2	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 to 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.
3	Where the bid price is below 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.

11. Bidders registered as SC and ST contractors desiring to avail concession(S)/ price preference as per prevailing rules should also clearly mention regarding claim for avail such benefits in writing in shape of affidavit and enclose necessary document and affidavit in support of their claim along with their bid, failing which their case will not be considered for availing price preference as per above rule. No claim in this regard after opening of bid will be entertained.
12. Consequent upon implementation GST with effect from 01.07.2017, the rate offered by the agency should be inclusive all taxes and duties labour cess and royalty etc but exclusive GST as applicable shall be paid extra and TDS as applicable shall be deducted from the bill.
13. The Contractors shall have to furnish a certificate along with the tender to the effect that he / she is not related to any officer of Water Resources Department of the rank of Assistant Engineer and above connected with the estimate, tender and execution of work and any officer of the rank of Under Secretary or above.
14. e-Procurement guide line enclosed in the bid document should be followed while participating in the e-tendering process.


15. If the Office happens to be closed on the last date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue.
16. The bidders are to furnish their contact **mobile No, e- mail, postal address.**
17. The perspective bidder should inspect the work site and quarry sites to assess and ensure the availability and sufficiency of the suitable materials confirming to the technical specification for construction of work and quote their independent rate accordingly. Subsequent claim for any extra lead on ground of non-availability of construction materials will not be considered.
18. All relevant OPWD specifications/ rules/Amendments will be applicable.
19. The authority reserves the right to reject any or all the bids without assigning any reason thereof.
20. Authority will not held responsible for system failure, malfunction of internet or traffic jam. Bidders are advised to submit their bids well in advance within the stipulated period.
21. Other details can be seen in the bidding documents which is available in the web site [www.tendersodisha.gov.in](http://www.tendersodisha.gov.in).

  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1103

Date. 02.07.2026

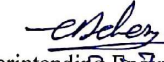
Copy submitted to the Engineer -in- Chief Water Resources, Odisha, Bhubaneswar for favour of kind information and necessary action.

  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1104<sup>(2)</sup>

Date. 02.07.2026


Copy submitted to the Chief Engineer & Basin Manager, Indravati- Kolab Basin, Bariniput/ Additional Chief Engineer & Basin Manager, Upper Kolab Project, Bariniput for favour of kind information and necessary action.

  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1105<sup>(2)</sup>

Date 02.07.2026

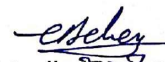
Copy submitted to the Collector & District Magistrate, Nabarangpur/ Superintendent of Police, Nabarangpur for favour of kind information and necessary action.

  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1106

Date. 02.07.2026


Copy along with a CD (soft copy) submitted to the Director, Monitoring and Evaluation office of the Engineer- in - Chief, Water Resources, Odisha, Bhubaneswar for favour of kind information and necessary action. It is requested to kindly publish the NIFB in the official website.

  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1107

Date. 02.07.2026


Copy along with a CD (soft copy) submitted to the State Portal Group (NIC) Secretariate Building, Bhubaneswar for favour of kind information and necessary action. It is requested to kindly publish the NIFB in the official website.

  
2.7.2026  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1108

Date. 02.07.2026


Copy to the officer in charge of Police Station, Nabarangpur for favour of kind information and necessary action.

  
2.7.2026  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

Memo No. 1109<sup>(8)</sup>

Date. 02.07.2026

Copy to all Superintending Engineer under this Project / Liaison Officer, Upper Indravati Irrigation Project Bhubaneswar for favour of information and necessary action.

  
2.7.2026  
Superintending Engineer  
Nabarangpur Irrigation Division  
Nabarangpur

**INFORMATION  
AND  
INSTRUCTION TO TENDERERS**

## **SECTION-4**

### **INFORMATION AND INSTRUCTION TO TENDERERS (I.T.)**

#### **1. Preparation of Bid Documents**

The intending bidder shall submit the bid duly filled in and signed in on-line through Govt. web-site. The forms attached with the documents are to be filled in completely. All the information called for should be furnished.

#### **2. Method of submission of Bid Documents**

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

2.2 – Deleted-

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

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

2.5 If the intending bidder is a firm in partnership, it shall be signed by a partner holding the power of attorney for the firm in partnership in which case a certified copy of power of attorney shall accompany in the prequalification documents.

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

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

2.8 The agency will install display sign board mentioning information about the work \_\_\_\_\_ at worksite after drawl of the agreement at his own cost as per direction of \_\_\_\_\_ Engineer-in-charge.

#### **2.9 BLOCKING OF PORTAL REGISTRATION:**

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

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

(iii) The officer inviting tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the officer inviting tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommended to the Chief Manager (Tech) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer / Heads of Office if any of the following provisions are violated. (iv) Fails to furnish original Technical / Financial (Tender Paper Cost, EMD/BID Security) instruments before the designated officer within the stipulated date and time.

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

(vi) Fails to execute the agreement within the stipulated date.

(vii) If any of the information furnished by the bidder is found to be false / fabricated bogus.

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

**GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION :**

**(i) UNBLOCKING OF PORTAL REGISTRATION :**

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

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

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

(iii) The minimum period of blocking of Portal Registration shall in no case be less than 90 days. After blocking of Portal Registration, the Contractor whose Portal Registration has been blocked may

file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury Challan showing deposit of Rs.10,000/- (Rupees Ten Thousands) only (non-refundable) under the head of accounts '0059-Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech.), State Procurement Cell.

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

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

### **3. Opening of Bid Documents.**

The bid documents will be **opened online 23.07.2026 at 11.00 A.M. in the office of the SUPERINTENDING ENGINEER, Nabarangpur Irrigation Division, Nabarangpur** in the presence of bidders or their authorized representative, who wish to be present.

### **4. Final Decision-making authority**

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

### **5. Further Clarification**

The **SUPERINTENDING ENGINEER, Nabarangpur Irrigation Division, Nabarangpur** may be contacted during office hours on any working days **between 10.07.2026 (5.00 PM)** for any further clarification.

**6. Sample of all material:** The bidder shall supply sample of all materials fully before procurement for the work for testing and acceptance at his own cost as may be required by the concerned SUPERINTENDING ENGINEER.

7. From the commencement of the work till completion, they are to be under the contractor's charge. The contractor is to be held responsible to make good to all injuries, damages and repairs occurred or rendered necessary to the same by fire or other causes. Govt. of Odisha shall not be held responsible for any claims for injuries to person or structural damage to property happening from any neglect, default, want of proper care or misconduct on the part of the contractor or any one in his employment during the execution of the work. Also no claim shall be entertained for loss due to earth quake, flood, cyclone, epidemic, riot or any other calamity whether natural or incidental. Damages so caused will have to be made good by the contractor at his own cost. 8. Wherever 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 Deptt. and shall not be removed from the site of work without written permission of the Engineer-in-charge.

**APPROVED**

**Sd/-**

**SUPERINTENDING ENGINEER  
NABARANGPUR IRRIGATION DIVISION  
NABARANGPUR**

**ANNEXURE-‘E**

**AFFIDAVIT**

I, Mr./Mrs./M/S.....aged  
about.....years, Son/ Daughter/ Wife of  
Sri/Smt..... at present residing At.....  
P.O.....P.S.....Dist:.....(State & Country).

Pin..... do here by solemnly affirm as follows.

i) That, I / We possess a valid license for execution of works contract issued by

\*..... belongs to.....Class & is valid up to\*\* .....

I am submitting tenders before the SUPERINTENDING ENGINEER ,Nabarangpur Irrigation Division,

Nabarangpur of following works in response to e – **procurement Notice No.SE, NID-**

**01/2026-27(01-02)&Bid Identification No.SE,NID- 012026-27 (02).**

1. .... \* \* \*

2. .... Etc.

ii) I am the authorized signatory on behalf of Firm / Contractor for the tender for the work / works mentioned above.

iii) I am swearing this affidavit that all tender documents and accompanying papers those being submitted by me before the SUPERINTENDING ENGINEER, **Nabarangpur Irrigation Division, Nabarangpur, Odisha** including E.M.D. in any shape are all authentic and bonafide documents in the eyes of the law of the land. That the fact stated in the affidavit are true to the best of my knowledge and belief.

Note :

\*Mention the name of license issuing authority.

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

Signature of Tenderer/  
Authorised Signatory

\* \* \*Mention name of works for which tender is being submitted

**ANNEXURE-‘E’ (2)**

**AFFIDAVIT**

**(To be submitted in Original in Legal Stamp paper by outside contractors who has not started any business in Odisha State)**

I, Sri/Smt.....aged  
about.....years, Son / Daughter / Wife of  
Sri/Smt..... at present  
residing At.....  
P.O.....P.S.....Dist:.....

(State &Country).....Pin..... do here by declare that, I have not registered under the GSTN act in the State of Odisha as I have not started any business in the State & I have no liability under the Act. In the event of this contract is awarded to me, I will register myself in the GSTN Act in the State of Odisha& and I will produce the certificate before drawl of agreement. That the facts stated in the affidavit are true to the best of my knowledge and belief.

Signature of Tenderer/

**ANNEXURE-G**

Certificate of No relationship as per clause 57 of DTCN

I/We hereby certify that I/We am / are not related to any officer of P.W.D. of the rank of Asst. Engineer and above and any officer of the rank of Asst. Secretary and above in the W/R Deptt. I/ We am/are aware that if the facts subsequently proved to be false my/our contract will be rescinded with for feature of EMD & security deposit and I/We shall be liable to make good the loss or damage resulting from such cancellation.

I/We also note that, non-submission of this certificate will render my/ our tender liable for rejection.

Signature of Contractor

Address .....

.....

Date . .....

## GUIDELINES / PROCEDURES OF e-PROCUREMENT

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

Government of Odisha, Works Department

Office Memorandum

File No.07556900042013 (Pt-II)-7885 /W, Dated, 23.07.2013 and amendment vide File No.07556900012016 11774 /W, Dated, 03.08.2017 .

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

1. This office memorandum consists of the procedural requirement of e-procurement and shall be made part of the “Detailed Tender Call Notice or Instruction to Bidder for all works” tenders hoisted in the portal.
2. The e-procurement portal of Government of Odisha is <https://tendersodisha.gov.in>.
3. Use of valid Digital Signature Certificate of appropriate class (Class II or Class III) issued from registered certifying authorities (CA) as stipulated by Controller of Certifying Authorities (CCA), Government of India such as n-Code, Sify, TCS, MTNL, e-Mudhra is mandatory for all users.
4. The DSC issued to the Department users is valid for the period of two years only. All the Department users are responsible to revalidate their DSC prior to expiry.
5. For all purpose, the server time displayed in the e-Procurement portal shall be the time to be followed by all the users.
6. Government after careful consideration have decided to hoist all tenders costing 10 lakhs or above in the e-procurement portal. This will be applicable across all Engineering Departments such as Works Department, Department of Water Resources, Rural Development and Housing & Urban Development Department. Government of Odisha also welcomes hoisting of tenders by any other departments, authority, corporations, local bodies etc. of the State with prior approval from Works Department, Works Department is the Nodal Department for the implementation of e-Procurement in the State.
7. The e-procurement shall be operated compliant to relevant provisions of OGFR/ OPWD Code/ Accounts Code/ Government statues including any amendments brought from time to time to suit to the requirement of the best national practice.
8. Registration in the e-procurement portal is without levy of any charges but Government reserves the right to levy any charges for such value added services in future.

9. Contractor not registered with Government of Odisha, can participate in the e-Procurement after necessary enrolment in the portal but have to subsequently register themselves with the appropriate registering authority of the State Government before award of the work as per prevalent registration norms of the State.
10. For the role management “Department” is the Administrative Department, Organization or wing is the Chief Engineer or highest tender accepting authority or equivalent officer, Division is the SUPERINTENDING ENGINEER or equivalent Officer and Sub-division is the Assistant Engineer or equivalent officer.
11. The e-Procurement software assigns roles for operation of the module for specific function. The terminologies used in the portal and their respective functions in the software are as follows.
  - 11.1 Application Administrator (NIC & State Procurement Cell)
    - i. Master Management
    - ii. Nodal Officer Creation
    - iii. Report Generation
    - iv. Transfer of Officer’s login ID
    - v. Blocking & unblocking of officer’s and bidder’s login ID.
  - 11.2 Nodal Officer (At organization level not below the Superintending Engineer of equivalent rank)
    - i. Creation of Users
    - ii. Role Assignment
    - iii. Report Generation
    - iv. Transfer of Officer’s login ID.
    - v. Blocking & unblocking of officer’s Login ID.
  - 11.3 Procurement Officer-Publisher (Officer having tender inviting power at any level)
    - i. Publishing of Tender
    - ii. Publishing of Corrigendum / addendum / cancellation of Tender
    - iii. Bid Clarification
    - iv. Uploading of Pre-Bid minutes.
    - v. Report generation.
  - 11.4 Procurement Officer-Administrator (Generally sub-ordinate officer to Officer Inviting Tender)
    - i. Creation of Tender
    - ii. Creation of Corrigendum / addendum / cancellation of Tender
    - iii. Report generation.
  - 11.5 Procurement Officer Opener (Generally sub-ordinate officer to Officer Inviting Tender)
    - i. Opening of Bid
  - 11.6 Procurement Officer Evaluator (Generally Sub-Ordinate Officer to Officer Inviting Tender)
    - i. Evaluating Bid.
  - 11.7 Procurement Officer-Auditor (Procurement Officer Publisher and / or Accounts Officer / Finance Officer)
    - i. To take up auditing.
12. NOTICE INVITING BID (NIB) or INVITATION FOR BID (IFB) :

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

12.2 The officers competent to publish NIB in case of conventional Bids will host the NIB in portal.

Simultaneously, a notification should also be published in the newspapers as per existing rules

preferably, in the following format, to effect economy :-

Government of Odisha “e” procurement Notice

Bid Identification No. \_\_\_\_\_

1. Name of the work : .....
2. Estimated cost :Rs.....
3. Period of completion .....
4. Date & Time of availability of bid document in the portal \_\_\_\_\_
5. Last Date / Time for receipt of bids in the portal \_\_\_\_\_
6. Name and address of the O.I.T.....

Further details can be seen from the e-procurement portal “<https://tendersodisha.gov.in>”.

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

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

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

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

### 14. CREATION AND PUBLISHING OF BID :

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

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

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

- i. BASIC DETAILS

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

(a) For Single Cover/Packet:

Sl. No.	Cover Type	Document Description	Type
1	Fee / Prequal / Technical Finance	GSTIN, PAN, Contractor RC	Pdf
	Affidavits, undertakings and any other document as per SBD/DTCN PdfBoQ		.xls

(b) For Two Cover/Packet:

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

iii. TENDER DOCUMENT : The Procurement officer Administrator should upload the NIT in .pdf format. iv. WORK ITEM DETAILS.

v. FEE DETAILS : The Procurement Officer Administrator should mention the cost of tender paper and EMD amount to be paid online as per Works Department Office Memorandum No 6785W dated 09.05.2017 and as laid down in DTCN/SBD.

The Bidder shall have to furnish as part of its Bid the Additional performance Security (if any) online as per the Works Department Office Memorandum No. 5288W dated 04.05.2016.

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

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

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

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

15. PARTICIPATION IN BID:

15.1 PORTAL REGISTRATION: The Contractor/Bidder intending to participate in the bid is required to register in the portal using his/her active personal/official e-mail ID as his/her Login ID and attach his/her valid Digital signature certificate (DSC) to his/her unique Login ID. He/ She has to submit the relevant information as asked for about the firm/contractor. The portal registration of the bidder/firm is to be authenticated by the State Procurement Cell after verification of original valid certificates / documents such as (i) PAN and (ii) Registration Certificate

(RC) / VAT Clearance Certificate (for procurement of goods) of the concerned bidder. The time period of validity in the portal is at par with validity of RC / VAT Clearance. Any change of information by the bidder is to be re-authenticated by the State Procurement Cell. After successful authentication bidder can participate in the online bidding process.

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

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

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

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

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

15.5 PREPARATION OF BID :

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

15.5.2 The Bidder shall go through the Bid carefully and list the documents those are asked for submission.

He shall prepare all documents including Declaration Form, Price bid etc. and store in the system.

15.6 PAYMENT OF EMD/BID SECURITY AND COST OF BID DOCUMENTS :

15.6.1

(a) The Bidder shall transfer the Tender paper cost online as part of his Bid, as mentioned under DTCN/ SBD through a process mentioned in Works Department Office Memorandum No 17254 W dt 05.12.2017. (b) Also the Bidder shall transfer the EMD/Bid Security online as part of its Bid as mentioned under

DTCN/SBD through a process mentioned in Works Department Office Memorandum No 17254 W dt 05.12.2017.

15.6.4 The tender accepting authority will verify the originals of all the scanned documents of the successful lowest bidder only within 5 days of opening of the tender. In the eventuality of failure on the part of the lowest successful bidder to

produce the original documents, he will be debarred in future from participating in tender for 3 years and will be black listed by the competent authority. In such a situation, successful L-2 bidder will be required to produce his original documents for consideration of his tender at the negotiated rate equal to L1 bidder.

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

#### 16. SUBMISSION OF BID :

- 16.1 The bidder shall carefully go through the tender and prepare the required documents. The bid shall have a Technical Bid & a Financial Bid. The Technical bid generally consist of GSTIN, PAN / TIN, Registration Certificate, Affidavits, Profit Loss statement, Joint venture agreement, List of similar nature of works, work in hand, list of machineries, and any other information required by OIT. The Financial Bid shall consist of the Bill of Quantities (BOQ) and any other price related information / undertaking including rebates.
- 16.2 Bidders are to submit only the original BoQ (in .xls format) uploaded by Procurement Officer Publisher (Officer Inviting Tender) after entering the relevant fields without any alteration / deletion / modification. Multiple BoQ submission by bidder shall lead to cancellation of bid. In case of item rate tender, bidders shall fill in their rates other than zero value in the specified cells without keeping it blank. In the percentage rate tender the bidder quoting zero percentage is valid and will be taken at par with the estimated rate of the work put to tender.
- 16.3 The bidder shall upload the scanned copy/copies of document in support of eligibility criteria and qualification information in prescribed format in Portable Document Format (PDF) to the portal in the designated locations of Technical Bid.
- 16.4 The bidder shall write his name in the space provided in the specified location in the Protected Bill of Quantities (BoQ) published by the Officer Inviting Tender. The bidder shall type rates in figure only in the rate column of respective item(s) without any blank cell in the rate column in case of item rate tender and type percentage excess or less up to two decimal place only in case of percentage rate tender.
- 16.5 The bidder shall log on to the portal with his / her DSC and move to the desired tender for up loading the documents in appropriate place one by one simultaneously checking the documents.
- 16.5.1 Bids cannot be submitted after due date and time. The bids once submitted cannot be viewed, retrieved or corrected. The Bidder should ensure correctness of the bid prior to uploading and take print out of the system generated summary of submission to confirm successful uploading of bid. The bids cannot be opened even by the OIT or the Procurement Officer Publisher / opener before the due date and time of opening.
- 16.5.2 Each process in the e-procurement is time stamped and the system can detect the time of log in of each user including the Bidder.
- 16.5.3 The Bidder should ensure clarity/legibility of the document uploaded by him to the portal.
- 16.5.4 The system shall require all the mandatory forms and fields filled up by the contractor during the process of submission of the bid/tender.
- 16.5.5 The bidder should check the system generated confirmation statement on the status of the submission.
- 16.5.6 The Bidder should upload sufficiently ahead of the bid closure time to avoid traffic rush and failure in the network.

- 16.5.7 The Tender Inviting Officer is not responsible for any failure, malfunction or breakdown of the electronic system used during the e-procurement process.
- 16.5.8 The Bidder is required to upload documents related to his eligibility criteria and qualification information and Bill of Quantity duly filled in. It is not necessary for the part of the Bidder to up-load the drawings and the other Bid documents (after signing) while uploading his bid. It is assumed that the bidder has referred all the drawings and documents uploaded by the Officer Inviting the Bid.
- 16.5.9 The Bidder will not be able to submit his bid after expiry of the date and time of submission of bid (server time). The date and time of bid submission shall remain unaltered even if the specified date for the submission of bids declared as a holiday for the Officer Inviting the Bid.
- 16.6 SIGNING OF BID: The 'online bidder' shall digitally sign on all statements, documents, certificates uploaded by him, owing responsibility for their correctness / authenticity as per IT ACT 2000. If any of the information furnished by the bidder is found to be false / fabricated / bogus, his EMD/Bid Security shall stand forfeited and his registration in the portal shall be blocked and the bidder is liable to be blacklisted.
17. SECURITY OF BID SUBMISSION :
- 17.1 All bid uploaded by the Bidder to the portal will be encrypted.
- 17.2 The encrypted Bid can only be decrypted / opened by the authorized openers on or after the due date and time.
18. RESUBMISSION AND WITHDRAWAL OF BIDS :
- 18.1 Resubmission of bid by the bidders for any number of times before the final date and time of submission is allowed.
- 18.2 Resubmission of bid shall require uploading of all documents including price bid afresh.
- 18.3 If the bidder fails to submit his modified bids within the pre-defined time of receipt, the system shall consider only the last bid submitted.
- 18.4 The bidder should avoid submission of bid at the last moment to avoid system failure or malfunction of internet or traffic jam or power failure etc.
- 18.5 The Bidder can withdraw his bid before the closure date and time of receipt of the bid by uploading scanned copy of a letter addressing to the procurement Officer Publisher (Officer Inviting Tender) citing reasons for withdrawal. The system shall not allow any withdrawal after expiry of the closure time of the bid.
19. OPENING OF THE BID :
- 19.1 Bid opening date and time is specified during tender creation or can be extended through corrigendum. Bids cannot be opened before the specified date & time.
- 19.2 All bid openers have to log-on to the portal to decrypt the bid submitted by the bidders.
- 19.3 The bidders & guest users can view the summary of opening of bids from any system. Contractors are not required to be present during the bid opening at the opening location if they so desire.
- 19.4 In the event of the specified date of bid opening being declared a holiday for the Officer Inviting the Bid, the bids will be opened at the appointed time on the next working day.
- 19.5 Combined bid security for more than one work is not acceptable.

