

**कार्यालय अधिशासी अभियन्ता
सिंचाई खण्ड, सीतापुर**

**अतिअल्पकालीन निविदा सूचना सं०-02/अधि०अभि०/2017-18
ई-टेंडरिंग के माध्यम से कराये जाने वाले कार्यों की निविदा**

महामहिम राज्यपाल उत्तर प्रदेश की ओर से निम्नलिखित कार्यों हेतु ऑनलाइन <http://etender.up.nic.in> के माध्यम से निविदा, सिंचाई विभाग में पंजीकृत टेकेदारों से दिनांक:-21.09,2017 को अपरान्ह-12.00 बजे तक आमन्त्रित की जाती हैं, जो दिनांक:-22.09.2017 को अपरान्ह 12.00 बजे गठित समिति के समक्ष ऑनलाईन खोली जायेंगी। निविदा दिनांक-15.09.2017 को अपरान्ह 12.00 बजे से दिनांक-21.09.2017 को अपरान्ह 12.00 बजे तक डाउनलोड/अपलोड की जा सकती है। कार्यालय बन्द होने अथवा छुट्टी होने की दशा में यह बिड अगले कार्यालय दिवस में उसी समय खोली जायेंगी।

| क्र० सं० | लाट सं० | कार्य का विवरण | अनुमानित लागत (लाख रू० में) | धरोहर राशि (लाख रू०में) | कार्य को पूर्ण करने की अवधि | निविदा प्रपत्र का मूल्य+जी०एस०टी० (रू० में) | पंजीकृत श्रेणी |
|----------|---------|--|-----------------------------|-------------------------|-----------------------------|---|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. | 01 | Strengthening of counter berm between Km. 81.500 to Km 81.700 R/B of R.F.C. | 1.98 | 0.20 | 07 दिवस | 660.00 | डी एवं उच्च |
| 2. | 02 | Repairing of parapet wall and wing wall of V.R.B. at Km 74.200 , Km 77.800 and Km 81.300 of S.S.F.C. | 1.18 | 0.12 | 07 दिवस | 660.00 | तदैव |
| 3 | 03 | Repairing of parapet wall and wing wall of V.R.B. at Km 82.895 , Km 86.700 and Km 87.810 of S.S.F.C. | 1.83 | 0.20 | 07 दिवस | 660.00 | तदैव |
| 4. | 04 | Repairing of parapet wall of V.R.B at km 91.080 , Km. 94.400 and Km 98.700 of S.S.F.C. | 1.45 | 0.15 | 07 दिवस | 660.00 | तदैव |
| 5. | 05 | Construction of east (front) side boundry wall at Sahjani canal colony Mahmudabad | 1.00 | 0.10 | 07 दिवस | 660.00 | तदैव |
| 6. | 06 | Restoration of daula between Km 98.700 to Km 101.000 on left bank of LFC | 1.60 | 0.16 | 07 दिवस | 660.00 | तदैव |
| 7. | 07 | E/w in strengthening toe of canal for protection of boiling and seepage from Km 46.550 to Km 46.850 on left bank of LFC | 1.99 | 0.20 | 07 दिवस | 660.00 | तदैव |
| 8. | 08 | Repairing of parapet and wing wall of V.R.B.at Km . 50.000 , Km 52.050 and Km 56.350 and Lasker pur Syphon at km 56.050 of S.S.F.C. | 2.00 | 0.20 | 07 दिवस | 660.00 | तदैव |
| 9 | 09 | Earth work in strengthening & widening of counter bank & placing E.C bag at Counter Bank toe between km70 .200 to Km 70.260 on R/B of Right feeder channel | 1.98 | 0.20 | 07 दिवस | 660.00 | तदैव |
| 10. | 010 | Earth work in filling of Service Road depression and undulation to make it geepable from Km 63.700 to Km 65.700 L/B of L.F.C. | 1.96 | 0.20 | 07 दिवस | 660.00 | तदैव |

| | | | | | | | |
|-----|-----|--|------|------|---------|--------|------|
| 11. | 011 | Earth work in Strengthening of counter bank with laying filter for protection of boiling and seepage from Km 31.000 to Km 31.050 right bank of right feeder channel. | 2.00 | 0.20 | 07 दिवस | 660.00 | तदैव |
| 12. | 012 | Renovation of Residence B-1 in Canal Colony, Sitapur | 2.00 | 0.20 | 07 दिवस | 660.00 | तदैव |