- 19.6 The electronically submitted bids may be permitted to be opened by the predefined Bid opening officer from their new location if they are transferred after the issue of Notice inviting Bid and before bid opening. Further, action on bid documents shall be taken by the new incumbent of the post.
- 19.7 In case of non-responsive tender the officer inviting tender should complete the e-Procurement process by uploading the official letter for cancelled / re-tender.
20. EVALUATION OF BID :
- 20.1 All the opened bids shall be downloaded and printed for taking up evaluation. The officer authorized to open the tender shall sign and number on each page of the documents downloaded and furnish a certificate that “the documents as available in the portal containing ---- nos. of pages”.
- 20.2 The bidder may be asked in writing / online (in their registered e-mail ids) to clarify on the uploaded documents provided in the Technical Bid, if necessary, with respect to any doubts or illegible documents. The Officer Inviting Tender may ask for any other document of historical nature during Technical Evaluation of the tender. Provided in all such cases, furnishing of any document in no way alters the Bidder’s price bid. Non submission of legible documents may render the bid non-responsive. The authority inviting bid may reserve the right to accept any additional document.
- 20.3 The bidders will respond in not more than 7 days of issue of the clarification letter, failing which the bid of the bidder will be evaluated on its own merit.
- 20.4 The Technical evaluation of all the bids shall be carried out as per information furnished by Bidders.
- 20.5 The Procurement Officer-Evaluators; will evaluate bid and finalize list of responsive bidders.
- 20.6 The financial bids of the technically responsive bidders shall be opened on the due date of opening. The Procurement Officer-Openers shall log on to the system in sequence and open the financial bids.
- 20.6.1 The Financial Bid will be opened on the notified date & time in the presence of bidders or their authorized representative who wish to be present.
- 20.6.2 At the time of opening of “Financial Bid”, bidders whose technical bids were found responsive will be opened.
- 20.6.3 The responsive bidders’ name, bid prices, item wise rates, total amount of each item in case of item rate tender and percentage above or less in case of percentage rate tenders will be announced.
- 20.6.4 Procurement Officer-Openers shall sign on each page of the downloaded BoQ and the Comparative Statement and furnish a certificate to that respect.
- 20.6.5 Bidder can witness the principal activities and view the documents/summary reports for that particular work by logging on to the portal with his DSC from anywhere.
- 20.6.6 System provides an option to Procurement Officer Publisher for reconsidering the rejected bid with the approval of concerned Chief Engineer / Head of Department.
21. NEGOTIATION OF BIDS :
- 21.1 For examination, evaluation and comparison of bids, the officer inviting the bid may, at his discretion, as the lowest bidder for clarification of his rates including reduction of rate on negotiation and breakdown of unit rates.
22. NOTIFICATION OF AWARD AND SIGNING OF AGREEMENT :

- 22.1 The Employer/Engineer-in-Charge shall notify acceptance of the work prior to expiry of the validity period by cable, telex or facsimile or e-mail confirmed by registered letter. This Letter of Acceptance will state the sum that the Engineer-in-Charge will pay the contractor in consideration of execution & completion of the Works by the contractor as prescribed by the contract & the amount of Performance Security and Additional Performance Security required to be furnished. The issue of the letter of acceptance shall be treated as closure of the Bid process and commencement of the contract.
- 22.2 The Contractor after furnishing the required acceptable Performance Security & Additional Performance Security, “Letter to proceed” or “Work Order” shall be issued by the Engineer-in-Charge with copy thereof to the Procurement Officer –Publisher. The Procurement Officer-Publisher shall up load the summary and declare the process as complete.
- 22.3 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.
23. BLOCKING OF PORTAL REGISTRATION :
- 23.1 If the Registration Certificate of the Contractor is cancelled / suspended by the registering authority/ blacklisted by the competent authority his portal registration shall be blocked automatically on receipt of information to that effect.
- 23.2 The portal registration blocked in the ground mentioned in the above Para-23.1 shall be unblocked automatically in receipt of revocation order of cancellation / suspension / blacklisting from the concerned authority.
- 23.3 The Officer Inviting Tender shall make due inquiry and issue show cause notice to the concerned contractor who in turn shall furnish his reply, if any, within a fortnight from the date of issue of show cause notice. Thereafter the Officer Inviting Tender is required to issue an intimation to the defaulting bidder about his unsatisfactory reply and recommend to the Chief Manager (Tech.) for blocking of portal registration within 10 days of intimation to the defaulting bidder regarding his unsatisfactory reply with intimation to the Registering Authority and concerned Chief Engineer/ Heads of Office if any of the following provisions are violated.
- 23.3.1 Fails to furnish original Technical Documents before the designated officer within the stipulated date and time.
- 23.3.2 Backs out from the bid on any day after the last date of receipt of tender till expiry of the bid validity period.
- 23.3.3 Fails to execute the agreement within the stipulated date.
- 23.3.4 If any of the information furnished by the bidder is found to be false / fabricated / bogus.
- 23.3.4 Non submission of Additional performance security (APS) within stipulated period in pursuance to Works Department Office Memorandum Nom14299/W dated 03.10.2017
- Accordingly, the Officer Inviting Tender shall recommend to the Chief Manager (Tech.), State Procurement Cell, Odisha for blocking of portal registration of bidder and simultaneously action shall also be initiated by OFFICER INVITING TENDER for blacklisting as per Appendix – XXXIV of OPWD Code, Volume-II.

24. GUIDELINES FOR UNBLOCKING OF PORTAL REGISTRATION :

24.1 UNBLOCKING OF PORTAL REGISTRATION:

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

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

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

24.3 The minimum period of blocking of Portal Registration shall in no case be less than 180 days. After blocking of Portal Registration, the Contractor whose Portal Registration has been blocked may file application to the concerned officer inviting tender showing sufficient ground for unblocking of his portal registration along with a Treasury Challan showing deposit of Rs. 10,000/- (Rupees ten thousand) only (nonrefundable) under the head of accounts '0059-Public Works' as processing fees. The officer inviting tender shall forward the application filed by the contractor to the Chief Manager (Tech), State Procurement Cell.

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

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

1. These amendments shall take effect from the date of issue of the order.
2. Accordingly, relevant existing codal / contractual provisions exists vide Office Memorandum No 7885 W dt 23.07.2013 of Works Department stands modified the date of issue of this Office memorandum.

This has been concurred in by the Finance Department vide Dt.06.07.2017.



GOVERNMENT OF ODISHA  
WORKS DEPARTMENT  
\*\*\*\*\*

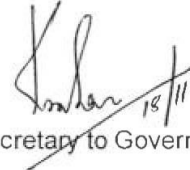
OFFICE MEMORANDUM

File No. -07556900242019- 15847 W, dt. 19-11-19

Sub:- Codal / contractual provisions regarding Price Adjustment in works contract.

Codal / contractual provisions regarding Price Adjustment in works contract was under active consideration of Government. After careful consideration, Government have been pleased to make the codal/ contractual provisions regarding Price Adjustment clause due to increase or decrease in rate and price of labour, materials, fuels & lubricants and plant & machineries spare component to be incorporated in DTCN / condition of Contract as per Annexure-"A".

- 1- This Office Memorandum shall be a part of the relevant clauses of DTCN and Agreement and shall take effect from the date of issue.
- 2- This has been concurred in by Finance Department vide their File No. FIN-WF1-MISC-0031-2019 (OSWAS) dt.23.10.2019 and Law Department vide their UOR No.2218/L dt.29.10.2019.



Commissioner - cum- Secretary to Government

Memo No. 15848 W, dated, 19-11-19

Copy with copy of enclosure forwarded to Principal Secretary to Hon'ble Chief Minister, Odisha for information and necessary action.



FA - cum- Addl. Secretary to Government

Memo No. 15849 W, dated, 19-11-19

Copy with copy of enclosure forwarded to P. S. to Hon'ble Minister, Works, Odisha / P. S. to Hon'ble Minister, Finance, Odisha for information and necessary action.



FA - cum- Addl. Secretary to Government

(P.T.O)

GOVERNMENT OF ODISHA  
WORKS DEPARTMENT  
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OFFICE MEMORANDUM

File No.07556900012016- 17254 /W, dated, 5.12.17

Sub: **Electronic Receipt, Accounting and Reporting of Cost of Tender Paper and Earnest Money Deposit on submission of bids.**

1. The State Government have been working on formulation of rules and procedures for Electronic receipt, accounting and reporting of the receipt of Cost of Tender Paper and Earnest Money Deposit on submission of bids through the e-procurement portal of Government of Odisha i.e. "<https://tendersodisha.gov.in>" for some time past.
2. Electronic receipt of cost of tender paper has been successfully tested through SBI payment gateway. Now it has been decided to introduce electronic receipt of **Cost of Tender Paper and Earnest Money Deposit on submission of bids** through payment gateway of designated banks such as SBI/ICICI Bank/HDFC Bank for all Government Departments, State PSUs, Statutory Corporations, Autonomous Bodies and Local Bodies etc. in phases(ANNEXURE-I). The process outline as well as accounting and reporting structure are indicated below:
  - a) It will be carried out through a single banking transaction by the bidder for multiple payments like **Cost of Tender Paper and Earnest Money Deposit on submission of bids**.
  - b) Various payment modes like Internet banking/ NEFT/RTGS of Designated Banks and their Aggregator Banks as well can be accessed by the intending bidders.
  - c) Reporting and accounting of the e-receipts will be made from a single source.
  - d) Credit of receipts into the Government accounts and to the designated Bank account of the participating entities indicated in Para 2 above would be faster.
3. Only those bidders who successfully remit their **Cost of Tender Paper and Earnest Money Deposit on submission of bids** would be eligible to participate in the tender/bid process. The bidders with pending or failure payment status shall not be able to submit their bid. Tender inviting authority, State Procurement Cell, NIC, the designated Banks shall not be held responsible for such pendency or failure.



-1-

**4. Banking arrangement:**

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

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

- a) The bidders have to log onto the Odisha e-Procurement portal (<https://tendersodisha.gov.in>) using his/her digital signature certificate and then search and then select the required active tender from the "Search Active Tender" option. Now, submit button can be clicked against the selected tender so that it comes to the "My Tenders" section.
- b) **Uploading of Prequalification/Technical/Financial bid:** The bidders have to upload the required Prequalification /Technical/Financial bid, as mentioned in the bidding document and in line with Works Department office memorandum No.7885/W dt.23.07.2013.
- c) **Electronic payment of tender paper cost and EMD :** Then the bidders have to select and submit the bank name as available in the payment options :
- i. A bidder shall make electronic payment using his/her internet banking enabled account with designated Banks or their aggregator banks.
  - ii. A bidder having account in other Banks can make payment using NEFT/RTGS facility of designated Banks.
    - Online NEFT/RTGS payment using internet banking of the bank in which the bidder holds his account, by adding the account number as mentioned in the challan as an interbank beneficiary.

*[Handwritten signature]*

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

e) **System generated acknowledgement receipt for successful submission:**

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

**6. Settlement of Cost of tender Paper:**

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

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

c) Similarly, in case of State PSU, Statutory Corporations, Autonomous Bodies and local Bodies etc. Cost of Tender Paper, the e-procurement portal shall generate a MIS for the State Procurement Cell (SPC). The MIS will contain an abstract of the cost of the tender paper collected with reference to Bid Identification Number. The cost of tender paper will be credited to the registered bank account of the concerned State PSUs, Statutory Corporations, Autonomous Bodies and local Bodies etc.

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

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

**7. Settlement of Earnest Money Deposit on submission of Bids:**

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

**8. Forfeiture of EMD:**

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

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

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

the Division.

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

**9. Role of the Banks:**

- a) Make necessary provision/customizations at their end to enable the provision for online payments/ refunds as per this document.
- b) Provide necessary real-time message to bidders regarding successful or un successful transactions during online payment process and redirect them to e-procurement website with necessary transaction reference details enabling them to submit their bids.
- c) The bank shall ensure transfer of funds from the pooling account to the Government Head/ current account of PSUs/ULBs within the next bank working day as per the directions generated from e- procurement portal.
- d) Bank should provide timely reports and reference details to NIC enabling them to carry out their role as stated below.
- e) Refund of amount to bidders as per the XML file provided by e-procurement system on the next bank working day from the date of generation of the XML file and also provide a confirmation to NIC on the same.

**10. Role of State Procurement Cell:**

- a) Communicate requirements of Government Departments/ State PSUs/ Autonomous Bodies/ULBs online payment requirements to national Information Centre / the authorised Banks for mapping/ Customization.
- b) In every working day, the state procurement cell shall generate MIS from the e-procurement portal to ascertain the tender paper cost received in the e-tendering process separately bank-wise for the Government Department and the PSUs/ULBs. The SPC shall generate bank-wise separate online challans from the Odisha Treasury portal and make the remittance through over the counter facility or NRFT/ RTGS (as and when this functionality is available in Treasury portal) and issue instruction to the bank for remittance of the receipt to the State Government account.
- c) The State procurement cell shall be responsible for providing challan details and MIS in respect of the remittance towards tender paper cost to the Tender Inviting authorities for their record.
- d) State procurement cell shall monitor the progress of e-Tendering by different Government Departments/State PSUs /Autonomous Bodies/ULBs through MIS. State Procurement Cell shall monitor and send monthly progress reports to the Government.
- e) The e-procurement system will generate a consolidated refund & settlement XML file as an end of the day activity.
- f) e-procurement system will provide a web service for payment Gateway (PG) provider to pull the encrypted refund and settlement details in XML file against a day.
- g) Similarly, Payment Gateway (PG) provider will provide a web service to pull the refund and settlement status against a day.
- h) e-procurement system will update the status accordingly for reconciliation report.

**11. Role of National Informatics Centre:**

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

- b) The NIC ,Odisha will modify/ rectify the errors in electronic data relating to Chart of Account.
- c) NIC will provide an interface to organizations to download the electronic receipt data
- d) Enable automatic generation of daily XML files from e-procurement system and ensure delivery of the same to the authorized Banks for enabling automatic refund/ settlement of funds.
- e) NIC shall enable the e-procurement portal to generate MIS as required for the State Procurement Cell in order to make remittance of the tender paper cost to the state government account using the Odisha Treasury Portal.

**12. Role of Cyber Treasury:**

- a) The cost of tender paper deposited by the SPC using Odisha Treasury Portal which will be accounted for by the Cyber Treasury and it shall submit the account to A.G (O) as per the established process.
- b) The Cyber treasury will provide MIS as required by SPC for the purpose of accounting and reconciliation of the electronic remittances made to the State Government account.

**13. Redressal of Public grievances:**

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

**14. Applicability and modification of existing rules/orders:**

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

- 15.** These arrangements would be made effective after signing of MoU between the designated banks and the State Procurement Cell, firming up of Banking arrangements and technical integration between designated Bank and e- procurement Portal.
- 1. This shall take effect from the date of issue of this Office Memorandum.
  - 2. Accordingly relevant existing codal / contractual provision exist vide Office Memorandum No 6785 dated 09.05.2017 of Works Department stands modified to the above extent.
  - 3. This has been concurred in by the Finance Department vide their UOR No-39-WF-I dt 09.11.2017.

E.I.C. cum- Secretary to Government

**Government of Odisha, Works Department,**

**Office Memorandum**

**File no. 07556900042013 (pt-IV)- 12366 dated. 8.11.2013 Sub:-**

**Amendment of codal / Contractual provisions.**

After careful consideration Government have been pleased to make amendment to contractual and codal provisions for increasing the efficiency and transparency of Department dealing with infrastructure development of the State as per Annexure-I, II, III, IV, V, VI & VII.

- 1) These amendments shall take effect from the sate of issue of the order.
- 2) Accordingly, relevant existing codal / contractual provision stand modified with effect from the date of issue of this O.M.
- 3) This has been concurred in by Finance Department in their UOR No. 157-WF-I dt. 17.5.2012.

**Annexure-I**

**I)Amendment to Para-3,4,16(a) (VII) of OPWD Code Vol-1 by Substitution.**

Note- (VII)- For the purpose of estimate the approved quarry lead is to be provided judiciously. Engineers in charges would be responsible for ensuring the quality of the materials supplied. The contractors would however be responsible for procurement of materials from authorized 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-**

**II2)Amendment to Para-3,5,14 Note-I of OPWD Code Vol-1 by inclusion.**

Note- 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 per 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 publicised and intimated to all departments of Government and also to Govt. of India agencies working in the state.

**Annexure-**

**III3)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 finalize the tender through a transparent lottery system. Where all bidders/their authorized representatives the concerned SUPERINTENDING ENGINEER and DAO will remain present.

**Annexure-V**

**4) 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 centages 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 provision of OPWD Code.

**Annexure-VI**

**5) Amendment to Appendix- XXX (Bills) Clause 21 of OPWD Code Vol-II & to the clause -6 of P1**

**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 will be required to submit bill for each on going work on 20<sup>th</sup> or next working day of every month to the concerned EE. The S.E. on receipt of the bill will take steps for payment of the same by 30<sup>th</sup> 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 SE that the bills for all on going month have been paid failing action will be initiated against the erring officer.

**Annexure-VII**

**6) 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 program me 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.

**Government of Odisha    Works Department**  
**Office Memorandum**

**File no. 07556900032016 -5288    dated. 04.05.2016 & subsequent amendment vide Office memorandum No 14459 dated 20.09.2018**

**Sub:- Amendment of codal / Contractual provisions.**

**1) (A) Amendment to Para-3.5.5 (V) Note-II of OPWD Code, Vol-I by modification**

(Note-II)- Additional Performance Security shall be obtained from the bidder when the bid amount is less than the 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 the exact amount of differential cost i.e. estimated cost put to tender minus the quoted amount as Additional Performance Security (APS) in shape of Term Deposit Receipt pledged in favour of the 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 deposit shall be forfeited. Further, proceeding for blacklisting shall be initiated against the bidder.

**(B) Amendment to Para-3.5.5 (V) Note-III of OPWD Code, Vol-I by modification**

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 days of such completion by the concerned SE,CE & the Administrative Department. The incentive for timely completion should be on a graduated scale of one percent to five percent of the contract value – Assessment of incentives may be worked out for earlier completion of work in all respect in the following scales.

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

**SECTION – 5**  
**GENERAL RULES & DIRECTIONS**  
**(FORM P-1)**

**ORISSA PUBLIC WORKS DEPARTMENT**  
**(FORM P-1) PERCENTAGE RATE TENDER AND CONTRACT FOR WORKS GENERAL**  
**RULES & DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS**

1. The work proposed for execution by contract will be notified in a form of invitation to tender pasted through the Govt. web-site [www.tendersorissa.gov.in](http://www.tendersorissa.gov.in)

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% of the estimated cost.
6. Any person who submits a tender shall fill up the usual printed form stating at what rate he is willing to undertake each item of the work. Incomplete tender and tender rate he is willing to undertake each item of the work specified in the said form of invitation to tender or 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 for 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 works 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.
8. The Engineer shall have the right of rejecting all or any of the tenders.
9. In the event of a tender being selected for acceptance the Engineer who opened the tenders will, if he is competent to accept the tender, inform the tenderer of the selected tender who shall there upon sign copies of the specification and other documents with the 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 deposit the required amount of the security money within the prescribed time the Engineer may reject the tender.

If the Engineer is not competent to accept the tender himself, he will inform the tenderer of the tender which he decides to recommended for acceptance, such 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 with in 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 security money in cash in any treasury and shall forward the Challan to the SUPERINTENDING ENGINEER. Government securities may be endorsed to the SUPERINTENDING ENGINEER in lieu of cash deposit of the required amount of the security money No tender shall be finally accepted until the required amount of the security money has been deposited.
11. The amount of security money to be deposited by the tenderer whose tender is selected for acceptance shall be 2 percent of the estimated value of the work and towards this amount the earnest money already deposited by him shall be credited. At least half of this security inclusive of the earnest money shall be deposited the tenderer within such time as may be notified to him in writing by the officer opening the tender, failing which tender shall be liable to rejection. Any balance of the security money outstanding after completion of the contract with the tenderer may be made up by deduction of 5% of the amount of each payment to be made to his under clause 7 of the condition of contract for work done under the contract. Taxes as per provisions of Government shall be deducted from the bills of tenderer.
12. When tender has been selected for acceptance and the required amount of the security money has been deposited the Engineer shall scrutinize a pages of the form of **Percentage, Rate Tendered** and

Contract for works to see that the form has been properly filled up and signed by the contractor and the signature witnessed. He shall then, if he is competent to accept the tender, sign the acceptance of the tenders or if he is not so competent to, shall send the form for signature of the acceptance to the officer competent to accept it.

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. 15443dt. 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. Refund of Security deposit deducted from the work will be made as per the prevailing guidelines.

## TENDER FOR WORKS

I / We hereby tender for the execution for the Government of Odisha for the work specified in the underwritten memorandum at the rates specified therein a period of **02(Two) month** 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. Name of work: Protection to right bank of river Indravati near village Bhatiguda between 3rd and 4th Spur of Nabarangpur District for the year 2025-26.

(a) If several sub-works are included they should be detailed in a

(i) Estimated Cost: **Rs.37.50 Lakhs**

(e) This deposit will be 2 % of the Agreement amount

(ii) Amount put to tender : **Rs.31.51 Lakhs (Excluding GST)**

Agreement Amount :

Earnest Money Deposit : **Rs.31,600/-**

(f) This percentage deduction from bills be credited to the contractor's security

Initial Security Deposit (excluding earnest money deposited online before the commencement of the work)

Percentage to be deducted from bill (As Security Deposit) : **5%**

g. Time required for the work from date of written order to commence :

h. Date of written order to commence work :

i. Actual date of commencement :

j. Stipulated date of completion:

k. Number of items of works tendered for :

l. Income Tax : As per prevailing rules

m. GST: As applicable

- n. Royalty of construction materials : As per prevailing rules
- o. Building and other construction Workers Welfare Cess : 1% of gross amount of bill

Signature of contractor before submission of tender.

Should this tender be accepted, I/We hereby agree to abide by and fulfil all the terms and provisions of the said conditions of contract annexed here to so far as applicable or in default thereof to forfeit and pay to the Governor of Orissa or his successors in office the sum of money mentioned in said conditions.

Dated the ..... day of .....20 .....

Signature of the Witness to tender Signature

Signature of Contractor

Address

Address

Address

Address

Signature of officer by whom accepted.

The above tender is hereby accepted by me on behalf of the Government of Odisha.

Dated..... day of .....20 .....

**SUPERINTENDING ENGINEER  
Nabarangpur Irrigation Division Nabarangpur.**

Agreement No .....P1/.....Certified that this agreement contains .....pages only.

**SUPERINTENDING ENGINEER  
Nabarangpur Irrigation Division Nabarangpur.**

# **SECTION – 6**

## **CONDITION OF CONTRACT**

## CONDITIONS OF CONTRACT

**Clause-1:** All compensation or other sums of money payable by the contractor of Government under the terms of his contract may be deducted from or paid by, the sale of a sufficient part of his security deposit of firm 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 whatsoever and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid, the contractor shall within ten days thereafter make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by, sale or the security deposit or any part thereof.

**Compensation for delay.**

**Clause 2(a):** The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the 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 essence of the contract on the part of the contractor) and the contractor shall pay, as compensation, an amount equal to **1/2 percent** on the amount of the estimated cost, if the whole work as shown by the tender for everyday that the work remains un-commenced, or unfinished after the proper dates (The work should not be considered finished until such date as the SUPERINTENDING ENGINEER shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by the SUPERINTENDING ENGINEER or his authorize agents, are fully complied with by the contractor to the SUPERINTENDING ENGINEER's satisfaction). And further, to ensure good progress during the execution of the work the contractor shall be bound, in all cases in which the time allowed for any work exceeds one month, to complete one-fourth of the whole of the work before one fourth of the whole time allowed under the contract has elapsed, one half of the work, before one half of such time has elapsed, and three fourth of work before three fourths as such time has elapsed, in the events of the contractor failing to comply with the conditions, he shall be liable to pay as compensation an amount equal to **one-third** percent on the said estimated cost of the whole work for everyday that the due quantity of work remains incomplete. Provided always that the entire amount of compensation to be paid under the provisions of this clause shall not exceed **10 Percent** on the estimated cost of the work as shown in the tender.

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 clauses of this contract the work should not be considered finished until such date as the S,E shall certify as the date on which the work is finished after necessary rectification of defects as pointed out by SE of his authorized agents are fully complied with by the contractor to the SEs satisfaction. Action when whole security deposit forfeited contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit in the hands of government (Whether paid in once on or deducted by instalments) the Superintending Engineer on behalf of the Government of Odisha shall have power to adopt any of the following courses as he may deem best suited to the interest of the Government.

Action when whole security deposit is forfeited.

i) To rescind the contract (of which rescission notice in the writing to the contractor under the hands 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 the cost and price certificate of the SUPERINTENDING ENGINEER shall be final and conclusive against the contractor) and crediting him with the value of the work done. In all respects in the same manner and at the same rate as if the contractor under the terms of his contract had carried it out, the certificate of the SUPERINTENDING ENGINEER as to the value of work done shall be final and conclusive against the contractor.

iii) To measure of the work of the contractor and to take such part of the work of the contract as shall be in executed 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 some which would have been paid to original contractor. If the whole work had been executed by him (of the amount of which expect the certificate in writing of the SUPERINTENDING ENGINEER shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under the contract or their wise or from his security deposit or the proceeds of sale thereof or a sufficient part thereof. in event of any of the above courses being adopted by the superintending the contractor shall have no claim to companion for any loss sustained by him by reason of his having purchased or procured any materials or entered in to 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 incase the

contract shall be rescinded under the provision aforesaid, the contractor shall not be entailed to recover or repaid any sum for any work thereof 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 table in respect thereof. and he shall only be entailed to be paid the value of so certified .

Iv . Security deposit of the contractor shall be refunded only one year after the date of completion of the 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 have become exercisable and the same shall not be exercised, the non exercise thereof shall not constitute a waiver of any of the conditions in the event any further here of and such powers shall notwithstanding be exercisable in the event of any future case default by the contractor of which by any clause or clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractors 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 preceding clause may be if he so desires take position off all or any tools plants, materials and stores in or upon the works or the site thereof or belonging to the contractor of procured by him and intended to be used for execution for the work or any part thereof. Paying allowing for the same in the account at the contract rates or encase of the not being applicable at current market rates to be certified by the Superintending engineer whose certificate thereof shall be final, otherwise the Superintending Engineer may be noticed in writing to the contractor or his clerk f the works, foreman or other authorised agents require him to remove such tools plants materials or stores from the premises , ( with in a time to be specified in such notice) and in the event of the contractor failing to comply with any such requisition, the Superintending Engineer may removed 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 any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Contractor remains liable to repay compensation if action not taken under clause -6 power to take possession of or required removal of or sell contractors plants.

**Clause-4** If the contractor shall desire an extension of the time for completion of the work, on the ground of his having been unavoidably hindered 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 grounds be shown therefore, authorise 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. In case where the sanction of higher authority to grant extension of time is necessary, the Superintending Engineer will send his recommendation to higher authority. If the order of the competent authority is not received within 60 days from the date of receipt of recommendation of the Superintending Engineer, the Superintending Engineer shall grant extension of time under intimation to the concerned authorities so that the contract shall remain in force, but while communicating this extension of time he must inform the contractor that extension is granted without prejudice to Government's right to levy compensation under relevant clause of the Agreement.

Extension of time

**Clause 5** - On completion of the work, the contractor shall be furnished with a certificate by the Superintending Engineer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate be given nor shall the work be considered to be completed until the contractor shall have removed from the area of the 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 cleared 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 Department of Water Resources in accordance with the rules of the department whose measurements shall be binding and conclusive against the contractor, if the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding surplus materials and rubbish and cleaning off dirt on or before the date fixed for the completion of the work, the Engineer-in-charge may at the expense of the contractor remove such scaffoldings surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forthwith 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.

Final certificate

**Sub-Clause to Clause - 5 :** If in the opinion of the Engineer-in-charge which shall be final and binding on the contractor occupation or utilisation of a portion of the, completed in no way interferes with the progress of a rest of the work the same may be occupied or utilised by or on behalf of the Government under the written order of the Engineer-in-Charge. This will not impede the right of the Engineer-in-charge to get the defects if any rectified by the contractor at his (Contractors) own cost within one year from the date of completion of the whole work provided that the contractor will not be allowed any connection either in the shape of extension of stipulated period or any other monetary compensation on account of such occupation or use

Clause 6- All 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 having the same verified and the claim as far as admissible, adjusted, if possible, before the expiry of ten days from the presentation of the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge or his subordinate shall measure up the said work in the presence of the contractor whose countersignature to the measurement list will be sufficient warrant, and the Engineer-in-charge or his subordinate shall prepare a bill from such list which shall be binding on the contractor in all respects. Provided that, if any balance of the 10% security is outstanding from each such payment shall be deducted so much, not exceeding 5% as may be necessary to make up the balance of the security. All such intermediate payments to the contractor shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskillful work to be removed and taken away and reconstructed or erected , or any part thereof in any respect, or the accrual of any claim nor shall it conclude, determine, or effect in any way the powers of the Engineer-in-charge under these conditions or any of them as to the final settlement or adjustment of the accounts or otherwise or in any other way vary or affect the contract.

Payment on intermediate certificate be regarded as advances and bill to be submitted monthly

**Clause - 7** The final bill shall be prepared by the officers of the Department of Water Resources in accordance with the rules of the Department in the presence of the contractor within one month of the date fixed for completion of the work.

**Clause 8-** Stores supplied by the Government

Deleted

**Clause - 9** The contractor shall have to procure all materials (including cement and steel as per G.O. No.48443/ F Code – 46/ 95 dt: 11.12.1995 with effect from 01.04.1996) at his own cost as required and got it tested and approved as per relevant clauses of the contract before use

All materials to be procured by the contractor

**Clause - 10:** The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner, and both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also confirm exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-Charge and lodged in his office, and to which the contractor shall be entitled to have access at such office, for the purpose of inspection during office hour and the contractor shall, if he so requires, be entitled at his own expenses to make or cause to be made copies of the specification, and of all such designs, drawings and instructions as aforesaid.

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

**Clause -11**The Engineer-in-Charge shall have power to make any alterations in or additions to the original specifications, drawings, designs and instructions that may appear to him necessary and advisable during the progress of work and the contractor shall be bound to carry out the work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. The time for Rates of work not in estimate or schedule of rates of the district. the completion of the work shall be extended in the proportion that the additional work differs to the original contract work and the certificate of the Engineer-in-Charge shall be conclusive as to, such proportion. And if the additional work includes any class of work, for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the sanctioned schedule of rates of the locality during the period when the work is being carried on and if such last mentioned class of work is not entered on the schedule of rates of the district, then the contractor shall within seven days of the date of his receipt of the order to carry out the work inform the Engineer-in-Charge of the rate which it is his intension to charge for such class of work, and if the Engineer-in-Charge does not agree to this rate he shall by notice in writing be at liberty to cancel his order to carry out such class of work and arrange to carry it out in such manner as he may consider advisable. No deviations from the specification stipulated in the contract or additional items of work shall ordinarily be carried out by the contractor, nor shall any altered, additional or substituted work be carried out by him, unless the rates of the substituted, altered or additional items have been approved and fixed in writing by the Engineer-in-Charge. The contractor shall be bound to submit his claim for any additional work done during any month on or before the 15th day of the following month accompanied by a copy of the

Do not invalidate contractor

Extension of time in consequence of alternation

Rates of the works not in estimate or schedule of rates of the districts,

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 or incur any expenditure in regard thereof before the rates shall have been determined as lastly herein before mentioned, in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rates as aforesaid according to such rates as shall be fixed by the Engineer-in-Charge. In the event of a dispute, the decision of the Addl. Chief Engineer of the Circle will be final.

**Clause - 12:** If at any time after the commencement of the work the Governor of Orissa shall for any reason whatsoever not required the whole thereof as specified in the tender to be carried out, the Engineer-in-Charge shall give notice in writing of the fact to the contractor who compensation whatsoever on account of any profit or advantage, which he might have derived from the execution of the work in full which he did not derive in consequence of the full amount of the work not having been carried out neither shall he have any claim for compensation by reason of any alterations having been made in the original specification drawings, designs and instruction which shall involve any curtailment of the work as originally contemplated.

**Clause -13:** If it shall appear to the Engineer-in-charge or his subordinate-in-charge of the work, that any work, that any work has been executed with unsound imperfect or Action and compensation payable in case of bad work. unskillful workmanship or with materials of any inferior description, or that any materials or articles provided by him for the execution of the work are unsound or of a quality inferior to that contracted for or otherwise not in accordance with the contract, the contractor, shall on demand in writing from the Engineer-in-Charge specifying the work, materials or articles complained of notwithstanding that the same may have been inadvertently passed certified and paid for, forthwith rectify or remove and reconstruct the work so specified in whole or in part, as the case may require or as the case may be, remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in his demand aforesaid, then the contractor shall be liable to pay compensation at the rate of one percent on the amount of the estimate for every day not exceeding ten days, while his failure to do so shall continue and in the case of any such failure the Engineer - in -charge may rectify or remove, and re-execute the work or remove and replace with others, the materials or articles complained of as the case may be at the risk and expense in all respects of the contractor. Work to be open for inspection. Contractor or responsible Agents to be present.

**Clause - 14:** All work under or in course of execution or executed in pursuance of the contract shall at all times be opened to the inspection and supervision of the Engineer - in-charge and his subordinates and the contractor shall at all times during the usual working hours, and at all other times at which reasonable notice of the intention of the Engineer -

**No compensation alternation in or restriction of work to be carried out**

**Auction and compensation payable in case of the work.**

**Work to be open for inspection**

Contractor or responsible agents to be present.

in-charge or his subordinate to visit the works shall have been given to the contractor either himself be present to receive orders and instruction, or have a responsible agent duly accredited in writing, present for that purposes. 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.

**Clause -15:** The contractor shall give not less than five days notice in writing to Engineer-in-charge or his subordinate -in charge of the work before covering up or otherwise 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 place beyond the reach of measurement, any work without the consent in writing of the Engineer in charge or his subordinate - in charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained,, the same shall be uncovered at the contractor's expense, or in default thereof no payment or allowance shall be made for such work of the materials with which same was executed.

**Clause-16** 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, fence, enclosure, or grass land or cultivated ground continuous to the premises on which the work of any part of it is being executed or if any damages shall happen to the work while in progress, from any cause whatever or any imperfection became apparent in it within three 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 to be made good by other workmen and deduct the expenses (of which the certificate of the Engineer in-Charge shall be final) from any sums that may be then, or at any time thereafter may become due to the contractor, or from his security deposit or the proceeds of sale thereof, or of a sufficient portion there of and the contractor shall be liable to pay any part of the expenses not so recovered by the Engineer-in-charge.

**Clause-17** 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 -charges 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 to 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 be 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 works, and counting, weighing and assisting in the measurement of examination at any time and from time to time of the work or the materials. Failing him so doing the same may be provided by the Engineer-in-Charge at the expense of the contractor under the contract or from his security deposit or the

Notice to be given before work is covered up

Contractor is liable for damages to the work and for perfection with in three months of final certificate.

Contractor to supply plant ladders, scaffolding, etc. and is also liable for damages arising from non – provision of lights, fencing etc.

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 defense of every suit, action or other proceedings at law that may be brought any person for injury sustained owing to neglect of the above precautions, and to pay damages and cost which may be awarded in any such suit, action or proceedings to any such person or which may with the consent or the contractor be paid to compromise any claim by any such person.

**Clause-18.** No female labourer shall be employed within the limits of a cantonment. And is liable for damages arising from non-provision of light fencing etc. The contractor shall not employ for the purpose of this contract any person who is below the age of Fourteen years, and shall pay to each labourer for the work done by such labourer, wages not less than the wages paid for similar work in the neighbourhood. The SUPERINTENDING ENGINEER shall have the right to enquire into and decide any complaint 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.

**Explanation-** Fair wages means wages whether for time of piece work prescribed by the State DOWR provided that where higher rates have been prescribed under the minimum wages Act. 1948 wages at such higher rates would constitute Fair Wages. paid by the contractor to any labour for the work done by such labour 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 any 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:-19** The contractor 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 to do so or become insolvent or commence any insolvency, proceedings or make any composition with his creditor or attempt to do so or if any bribe, gratuity, gift, loan, perquisite reward, or advance, pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor, or any of his servants or agents to any public officer or persons in the employ of Government in any way relating to his office employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the SUPERINTENDING ENGINEER may there upon by notice 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 ensue if he contract had been rescinded under the clause 2 thereof, and in addition the contractor, shall not be entitled to recover or be paid for any work thereto for actually performed under the contract.

**Clause-20** 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

Work not to be sublet contract may be rescinded and security deposit forfeited for subletting bribing or if contractor becomes in solvent.

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

**Clause-21** In the case of a tender by partners, any change in the constitution of the firm shall be forth with 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 by notice in writing rescind the contracts and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of hereof, and in addition the contractor shall not be entitled to recover or be paid for any works therefore actually performed under the under the contract.

**Changes in constitution of firm**

**Clause 22** All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Superintending Engineer of the Circle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on

**Clause 23** Price escalation clause as applicable vide office memorandum No 15847 dated 19.11.2019 of Works Department

**Clause 24** When the estimate on which a tender is **Lump sums in estimate**, made includes lump sums in respect of parts of the work the contractor shall be entitled to payment In respect of the Items of work involved or the part of the work in question at the same rates as are payable under this contract for 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-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 sum or sums payable to him under the provisions of this Clause

**Lump sums in estimate**

**Clause 25** In the case of any class of work for which there is no such specification as is mentioned in the rule I, such work shall be carried out in accordance with Circle specification and in the event of there being no circle specification, then in such case the work shall be carried out in all respect in accordance with the instructions and requirements of the Engineer-in charge.

**Clause 26** 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, and taken to mean the works by or by virtue of the contract contracted to be executed, whether temporary or permanent, and whether original, altered, substituted or additional

**Clause - 27** Government shall be entitled to recover in full from the contractor any amount that the Government may be liable to pay under Workman’s compensation Act VII of 1923 to any workman employed in course of execution of any part of the work covered by these contract.

**Clause - 28** That the purpose of jurisdiction in the event 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 of agreement will be competent to bring a suit in regard to the matters covered by this contract at any place outside the state of Odisha.

**Clause - 29** 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 - 30** : Sanitary arrangements will be made by the contractor at his own cost for his labour camp.

ANNEXURE-A

**Clause 31 :- Price Adjustment**

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 principles and procedures and as per formula given in following Paras.

(a) The price adjustment shall apply for the work done from the start date given in the contract data up to end of the initial intended completion date 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 costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs

The formula (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:

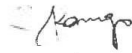
$$V_M = 0.85 \times P_m / 100 \times R \times (M_1 - M_0) / M_0$$

$V_M$  = 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.

  
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**31(a)(iv): Adjustment of 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 the rate for bitumen.

$B_0$  = 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 of Bids.

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

$P_b$  = Percentage of bitumen component of the work

**31(a)(v): Adjustment towards differential cost of Pipes.**

Price adjustment for increase or decrease in 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 Whole sale 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 Whole sale 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.

*S. K. Singh*

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### 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.

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

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

$P_l$  = 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 the rates for fuel and lubricants.

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

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

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

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

*Stamp*  
18/11/19

**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 the rates for plant and machinery spares
- $P_0$ . The all India wholesale price index for manufacture of machinery for mining, quarrying and construction on 28 days preceding the date of opening of Bids as published by the Ministry of Commerce and Industry, Government of India, New Delhi.
- $P_1$ . The all India wholesale price index for manufacture of machinery for mining, quarrying and construction for the month under consideration as published by the Ministry of Commerce and Industry, Government of India, New Delhi.
- $P_p$ - Percentage of plant and machinery spares component of the work

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

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

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

*S. K. Singh*  
18.11.19

**31(e): APPLICATION OF ESCALATION CLAUSE:**

The contractor shall for the purpose of availing reimbursement/refund of differential cost of steel, bitumen, cement, pipe, POL and wages, keep such books of account and other documents as are necessary to show that the amount of increase claimed or reduction available and shall allow inspection of the same by a duly authorized representative of Government and further, shall at the request of the Engineer-in-Charge, furnish documents to be verified in such a manner as the Engineer-in-Charge may require any document and information kept. The contractor shall within a reasonable time of 15 days of his becoming aware of any 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**

SI No.	Category of works		% Component (cost wise)		
			Labour (P <sub>l</sub> )	POL (P <sub>i</sub> )	Steel (P <sub>s</sub> ) + Cement (P <sub>c</sub> ) + Bitumen (P <sub>b</sub> ) + Pipes (P <sub>pi</sub> ) + Plant & Machinery Spare & Component (P <sub>p</sub> ) + Other Materials*
1	R&B works (% of component)	Road Works	5	5	90
		Bridge works	5	5	90
		Building works	5	5	90
2	Irrigation works (% of component)	Structural work	5	5	90
		Earth, Canal & Embankment work	5	5	90
3	P.H. Work	Structural work	5	5	90
		Pipeline Work	5	5	Pipe- 70% *Machinery + Other material -20%
		Sewer Line	5	5	Pipe- 70% *Machinery + Other material -20%

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

*S. K. Singh*  
14.11.19

**Appendix to Bid  
Schedule of Adjustment Data**

[For all works, adjustment factor for Labour and POL shall be considered @ 5% each. Steel, Cement, Pipes, other Materials and Machinery shall contribute to 90% of Price Adjustment and shall be calculated for each work separately during preparation of estimate, shall be approved by the authority during technical sanction as a "Schedule of Adjustment Data" and shall form part of the Bid Document]

Cl. No-31 of F2/ P1 Contracts Sl. No	Index description	Source of index	Base value*	Base Date*	Weightage of Item**
31 (a)(i)	Other Materials	All India 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 of 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 Employee's State Insurance Department of Government of Odisha, India			5%
31 (c)	POL	Official retail price of HSD at nearest IOCL/ HPCL/ BPCL Consumer pump depot.			5%
31 (d)	Plant and Machinery	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.			
			Total		100%

\* Values to be filled up at the time of drawl of contract

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

*S. K. Singh*  
18-11-19

**Clause - 32** The contractor shall bear all taxes , Income tax, royalty, fair-weather charges, GST, labour cess and tollage etc., where necessary.