- 1- यह निविदा/बिड सूचना उ0प्र0 सरकार की वेबसाइट <http://etender.up.nic.in> सूचना विभाग की वेबसाइट <http://information.up.nic.in> तथा सिंचाई विभाग की वेबसाइट <http://irrigation.up.nic.in> पर उपलब्ध है।
- 2- यह निविदा सूचना एवं प्रपत्र वेबसाइट <http://etender.up.nic.in> पर उपलब्ध है। निविदा के साथ सिंचाई विभाग की निर्धारित श्रेणी में पंजीकृत प्रमाण-पत्र, जिलाधिकारी द्वारा निर्गत चरित्र प्रमाण-पत्र (IDT-1), GST Registration प्रमाण-पत्र, हैसियत प्रमाण-पत्र (IDT-2), स्वघोषणा प्रमाण-पत्र (IDT-3) एवं समस्त अभिलेखों की स्कैन्ड प्रति वेबसाइट पर अपलोड किया जाना अनिवार्य होगा। टेक्निकल बिड खोलने के उपरान्त अपलोड किये गये समस्त अभिलेखों की मूल प्रति सत्यापन हेतु कार्यालय में जमा करनी होगी। वेबसाइट पर ड्राइंग उपलब्ध न होने की स्थिति में कार्यालय अधिशासी अभियन्ता, सिंचाई खण्ड, सीतापुर से ड्राइंग आदि प्राप्त कर सकेंगे।
- 3- उक्त कार्य का सम्पादन विभागीय विशिष्टियों तथा नवीनतम शासनादेश संख्या-99/2017/836/17-27-सिं0-4-46(डब्ल्यू)/12,दिनांक-12.05.2017 के अनुरूप किया गया है।
- 4- **कार्य तत्कालिक प्रवृत्ति के हैं तथा निर्धारित अवधि में पूर्ण कराये जाने अनिवार्य हैं।** विलम्ब होने अथवा राजकीय कार्य में बाधा उत्पन्न होने की दशा में पेनाल्टी/बीजक से कटौती तथा पंजीकरण निरस्त करने की कार्यवाही की जा सकती है।
- 5- निविदादाता को टेंडर सेल धनराशि जी0एस0टी0 सहित डिमाण्ड ड्राफ्ट के रूप में जो कि अधिशासी अभियन्ता, सिंचाई खण्ड, सीतापुर के नाम/पक्ष में बन्धक तथा सीतापुर में देय होगा, जिसकी Scanned Copy अपलोड करनी होगी, अन्यथा इनकी निविदा/बिड को Non-responsive मानते हुए कोई विचार नहीं किया जायेगा।
- 6- धरोहर धनराशि राष्ट्रीयकृत बैंक के द्वारा निर्गत केवल एन0एस0सी0/एफ0डी0आर0 के रूप में अधिशासी अभियन्ता, सिंचाई खण्ड, सीतापुर के नाम/पक्ष में बन्धक तथा सीतापुर में देय होना अनिवार्य है, जिसकी Scanned Copy आनलाईन अपलोड करना होगा।
- 7- प्रत्येक निविदादाता को फाइनैन्शियल बिड के साथ रू0 100/- जुडीशियल स्टैम्प पेपर पर एक रूपये का रसीदी टिकट लगाकर अनुबन्ध लिखना होगा कि दरें 90 दिवस तक मान्य होंगी। इससे पहले निविदा/ऑफर वापस लेने पर धरोहर धनराशि जब्त कर ली जायेगी। इसकी Scanned Copy आनलाईन निविदा के साथ अपलोड करनी होगी। नियमानुसार देय जी0एस0टी0, आयकर, स्टैम्प ड्यूटी, रायल्टी व प्रचलित टैक्स देय होगा। अनुबन्ध के समय **नियमानुसार स्टाम्प ड्यूटी** जमा करनी होगी।
- 8- कार्य स्थल की आवश्यकतानुसार कार्य की मात्रा घटाई/बढ़ाई जा सकती है, जिसके लिये ठेकेदार का कोई क्लेम मान्य नहीं होगा।
- 9- निविदादाता को उपरोक्तानुसार कार्य स्थल की पूर्ण जानकारी निविदा डालने से पूर्व स्वयं प्राप्त करनी होगी एवं कोई भी अन्य जानकारी सम्बन्धित कार्यालय से किसी भी कार्य दिवस में प्राप्त की जा सकती है।
- 10- निविदादाता/बिडर द्वारा निविदा डालते समय प्रक्रिया की पूर्ण जानकारी/ट्रेनिंग अथवा अन्य किसी कारण से शर्तों को पूर्ण न कर पाने/बाधित हो जाने के कारण निविदा न पडने पर विभाग की कोई जिम्मेदारी नहीं होगी।
- 11- इस निविदा को निरस्त करने का अधिकार बिना कारण बताये अधोहस्ताक्षरी के पास सुरक्षित रहेगा।
- 12- यह संज्ञान में आने पर कि किसी निविदादाता द्वारा किसी अन्य सम्भावित निविदादाता को इस निविदा प्रक्रिया में भाग लेने एवं निविदा डालने से रोका गया हो या धमकी दी गई हो, तो ऐसे ठेकेदारों के साथ यदि अनुबंध हो भी गया है, तो उसके साथ किया गया अनुबंध निरस्त किया जा सकता है।
- 13- कोई भी निविदादाता जो राज्य सरकार द्वारा काली सूची में दर्ज हो, वह निविदा प्रक्रिया में भाग न ले सकेंगे।
- 14- राज्य बार कौंसिल में पंजीकृत कोई भी अधिवक्ता निविदा प्रक्रिया में भाग न ले सकेंगे।
- 15- यदि कोई निविदादाता निर्धारित विधि एवं प्रक्रिया के विरुद्ध अनुबंध करने हेतु सक्षम प्राधिकारी पर दबाव/असमयक असर डालता है, तो प्रश्नगत निविदादाता के न्यूनतम निविदा की स्थिति में भी उसकी निविदा निरस्त की जा सकती है।
- 16- विशेष परिस्थितियों में निविदा खोलने की तिथि/समय में यदि कोई परिवर्तन होता है, तो इसकी सूचना ऑनलाईन उपलब्ध करा दी जायेगी।
- 17- प्राप्त सभी निविदा प्रपत्रों का पहले यह निरीक्षण किया जायेगा कि निविदादाता ने IDT-1, IDT-2, IDT-3 तथा निर्धारित प्रतिभूति धनराशि नियमानुसार उपलब्ध करायी है या नहीं। इसमें किसी प्रकार की कमी या असन्तोषजनक होने की स्थिति में निविदा निरस्त की जा सकती है।
- 18- अनुबंध गठित होने के पश्चात् भी यह तथ्य संज्ञान में आता है कि किसी भी स्तर पर नियमों का उल्लंघन किया गया है, तो ऐसे अनुबंध को सक्षम अधिकारी द्वारा सकारण आदेश प्रख्यापित कर निरस्त कर दिया जायेगा।
- 19- अन्य शर्तें एवं कार्य स्थल का विवरण निविदा प्रपत्र में संलग्न हैं।
- 20- शासनादेश संख्या-622/23-12-2012-2 आडिट/08टी0सी0 दिनांक-08.06.2012 के अनुसार कार्यों की विभागीय दरों से ठेकेदारों द्वारा 1 प्रतिशत से 10 प्रतिशत तक दर कम देने पर 0.5 प्रति 1 प्रतिशत कमी पर तथा 10 प्रतिशत से अधिक दरों में कमी पर प्रति 1 प्रतिशत कमी पर 1 प्रतिशत अतिरिक्त **परफारमेंस गारन्टी की अतिरिक्त धरोहर धनराशि** देय होगी। उक्त धरोहर धनराशि अनुबन्ध के समय जमा करने की बाध्यता होगी। अन्यथा निविदादाता द्वारा उक्त धनराशि जमा नहीं किये जाने पर उसकी धरोहर धनराशि जब्त कर ली जायेगी।
- 21- निविदादाता की ज्वाइंट वेंचर की निविदा किसी भी दशा में स्वीकार नहीं होगी।
- 22- सशर्त निविदा स्वीकार नहीं की जायेगी।
- 23- एक निविदादाता एक कार्य की केवल एक ही निविदा क्य कर सकेगा व डाल सकेगा।
- 24- नियमानुसार लेबर सेस की कटौती ठेकेदारों के बीजक से की जायेगी।
- 25- शासनादेश संख्या-383/36-2-2010 श्रम अनुभाग-2, दिनांक-26.02.2010 द्वारा भवन एवं सन्निर्माण कर्मकार नियोजन एवं सेवा शर्त विनियमन नियमावली-2009 के अन्तर्गत ठेकेदार को श्रम विभाग में किये जाने वाले उक्त कार्य का पंजीकरण कराया जाना आवश्यक है।