**Clause-33:** After the work is finished all surplus materials 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 the site.

### **FAIR WAGE CLAUSE**

**Clause -34 (a)** The Contractor shall not employ for the purpose of this Contract any person who is below the age of fourteen years and shall pay to each labourer for work done by such labourer's fair wages.

**Explanation:** "Fair wage" means wages, whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the Minimum Wages Act, 1948 wages at such higher rates should constitute fair wages.

- b) The Contractor shall, notwithstanding the provision 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 labourers had been immediately employed by him.
- c) In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all regulations made by Government in regard to payment of wages, wage period deductions from wages, recovery of wages not paid and deductions un-authorisely made, maintenance of wage register, wage cards publications of scale of wages and other terms of employment, inspection and submission of periodical returns on 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 the contractor, any sum required or estimated to be required for making good to the loss suffered by a worker or workers by reason of non-fulfillment of the conditions of the contract for the benefit of the 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-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 a part of this contract and any branch thereof shall branch of this contract.
- g) Under the provision of the minimum wages Act 1948 and the minimum wages (Central rules 1950) the contractor is bound to allow or cause to be allowed to the labourers directly or indirectly employed in

the work one day rest six days continues 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 same not paid on account of wages for weekly holiday to any labourers and pay the same to the persons entitled thereto from and money due to the contractor.

- h) The contractor shall at his own expenses provide or arrange for the provision of foot wear for labourer 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 & 19th 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 of the current month respectively, (1) the number of labourers employed by him on the work (2) their working hour (3) the wages paid to them (4) the accident that occurred during the said fortnight showing the circumstances under which they happened and the content of damage and injury caused by them and (5) the number of female workers who have allowed maternity benefit according to clause and the amount paid to them failing which the contractor shall be liable to pay to government a sum not exceeding Rs.50 for each default to materially incorrect statement. The decision of the SUPERINTENDING ENGINEER shall be final in deducting from any bill due to contractor amount levied a line.
- j) In respect of all labour, directly or indirectly employed in the works for 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 employed by the Orissa Public Works Department and its contractors. This will apply to work places having 50 or more workers.
- k) Maternity benefit rules for female workers employed by the contractor.

Leaves and pay during leaves shall be regulated as follows.

1. **Leave:- (i) In case of Delivery :-** Maternity leave not exceeding 8 weeks, 4 weeks upto and including the day of delivery and 4 weeks following that day.  
**(ii) In case of miscarriage :-**Upto 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 the women's average daily earnings calculated on the total wages earned on the days when full time work was done during the period of three months immediately preceding the date on which she gives notice that she expects to be confined.  
**(ii) In case of Miscarriage :-** Leave pay at the rate of average daily earning calculated on the total wages earned on the days when full time work done during a period of 3 months immediately preceding the date of such miscarriage.

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

### **MODEL RULES FOR HEALTH & SANITARY ARRANGEMENTS FOR WORKERS BY ODISHA PWD OR ITS CONTRACTORS**

1. **Application :-** These rules shall apply to all construction works 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 accessible place first aid appliances including an adequate supply of sterilizer dressings and sterilized cotton wool. The appliance 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 work, First Aid Posts shall be established and be 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 the city or town hospitals, an ambulance shall be provided to facilitate removal of urgent cases to these hospitals. At other work places, some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken seriously ill to the nearest hospitals.
4. **Drinking Water :-**(a) In every work place, 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 or storage shall be at a distance of not less than 15M, (50 feet) from any latrine, drain or other sources of pollution. Where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.  
(d) A reliable pump shall be fitted to each covered well the trap doors 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 places :-** (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 No of seats 1 does not exceed 50.

(b) Where the number of persons employed      No of seats 3      exceeds    50  
but does not exceed 100

(c) For every additional 100      No of seats 3 per 100

(In particular cases the SUPERINTENDING ENGINEER shall have the power to verify the scale where necessary)

7. **Latrines and Urinals for Women :** - If women are employed, separate latrines and urinals separate from that for men and marked in the vernacular in conspicuous letter “For Women Only “ shall be provided on the scale laid in these rules.

Those for men shall be similarly marked “For Men Only”. A poster showing the figure of a man or woman, 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 and urinals connected with water born sewerage system, all latrines shall be provided with receptacles 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 receptacles 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 stones 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, arrangement for proper disposal of excreta by incineration at the work place shall be made by means of suitable incinerator approved by Asst. Director of Public Health or Municipal Medical Officer or Health Officer as the case may be, in 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 a layer of waste refuse and then covering it up with 6 inch layer of earth for a fortnight when it will turn into manure.

11. **Provision of shelters during rest :-** At every work place, there shall be provided free of cost two suitable shades one for meals and the other for rest for use of labourers. The height of the shelter shall not be less than 3.30 M (11 feet) from the floor level to the lowest part of roof.

12. **Creche :-** (a) At every work place at which more than 50 women workers are employed, there shall be provided one hut for the use of children under the age of 6 years, belonging to such women and shall be used for infants games and play and their bed room. The hut shall not be constructed on a lower standard than the following.

i. Thatched roofs

ii. Mud floors and walls

iii. Planks spread over the mud floor and covered with matting

The hut shall be provided with suitable and sufficient opening for light and ventilation. There shall be adequate provision for sweepers to keep the place clean. There shall be two dhais as attendant. Sanitary utensils 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 attendant and mothers of children.

(b) Where the number of women workers is more than 50, the contractor shall provide one hut and one dhai to look after the children of women workers.

- (c) The size of crèche shall vary according to the number of women workers.
  - (d) The crèche shall be properly maintained and necessary equipment 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.

## **ODISHA P.W.D. / ELECTRICITY DEPARTMENT CONTRACTOR'S LABOUR REGULATIONS**

1. **Short title** : These regulations may be called “ The Odisha Public Works Department / Electricity Department contractors Regulations.”
2. **Definitions** : In these Regulations unless otherwise expressed or indicated the following words and expression shall have the meaning hereby assigned to them respectively, that is to say.
  1. “Labour” means workers employed by a contractor of the Odisha Public Work Department / Electrical Department directly / indirectly through a sub – contractor or other person, or by an agent on his behalf.
  2. “Fair Wages” means wages whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the Minimum Wages Act, 1948 wages at such higher rates should constitute fair wages.
  3. “Contractor “shall include every person whether a sub contractor or headman or agent employing labour on the work taken on contract.
  4. ‘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 notice regarding wages, etc.:-**
  - (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 conspicuous place on the work, notices in English and in the local Indian language spoken by the majority of the workers, giving the rate of wage prescribed by the State Public Works Department/ Electricity Department for the district in which the work is done.
  - (b) Send a copy of such notices to the Engineer – in – charge of the work.
4. **Payment of wages:-**
  1. Wages due to every worker shall be paid to him direct.
  2. All wages shall have to be paid in current coin or currency or in both.
5. **Fixation of wage period :-**
  1. The contractor shall fix the wage period in respect of which the wages be payable.

2. No wage period shall exceed one month.
3. Wages 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.
4. 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.
5. All payments of wages shall be made on working day.

**6. Wage book and wage cards etc.**

1. The contractor shall maintain a Wage book of each worker in such form 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 case on 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, wage cards to a contractor who in his opinion may not directly or indirectly employ more than 100 persons on the work.

**7. Fines and deductions which may be made from wages:-**

1. The wages of a worker shall be paid to him without any deduction of any kind except the following.
  - (a) Fines
  - (b) Deduction for absence from duty, i.e. from the place or places where by the 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 or loss of goods expressly entrusted to the employed person for custody, or for loss of money for which he is required to account where such damage or loss is directly attributable to his neglect or default.
  - (d) Any other deductions which the 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 for showing cause against such fines or deduction.
3. The total amount of fines which may be imposed in anyone wage period on a work shall not exceed an 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 or 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 deductions 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 or fine can be imposed. It shall display such list and maintain it in clean and eligible condition in conspicuous places of the work.

**9. Preservation of register:-**

The wage registers, the wage cards and the register of fines, deductions 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 inquiry:-**

The Labour Welfare Officer or any other persons authorised 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 provisions of the 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 Officer:-**

The Labour Welfare Officer or other authorised as aforesaid shall submit a report of the result of his investigation or enquiry to the SUPERINTENDING ENGINEER concerned indicating the extent, if any, to which the default has been committed with a note that necessary deduction from the contractor's bill be made and the wages and the other dues be paid to the labourers concerned.

**12. Appeal against the decision of Labour Welfare Officer :**

Any person aggrieved by the decision and recommendation of the Labour Welfare Officer or other person so authorised may appeal against such decision to the Labour Commissioner within 30 days from the date of decision forwarding simultaneously a copy of his 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 the wage book and wage cards to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Labour Commissioner or any other person authorised by the Government of Odisha on his behalf.

**14. Submission of return:-**

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

**15. Amendment:-**

Government of Odisha may from time to time, add to or amend these regulation. On any question as to the application, interpretation of effect of these regulations, the decision of the Labour Commissioner or any other person authorised by the Govt. of Odisha in that behalf shall be final.

**The terms and conditions of the agreements have been read/ explained to me and ..... certify that ..... clearly understand them.**

**Clause - 16**

Price Escalation

Applicable as per Office memorandum No 15847 dated

19.11.2019 of Works department, Govt of Odisha

**Clause-17:** After the work is finished all surplus materials 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 the site at least 100m away from the site.

**Clause -18 :**The royalty of materials will be recovered from the work bill in case of failure of production of proper receipt from quarry Holder or Revenue Department after proper verification from Concerned Tahasildar.

**Clause -19:** Amount. Specified may vary and the work will be taken up as per availability of funds No claim what-so-ever in this regard will be entertained.

**Clause-20: (a)** The earth work quantity will be assessed from cross section taken at suitable intervals as decided by the **SUPERINTENDING ENGINEER, Nabarangpur Irrigation Division, Nabarangpur** initial levels will be taken with reference to bench marks, which should be kept at site till finalization of their contract. The initial cross section papers should be signed by both the parties before starting earth work. The final cross section of the embankment in filling reaches when finished to designed section will be taken for each portion of embankments and plotted over the initial level section to ascertain the final quantity to be arrived by deducting necessary settlement allowance. The measurement for earth work should be at 30 M or at closer grid. **(b)** Stone to be excavated shall be measured in solid normally, but if the site condition do not permit solid measurement as assessed by the Engineer-in-Charge due to a mixture of various rock in the particular location, stack measurement will be taken at the direction of the Engineer-in-charge from the stacks to be measured. Deduction shall be made for voids at 40 % minimum for closely packed stacks subject to increase in percentage according to the nature of compactness in stacking. No consideration will be given to any adverse condition by the contractor in his tender.

**(c)** Rubble stones, boulders, rough stones, soling stones are measured by volume of closely packed stacks 1/6th volume for voids shall normally be deducted from closely packed sacks percentage of void shall be determined an actual observation and deducted.

**(d)** 12 ½ voids shall be deducted from metal and moorum stacks. The box of size 1.5m X 1.5m X 0.5 m to be measured as 1.5m X 1.5m X 0.44 = 1 cum. Similar measurement to be adopted for gravel stacks also and voids deducted. The rates are excluding voids.

**Clause-21:** Curing of all cement works will be done by the contractor as per instruction of the Engineer-in-charge at his own cost.

**Clause-22:** Dewatering of any magnitude either of excavation of foundation to finished section and laying concrete or masonry work or any structure when and wherever necessary during complete execution period will have to be done by the contractor at his own cost. This is treated to be inclusive of his tendered rate.

**Clause-23:** (a) The contractor should keep himself in constant touch with the Engineer-in-charge for smooth execution of work and arrange for adequate labourer depending on the work load and working place available. No claim for idle labour on any account will be entertained. (b) The contractor is fully responsible for safe guard of the Govt. property entrusted to him.

**Clause-24:** No extension of time shall be allowed to the contractor, however it may be considered in case of exigencies like natural calamities only. The extension of time may be allowed if authority feels necessary. But no claim for monetary compensation will be entertained under any circumstances.

**Clause-25:** After completion of the work the contractor shall arrange at his own cost all requisite equipments and labour for testing the work and bear the entire cost of such test.

**Clause-26:** All correspondence with the tenderer will be made through post in the address given in the tender. The tenderer must mention in the tender, his correct postal address where letters can be delivered to him. The department will not held responsible for non receipt of any letter by the tenderer either for wrong address given by him or for his absence from the given address.

**Clause-27:** Any jungle clearance needed for borrowing earth beyond the toe of the embankment beyond the excavation limits is the responsibility of the contractor and no extra payment will be made.

**Clause-28:** Earth work beyond the theoretical designed will not be paid for.

**Clause-29:** Construction of coffer dams or islands or the works of open excavation or dressing required for construction of structure and approach drain should be included in the rates. **Clause-30:** The contractor should take all precautions to protect the structures from flood damages at his own cost during the period of execution. Damages if any caused by the probable flood during monsoon till completion and handing over of entire work will be made by the contractor at his own cost.

**Clause-31:** By submitting a tender for the tenderer will be deemed to have satisfied himself by actual inspection of the site/quarry and locality of the work about the quality and availability of the required quantity of materials including medical aids, labour and food stuff etc. and that the rates quoted by his in the tender will be adequate to complete the work according to the specification 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, octroi 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 sub-ordinates. After acceptance of the contractor rates Govt. will not pay any extra charges for any reason in case the contractor is found later on to have misjudged in conditions as regards availability of materials, labour or any other factors, it

should be understood clearly that no claim whatsoever will be entertained afterwards on the plea of non-availability of proper quantity of materials including food stuff or any other cause.

**Clause-32:** It shall be distinctly understood that it is entirely the responsibility of the contractor to make such arrangement as may be required from time to time to protect the men, machinery, materials and the work under progress and work for which the measurements were recorded and a payment made.

**Clause-33:** The embankment slopes and banks will be maintained by the contractor till the final payment is made and any rain cuts, sides settlements that would occur should be made good by him at his own cost without any claim.

**Clause-34:** (a) There will not be any compensation or extension of time granted for reason of adequate cash flow.

(b) Works could be suspended depending on availability of funds and no compensation will be admissible on this accord except sanctions of extra time.

(c) No compensation / claim for delay in sanction of deviation / extra items and payment thereof will be admissible to contractor.

**Clause-35:** The contractor shall be responsible for compensation of any injury to his workman under workman's compensation Act.

**Clause-36:** In case of down loaded tenders received with any addition, alternation & deletion, the approved tender documents available with the SUPERINTENDING ENGINEER is binding.

### **ADDENDUM TO CONDITION OF CONTRACT.**

#### **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 2 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, 1/4th of the whole of the work before 1/4th of the whole time allowed under the contract has elapsed, 1/2 of the whole of the work before 1/2 of the whole time allowed under the contract has elapsed, 3/4th of the whole of the work before 3/4th of the whole time allowed under the contract has elapsed.

**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 the Engineer-in-charge a revised programme showing the modifications 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 hold 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 dues programme has been submitted.

**2.1.5** An update of the programme shall be a programme showing the act all 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 after the contractor's obligations. The contractor may revise the programme 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 contract data shall be theessence 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 issue 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 and 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 indicates the forecast of the dates of commencement and completion of various trades of section of the work and may be amended as necessary by agreement between the Engineer-in-charge and the Contractor within the limitation 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 therefore 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. i. War, ii. Abnormally bad weather or –  
iii) Serious loss or damage by fire or iv) Civil commotion, local commotion of workmen, strike or lockout, officers any of the heads employed on the work or v) Delay on the part of other contractors or tradesmen engaged by Engineer-in-charge, in executing work not forming part of the contract. vi) 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 vii) Any other cause, which, in the absolute discretion of the authority mentioned, in contract date 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 within 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 complied day /month ( as applicable) that the progress remains below that specified in clause 2 or that the work remains incomplete. This will also apply to items or group of items for which a separate period of completion has been specified compensation @1. 5% per month for delay of work, delay to be computed on per day basis. 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 item of work for which a separate period of completion is originally given. The amount of compensation may be adjusted or set off against any sum payable to the contractor under this or any other contract with the Government. in case the contractor does not achieve a particular milestone mentioned in contract date, or the rescheduled milestone(s) in terms 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 to 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 fails to make up for the delay in subsequent milestone(s) amount mentioned against such milestone missed subsequently also shall be withheld. However no interest, whatsoever, shall be payable on such withheld amount.

## **2.4 Bonus for early completion.**

**2.4.1** 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 days of such completion by the conceded SE, CE & the Administrative Department. The incentive for timely completion should be on a graduated scale of one percent to 10 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% of Contract Value

Before 10% to 20% of contract period=3% of Contract Value

Before 5 to 10% of contract period=2% of Contract Value

Before

5% of contract period=1% of Contract Value

Incentive will be paid with approval of next higher authority of tender accepting authority on completion of original work before original time schedule.

## **2.5 Management of Meetings.**

**2.5.1** 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.

**2.5.2** The Engineer shall record the business of management meetings and is 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 at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

## **2.6 Percentage rate Contract**

- (i)** In percentage rate contract the schedule of quantities shall mention estimated rate of such item and amount thereof. The contractor has to mention the percentage excess or less over the estimated cost (in figures as well as words) in the prescribed format appended to the tender document.
- (ii)** The percentage rate contract may be named as **P-1**. In this form **time is the essence**.
- (iii)** The contractor is required to maintain a certain rate of progress specified in the contract. The contract can also be terminated with penalty when the progress of work is not as per the condition of contract. The quantity mentioned can be increased or reduced to the extent of 10% for individual items, subject to a maximum of 5% over the estimated cost. If it exceeds the limit stated above prior approval of competent authority is mandatory before making any payment.

The period of completion is fixed and can not be altered except in case of exceptional circumstances with due approval of next higher authority.

- (iv) In this form of tender, only percentage quoted by the contractor shall be considered. Percentage quoted by the contractor shall be accurately filled in figures and words, so that there is no discrepancy. If any discrepancy is found in the percentage quoted in words and figures, then the percentage quoted by the contractor in words shall be taken as correct. If any discrepancy is found in the percentage quoted in percentage excess/less and total rate quoted by the contractor, then percentage will be taken as correct. The percentage quoted in the tender without mentioning excess or less and not supported with the corresponding amount will be treated as excess. The contractor will write **percentage excess/less upto two decimal point only**. If he writes percentage excess/less upto two or more decimal points, the first decimal point shall only be considered without rounding off. Where the contractor has omitted to quote the rates either in figures and words, the officer opening the tender should record the omission.
- (v) Bills for the percentage rate tender s shall be prepared at the estimated rates for individual items only and the percentage excess or less shall be added or subtracted from the gross amount of the bill.

RELEVANT PROVISION IN THIS CONTRACT STANDS MODIFIED ACCORDINGLY.

## **SPECIAL CONDITION OF CONTRACT**

### **1. DEFINITIONS**

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

- a) **Approved/Approval-** Means approved in writing.
- b) **Construction Plant-** Means all equipments, appliances or things of whatsoever nature required for the executing, or completion, maintenance of the works or temporary works but does not include materials or other things intended to form or forming part of the permanent work.
- c) **Contract** - Means the instruction and information for tenderers General and Special conditions of the contract, Technical specification, drawings, tender (including the schedule of quantities and tender prices) the formal agreement and all agenda and attachment related to the above.
- d) **Contractor-** Means the particular person, firm or Corporation with whom the contract has been made for executing the work.
- e) **Drawing** - Means the drawings referred to in the specifications, any modifications of such drawings approved in writing by the Engineer-in - charge and such other drawings as may from time to time be furnished or approved in writing by the Engineer-in-charge.
- f) **Engineer-in-charge** - Means the SUPERINTENDING ENGINEER, in-charge of the work specified or parts of the works under the contract, or such other departmental assistants or sub-ordinates to whom the SUPERINTENDING ENGINEER, in-charge may have delegated certain duties, acting separately within the scope of the particular duties entrusted to them.

- g) **Government** - Means Government of Orissa, Department of Water Resources.
- h) **I.S.S./B.I.S.** - Means Indian Standard Specifications/Bureau of Indian Standard.
- i) **Temporary works** - Means all temporary works of every kind required for the performance of the contract.
- j) **Specification** - Whenever the terms “ Specification “ is used, apart from a specified standard specification, it shall mean the specification or plan prepared for a particular site as instructed to the contractor in executing that item of work.

## **2 EARNEST MONEY DEPOSIT.**

- i) Tenderers including Govt. undertakings are required to deposit earnest money @ **1%** of the amount put to tender. ii) In case the contractor proposes to engage machineries and equipments as asked for in the tender document owned or hired but deployed outside the State, he /she is required to furnish additional 1% EMD as bid security. The entire bid security including the additional bid security shall stand forfeited in case the contractor fails to mobilize the machineries with stipulated time as per the tender document.
- iii) The bidder shall transfer online the Earnest Money deposited/ Bid security of the amount specified for the work as part of bid through a process as mentioned in Office memorandum No 17254 dated 05.12.2017 of Works Department.

## **3 TAX CERTIFICATES:**

The tenderers are also required to furnish Xerox/attested copy of the valid PAN CARD, ITCC (if any), GSTN along with tender documents failing which the tender may not be considered. The original are to be shown as mentioned in the NIT. The bidders registered out side the State are required to submit an undertaking in the form of an affidavit that they are not registered under the GSTN Act in the state of Orissa as they have not started any business in the state and they have no liability under the act. But Bidder has to produce GSTN certificate before signing of the agreement.

## **4 TIME OF COMPLETION:**

The work is to be completed within **02 (Two) month** including monsoon commencing from the date of issue of order to proceed with the work.

## **5. PRE BID INSPECTION BY CONTRACTORS:**

The tenderers are required to go through each clause of PWD Form carefully in addition to clause mentioned herein before tendering. In any case the tenderer shall be deemed to have carefully examined the tender documents visited the site of work and it's surroundings and satisfied himself as the form and nature of the site approach roads, haul roads, local conditions in general and particularly about the availability of the construction materials, electricity supply, water supply, storage and handling of materials, road communication etc. including requirement and availability of labour and materials needed from complete execution of the work and made an inventory of such information as to the risks,

contingencies and other circumstances which would influence or effect his tender before tendering. He should also satisfy himself about the sufficiency of availability of materials in quarry and borrow area. The Department will not be responsible for any misjudgment of the tender on the account for any future claims.

## **6. VALIDITY OF TENDER:**

- 6.1** The tenderer must furnish copy of Registration Certificate, GSTN certificate, PAN Card / Affidavit as specified in NIT, other wise his/her bid shall be declared as non-responsible & shall be liable for rejection.
- 6.2** The rates quoted shall remain valid for a period of **90 (ninety) days** from the last date prescribed for receipt of tenders.
- 6.3** The tender which is not in the prescribed proforma and is not strictly in accordance with the terms and conditions of the tender call notice is liable for rejection.
- 6.4** Alternate tenders, conditional tenders and tenders containing indefinite terms will not be entertained. The tenders will be considered given special emphasis on the capability of the tenderer and the implements and earth moving machinery at his disposal for the work.
- 6.5** The percentagerate quoted should be for finished items of work and for sufficiency as per the description of the schedule of quantity and specification and shall include all taxes including rent , royalty cess and general and incidental charges pertinent to the work, other charges of materials, octroi duty, ferry tolls, conveyance charges and other costs on account of land and building including temporary building required by the tenderer for collection of materials storage, housing of staff or other purpose for the work. The tenderer must quote the percentage rate for the contract and tenders containing indefinite terms such as estimate rate, schedule of rate shall not be considered. The rates must be for finished items of work except GSTN , unless otherwise mentioned in the tender schedule.
- 6.6** The rates should be quoted in percentage less or excess up to one decimal.
- i) The tenderer shall bear cost of various incidental sundries and contingencies needed by the work of all within the following or similar category.
  - ii) Labour camps and hutments necessary to a suitable scale including contingency and sanitary arrangements medical aids thereon to the satisfaction of the health authorities.
  - iii) Water arrangements for laborer as well as for the works. No claim for carriage for water whatsoever will be entertained.
  - iv) Fees and dues levied by the Municipal and water supply Authorities.
  - v) Suitable equipment and wearing apparatus for the labors engaged in risky operation.
  - iv) Suitable fencing, barriers, signals, including parapet and electrical signal where necessary at works and approaches in order to protect the public and employees from accidents.

vii) No compensation for any damage done by rain or by similarly action during execution of the works shall be paid.

**6.7** The tender is to be decided as per prevailing codal provisions taking into consideration the capacity of the tenderer and equipment's available with him for the work. The authority reserves the right to reject any or all tenders without assigning any reason thereto.

**6.8** In order to qualify f or consideration for award of the contract the tenderer should satisfy the Bid criteria as stipulated in the technical Bid. To substantiate the tenderer is required to submit authentic records duly certified by the SUPERINTENDING ENGINEER of the Department in support of such experience.

**6.9** Rate to be quoted by the contractor for various items of work should be consistent and rational. Tenders with in consistent rates and / or speculative rates shall be liable for rejection.

**6.10** The payment for RA bill will be made in level section measurement and no string section measurement will be considered.

**6.11** All the tenderer are required to submit along with their tenders declaration about the names of their relatives employed in Water Resources Department in the prescribed proforma appended. In case they have no relation in Water Resources Department a certificate to that effect shall have to be furnished.

**6.12** An affidavit shall be furnished by the contractor at the time of submission of tender paper about the authentication of tender documents.

**6.13** The conditions in this detailed tender call notice will form part of the agreement to be drawn by the contractor.

## **7. AWARD OF CONTRACT**

**7.1** The tenderer whose tender is selected for acceptance shall within a period of fifteen days upon written intimation being given to him by Registered post deposit, initial security deposit so that the EMD and initial security deposit will be 2% (two percentage) +additional security 1% in case of machineries to be hired from outside, of the accepted tender amount and sign the agreement in the PWD Form for fulfillment of the contract in the office of the Engineer-in-charge. This initial security deposit together with the EMD and the amount of 5% deduction from each running bill as per the agreement shall be retained as security deposit for the fulfillment of this contract. This security deposit will carry no interest. Failure to enter into the required agreement and to pay the security deposit as above within the specified period shall entail forfeiture of the earnest money. No tender shall be finally accepted until the required amount of security money is deposited. The written agreement to be entered into between the Contractor and the Govt. shall be the foundation of the rights of both the parties and the contract shall be deemed to be incomplete until the agreement is first signed by the Contractor and then by the SUPERINTENDING ENGINEER, the department

will accept the initial security deposit in the accepted from prescribed in clauses as above pledged in favor of the Engineer-in -Charge and in no other form. The Security deposit deducted from each running bill will be 5%.If the contractor express his request in writing he will be permitted to convert the security deposit of 5% into interest bearing securities (for an amount not less than Rs. 10.00 lakh in each case which will be pledged in favour of the SUPERINTENDING ENGINEER) Successful bidder registered under other state government/MES/Railways/CPWD has to register under the State PWD before signing of the agreement.

**7.2** In case of delay in acquisition of land no compensation will be admissible but extension of time will be granted.

**7.3** The earnest money deposited by the unsuccessful tenderers will be refunded as per relevant rules in force.

**7.4** Super/Special Class contractors shall employ under him one Graduate Engineer and two Diploma holders belonging to the State of Orissa. Likewise an 'A' Class contractor shall employ under him one Graduate Engineer or two Diploma holders belonging to state of Orissa. The employment of such graduate Engineer and Diploma holders under the Contractor shall be full time and continuous and they shall not be superannuated, retired, dismissed or removed personnel from any State Government/Central Government Service / Public Sector Undertakings /Private companies and firm or be ineligible for appointment to Govt. 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 Govt. of Orissa.

The Chief Engineer Roads, Orissa may however assist the contractor with names of such unemployed Graduate Engineers and Diploma holders if the contractor seeks for such help. The name of such Engineering personnel appointed by the contractor who would be supervising the works should be intimated to the tender receiving authority along with each tender. Each bill of the contractor shall be accompanied by an employment roll of engineering personnel together with certificate of the Graduate Engineer or Diploma holder employed by the contractor to the effect that the work executed as per the bill has been supervised by him.

**7.5** No part of the contract shall be sublet without written permission of the Engineer-in-charge or any transfer be made by power of attorney authorizing others to receive payment on behalf of the contractor.

**7.6** No tenderer is permitted to furnish their tender in his own manuscript paper.

## **8.OBSERVATIONS OF LAWS AND LOCAL REGULATIONS ACCIDENTS AND SAFETY MEASURES:**

The Contractor shall observe all State and Local rules and regulations so far as they are relevant in controlling the operations involved carrying out the work and indemnify the Govt and employees of the Govt. against all suite losses, demands, actions, judgments and cost of every kind resulting from the commissions and omissions of the contractor and his employees in violation of the said rules and regulations.

- 7.7** Department for payment of the compensation under workmen's compensation act VI of 1923 on account of the workmen being employed by him and the full amount of compensation of awarded by any competent court of law to the workmen will be recovered from the contractor and will be paid to the workmen as per direction of the court.
- 7.8** The contractor shall have to abide by the Labour Laws and Rules in vogue and shall provide at his own cost housing, watering supply, sanitation, medical aid and other facilities to the labours engaged in the work as required under Labour Laws and Regulations. The Contractor shall not employ labour of minor age group.
- 7.9** The contractor shall have to abide by the safety code introduced by the Govt. of India, Ministry of works. Housing and supply in their standing order No.44 to 50 dated 25.11.57.
- 7.10** Blasting where required shall be taken up only when proper precaution have been taken for the protection of lives and property in accordance with I.S. 4081 – 1967 safety code for blasting and related drilling operations. Only persons licensed for and thoroughly conversant with the working methods and precaution to be observed in using explosives shall carry out blasting. To avoid the danger of injury from flaying debris, all personnel in a blasting area shall retreat to an adequate cover. While carrying out excavation adequate precautions in accordance with I.S. 3764 – 1966. Safety code for excavation works shall be taken for the safety of workers. The contractor shall have to abide by the blasting rules & regulations.
- 7.11** In case of any damage to Govt. or public property or to the property owned to any persons of firms or bodies due to negligence or any such action of the contractor resulting in damage or stoppage or work thereby, the contractor shall be liable to be penalized to the extent of the assessed value of the damage or the out turn lost.

## **8. CHANGE OF ADDRESS OF CONTRACTOR:**

The Contractor shall inform the Engineer and the Department any change of his postal address from time to time from the one given in the tender paper and authorize any person with due intimation to the Engineer-in-charge and the Department to receive instruction or communication from the Department on his behalf, failing which the said undelivered instructions and communications published in the notice

board of the Engineer-in-charge shall be treated to be intimation to the Contractor and the same shall be binding on him. All the correspondence should be made in English.

## **10 ARCHAEOLOGICAL FINDINGS**

The contractor shall deliver to the Engineer-in-charge all articles of archaeological importance as and when those are found in course of execution.

## **11. CONTEMPORARY CONTRACTORS**

The contractor shall take into consideration the needs and requirements of the other contractors if any, working in the vicinity during the tenure of his contract and shall neither take nor cause to be taken any steps or actions that may cause disruption disturbance to their work, labour or arrangements etc. Any action by the contractor that the Engineer-in-charge in his unquestioned direction may consider as infringement of the above would be considered as a breach of contract and he may take such action against the contractor as deemed fit.

## **12 TAXES:**

**a.** The rates quoted by the Contractor shall be deemed to include all taxes including royalties of all materials that the contractor will have to purchase for performances of this contract.

**b.** During the course of contract period payment of GST on works contract turn over at the source, shall be made from each bill at such rate and conditions as may be required under the provision of Orissa GSTN Act and Rules. **c. Income Tax:**

onepercent (1% + Surcharge on IT as applicable) of the gross amount of each ongoing account will be recovered from the contractor towards Income Tax (Provisional or as advised by Income Tax Department)

**d.** 1% of the gross amount of each R/A bills of the contractor will be deducted towards cess on works as amended from time to time

## **13. INTEREST:**

Under no circumstances interest is payable for dues of the Contractor if any lying unpaid or payable for the work.

## **14. PLANS AND DRAWINGS:**

The work has to be carried out in accordance with the Orissa detailed standard specification and relevant I.S. specification pertaining to the tendered items of work and specifications and special conditions appended here to Drawings will be supplied to the contractor to execute the work in general conformity therewith. These drawings will be supplemented by such additional, general and detail drawings or directions as may be considered necessary or desirable as the work progress. No claim will be entertained due to change of drawing. Where details shown on those drawings differ from the requirement of the

specifications, the requirement of the specifications shall govern and the contractor shall not work without proper drawings, direction and instructions. He shall check all drawings carefully and bring to the notice of the Engineer-in-charge any error and omissions and discovered, where upon the Engineer-in-charge shall prepare revised additional drawings and specifications as may be required. All such additional general and detailed drawings will be binding on the Contractor under the same terms and conditions as provided in clauses of P1 Agreement. The decision of the Engineer-in-charge with regards to specification is final, for which no compensation or claim will be entertained.

#### **15. CONSTRUCTION PROGRAMME:**

i) The contractor shall have to submit the construction programme i.e. the plan and programme of execution for completion of the work at the time of agreement to the Engineer-in-charge. The Engineer-in-charge shall have to approve the said construction programme by fixing a pragmatic mile stone with reference to the provisions laid down under clause 2(a) of the condition of the contract, for timely completion of the work and accordingly the work is required to be executed. ii) If the revised construction programme is required on account of non-completion of work for which Extension of Time is required or for disruption of the execution in the stipulated period, the contractor shall have to submit the same to the Engineer-in-charge along with the Extension of Time application, if extension of time is prayed for or immediately after disruption of the execution mentioning the clear reasons as the case may be, for revision of work programme. The decision of the Engineer-in-charge is final and binding on the contractor. The contractor shall arrange for additional shifts whenever necessary to suit the revised construction programme. No extra payment on this account is admissible. B. The contractor has to make adequate lighting arrangements for night works wherever necessary in fulfillment of the construction programme at his own cost and no extra payment on this account is admissible.

#### **16. AVAILABILITY OF LABOUR:**

Labour required for the work may not be available to the full extent in the locality. The contractor may have to import labour from outside. He shall arrange and regulate the labour strength according to necessity. The Department shall not entertain the claim for any idle labour whether or not at the fault of the contractor or due to any other reasons whatsoever. The contractor's item / Percentage rate in the tendered are deemed to have adequate coverage on account of import and employment of required labours and providing facilities and amenities to them.

#### **17. SUSPENSION OF WORK:**

The Engineer-in-charge may from time to time by written orders without in any way deviating the contract, direct the contractor to suspend the work or any part thereof at such time and the contractor shall not after receiving such written order proceed with the work or items thereof ordered to be suspended until he shall have received a written notice from the Engineer-in-charge to proceed with the work again. Should the work be ordered to be suspended directly in the interest of safety of the work due to acts of

God or major war or indirectly as a result of the contractor not complying with any of the provisions of the contract in respect of the quality of the materials, workmanship programmed of execution he shall not be entitled to claim any compensation for any loss he may be put to directly or indirectly for such suspension of work. During the period of suspension of the work the contractor shall properly protect and secure the works as necessary in the opinion of the Engineer-in-charge.

**18. ITEMS NOT COVERED IN THE SCHEDULE:**

The items of work not covered in the agreement shall be paid in the current schedule of rate of the State and those not covered by the said schedule of rates will be paid on actual analysis approved by competent authority.

**19. FORCE MAJOR:**

The contractor shall take all precautions to protect the work from damages due to rains, flood, cyclones, fire or by any other natural calamity, public agitation or riots etc and also make good such damage if any at his own cost during the period of execution and till the work is taken over by the Department. No compensation will be paid to the contractor on account of idle laborers due to above reason.

**20. TOOLS AND PLANT:**

The contractor should arrange necessary tools, plant and machineries for the efficient execution of work at his own cost and the rates quoted should be inclusive of such charges. The department may lend on hire some machinery for use in the work subject to their availability on terms and condition as shall be specified by the Department from time to time and after execution of necessary agreement. But on the plea of non supply of machineries by the Department, the works should not be delayed nor any compensation on such account is tenable nor will the contractor be eligible for any time extension on that score.

**21. HAUL ROADS:**

All haul roads to Borrow areas and quarries will be constructed and maintained by the contractor at his own cost. The roads so constructed shall be allowed to be used free of cost by agencies working in other reaches including Govt. Department unless other wise restricted by the Engineer-in-charge.

**22.a. DEPARTMENTAL STOCK MATERIALS: - DELETED-**

**22.b. MATERIALS SUPPLIED BY THE DEPARTMENT :**

No material can be supplied to the contractor as a principle as per the current policy of Govt. of Odisha vide G.O. No. 48443 / F dt.11.12.95 effective from 01.04.96. The contractor shall be responsible for procurement of all materials at his own cost and got it tested and approved as per the relevant clauses of the contract before use.

**DELETED**

**23. CONSTRUCTION SHEDS:**

Temporary structures may be erected by the contractor at his expenses for storage sheds, office, residence, labour hutments etc. on the land available with the Department with the permission of the Engineer-in-

charge. On completion of the work these structures should be dismantled and the site cleared and handed over to the Department.

**23.1.** In the event of delay in departmental supply of detailed structural designs for unavoidable reasons, reasonable extension of time will be granted on the application of the contractor. But no claim for monetary compensation will be entertained under any circumstances.

**23.2.** Any slip debris and other foreign materials deposited on the working region on account of rains, flood or any other cause prior to and during the course of execution and till the work is completely taken over the department have to be cleared by the contractor at his cost. The rates quoted by the contractor shall be inclusive of all such contingencies.

**23.3.** The contractor shall not interfere with the execution of water supply or electrical arrangements or any other works entrusted to any other agency by the Department at any time during progress of work.

**23.4.** It shall be the responsibility of the contractor to make such arrangements as may be required from time to time to protect men, machinery and the works against damage due to flood and the department accepts no liability whatsoever for damage or loss on this context.

#### **24. SITE CLEARANCE:**

Such portion of the site of work as may be considered necessary for the purpose of alignment and demarcation shall be cleared of jungle, if any by the contractor at his own cost. The limits of the structure within which work will be carried out within the scope of the contractor shall be suitably demarcated by the Department. The contractor has to supply necessary labour at his own cost fixing benchmark pillars/alignment pillars / alignment and pegs and also for layout, leveling and profiling and maintaining the same till completion of the work. The contractor at his own cost will supply cement concrete pillars required for layout. The generally layout and Bench mark pillars already laid out by the Department is to indicate generally this alignment of Canal in the field. The contractor while taking up excavation works will preserve original pillars.

**24.1.** The contractor should keep him self in touch with the Engineer-in-charge for smooth execution of work and arrange adequate labour depending upon the work load and working space available. No claim whatsoever for detention / idle of labour will be entertained.

#### **25. OTHER CONTRACTORS:**

Contractor's operations shall be so planned as to prevent water from his work flowing or finding way in to the neighbouring reaches. In the event of water from his reach flowing or finding way into the neighbouring or subsequent reaches, the respective contractor shall be liable to pay compensation towards any expenditure incurred and loss or damage sustained by the concerned contractor(s) on account of the said reasons unless they otherwise mutually settle the issue amongst themselves. Provided that if there, by

any dispute among the contractors on the account of such compensation arises, the decision of the Engineer-in-charge shall be final and conclusive and binding on concerned contractor.

**26. ORDER BOOK:**

An order book with pages serially numbered will be issued by the SUPERINTENDING ENGINEER shall be maintained by the Sectional Officer systematically till completion of the work and there after surrender it, to the Engineer-in-charge for record. The order book shall be available at the site during work hours for recording instructions relating to the work. Order regarding the work as and when necessary shall be entered in this book by the SUPERINTENDING ENGINEER or his superiors in office with their dated signature in exercise of statutory power vested on them which shall be duly noted by the contractor or his authorized agent with his dated signature. The Executive Sub-ordinate, the in charge of work shall also record his observation of defective work and such orders / observation entered in this book, and noted by the contractor agent shall be considered to have been duly given to the contractor, similarly orders entered by the Superintending Engineer and Chief Engineer shall be deemed to have been duly issued by the Engineer - in - charge for the contract.

**27. CLAIM BOOK:**

A claim book of pages serially numbered shall be issued by the SUPERINTENDING ENGINEER to the contractor who shall maintain it systematically and securely, and shall record in it such items as are not covered by his contract and or claimable as extra claim shall be entered in this book under the dated signature of the contractor or his duly authorized agent at the end of each month.

A certificate should be furnished by him along with those claims to the effect that beyond the claims entered in the book, the contractor has no other claims up-to-date. If in any month there are no claims, a recorded a certificate to that effect should be furnished by the contractor in the claim book. Each claim must be definite and should give also as far as possible the quantities as well as the total amount claimed. The claim book must be submitted regularly by the contractor to the Engineer-in-charge by the 10th day of each month for his orders. Claims not made in this manner are liable to be summarily rejected. The claim book shall be finally surrendered by the contractor to the Engineer-in-charge for record.

**28. RULE TO VERBAL ORDER:**

It shall be the contractors responsibility to get any verbal orders, instructions or directions confirmed in writing without which no cognizance will be taken of such verbal orders, instructions or directions for settlement of any claim arising thereof.

**29. STATUTORY OBLIGATIONS OF CONTRACTOR:**

The contractor shall have to arrange water required for the work at his own cost.

**29.1.** The contractor shall have to construct and maintain coffer dam as required for the work during execution at his own cost.

**29.2.** Bailing out water from foundation, construction of cross bund dewatering wherever necessary during execution of the work shall have to be done by the contractor at his own cost.

**29.3.** Gangway, scaffolding or any such arrangements required for the work are to be provided by the contractor at his own cost as per direction of the Engineer-in-charge. The Department will have the right to inspect such arrangement made for the work and reject partly or fully such structures found defective in opinion of the Engineer-In-Charge.

**29.4.** Department shall not pay compensation to the contractor for the damage occurred to the materials and work entrusted to his due to natural calamities.

**30 DEPARTMENTAL RIGHT FOR DEVIATION IN QUANTITIES:**

Right is reserved to make such increase or decrease in quantity or item of work mentioned in the schedule attached to the tender notice as may be considered necessary for satisfactory completion of the work and such increase or decrease shall in no way invalidate the contractor.