- 26- प्रत्येक निविदादाता को निम्नलिखित अभिलेख की मूल प्रति दिनांक-21.09.2017 तक कार्यालय अधिशासी अभियन्ता, सिंचाई खण्ड,, सीतापुर में अपराह्न 03.00 बजे तक जमा करना अनिवार्य होगा :-
- (क)- वैध पंजीयन की मूल प्रति।
- (ख)- समान या उच्च लागत के कार्यों का एकल अनुबंध, जोकि अनुबंध में निर्धारित समय अवधि में पूर्ण किया गया हो, का मूल अनुभव प्रमाण-पत्र।
- (ग)- IDT-1, IDT-2, IDT-3 प्रमाण-पत्रों की मूल प्रति।
- (घ)- निविदा मूल्य का डिमाण्ड ड्राफ्ट मूल रूप में।
- (ङ)- धरोहर धनराशि का डिमाण्ड ड्राफ्ट मूल रूप में।
- (च)- स्वघोषणा-पत्र मूल रूप में।
- (छ)- GST Registration प्रमाण-पत्र
- 27- अनुबन्ध सक्षम अधिकारी द्वारा गठित किये जायेंगे।
- 28- लाट संख्या-12 के अन्तर्गत कराये जाने वाले कार्य का अनुबन्ध धनावंटन प्राप्त होने के उपरान्त गठित किया जायेगा।