**31. SAFETY OF MACHINERIES:**

Unusual flood may occur during the working season. In the event of overtopping or breach in the cofferdam/embankment due to such flood in the working season resulting in flooding of the working area or outside the working area, the contractor shall make his own arrangement to shift the machineries and equipments, materials etc. to a safe place at his own cost. The work shall be resumed after the floods. Necessary reconstruction of the cofferdam / embankment clearing the working area of debris and silt shall have to be done by the contractor at his own cost. Suitable extension of time may however be granted in such eventualities at the request of the contractor, but no compensation whatsoever shall be paid in this regard.

**32. CONTRACTOR DYING, BECOMING INSOLVENT, INSANE OR IMPRISONED:**

(a) In the event of the death, insanity, insolvency and imprisonment of the contractor or the contractor being a partnership or firm becomes dissolved or being a corporation goes into the liquidation, the contract may be terminated by notice in writing posted at the site of work and advertised in one issue of the local newspaper and all acceptable works shall be paid for after recovering all the contractors due to Govt. there from at appropriate rates to the person or persons entitled to receive and given dishonor-age for the payment.

(b) If the contractor becomes bankrupt or has a receiving order made against him or compound with his creditor or being a Corporation commence to be wound up not being a voluntary winding up for the purpose only an amalgamation or reconstruction or carry on its business under a receiver for the benefit of the creditors of any of them, the Department shall be at liberty.

i) To give such liquidator receiver, or other person the option of carrying out the contract subject to his providing a guarantee for the due, faithful performance of the contract up to an amount to be determined by the Department.

ii) To terminate the contract forthwith by notice in writing to the contractor or to the liquidator or receiver or to any person in whom the contract may become vested and to act in the manner as per prevalent clauses of P1 contract.

**33. MEASUREMENT OF EACH WORK SHALL TAKE AS FOLLOWS:**

Before commencement of work initial levels and to determine the final measurement of the work, final levels of the ground / river bed and bank or structural work as the case may be, shall be taken in presence of the contractor. The contractor will satisfy himself about the correctness of the initial and final levels entered in the level book issued by the Engineer-in-charge and in token of the acceptance of the said levels the contractor shall have to sign in each page of level book in which the said levels are recorded. Basing on these levels, the gross quantity of work executed by the contractor shall be arrived at. After completion of the work the contractor shall be given a written notice to attend the final measurement. On receipt of the notice, the contractor must have to attend the final measurement failing which the measurement ex-parte shall be taken by the Engineer-in-charge which shall be binding on the contractor. In case of the abandonment of work, if it is decided by the Engineer-in charge that final measurements of executed work shall be taken, the same procedure shall be followed as in case of final measurement on completion of work. It is the responsibility of the contractor to make the site free from all problems to take measurement by the SUPERINTENDING ENGINEER or his authorized officer. If, in the opinion of the Engineer-in-Charge, the site is not free from problem for measurement and the contractor does not take any corrective measures to get rid of same, the Engineer-inCharge shall make the site free from problem to take the measurement at the cost of the contractor and to determine cost involved there of, certificate by the Engineer-in-Charge for the purpose, shall be conclusive and binding.

**33.1.** The Engineer-in-charge shall decide the contractual matters in accordance with codes, rules and acts in vogue which shall be binding on both parties.

**34. REMOVAL OF CONTRACTOR'S MEN:**

The contractor shall on the written direction of the SUPERINTENDING ENGINEER immediately removed from the works any person employed thereon, who may, in the opinion of the Engineer-incharge, be incompetent or has misconduct himself. Such person shall not be employed again on the works without the written permission of the Engineer-in-charge.

**35. DETAILS CALL NOTICE BEING PART OF CONTRACT:**

The detail Tender Call Notice and all the Annexure there to will form the part of the agreement when the work will be awarded to the contractor. All the correspondences made with the contractor and all his correspondences with the department after the tender is received will also be attached with the agreement.

**36. FAIR WAGES CLAUSE:**

The contractor should abide the fair wage clause introduced by the Govt. and shall not pay less than the fair wages fixed by the Govt. to the laborer engaged by him in the work.

**37. LABOUR LICENSE AND REGISTRATION:**

The contractor is to furnish labour license as per the relevant labour Act and rules in force before signing the agreement, failing which execution of agreement will not be entertained. Preference in price will be given to M/s Orissa Construction Corporation Ltd. as per relevant DOWR Govt. Orissa Circular No. 20754 dated 05.06.2002.

**38. QUALITY CONTROL AND TESTING:**

The quality control organization of department will conduct necessary tests to ensure specifications and quality of execution of work as per standard procedures in vogue. The testing charges of Reinforcing Bar will be borne by the contractor.

**39 TESTING OF THE STRUCTURES:**

During execution of work, the contractor shall arrange the requisite equipments for testing of the work if found necessary at his own cost.

**40 DEFECTS LIABILITY:**

The contractor shall be responsible to make good of the defects at his own expense, which may develop or may be noticed before the expiry of one year from the certified date of completion and which is attributable to the contractor. All notices of such defect shall be given to the contractor promptly. In case, the contractor fails to make good of the defects, the Engineer-in-charge employ other persons/ agencies to make good of such defect, and all expenses consequent thereof and incidental thereto, shall be borne by the contractor.

In the event Government takes over portions of works, as they are completed, the liability of the contractor under this clause for those portions shall extend to a period of one year from the actual date on which portions of the works are taken over to the possession of the Department. **41 ENGINEER-IN-CHARGE'S DECISION:**

It shall be accepted as an inseparable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract, drawing and contract specification, mode of procedure and the carrying out of the work, the decision of the Engineer-in-charge, which shall be given in writing, shall be final and binding on the contractor. The Engineer-in-Charge's final authority applies to technical consideration and does not include decisions regarding sums due to or from the contractor for extension of time.

**42 PAYMENT OF PRICE ESCALATION IN THE CONTRACT CONTAINING THE**

**PRICE ADJUSTMENT CLAUSE:** As per office memorandum No 15847 dated 19.11.2019 of Works department

**43. SETTLEMENT OF DISPUTE:**

If the contractor considers any work demanded of him to be outside the requirements of the contract or considers any drawing record or ruling of the Engineer-in-charge, on any matter in connection with or arising out of the contract or carrying out of work to be unacceptable, he shall promptly ask the Engineer-in-charge in writing for written instruction or decision. There upon the Engineer-in-charge shall give his written instructions or decision within a period of thirty days of such request. Upon receipt of the written instruction or decision, the Contractor shall promptly proceed without delays to comply with such instruction or decision. If the Engineer-in-charge fails to give his instructions or decision in writing within

a period of thirty days after being requested or if the contractor is dissatisfied with the instruction or decision of the Engineer-in-charge, the contractor may within thirty days after receiving instructions or decision of the Engineer-in-charge will approach to the higher authority who shall afford an opportunity to the contractor to be heard and to offer evidence in support of his appeal. The Authority shall give his decision within a period of thirty days after the contractor has given the said evidence in support of his appeal, which shall be binding upon the contractor.

**44. RESOLUTION OF DISPUTES:**

- a) All claims are to be settled by a Civil Court of Competent jurisdiction by way of Civil Suit.
- b) The contractor shall not be entitled to invoke Civil Suit until and unless he has completed the work or until the Govt. has made alternative arrangements for completion of work in question as the case may be.
- c) The pendency of Civil Suit proceedings shall not dis-entitle the Government for completion of the work.

**45. JURISDICTION OF COURT:**

For the purpose of jurisdiction in the event of dispute, if any contractor should be deemed to have entered into within the State of Orissa and it is agreed that neither party to the contract has the right to bring a suit in regards to the matter covered by the agreement or contract at any place outside the state Orissa.

**45.1.** If any further necessary information is required, the Engineer-in-charge will furnish such information on written request, but it must be clearly understood that tender must be received in order and according to instruction / specifications appended herewith.

**47 CEMENT:**

The Cement manufactured inside the State of Orissa is to be used as mentioned in Technical Specification. (Refer clause 32 of condition of contract).

**48. STEEL:**

Reinforcement bar manufactured by Steel Authority of India Ltd. (SAIL) / RINL is to be used. (Refer clause 32 of condition of contract).

**49. ROYALTY OF CONSTRUCTION MATERIALS:**

Royalty of construction materials at the rate specified by the Government of Orissa will be recovered from the bills of contractor unless the contractor produces proof of payment of royalty at the source in shape of K-Form.

## **SECTION – 7 TECHNICAL SPECIFICATIONS**

<b>Chapter &amp; Section</b>	<b>Particulars</b>	
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<b>Chapter -2</b>	<b>Site of Work</b>	
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Section 6.1	Fine dressing and Turfing	
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<b>Chapter – 6</b>	<b>OTHER ITEMS</b>	
Section 7.1	Providing Weep Holes	

Section 7.2	Providing and laying RCC Spun Pipes	
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## CHAPTER – 1

### GENERAL SPECIFICATION

The terms, the India standard specifications herein after referred to as BIS as used herein means the relevant Bureau of Indian Standard codes with all amendments published up to the date of submission of tenders. A Statement of relevant BIS applicable to this contract is enclosed.

SI No.	SHORT TITLE	BIS NUMBER
<b>I CEMENT</b>		
01.	Specification for ordinary and low hardening Portland	269-1989 cement
02	Specification for Portland Pozzolana Cement	1489-1991
03	Portland slag cement (Third revision)	455-1989
04	Method for Physical tests for hydraulic cement (Reaffirmed	4031-1996 1980)
05	Method of chemical analysis of hydraulic cement (first	4032-1985 revision)
06	Rapid hardening Portland cement	8041-1990
07	Hydrophobic Portland cement	8043 – 1991
08	High strength ordinary Portland cement	8112 – 1989
<b>II AGGREGATES</b>		383-1970
01	Specification for coarse and fine aggregate from natural	2116-1980 source for concrete
02	Specification for Sand for masonry Mortars	2386-1963
03	Method of Tests for aggregates for concrete	2386-1963(Part –1 to Part - XIV
04	Standard sand for testing of cement (First revision) with	650-1991 amendment 1 & 2 Reaffirmed 1980
05	Methods for sampling of aggregates for concrete	2430-1969
06	Method of test for determining aggregates Impact value of	5640-1970 soft coarse aggregates
<b>III BUILDING STONES</b>		
1.	Methods of Test for Determination of strength properties of	1221-974 (Part –= natural building stones 1 to Part – IV)
	Part – I Compressive Strength	
	Part – II Transverse Strength	

<b>SI No.</b>	<b>SHORT TITLE</b>	<b>BIS NUMBER</b>	
	Part – III Tensile Strength		
	Part – IV Shear Strength		
2	Method of Measurement of Buildings and Civil Engineering (Part – IV, stone masonry)	1200-1976	Work method
<b>IV</b>	<b>STEEL</b>		
01	Code of practice for bending and fixing of bars for concrete	2502-1963	reinforcement
02.	Specification for cold worked steel Deformed bars for reinforcement	1786-1985	concrete
03.	Code of practice for Welding of M S	2751-198	
04.	Code of practice for use of Metal in Welding for general construction in mild steel	818-1989	
05.	Deformed bars for concrete reinforcement rod rolled mild tensile steel (revised)	1139-196	steel and medium
06.	Recommendations for detailing or reinforcement in reinforced concrete works	5525-196	
07.	Specification for Mild Steel and Medium Tensile steel Bars reinforcement	432-198 ( Part – II)	for concrete
08.	Code of practice for Fire precautions in welding and cutting	818-196	operations
09.	Code of practice for Fire precautions in welding and cutting	3016-198	operations
10.	Method of Measurement of Building and Civil Engineering work and iron work	1200-196	Part – VII works, steel
11.	Code of procedure for manual or metal ARC welding of Mild Steel	823-196	
12.	Specification for Filler rods and wires for gas welding.	1278-19	
13.	Recommendations for welding cold- worked steel bars for construction	9417-19	reinforced concrete
14.	Hard drawn steel wire fabrics for concrete reinforcement	1566-19	
<b>V</b>	<b>MASONRY</b>		
01.	Code of practice for construction of stone masonry Part – I Masonry	1597-1992	Rubble stone
02.	Code of practice for construction of stone Masonry Part – Ii	1597-1992	Ashlars masonry
03	Specification of fly – ash for use as puzzling and admixture	3812-1981	
04	Method of Measurement of building and Civil Engineering Works, Plastering and pointing	1200-1975	

<b>SI No.</b>	<b>SHORT TITLE</b>	<b>BIS NUMBER</b>
<b>VI</b>	<b>CONCRETE</b>	1200-1974
1	Method of Measurement of Building and Civil Engineering works Part – II Cement concrete works	456-2000
2	Code of practice for plan and reinforced concrete	5751-1984
3	Specification for Precast concrete coping blocks	516-1956
4	Methods of test for strength of concrete	516-1959
5	Code of practice for laying in situ cement concrete lining on canals	3873-1993
6	Specification for admixture for concrete	9103-1979
7	Method of Test for Autoclaved cellular concrete products	6441-1972,1973
8	Methods of Sampling and Analysis of concrete	1199-1959
9	Specification for Batch type concrete mixtures	1791-1985
10	General requirements for concrete vibrators immersion type	2505-1992
11	Specification for concrete vibrating tables	251-1963
12	Method of test for permeability of cement mortar and concrete	3085-1965
13	Specifications for fly ash for use as pozzolana as admixture for concrete	3812-1981
14	Specification for Portable swing weigh batch for concrete	2722-1664 (single and double bucket type)
15	Code of practice for installation of joints in concrete pavement	457-1985
16	Code of practice for general construction of plan and reinforced concrete of dam & other massive structures	457-1985
17	General requirement of concrete vibrator screed board type (first revision) Specification	2506-1985
18	Code of practice for concrete structures for the storage of liquids	3370-1965
19	Code of practice for use of immersion vibrator for consolidating concrete (first revision)	3558-1983
20	Method of testing performance of batch type concrete mixer	4634-1990
21	Form vibrations for concrete	4656-1991
22	Concrete batching and mixing plant	4925-
23	Ready mixed concrete (first revision)	4926-1990
24	Code of practice for seeing joints in concrete lining on canals.	5256-1992
25	Vibrating plate compactor	5889-1994
26	Concrete paver	5892-1991
27	Concrete slump test apparatus	7245-1991

<b>SI No.</b>	<b>SHORT TITLE</b>	<b>BIS NUMBER</b>
28	Method of making curing and determining compressive strength of accelerated cured concrete test specimen	7320-1992
<b>VII</b>	<b>EARTH WORK</b>	<b>9013-1979</b>
1	Method of Measurement of building and Civil Engineering Works Part – I, Earth work	1200-1992 (Part-I)
2	Safety code for piling and other deep foundation	5121-1994
3	Code of practice for Design installation, observation and maintenance of uplift pressure pipes for Hydraulic structure of permeable foundation	6532-1992
04	Safety code for excavation work	3764-1992
05	Code of practice for protection of slope for Reservoir	8237-1990 embankments
06	Guidelines for lining of canals in extensive soils	4701-1991
07	Method of test for soils Part – II Determination of water content	4701-1990
08	Method of test for soils-determination of water content Dry density relation using light compaction	9451-1991
09	Method of test for soils-determination of dry density of soils	2720-1995 in place by the sand replacement method.
10	Method of test for soils-determination of dry density of soils	8237-1990 in place by the core cutter method
11	Classification & identification of soils for general Engineering purpose (first revision)	14984701-1990- 1999451- 199172720-19
12	Safety code for blasting and related drilling operations reaffirmed 1978)	4081-1970 (with Amendment No 1)
13	Portable Pneumatic drilling machine (first revision)	5441-1991
14	General requirements for blast hood drilling rigs.	7209-1991
15	Safety code for working with construction machinery	7293-1996
16	Code of practice of stability analysis of earth dams	7894-1991
17	Guidelines for design of under seepage control measures	8414-1993 for earth & rock fill dams.
18	Filtration media sand & gravel	<b>8419-1990</b>
19	Guideline for design of large earth and rock fill dams	8826-1991
20	Under drainage arrangements of lined canals	4558-1995
22	Precast cement concrete slabs for canal lining	386891995
23.	Method of tests of soil	2720-1997
24.	Ammonium nitrate for explosive	4668-1991
25.	Method of test for commercial blasting explosives and	6609-1990 accessories
26.	Detonators	7632-1990
27	Method of load test on soils (2 <sup>nd</sup> revision)	1888-1999
28.	Method of standard penetration test for soils (1 <sup>st</sup> revision)	2131-1997
29.	Glossing of terms and symbolic relating to soils	2809-1995 engineering
30.	Method of sampling and preparation of stabilized soils for	4332-1995 testing

SI No.	SHORT TITLE	BIS NUMBER
31.	Test in over burden	5529-1690
<b>VIII OTHER SUBJECTS</b>		
1	Safety code for scaffolds and ladders part – I scaffolds	3696-1996 2
	code for scaffolds and ladders part – II ladders	3696-1996
3.	Recommendations on stacking and storage of construction materials at site	4082-199
4	Plywood for general purposes (2nd revision, Amendment-1	<b>303-1993</b> to 3)
5.	Test sieves	460-1990
6.	Code of practice for under drainage of lined canals (First revision)	4558-199
7.	Code of practice for in-situ permeability test	5529-199

In addition to the relevant BIS code, the specifications prescribed and guidelines issued by Central Water commission Standard Specifications shall also be followed, where BIS specifications is not available.

The B I S codes, which have been referred as above, if updated, the updated code of practice shall be followed.

## CHAPTER – 2

### SITE OF WORK

#### Section 2.1 Discharge of Records

##### Records 2.1.1 Discharge

**The hydrological data, pertaining to the canal and the streams crossing the canal furnished in the relevant report and drawings are for information of bidders and contractors. It should be noted that the data used in preparing these particulars are recorded at locations different from the work site. The Government (that is Government of Orissa) does not guarantee the reliability or accuracy of any of the data, shall assume no responsibilities for any conclusions or interpretations that may be made from them. The Contractor shall undertake at his expense such studies as are necessary to assess the reliabilities and accuracy of the information presented in the Data.**

#### Section 2.2 Setting Out for Work

**(A) Permanent benchmarks shall be fixed at suitable locations connecting permanent benchmarks fixed by Survey of India. Temporary Bench Marks shall be set up by the Department at every 0.5 km. interval or at convenient locations along the canal to serve as reference levels. The Contractor shall establish additional reference Bench Mark as may be needed at his own cost for facilitating the setting out and taking levels for measurement of work with the approval of the Engineer-in- Charge. The Bench Mark shall**

be marked on a concrete pillar 30 cm. (I) x 30cm. (b) x 75 cm. (d) which shall be embedded 55 cm. into firm ground and projecting 20cm. above the ground. The Bench Mark pillar shall be protected from being disturbed. The R.L of benchmark shall be conspicuously carved and painted on the pillar.

- (B) 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 centerline of the canal and the reference line for all alignments for demarcation purpose shall be done by dug belling on the ground by the agency as per direction of the Engineer-in-Charge. The reference line shall comprise the base line properly dug belled on the ground with numbered concrete/ masonry R.D pillars suitably spaced.
- (C) Centerline of the canal shall be marked by fixing pillars/stone at 30 m intervals. Profile of canal in filling and in moderate cutting shall be marked at 50 m intervals in straight reaches and at 25m Intervals in curves. A reference line shall also be marked on ground away from the outer edges of cutting and filling with pillars at suitable intervals for future reference.  
To ensure correctness of execution, the edges of cutting, the outer toe lines of canal in filling should be marked by fixing pillars or pegs at suitable intervals or by dug belling
- (D) The check profiles shall be located 15 meters or longer apart as directed by the Engineer-in-Charge to serve as a guide for execution of all slopes and steps to the elevations and profile or profiles indicated in the approved drawings. All important levels and all reference points with respect to bench marks and reference lines shall be fixed and co-related by the Contractor as per directions of the Engineer-in-Charge.
- (E) The zones of full cutting section, full filling section, partial cutting and filling shall be separated by conspicuous demarcation in the field.  
The curves stipulated in construction drawings shall be carefully laid in the field for adopting approved method of curve layout. The curves shall be marked on the ground by fixing pegs at very closer intervals and joining the peg -point by dug-belling to suitable depth.  
The locations of different structures indicated in construction drawing shall also be clearly marked on the ground along the alignment of the canal. The control structure locations of off-taking canals shall also be clearly demarcated, so that unnecessary excavation or filling at these locations can be avoided.  
The soil dumping zones shall clearly be demarcated in the field. These zones should be at least 2m beyond the location of the catch water drains.
- (F) 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 and pillars suitably placed in relation to outer dimension of these elements.
- (G) All materials and labour for setting out works including construction of reference bench marks, reference lines, check profiles and surveys as may be required at the various stages of the construction shall be supplied by the Contractor at his own cost. The cost of such works shall be deemed to have been included in the cost of the items in Bill of Quantities and no separate payment is to be made for setting out and layout works.

#### Section 2,3 Clearing and Grubbing and Jungle Clearance.

(A) **Cleaning and Levelling Site**

The portion of the right-of-way where required for constructing the work under these specifications shall be cleared of all trees, bushes, rubbish and other objectionable matter. Trees marked by the Engineer-in-Charge shall not be cut and shall be protected from injury. Such cleared material shall be disposed of as provided in sub -paragraph "D' below or removed from the site of work before the date of completion of the contract as approved by the Engineer-in-Charge. The cleaning operation shall be in accordance with clauses 4.1,4.1.1,4.2 and 4.3 of I.S. 4701-1982, code of practice for earthwork in canals.