अधिशासी अभियन्ता,
सिंचाई खण्ड
सीतापुर

CREENTIALS OF TENDERER

(To be filled by the Tenderer)

- 1- Name of Tenderer:-
- 2- Permanent Address:-
- 3- Present Postal Address:-
- 4- State if you are approved contractor
Of the C.P.W.D. State P.W.D., State
Irrigation Department, Railway and/
or M.E.S. and if so, copy of Registration
certificate should be attached.
- 5- Particulars of previous contract
successfully executed should be
Entered in the form below.

| S.No. | Name of Department | Name & Description of Work | Value Rs. | Period of Execution | |
|-------|--------------------|-------------------------------|--------------|------------------------|----|
| | | | | From | To |
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | |
| | | | | | |
| | | | | | |

- 6- Reference/Certificate from your
Bankers about your financial
position should be attached.
- 7- List of machinery and equipment
which you intend to use on this
work to be given in attached Proforma-I.
- 8- In case tenderer is a firm, enclose
photostate/attested copy of
partnership deed & Certificate of
registration of firm.
- 9- Certificate
 - (a) I/We am/ are not debarred from tendering for contracts of central/state Govt.
departments.
 - (b) I/We hereby certify that information given above is correct. If at any stage, it is found to
be incorrect. I/We understand that the contract will be liable to be terminated/rescinded
and action could be taken against me/us by the employer.

Dated:.....

Signature of Tenderer

Place:.....

Certificate of Relationship

To,

**The
Executive Engineer,
Irrigation Division,
Sitapur**

Sir,

It is certified that except the person noted below, none of my relatives is employed in Irrigation Department, Uttar Pradesh.

| Name | Designation | Place of Posting |
|-------------|--------------------|-------------------------|
|-------------|--------------------|-------------------------|

.....

Dated :

Signature of Contractor

Place :

Full Address

.....

.....

N.B. : The following comes under the definition of relationship :-

1. Father, Mother, Sister, Brother, Brother-in-law, Daughter, Father-in-law, Mother-in-law, First cousin of self or wife. The list is illustrative and not exhaustive.

Contractor

DECLARATION

We

.....
.....
.....
.....

hereby declare that no work shall be taken in hand by me or by my authorized agent unless a proper work order in writing is issued to me by Executive Engineer /S.D.O. In case of default on my part, I fully understand that my security deposits will be forfeited and our name will be removed from the list of approved contractor.

Dated :

Place :

Signature of Contractor

Full Address

.....
.....

GENERAL CONDITIONS OF CONTRACT

1.0 DEFINITIONS

- (1) In the Contract, as hereinafter defined, the following words and expression shall have the meanings hereby assigned to them, except where the context otherwise requires:—
- a) 'Employer' means the Governor of Uttar Pradesh and the legal successors in title to the Employer, acting through the Executive Engineer, Irrigation Division, Sitapur or his authorized representative.
 - b) 'Contractor' means the person or persons, firm or company whose tender has been accepted by the Employer and includes the Contractor's personal representatives, successors and permitted assigns.
 - c) Chief Engineer shall mean the Chief Engineer (Sharda Sahayak), Irrigation Department, (Lucknow)
 - d) 'Engineer-in-Charge' or 'Engineer' means the Executive Engineer, Irrigation Division, Sitapur.
 - e) 'Engineer-in-Charge's representative' or 'Engineer's representative' means any resident engineer or Assistant Engineer of works appointed from time to time by the Employer or the Engineer to perform the duties set forth in writing whose authority shall be notified in writing to the Contractor by the Engineer-in-Charge.
 - f) 'Works' shall include both Permanent Works and Temporary Works.
 - g) 'Contract' means the Conditions of Contract, specification, Drawings, priced Bill of Quantities, Schedule of Rates and Prices, if any, Tender, Letter of Acceptance and the Contract Agreement, if completed.
 - h) 'Contract Price' means the sum named in the Letter of Acceptance, subject to such additions thereto or deductions there-from as may be made under the provisions herein after contained.
 - i) 'Construction Plant' means all appliances or things of whatsoever nature required in or about the execution or maintenance of the Works but does not include materials or other things intended to form or forming part of the Permanent Works.
 - j) 'Temporary Works' means all temporary works of every kind required in or about the execution or maintenance of the works.
 - k) 'Permanent Works' means the permanent works to be executed and maintained in accordance with the Contract.
 - l) 'Specification' means the specification referred to in the Tender and any modification thereof or addition thereto as may from time to time be furnished or approved in writing by the Engineer.
 - m) 'Drawings' means the drawing referred to in the Specification and any modification 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.

- n) 'Site' means the land and other places on, under, in or through which the Permanent Works or Temporary Works designed by the Engineer in charge are to be executed and any other lands and places provided by the Employer for working space or any other purpose as may be specifically designated in the Contract as forming part of the Site.
- o) 'Approved' means approved in writing, including subsequent written confirmation of previous verbal approval and 'approval' means approval in writing, including as aforesaid.
- p) 'Government' means Government of Uttar Pradesh (India) Department of Irrigation.
- q) 'I.S.S.' means Indian Standard Specifications published by Bureau of Indian Standard (B.I.S.).
- r) 'Day' means a day from midnight to midnight.
- s) 'Week' means seven consecutive days.
- t) 'Month' means from the beginning of a given date of a calendar month to the end of the preceding date of the next calendar month.
- u) 'Quarter' means a period of 3 months reckoning from the 1st date of January, April, July and October and counted to the last date of March, June, September and December respectively.
- v) 'Rupees' means Rupees of Indian Currency.

1.1 INTERPRETATIONS

- (1) Words importing the singular only also include the plural and vice versa where the context so requires, 'he' includes 'she' and vice versa unless this is repugnant to the context.
- (2) Wherever the term 'Specification' is used apart from a specified Standard Specification, it shall mean the specification or plan prepared for a particular site as instructions to the Contractor in executing that item of work.
- (3) The headings in these Conditions of Contract shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or of the Contract.
- (4) The word 'cost' shall be deemed to include overhead costs whether on or off the site.
- (5) For the purpose of these documents the terms 'bid / Tender', 'bidder / Tenderer', 'Bidding / Tendering' and other similar expressions are synonymous.

2.0 GENERAL

The rates given by the contractor will remain firm during the currency of the agreement.

No claim shall be entertained for damage to works or materials or the loss suffered by the contractor owing to floods, rains, fluctuations in market rates or labour and materials or any other reason occurring prior to the final measurement and taking over of the work or part thereof by the Engineer-in-Charge.

3.0 TOOLS, PLANT AND EQUIPMENT

The contractor shall arrange for his own machinery and equipment required for timely and successful completion of the work as per specification. Government equipment, if available may be supplied on the discretion of the Engineer-in-Charge to the contractor from the Government godown on written request of the contractor. The contractor shall give receipt for the same as his acknowledgement.

The carriage of the equipment to work site and back to Government godown after use shall be done by the contractor at his own cost. The terms and conditions for hire of the equipment shall be fixed by the Engineer-in-Charge.

4.0 TIME FOR COMPLETION

The time for completing the work is including rainy season. The progress of the work shall be maintained generally as per following time schedule.

| Sl.No. | Time | Progress of work |
|---------------|---------------------------|-------------------------|
| 1. | Up to ¼ of the total time | 25% |
| 2. | Up to ½ of the total time | 50% |
| 3. | Up to ¾ of the total time | 75% |
| 4. | Up to full time | 100% |

The liquidated damage will be imposed on the contractor @ 0.25% of the cost of contract/day subject to the maximum 10% of the contract value in case the work progress is delayed from the schedule of progress written above.

5.0 CONSTRUCTION PROGRAMME

The contractor shall submit a detailed construction programme of completion to suit the progress of contract as given earlier for the entire contract period including requirement of materials to be supplied by the department, within fourteen days after the date of notice to proceed with the work.

6.0 CURRENCY OF PAYMENT

Payment will be made in the Indian currency in which the price has been stated in the bid.

7.0 ASSIGNMENT AND SUBLETTING OF CONTRACT

- (i) Assignment of the contract is not permissible.
- (ii) The contractor shall not without the written consent of the Engineer-in-Charge sublet any portion of the contract. Any subletting shall in no way absolve the contractor of any of his responsibilities under this contract.