Surface boulders either loose or partly embedded in the ground will have to be removed and stacked as directed.

**(B) Grubbing**

The area described or shown on the relevant site plan shall be cleared of all obstructions, loose stones, non-required materials and rubbish of all kinds. All brushwood shall be cleared and the roots grubbed up. No tree shall be cut down and removed without the instructions of the Engineer-in-Charge. Those which are cut down shall be grubbed up. The same remarks apply to jungle clearance. Trees to be preserved will be designated by the Engineer-in-Charge.

The products of the clearing shall be stacked in such a 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 of as per the direction of the Engineer-in-Charge

All holes or hollows, whether originally existing or produced by digging up roots shall be carefully filled up with earth, well rammed to the desired density and levelled of, as directed.

**(C) Preparation of bed**

Ant hills shall be completely dug out before earthwork is started. In the absence of any separate contract schedule provision for removal of shrubs, loose stones and digging of anthills, involved in the preparation of bed, the contract rate for earthwork shall be deemed to include all the work to be done in accordance with this clause. In case where the work of preparation of bed is rather extensive, the Engineer-in-Charge will usually provide a separate schedule item for such preparation. But in the absence of such schedule provision, the Contractor shall understand that his tender rate is inclusive of all such work without extra charge. The Contractor shall therefore examine the site before tendering and provide for all items to be done under his earthwork tender rate. Old bunds will be benched or sloped as directed by the Engineer-in-Charge before addition of earth, the benches being 500 mm x 500 mm unless other wise specified. The benches or slope shall be inspected by the Engineer-in-Charge or engineer designated for the purpose and approved before new earthwork is keyed into them.

**(D) Disposal of Cleared and Grubbed Material**

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 and when suitable condition arrives it shall be burnt completely to ashes. Piling of waste material for burning shall be done at such a location and in such a manner as would not cause any fire risk. Necessary precautions shall be taken to prevent spreading of fires to areas beyond the limits of cleared areas. Suitable materials and equipment for prevention and suppression of fire shall be kept available at all time.

The material to be disposed off shall be burried

For the clearance of light jungles, heavy jungle with or without uprooting etc payment will be made in respective jungle clearance item of BOQ as provided for in the tender documents. The Contractor shall quote 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' paragraph 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 is considered to include this item. However, payment will made for the removal of surface boulders of sizes greater than 0.014 cubic meter but less than 3 cubic meters, either loose or partly embedded in the ground, at the rate quoted in bill of quantities for the actual quantity so removed, based on stack measurement applicable for the relevant strata classification after deducting 40% towards voids.

Benching will be paid as separate item per 1 (one) running meter of bench at the rate provided for in the tender documents.

Section 2.4 Use of Water

2.4.1 Water for Dust Abatement

(A) General

The Contractor shall procure and apply water for dust abatement.

Water applied for dust abatement will not be eligible for payment separately. The cost of procuring and applying water including all expenses for all means of conveying water to the point of use, their collection, usage, and all other incidental expenses will not be paid separately. Creation of source of water and the cost shall be deemed to have been included in the concerned unit price bid in the bill of quantities of the contract for the relevant finished item of work for which water for dust abatement is required.

So also the cost of procuring and applying water required for the work shall be included in the price bid in the bill of quantities for the items of work for which the water is used. 2.4.2 Pre wetting of Canal Prism and Adjacent Areas

(A) General

The Contractor shall furnish all labour, materials and equipment and shall procure and apply water required for pre wetting the areas under canal and embankment.

Water applied for pre wetting areas as detailed above will not be eligible for payment separately. The cost of procuring and applying water including all expenses for all means of conveying the water to the point of use, their collection, usage and all incidental charges shall be included by the Contractor in the concerned unit price bid in the bill of quantities for that item of work where the water shall be used and no separate payment for the same will be made.

Section 2.5 Site Drainage

2.5.1 Cross Drainage

The Contractor shall handle all flows from natural drainage channel intercepted by the work, perform any additional excavation and grading for drainage as directed and provide and maintain any temporary construction required to by pass or otherwise cause the flows to be harmless to the work and property. When the temporary construction is no longer needed and prior to acceptance of the work the Contractor shall remove the temporary construction and restore the site to its original condition as approved by the Engineer-in-Charge. The cost of all works and materials required by this paragraph shall be included by the Contractor in the unit prices quoted in the bill of quantities and no separate payment will be made for the same.

In addition to cross drains, longitudinal drains may be considered necessary for proper drainage. The drainage system consisting of network of cross and longitudinal drains shall be led into out fall drains to prevent stagnation of water at the place of construction. The drains shall be constructed to the section designed and shall be either open or filled up with material to ensure free flow of water without clogging of the filled materials. 2.5.2 Drains, Berm Drains and Dowel Banks

(A) Drains

In connection with the excavation for the canal and structures, the Contractor shall perform excavation for the construction of drains, berm drains and chutes and any other drains as directed by the Engineer-in-Charge.

The location, grades and sections of the drains shall be as shown on the drawings and/or as directed. Measurement of excavation for the above drains will be made to the lines shown in the drawings or as directed. Payment for excavation for the above drains, channels and embankment will be made at the unit price bid in the bill of quantities for execution of canal

(B) Berm Drainage and Dowel Banks

Berm drainage including drainage along the berms and banks of the canal and longitudinal berm drains shall be constructed where shown on the drawings as directed. The Berm drains shall be constructed to dimensions and grade shown on the drawings or as directed. The surface of the berm shall be sloped transversely and dowel banks shall be made along sides of the banks and berms as shown on the drawings and elsewhere as directed. The dowel bank may be made by blading of material in place following completion of a canal reach. Payment will be made for constructing

**Dowel banks, drains as per approved drawing in the unit price per cubic meter in the bill of quantities for construction for canal embankment.**

**Section 2.6 Monsoon Damages**

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

**Section 2.7 Removal of Silt and Water.**

**Accumulated silt and water in the canal and structures for the works partly done by the Contractor In current or previous seasons should be removed and no extra payment will be made for such removal of silt and Water. The unit rate for excavation is deemed to include cost for removal of such silt and water.**

**Section 2.8 Procedure for Measurement**

**Before commencement of work, initial levels to indicate existing ground levels shall be taken at 15 m intervals longitudinally along the alignment of the canal. The level points transversely along the cross sections shall be maximum at 5 m intervals in flat ground and 1.5-2 m in undulating terrain. The cross section shall be extended beyond the limit of work to a suitable distance and minimum 5 m beyond the toe lines of slopes on both the sides. The intervals stipulate shall be made closer depending on the topography or any stipulation made by the Engineer-in-Charge. All initial level shall be recorded in ink in authenticated level books issued by the Engineer-in- Charge and shall be signed by the Junior Engineer / Assistant Engineer when he records the levels.**

**The Assistant SUPERINTENDING ENGINEER 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 section shall form the basis of all future measurements and payments. Each dimension shall be measured to the nearest 0.01 m. Areas shall be computed to nearest 0.01 sqm. Volume shall be computed to nearest 0.01 cubic m.**

## CHAPTER – 3

### EARTH WORK

**Section 3.1 General**

**To the extent that they exist, plan and estimates for the Government's studies on Earth Work for construction of the canal will be available for inspection by the Bidder's in the office of the concerned**

**Engineer-in-Charge.** Such information is made available solely for the convenience of Bidders. The Government does not guarantee that the information is accurate or complete. Bidders are cautioned that this information is subject to revision and that the Government disclaims responsibility for any interpretations, deduction or conclusions, which may be made there from. It is not intended that this information will limit or prescribe the excavation and handling procedures of the Contractor, and the Government reserves the right to utilize and distribute earthwork materials during the progress of work as it serves the interest of the Government

Drawing showing the typical section of the canal, annexed to these specifications, provides such details as would enable the Contractor to execute the work in general conformity there with under these specifications which have been prepared as definitely and in as much details as possible with regard to design data presently available. These drawings will be supplemented by such additional, general and details of drawings or directions as may be considered necessary or desirable as the work progresses. For all changes in approved drawing/design the recommendation of Superintending Engineer and approval of Chief Engineer will be essential. Where details shown on these drawings differ from the requirements of these specifications, the requirements of specifications shall govern. The Contractor shall do no work without proper drawings. He shall check all drawings and specifications carefully and advise the Engineer-in-Charge if any errors and omissions are discovered where upon the SUPERINTENDING ENGINEER will prepare and lodge such revised additional drawings and specifications as may be required to suit the stage of the work. All such additional, general and detailed drawings whether original or revised lodged in the office of the Engineer-in-Charge and signed by him for purpose of identification shall be open for inspection by the Contractor under the same terms and conditions as provided in agreement.

All works of the contract shall be executed as per the specific and relevant clause/clauses of relevant I.S. code unless otherwise specified. Materials used should, confirm to the desired standards prescribed in the relevant codes. Wherever a pair 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 I.S. code referred to the decision of the Engineer-in-Charge shall be final and binding.

## **Section 3.2 Excavation for canal/creek /drainage channel and for Structures**

### **3.2.1 Classification of Excavation**

Payment shall be made on actual classification of soil met with during excavation. Material excavated shall not be classified for payment, except or otherwise provided in these specifications. Material excavated shall be measured in excavation, to the lines shown on the drawings or as provided in these specifications and all materials required to be excavated will be paid for at the applicable rates in the schedule for excavation. No additional allowance above the rates in the schedule will be made on account of any of the material being met. Bidders and the Contractors must assume all responsibility for deducing and concluding as to the nature of the materials to be excavated and the difficulties of making and maintaining the required excavations.

The classification of excavation shall be decided by the Engineer-in-Charge and binding on the Contractor. In case of dispute, the decision of S.E. 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 option of the Engineer-in-Charge.

### **3.2.2 Excavation for Canal**

- (a) The excavation may be carried out manually or mechanically and as per specification, drawing and direction of the Engineer-in-Charge. ;
- (b) The excavation for canal in all kinds of soil and D.I. Rock shall be done according to the dimensions and grades shown in the drawing. Proud equivalent to thickness of the lining on sides and in bed on the underside of the lining shall be left unexcavated temporarily and the removal of this proud shall be done just, before trimming and placing concrete for lining.
- (c) Blasting shall be done in such a manner as not to cause over break which in the opinion of the Engineer-in-Charge is excessive. Special care shall be taken to prevent over break or loosening of

material on bottom and side slopes against which concrete lining is to be placed. Final cutting in hard rock for 45 cm shall be carried out by controlled blasting or chiseling or with the help of pneumatic pavement breakers. If excavation is required to be done within 30 m from the existing structure, the same shall be carried out by chiseling without adopting blasting for which no extra rate shall be payable. The method of drilling and blasting to be resorted to for hard rock excavation shall be got approved from the Engineer-in-Charge.

- (d) Except for the areas of rock all areas to be excavated for canal sections shall be pre wetted so that at the time of excavation moisture content shall be about optimum. However in case the excavated material from canal is not to be used for embankment, such pre wetting is not necessary
- (e) The excavation shall be allowed to progress from the valley ends of the reach towards the ridge in conformity with the layout given. All useful earth from excavation shall be used for filling the banking section with varying leads and with all lifts either manually or mechanically. Excavated materials which is not useful for banking or which is in excess after meeting the banking requirement of the reach, shall be disposed as specified at paragraphs 8.1 and 8.2 of I.S. Code 4701-1982 either by head lead or by mechanical means or by both in spoil bank or at any specified place with all lifts and varying leads
- (f) The regradation for tail channel and approach channel for structures and diversion of drains/ nallas shall be done according to the dimension and grade as shown on the drawings or instructed by the Engineer-in-Charge.
- (g) The Contractor shall not be entitled to any additional rate above the rates quoted in the schedule on account of the requirement for allowing additional time for drying, stock piling and rehandling the excavated material which have been deposited temporarily and stockpiled.
- (h) When cutting on cross sloping ground the Contractor shall cut a catch water drain on the higher side to prevent water from flowing down to the cutting slope. No separate payment will be made for the work as the same is deemed to have been included in the Unit rate of excavation of soils, D.I. and rock etc.

#### **3.2.2.1.1 Excavation of Soil and Disintegrated (D.I.) Rock**

Excavation of soil shall comprise of ail kinds of soil such as vegetable or organic soil, turf, sand, silt, loam, clay, mud, peat, black cotton soil, loose or compact moorum, stoney earth mixed with gravel having stones of 300 mm maximum diameter in one direction. Excavation of D.I. shall comprise of sowing of roads/paths, hard core, macadam surface, lean concrete, stone masonry, brick work, soft conglomerate, lime stone, soft sand stone, soft laterite, soft conglomerate and all types of D.I. rock, which does not require blasting and can be quarried or split with pick-axe and crow bars. If however, the Contractor resorts to blasting in such strata and D.I. rocks for his convenience, no extra payment shall be made and material shall not be classified in higher grade.

Excavation for canal shall confirm to provisions of relevant I.S. codes. Side slopes to be provided as per the approved drawings, specification and provision of I.S. code.

The excavated materials suitable for reuse in filling section of canal shall be carried by the agency and use the same for canal embankments in filling reaches/canal banks The materials unsuitable for filling shall be dumped in spoil bank of canals.

#### **3.2.2.1.2 Excavation of Medium Hard Rock (M.H.R)**

This shall include any other rock other than 3.2.2.1.1 above & HR, which cannot be excavated by pickaxe and crowbar and needs blasting. There will be no recovery of materials for reuse.

#### **3.2.2.2 Excavation or Hard Rock**

This shall include all solid rock in place of such hardness and texture that it cannot be removed by pickaxe and crowbar or any other method until loosened by drilling, blasting and wedging. All boulders or detached pieces of solid rocks having volume grater than 3 cum can be classified as hard rock when removed by

blasting etc. Blasting shall be restored only after it has been certified by the Engineer-in-Charge that blasting is necessary. Rock excavation shall be done as per relevant I.S. codes.

The excavated rock and debris so obtained shall be carried, dumped and stacked separately with varying lead at places indicated by the Engineer-in-Charge. The volume shall be calculated after deduction of suitable void percentages and compared and co-related with the premeasured volume. The excavated materials shall be the property of the Department. The same shall be issued to the Contractor for the work such as pitching, filter, rock toe, masonry work etc. under this contract, if required, at issue rate. The issue rate fixed by the department from time to time shall be applicable and binding on the Contractor.

Payment for hard sheet rock and medium hard rock shall be made as per level section (pre & finished) taken 3 m apart with transverse levels at every 1 m apart. Closer interval for levelling may be adopted if considered necessary in the opinion of the Engineer-in-Charge. Boulders having volume more than 3 cum shall be premeasured.

However the excavated hard rock as measured by above method and as calculated by stack measurement (deducting voids) shall be co-related and variation worked out. The stack measurement of hard rock shall not ordinarily be less than 70% which shall be ascertained by the Engineer-in-Charge and a certificate thereon shall be recorded in the measurement book, if a higher variation is found after getting verified by the Engineer-in-Charge. A report shall be forwarded to the superintending Engineer for approval.

### **3.2.2.3 Over Excavation**

The canal shall be excavated to exact designed section in all kinds of soil and D.I, rock. No. over excavation will be allowed in such reaches. However in canal sections taken in Hard rock formation over excavation to the extent of 10 cm depth on an average will be allowed and paid for in respective item. In case of over excavation due to poor geological formation certified by the Superintending Engineer and approved by the Chief Engineer, payments would be made for removal of such quantity only.

In the canal section where expansive type of soil such as CH type of soil is encountered and over which concrete lining cannot be directly laid, the canal prism shall be over excavated to the extent as directed by the Engineer-in-Charge and such over excavated section shall be filled with suitable cohesive non-swelling (CNS) type of soil to be placed in uniformly compacted layers as directed by the Engineer-in-Charge. The over excavation made in such strata, filling with suitable soil, watering and compacting will be paid under respective items at the quoted rate.

### **3.2.2.4 Dewatering Trenches and Wet Excavation**

Subsoil water met within canal excavation shall be diverted to nearby drain/nalla by cutting an open channel within the canal section to be excavated. When the drain/nalla bed is higher than the subsoil water level met with pumping shall be resorted to for dewatering below the drain/nalla bed level.

### **3.2.2.5. Disposal of excavated earth:**

The excavated earth shall be utilized in construction of the embankment in both side or one side wherever necessary as per the design section. The earth shall be laid in layers not exceeding 22.5 cm in thick, spread uniformly and compacted with suitable compactor up to 85% of MDD. The spoil /surplus earth shall be deposited in the areas identified by engineers and as per direction of the Engineer-in-charge. No payment will be made separately.

In case where the topography of the area is such that surface water is not possible to be drained off by excavating the channel, pumping shall be resorted to till completion of the work. No distinction shall be made as to whether the material being excavated is dry, moist or wet. Care should be taken to discharge the drained water not to cause damage to works, crops or any other property. No separate payment shall be made for dewatering by pumping or by any other method.

### **3.2.2.6 Measurement and Payment**

The payment shall be made on volumetric basis for the quantities excavated to the required extent. The cross section shall be taken initially before commencement of work as stipulated in earlier paragraph. On completion of excavation final cross sections shall be taken at the same points longitudinally and transversely. These cross sections shall be marked on the initial cross sections and the quantities between initial and final cross sections shall be worked out and paid.

In case of canal excavation on Hard Rock, and Medium Hard Rock cross sections shall be taken at 3 m interval longitudinally with transverse levels at 1 m or closer intervals. Isolated boulders having volume more than 3 cum and not covered in section measurement shall be pre-measured. **3.4 Drilling and Blasting**

#### **3.4.1. General**

Blasting where required shall be permitted only when proper precaution have been taken for the protection of persons and property in accordance with I.S. 4081-1961 (Indian Standard Specifications) for safety Code for blasting and related drilling operations). While carrying out excavation, adequate precautions in accordance with I.S. 3761-1966 (Indian Standard Specifications for safety code for excavation work) shall be taken.

All contractors who execute blasting operations in connection with works for purpose of the quarrying stones, road construction, excavating foundations, well sinking or for any further additional instructions which may be given by the Engineer-in-Charge.

#### **3.4.2. Blasting with Powder**

- (a) Blasting operation shall be under charge of competent persons specially deputed for this purpose and be carried out during fixed hours of the day preferably during early hours, day lunch hour or at the close of the working day, in the presence of competent persons.  
Prominent signboard indicating the blasting timings should be put up at a number of places. The Safety Engineer shall see strictly that the safety precautions are taken and observed.
- (b) Red flags shall be prominently displayed and all the people except those who have actually to light the fuse must evacuate to a safe distance from the blast not less than 150 meters as a rule.
- (c) Sirens shall be sounded five minutes prior to the blast with wailing note and an all clear shall be given with a long blast at the end of the operation. These sirens should be kept at different locations so as to identify the danger zones.
- (d) All fuses must be cut to required length before being inserted into the holes. The safety fuses of the charged holes are to be lighted in presence of the Supervisor, who must see that the fuses of all holes charged have properly been ignited.
- (e) The number of blasts to be fired and the actual number of shots heard must be compared and the person responsible must satisfy himself by examination that all blasts have exploded before work people are permitted to approach the site. Withdrawal of charge which has not exploded is not to be permitted, under any circumstances, but the tamping and charge should be flooded with water and the hole marked in a distinguishing manner. Another hole should be drilled at distance of about 23cm. from the old hole and fired in the usual way. The result shall be carefully examined by the persons in charge of blasting and the operation continued until the original blast is exploded.

#### **3.4.3 Blasting with Dynamite and Other High Explosives**

Sub paragraphs (a) to (c) of the paragraph 3.4.2 instructions for blasting with powder shall apply. The strength of the special gelatine to be used in the excavation of foundation as per the percentage mentioned below.

60% Special gelatine -for softer rock strata:

70% special gelatine -for medium hard rock strata

80% special gelatine -for hard rock strata

Bore holes must be of such a size that the cartridges can easily be passed through.

The position of all holes to be drilled must be marked out with white paint and the responsible man in charge of blasting (supervisor) shall take particular note of these positions and check them again after holes are drilled.

The Supervisor himself must supervise preparation of all charges necessary for the boreholes. Blasting plans shall be evolved after trial blasting at the site. The first few rounds blasted at the work site shall be considered as test/trial blasting to find the most economic and efficient drilling and firing pattern, consistent with limiting the blast-induced peak particle velocity (ppv) within permissible range. He shall adjust the drilling pattern, hole depth, number of holes, charge per hole and the firing sequence including the types and number of delays for ensuring most favourable angle of breakage. The blasting plan so evolved, and approved by the Engineer-in-Charge, will restrict the development of crack zone beyond the drilled contour and limit the PPV's influencing the damage prone Features / Structures range.

Through trial blasting and vibration measurement, the value of variable K shall be determined from the following equation.

$$V = \frac{K(Q^{1/2})^{1.7}}{D}$$

V= Peak particle velocity in mm/sec.

Q = Co-operating charge in Kg

D= Distance from the blasting zone in meters

K= Transmission factor constant which depends upon rock characteristics, homogeneity of rock and presence of faults and cracks

Broadly, a peak particle velocity range of 70-100 mm/sec shall be permissible in good rock excavation. The number of holes to be blasted in a round will be governed by the blasting plan evolved through trial blasting as explained above with the framework of permissible ppv. If blasting is to be done in the vicinity of any risk-prone feature of structure the permissible ppv shall be reduced and the Engineer-in-Charge shall lay down the safe limits of ppv.