8.0 PLANT, TEMPORARY WORKS AND MATERIALS

The contractor shall provide at his own expense all constructional plant, temporary works and materials required for the execution of the work. All constructional plant, temporary works and materials provided by the contractor shall, when brought on to the site, be deemed to be exclusively intended for the execution of the works and the contractor shall not remove the same or any part thereof, without the consent, in writing, of the Engineer-in-Charge.

9.0 GENERAL OBLIGATION OF THE CONTRACTOR

(A) General responsibilities:

- (a) The contractor shall furnish the postal address of his site office. Any notice or instruction to be given to the contractor under the terms of the contract shall be deemed to have served if it has been delivered to his authorized agent or representative at site, or sent by registered letter to the site office, or to the address of the firm last provided by the contractor.
- (b) The contractor shall, subject to the provisions of the contract, and with due care and diligence, execute and maintain the works and provide all labour, including the supervision thereof, materials, constructional plant and all other things, whether of a temporary or permanent nature, required in and for such execution and maintenance, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the contract.
- (c) The contractor shall take responsibility for the adequacy, stability and safety of all site operations and methods of construction, provided that the contractor shall not be responsible, except as may be expressly provided in the contract, for the design or specification of the permanent works, or for the design or specification of any temporary works prepared by the Engineer-in-Charge.
- (d) The contractor shall promptly inform the Employer and Engineer-in-Charge of any error, omission, fault and other defect in the design or specifications for the works which are discovered when reviewing the contract documents or in the process of execution of the works.

(B) Contract Agreement:

The contractor, on receipt of form of agreement annexed (with such modifications as may be necessary) shall enter into and execute a contract agreement to be prepared and completed at the cost of the employer.

(C) Inspection of site:

The Employer shall have made available to the contractor with the Tender documents such data on hydrological and subsurface conditions as shall have been obtained by or on behalf of the Employer from investigations undertaken relevant to the works and the tender shall be deemed to have been based on such data, but the contractor shall be responsible for his own interpretation thereof.

The contractor shall also be deemed to have inspected and examine the site and its surroundings and information available in connection therewith and to have satisfied himself, so far as is practicable, before submitting his tender, as to the form and nature thereof, including the sub-surface conditions, the hydrological and climatic conditions, the extent and nature of work and materials necessary for the completion of the work, the means of access to the site and the accommodation he may require and, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his tender.

(D) Sufficiency of Tender:

The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in the priced bill of Quantities and the Schedule of Rates and prices, if any, which tender rates and prices shall, except in so far as it is otherwise provided in the contract, cover all his obligations under the contract and all matters and things necessary for the proper execution and maintenance of the works.

(E) Work to be to the satisfaction of the Engineer-in-Charge:

So far as it is legally or physically possible, the contractor shall execute and maintain the work in strict accordance with the contract to the satisfaction of the Engineer-in-Charge and shall comply with and adhere strictly to the Engineer's instructions and directions on any matter whether mentioned in the contract or not, touching or concerning the works. The Contractor shall take instruction and directions only from the engineer or from engineer's representative.

(F) Watching and Lighting:

The contractor shall in connection with the works provide and maintain at his own cost all lights, guards, fencing and watching when and where necessary or required by the Engineer or the Engineer's Representative, or by any duly constituted authority, for the protection of the works, or for the safety and convenience of the public or others.

10.0 PURPOSE OF DRAWINGS AND SPECIFICATIONS AND PERFORMANCE THERE TO

The contractor drawings read together with the contract specifications are intended to show and explain the manner of executing the work and to indicate the type and class of materials to be used.

The works shall be carried out in accordance with the directions of Engineer-in-Charge, in accordance with the drawings and specifications which form part of the contract and in accordance with such further drawings, details and instructions as may, from time to time, be given by the Engineer-in-Charge.

Only stated dimensions are to be taken and not those obtained from scaling off the drawings. In case of any discrepancy between the description of items in the schedule of quantities and the specifications, the latter shall prevail. In case any feature of the work is not fully described and set forth in the drawings and specification, the contractor shall forth with apply to the Engineer-in-Charge for further instructions, drawings or specifications.

11.0 SIGNED DRAWINGS—NO AUTHORITY TO THE CONTRACTOR

Signed drawing alone shall not be deemed to be an order for work unless it is entered in the agreement or schedule of drawings under proper attestation of the contractor and the Engineer-in-Charge or unless it has been sent to the contractor by the Engineer-in-Charge with a covering letter confirming that the drawing is an authority for work in the contract.

12.0 COPIES OF DRAWING AND SPECIFICATIONS

Three sets of the drawings, any modified or supplementary drawings, and the specifications shall be furnished free of cost to the contractor.

13.0 PLANS AND DRAWINGS

The contractor shall submit the following information, in triplicate, to the Engineer-in-Charge for approval within the time stipulated against each item below:

- (i) A general layout plan of construction plant and equipment for the execution of work within fourteen days from the date of notice to proceed with the work, and
- (ii) Drawings of prints showing the location of major plants and other facilities which he proposed to put up at the site, including any changes in the general layout, prior to the commencement of the respective work.

14.0 REFERENCE MARKS AND BENCH MARKS

The basic center lines, reference points and bench marks will be fixed by the department.

The contractor shall establish at his cost, at suitable points additional reference line and bench marks as may be necessary. The contractor shall remain responsible for the efficiency and accuracy of all his bench marks and reference lines. He shall take precautions to see that the lines, points and bench marks fixed by the departments are not disturbed by his work and shall make good any such damage.

15.0 MATERIALS, WORKMANSHIP, PERIOD, MAINTENANCE AND DEFECT LIABILITY ETC.

(A) Quality:

All materials, articles and workmanship shall be of the most suitable quality for the work.

(B) Tests, Inspection, Rejection of Defective Material and Work:

The Contractor shall without extra cost provide samples and cooperate in the testing of materials and inspection of the works. The Engineer-in-Charge shall have access at all times to the places of storages and where materials are being manufactured and processed for using the works under the contract, to determine whether their manufacture and process are proceeding in accordance with the drawing and specification.

The Engineer-in-Charge shall during the progress of the works have power to order in writing from time to time:-

- a) The removal from the site, within such time or times as may be specified in the order, of any materials which, in the opinion of the Engineer-in-Charge, are not in accordance with the contract.
- b) The substitution of proper and suitable materials and
- c) The removal and proper re-execution, notwithstanding any previous test thereof or interim payment made thereof of any work, in respect of materials or work which, in the opinion of the Engineer-in-Charge is not in accordance with the contract.

The Contractor shall carry out such order at no extra cost to the employer. In case of default on the part of the contractor in carrying out such order, the employer shall be entitled to employ and pay other persons to carry out the same and all expense consequent thereon or incidental thereto shall be recoverable from the contractor by the employer or may be deducted by the employer from any money due or which may become due to the contractor.

In lieu of removing work or materials which are not in accordance with the contract, the Engineer-in-Charge may allow such work or materials to remain, and in that case such work may be paid at the reduced rates as may be decided by the Engineer-in-Charge. However, any action by the Engineer-in-Charge under this para shall not in any way, absolve the contractor from his responsibility, and liabilities as per terms and conditions of the contract.

(C) Covering of Works:

No work shall be covered up or put out of view without the approval of the Engineer-in-Charge and the contractor shall afford full opportunity for examination and measurement of such work before it is covered up or put out of view. The contractor shall give due notice to the Engineer-in-Charge whenever such work is ready for examination and the Engineer-in-Charge shall within a reasonable period, arrange for examining and measuring such work, unless he considers it unnecessary and advises the contractor accordingly.

(D) Opening of works for Inspection:

The Contractor shall at the request of Engineer-in-Charge open for inspection any work covered up. In the case of work so opened up the Engineer-in-Charge shall promptly, after the receipt of a notice from the contractor that the work has been opened, make or cause the inspection thereof to be made. Should the contractor refuse or neglect to comply with such a request, the Engineer-in-Charge may cause such work to be opened up. If the said work has been covered up in contravention of the Engineer-in-Charge instructions, or if on being opened up, it be found not in accordance with the contract requirements, the expenses of opening and replacing it shall be borne by the contractor. If the work has not been covered up in contravention of such instruction, or it on being opened up, it found to be in accordance with the contract requirements, the expenses shall be borne by the employer.

(E) Period of Maintenance and Defects Liability:

The Contractor shall be responsible to make good within such period as may be stipulated by the Engineer-in-Charge any defect which may develop or may be noticed during period of maintenance of 180 days from the certified date of completion and which is attributable to the contractor. All notice of such defect shall be given to the contractor promptly. In case the contractor fails to make good the defects, the Engineer-in-Charge may employ other persons to make good such defects, and all expenses consequent there-of and incidental there-to shall be borne by the contractor.

In the event the Employer takes over portions of work as they are completed, the liability of the contractor under clause for those portions shall extend to a period of 180 days from the actual dates on which portions of the works are taken over.