#### 3.4.4 Explosive and Blasting

Explosive required for rock blasting are to be procured by the Contractor at his cost. It shall be the responsibility of the Contractor to store the explosive purchased by him in accordance with the rules of the explosive act and other rules framed by Govt. of India.

Blasting materials such as Gelatine, Detonators and fuse coils will have to be procured by the Contractor. He should make his own arrangement for their transport to work spot at his cost and their safe custody in a portable magazine, as per the rules in force and furnish the following details :

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<u>Capacity</u>	<u>License No. and Date</u>	<u>Validity Period</u>
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The contractor shall acquaint himself with all the applicable laws and regulation concerning storing, handling and the use of explosives. All such laws, regulations and rules as prevalent from time to time shall be binding upon the Contractor.

The provision detailed in the specifications are supplementary to the above laws, rules and regulations and are also applicable except where they conflict with the above mentioned laws. Further the Engineer-in-Charge may issue modifications, alterations and new instructions from time to time. The Contractor shall comply with the same without those being made a cause for any claims.

All the materials such as explosive, detonators, fuse coils, tamping materials etc. they are proposed to be used in the blasting operations shall have the prior approval of the Engineer-inCharge. Only explosives of required make and strength are to be used.

The use of fuse with only one protective coat is prohibited. The fuse shall be sufficiently water resistant as to be unaffected when immersed in water for thirty minutes. Rate of burning of the fuse shall be uniform and not less than 4 (four) seconds per 35 millimeters of length with 10 percent (ten percent) tolerance on either side. The fuse known as tarntaneous fuse shall not be used.

Before use, the fuse shall be inspected and most damaged or broken ones shall be discarded. The rate of burning of all new types of fuses or when they have been in stock for long shall be checked before use. The detonators used shall be capable of giving an effective blasting of the explosives.

#### **3.4.5 Personnel**

Excavation of blasting shall be permitted only under the personal supervision of competent and licensed persons and trained workmen employed by the Contractor by his cost. All supervisors and workmen in charge of make up, handling, storage and blasting work shall be adequately insured by the Contractor.

The storage of explosives shall be in charge of a very reliable person approved by the Engineer-in-Charge. He may, if necessary cause police inquiry being made as to his reliability, antecedents, etc. The Contractor shall have to produce security for the person in charge of the explosives, if and as required by the Engineer-in-Charge or the civil authorities of the District.

The Contractor shall make sure that his supervisor workmen are fully conversant with all the rules to be observed in storing, handling and use of explosives. It shall be assured that the supervisor in charge, is thoroughly acquainted with the details of the handling and blasting operations.

#### **3.4.6 Storage of Explosives**

The contractor shall build at his cost a magazine for storing the explosives and portable magazine for carrying the explosives to work spot from the magazine or one storage magazine to be built near the site of the work on which explosive are to be used. The site of the magazine, its capacity and design shall be subject to approval by the Engineer-in-Charge and the Inspector of Explosives before the construction is taken up. As a rule, the explosives should be stored in a clean, dry, well ventilated bullet proof and fire proof building on an isolated site.

The explosives, detonators and fuse coils shall each be separately stored.

A careful and day to day account of the use of explosives shall be kept by the Contractor in register in a manner prescribed by the Engineer-in-Charge. The Engineer-in-Charge may also pay surprise visits to the storage magazine. In case of any unaccountable storage of the explosives or if the account is not found to have been maintained in a manner prescribed by the Engineer-in-Charge, the Contractor shall be liable to be penalized in which case, he shall not be entitled to any compensation for the losses etc.

The action taken under this clause shall be in addition to that which might be taken by the competent authorities or in the court of law. The magazine shall at all times be kept scrupulously clean.

No unauthorized person shall at any time be admitted inside the magazine. A notice shall be hung near the storage, prohibiting entrance of unauthorized persons.

The magazines on no account be opened during or on the approach of a thunder storm and no person shall remain in the vicinity of the magazine during such periods.

Magazine shoes without nails shall at all times be kept in the magazine and a wooden tube or cement trough about 300 millimeters high and 450 millimeters in diameter filled with water shall be fixed near the door of the magazine.

Persons entering the magazine, must put on the magazine shoes which shall be provided by the Contractor for the purpose and be careful.

- i. Not to put their feet on the clear floor unless they have the magazine shoes on.
- ii. Not to allow the magazine shoes to touch ground outside the clean floor.
- iii. Not to allow any dirt of grit to fall on the clean floor.

Person with barefoot shall before entering the magazine dip their feet in water and then step direct from tube over the barrier ( if there be one) on the clean floor.

A brush or broom shall be kept in the lobby of the magazine, for cleaning out the magazine, on each occasion it is opened for the receipt, delivery or inspection of explosives. No matches or inflammable material shall be allowed in the magazine. Light shall be obtained from an electric storage battery lantern.

No person having articles of steel or iron on him shall be allowed to enter the magazine. Oily cotton, rags, wastes and articles liable to spontaneous ignition shall not be allowed inside the magazine.

Workmen shall be examined before they enter the magazine to see that they have none of the prohibited articles on them.

No tools or implements other than those of copper, brass, gunmetals or wood shall be allowed inside the magazine. All tools shall be used with extreme gentleness and care.

Boxes of explosives shall not be thrown down or dragged along the floor, and shall be stacked on the wooden trestles.

Where there are white ants, the legs of the trestles shall rest in shallow copper, lead or brass bowls containing water. Open boxes of Dynamite shall be never be exposed to the direct rays of the sun. Empty boxes or loose packing materials shall not be kept inside the magazine. The magazine shall have lightning conductor, which should be got tested at least once a year, by an officer authorized by the Engineer-in-Charge. The Contractor shall within 15 days, comply with all the recommendations made by the officer, testing the lightning Conductor failing which the Engineer-in-Charge shall entitle to comply with the same at the Contractor's expenses which shall not be open to question or the Engineer-in-Charge may consider any action that he may consider.

The following shall be hung in the lobby of the magazine.

- a. A copy of rules both in English and the language in which the workers concerned are familiar.
- b. A statement showing the stock in the magazine at that particular time.
- c. A certificate showing the last date of testing of the lightning conductor.
- d. A notice that Smoking is strictly prohibited. .

The magazine shall be inspected at least twice a year by an officer representing the Engineer-in- Charge who shall see that all the rules are strictly complied with. He shall notify all omissions etc., to the Contractor who shall rectify the defects within a period of 15 days (fifteen days) from the date of receipt of the notice, falling which the Engineer-in-Charge may take whatever action he considers suitable.

### **3.4.7 Transport and Storing of Explosives:**

For the transport of explosives and detonators between the store and site, closed and strong containers made of soft materials such as timber, zinc. Copper, leather shall be used. Explosives and detonators shall be carried in separate boxes. For the conveyance of primer special container shall be used. The boxes and containers used, shall be kept closed. Explosives shall be stored and used chronologically to ensure the ones received earlier being used first. A make up house shall be provided at each working place in which

cartridge will be made up by competent and licensed men as required for the work. The make up house shall be separated from other buildings. Only electric storage battery lamps will be used in this house.

No smoking shall be allowed in the make up house or generally while dealing with explosives.

No child under 16 years of age & person who is in the state of introduction, shall be employed on the loading, unloading or transport of explosive or be employed in or allowed to enter the premises where explosives are handled and/or stored.

#### **3.4.8 Disposal of Deteriorated Explosives**

All deteriorated explosives shall be disposed off in an approved manner. The quantity of the deteriorated explosives to be disposed off shall be intimated to the Engineer-in- Charge prior to its disposal.

#### **3.4.9. Preparation of Primers**

The primers shall not be prepared near open flames or fire. The work preparation of primers shall always be entrusted to the same personnel. Primers shall be used as early as possible after they are ready.

#### **3.4.10.Charging of Holes**

The work of charging holes shall not commence before all the drilling work at the site is completed and the Contractor's supervisor satisfy himself to the effect by personal inspection. While charging, open lamps shall be kept away. For charging with powdered explosives, a naked flame shall not be allowed, Only wooden tamping rods, without any kind of metal on the rod shall be allowed to be used. The tamping rods shall have cylindrical ends. Bore hole must be of such size that the cartridges can easily pass down them, they shall not however to be too big.

Only one cartridge shall be inserted at a time and gently pressed into the hole with the tamping rod. The sand, clay or other tamping material used for filling the holes completely shall not be tampered too hard.

#### **3.4.11 Blasting**

Blasting shall be carried out during fixed hours of the day which shall have the approval of the Engineer-in-Charge. The hours once fixed shall not be altered without prior, written approval or the Engineer-in-Charge.

The site of blasting operations shall be prominently demarcated by red danger flags. The order for fire shall be given only by the Contractor's supervisor in charge of the work and his order shall be given only after giving the warning signal three times. So as to enable all the labour, watchmen, etc., to reach safe shelters.

All the roads and foot paths leading to the blasting areas shall be watched. Road closing barriers should be provided to close the traffic on these roads at least 400 meters away when the firing is to take place.

In special cases, suitable extra precautions shall be taken. The Engineer-in-Charge may however permit blasting for under ground excavation, without restriction of fixed time, provided that he is satisfied that proper precaution are taken to give sufficient warning to all concerned and that work of other agencies on the site is not hampered. For lighting the fuse, a lamp with strong flame such as carbide lamp shall be used,

The Contractor's Supervisor shall watch the required time for the firing of the fuses and shall see that all the workmen are under safe shelters in good time.

#### **3.4.12 Electrical Firing**

Only the Contractor's Supervisor in charge shall possess key of the exploder and short firing accessories and he shall keep it always with himself. Special apparatus shall be used as a source of current for the blasting operations. Power lines shall not be tapped for the purpose.

The detonators shall be checked before use. For blast in series, only detonators of the same manufacture and of the same group of electrical resistance shall be used.

Such electrical lines as could constitute danger for work of charging shall be removed from the site.

The firing cable shall have a proper, insulating cover so as to avoid short circuiting due to contact with water, metallic parts of rock.

The use of the earth as a return line shall not be permitted.

The firing cables shall be connected to source of current only when nobody is in the area of blasting. Before firing, the circuit shall be checked by a suitable apparatus. After firing whether with or without an actual blast the contact between the firing cables and the source of current shall be cut off before anyone is allowed to leave the shelter.

During storms, charging with electrical detonators shall be suspended. The charges, already placed in holes shall be blasted as quickly as possible but taking all the safety precautions, and giving necessary warning signals. If this is not possible the site shall be abandoned till the storm has passed.

#### **3.4.13 Precautions after Blasting**

After the blast, the Contractor's Supervisor must carefully inspect the work and satisfy himself that all the charges have exploded. After the blast is taken place in underground works, workmen shall not be allowed to go the place till all the toxic gas are evacuated from the face.

#### **3.4.14. Misfires**

If it is suspected that part of the blast has failed to fire and delayed, sufficient time shall be allowed to elapse before entering the danger zone. When fuse and blasting caps are used, a safe time should be allowed and then the Contractor's Supervisor alone shall leave the shelter to see the misfire.

None of the drillers are to work near this hole unless one of the two following operations have been carried out by the supervisor.

Either (i) the supervisor should very carefully (when the tamping is of camp clay) extract the tamping with a wooden scraper or jet of water or compressed air (using pipe of soft materials and withdraw the fuse with the primer and detonator attached after which a fresh primer and detonator with fuse should be placed in this hole and fired out or (ii) the hole may be cleared of 300 mm by scrapping and the direction then be ascertained by placing a stick in the hole, another hole may be drilled at least 225 mm away, and parallel to it. This hole should then be charged and fired. The balance of the cartridge and detonators found in the muck shall be removed.

Before leaving the work site, the Contractor's Supervisor should inform the supervisor of the relieving shift about any case of misfires and should point out the position with red cross demarcating the same, stating action he has taken in the matter. A register of misfires and their location and how they were dealt with shall be maintained by the Contractor.

The Contractor's Supervisor should also report at the Contractor's office all cases of misfires, the cause of the same and steps taken in this connection.

The names of day and night supervisors of the Contractor must be noted daily in the Contractor's office. If misfire has been found to be due to defective detonator or dynamite the whole quantity of box from which the defective article was taken must be returned to the Contractor's office for inspection and shall be disposed off.

Blasting operation, when considered necessary shall be taken up only with the written permission of the Engineer-in-Charge. Prior inspection shall be carried out for the safety and stability of the public and property. Blasting operations in the proximity of overhead power lines, communication lines, utility lines or other structures shall not be carried out until the operator or the owner or both of such lines have been notified and precautionary measures deemed necessary have been taken.

Any damage to the neighboring buildings, Properties, standing crops and life due to blasting shall be made good by the Contractor at his cost.

### 3.5.3.5 Haul roads and Approach Roads

Construction and maintenance of approach roads and haul roads will be the responsibility of the Contractor. The Department will have full right of way to those roads for inspection purposes. Proper road sign as directed have to be provided for safety. For haulage of earth, the Contractor shall construct ramps and haul roads of sufficient width along the shortest and most practicable route and shall maintain and illuminate them to a satisfactory manner. Watering of the haul road shall be done by the Contractor very often and as necessary to prevent raising of dust, formation of cuts and consequent deterioration of the surface. When ever service roads traverse through roads meant for public thorough fare or run close to the borrow area, the Contractor shall carry the excavation and haulage operation in such a manner as to ensure uninterrupted use of the service road and safety to the public. At the haul road and service road crossings the Contractor shall install necessary check gates and road signs. .

No extra payment is admissible as this is deemed to have been included in the unit bid price for earth work in the bill of quantities being contingent to the main work.

### 3.6.9 Slope Dressing

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

## Section 3.7 Slope Protection

### 3.7.2 Forming Dry Rubble Rock Toe

#### (A) General

The dry rubble rock toe along with filters shall be formed to the lines and grades as shown in the drawing. The forming of dry rubble rock toe filter consists of,

- i. Excavation of foundation trench 45cm. deep for laying filters and forming rock toe, ii. Laying sand filters, iii. Laying graded metal filters and iv. Forming dry rubble rock toe.

#### (B) Materials

- i. The filter materials should be composed of layers of fine sand, coarse sand and hard rock aggregates of thickness specified in plans and in schedule.
- ii. The fine and coarse sand to be used shall be composed of clean sand, well graded, hard siliceous material, free from injurious amounts of dust, lumps of clay, soft or flaky particles, shale, alkali, loam mica or other deleterious substance. If the same brought to site is dirty, it must be washed thoroughly, cleaned with water so as to get rid of all soluble impurities. The sand shall be screened and the fine and coarse ones stacked separately which shall confirm to the gradation specified hereunder.
- iii. The aggregates of 10 mm to 75 mm size shall consist of broken stone which are hard, dense and durable. The rock fragments shall be free of disintegrated and decomposed stone, soft, flaky, salt, alkali, vegetable material, and other deleterious substances like clay, lumps etc. They should be washed clean and stacked separately as per the gradation defined hereafter. iv. All the quantity of rock and spalls required for breaking the aggregates and those obtained from the spoil of canal rock blasting shall be available at site. It shall be insisted upon the Contractor to first utilize these materials to the full and the recovery of cost of the material used from such spoils from canal excavation shall be fixed by the Engineer-in- Charge, which is binding on the Contractor.
- v. The gradation of each filter layer shall meet the following requirement with respect to the materials in the adjacent filter layer. Each successive layer of material shall compose of materials such that the 15% size (15% smaller than and 85% larger than the diameter) is more than 5 times that of 15% size of the layer above.

vi. The requirement for grading of the filters shall be established by the field laboratory on the basis of mechanical analysis of the adjacent fill material. Mechanical analysis shall be performed on samples which have been compacted. The test is to be conducted by the Contractor at his cost in the presence of Department Engineers to be nominated by the Engineer-in-Charge.

vii. The following gradation is however tentatively and roughly indicated for the Contractor's information.

**FINE SAND**

At least 15% particles should be less than 0.3mm to 0.5mm in diameter.

**COURSE SAND**

At least 15% particles should be less than 2.50mm to 3mm in diameter.

**AGGREGATE**

10mm to 75mm rock aggregate: At least 15% particles should be less than 20mm in size. viii. Representative samples of these filter materials should be submitted by the Contractor to the Engineer-in-Charge of the work so that the mechanical analysis of the same could be carried out in the field laboratory and its gradation got tested and declared as permissible. In the event of the samples not conforming with the required gradation, the Contractor shall take

such steps and perform such operation as to result in obtaining the materials of the required gradation without claiming any extra consideration beyond his quoted rate.

**(C) Rock Toe**

i. The rock fill at the down stream toe of the bank shall be constructed to the finished lines and grades shown in the drawings.

ii. The rock fill shall be placed in layers not exceeding 0.30 meter thickness at a time. The large rock fragments shall be placed on the outer faces of rock toe and shall be closely and firmly set with hand with their broadest side down-wards and face normal to the finished slope. At least 25% of these stones on the outer faces, should be 300mm in depth in normal to the slope and to be well embedded in the mass and should be laid with breaking joints as far as possible, so as to secure a firm and stable rock mass. For the sloping surface away from the embankment interstices between the adjacent stone on the slope shall be well filled with stones of the proper size and tightly wedged by wooden mallets or crowbars to ensure firm packing to result in a neat and well packed surface true to the finished slope. For earth side slope the surface stones need not be wedged with smaller stones so as to allow free drainage of the embankment. Profiles of strings and pegs should be used to ensure that rock toe is done true, straight and to conform neatly to the designed slopes throughout

iii. Rock spall and stones not less than 0.014 cum in volume shall be dumped in the interior portion so as to claim a free draining, properly graded fill with the best practicable distribution of materials and prevent large unfilled spaces being left within the rock mass. The inclusion of rock spall in the mass to amount in excess of the required to fill the voids between the large stones shall be permissible. The stones used shall consist of sound dense and durable rocks and shall be reasonably well graded.

**(D) Slope and Bed Filter to Rock Toe**

i. Slope and bed filter should be laid for the rock toe consisting of filter materials of specified thickness and types shown in the drawings.

ii. The specification of the materials mentioned shall be the same as given in paragraph (B), above.

iii. The thickness of the various types of filter materials shall be specified in the plans.

**(E) Measurement and Payment**

Measurement and payment for filters shall be in the units of cubic meter. The payment shall be made on the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of the materials and labour involved in all the operations specified for formation of filters.

### 3.7.3 Rough Stone Dry Packing for Aprons and Revetments

- i. The bed or slopes to receive the packing shall first be provided as specified and passed by the Engineer-in-Charge. In case where the work of preparation of bed and slopes such as cutting out high bund, filling in hollows, etc. or the digging of the well foundations is rather extensive, separate items should usually be provided for such subsidiary kinds of work in the schedule of the agreement. But if the work involved in such subsidiary item is very little, no separate provision need be made and in the absence of such provision the Contractor shall understand that his tender rate is inclusive of all such work without extra charge. If the backing is to be laid on made up ground which is objectionable it shall so far as possible, not to be laid till the ground has completely settled if a backing of gravel, quarry rubbish or other material is to be given, it will be specified in a separate schedule item.  

The size of the stone to be used for dry stone revetment should be 225 mm and 300 mm thick or as specified.
- ii. The stone shall be perfectly sound, as regular in shape as possible, free from cracks and decay and with their lengths equal to the thickness of the required apron or revetments and  

each stone shall not be less in size than 0.05 cubic meter unless otherwise specified or ordered by the Engineer-in-Charge having required to the nature of the stone along quarried. The smaller size stones required for filling in interstices and wedging shall only be supplied to the actual requirements for the work as defined in clause (iv) below and shall not .be used in 2 or 3 layers as a substitute for the full thickness stone, specified in clause (ill) below. The stone shall be obtained from the quarry specified.
- iii. The stones shall be laid closely in position on the prepared bed and firmly set with their broadest end downwards, so that they may meet all round their bases and with the top of the stone, level with the finished surface of packing. The stones shall be laid breaking joints so far as possible in the direction of the flow of water. The stones are to be placed perpendicular to the finished surface i.e., perpendicular to the slope for revetments.
- iv. Interstices between adjacent stones shall be filled in with stones of the proper size, well driven in with crowbars to ensure tight packing and complete filling of all interstices. Such filling shall be carried on simultaneously with the placing in position of large stones and shall in no case be permitted to fall behind. The final wedging shall be done only after obtaining the orders of the Engineer-in-Charge. The final wedging shall be done with the largest size chip practicable, each chip being well driven home with a hammer so that no chip is possible of being picked up or removed by hand.
- v. Profiles of strings and pegs are to be put up to ensure that the pitching is done true, straight and to the proper slope throughout and revetments in all cases are to be built up from the foot of the bund to be reverted. Care is necessary that a strong toe wall or other protection is always given to the revetment. Such protective measures shall be shown on the plans.
- vi. On completion, the surfaces presented by the apron or revetment shall be even throughout free from irregularities to the required length, breadth and slope as specified or shown on the plans.

#### **Measurement and Payment**

Measurement and payment for rough stone dry packing for apron and revetment will be in the units of cubic meters. The payment will be made as per the relevant unit price bid in bill of quantities and the unit price shall include cost of furnishing, hauling of all materials and labour involved in all operations specified for rough stone dry packing.