(F) Contractor's Superintendence and Supervision:

- a) The contractor shall provide all necessary superintendence during the execution of the works and as long thereafter as may be necessary for the proper fulfilling of the contractor's obligations under the contract. The contractor or a competent and authorized agent or representative approved of in writing by the Engineer-in-Charge is to be constantly on the works and shall give his whole time to the superintendence of the same.
- b) The contractor shall provide and employ on the site in connection with the execution and maintenance of the works.
 - (i) Only such technical assistants as are skilled and experienced in their respective callings and such sub-agents, foremen and leading hands as are competent to give proper supervision to the work they are required to supervise, and
 - (ii) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the works.

(G) Construction Plant:

The Contractor shall provide and install all necessary construction plant and shall use such methods and appliances for the performance of the operations connected with the work awarded under the contract as will secure a satisfactory quality of work and rate of progress which ensure the completion of the work within the time specified.

(H) Setting out Works:

The Contractor shall be responsible for the correct setting out of all works at his cost. The contractor shall execute the work true to alignment, grade and levels as shown in the drawings and as directed by the Engineer-in-Charge and shall check these at frequent intervals. The contractor shall provide, all facilities like labour and instruments, and shall cooperate with the Engineer-in-Charge to check all alignments, grades, levels, and dimensions. Such checking shall not absolve the contractor of his own responsibility of maintaining the accuracy of the work.

16.0 INFORMATION AND DATA

The information and data furnished herein relative to the works and site conditions are general. It shall be the responsibility of the contractor to fully acquaint himself with the nature and the location of works, quarries, local conditions and other aspects which are relevant to the work.

17.0 USE AND CARE OF SITE

The contractor will be permitted to use without charge, the site and the lands for execution of work, labour, staff colonies, site officers, workshops or stores and for related activities. The contractor shall not commence any operation on such lands except with the approval of the Engineer-in-Charge. If these lands are not adequate, the contractor may have to make his own arrangements for additional lands.

The contractor shall not demolish, remove or alter the structures, trees or other facilities on the site without prior approval of the Engineer-in-Charge. All rubbish shall be burnt or removed from the site as it accumulates.

All surface and soil drains shall be kept in a clean, sound and workman like state. All the areas of the contractor's operations shall be cleared before returning them to the Employer. The contractor shall make good any damage or alternations made to areas, property or land handed over to him before these are returned.

18.0 PROTECTION OF ADJOINING PREMISES

The contractor shall protect adjoining sites against structural, decorative and other damages that could be caused by the execution of these works and make good at his cost, any such damages.

19.0 ACCIDENTS AND INSURANCE AGAINST ACCIDENTS ETC. TOWORKMEN

- a) The department shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workman or other person in the employment of the contractor or any sub-contractor. The contractor shall indemnify and keep indemnified the employer against all such damages compensation, and against all claims, proceedings, costs, charges and expense whatsoever in respect thereof or in relation thereto.
- b) On the occurrence of an accident arising out of the works which results in death or which is so serious as to be likely to result in death, the contractor shall within twenty four hours of such Accident, report in writing, to the Engineer-in-Charge, the facts stating clearly and in sufficient details the circumstances of such accident and the subsequent action. All other accident on the works involving injuries to persons, damage to property other than that of the contractor shall be promptly reported to the Engineer-in-Charge stating clearly and in sufficient details the facts and circumstances of the accidents and the action taken. In all cases the contractor shall indemnify the Employer against all loss or damage resulting directly or indirectly from the contractor's failure to report in the manner aforesaid. This includes penalties or fines if any, payable by the employer as a consequence of failure to give notice under the workmen's compensation act or failure to conform to the provisions of the said act in regard to such accidents.
- c) In the event of an accident in respect of which compensation may become payable under the Workmen's Compensation Act including all modifications thereof, whether such compensation may become payable by the contractor or by the Government as principal employer, the Engineer-in-Charge may retain out of money due and payable to the contractor such sum or sum of money as may, in the opinion of the Engineer-in-Charge, be sufficient to meet such liability. On receipt of award from the labour commissioner in regard to quantum of compensation, the difference in amount will be reimbursed to or recovered from the contractor.
- d) The contractor shall insure against such liability with an insurer approved by the Government, which approval shall not be unreasonably withheld, and shall continue such insurance during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the engineer or the engineer's representative such policy of insurance and the receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor, the contractor's obligation to insure as aforesaid under this sub-clause shall be satisfied if the subcontractor shall have insured against the liability in respect of such persons in such manner that the employer is indemnified under the policy, but the contractor shall require such sub-contractor to produce to the Engineer or the Engineer's representative, when required, such policy of insurance and the receipt for the payment of the current premium.

20.0 CERTIFICATE OF COMPLETION OF WORKS

- a) When the whole of the works have been substantially completed and have satisfactorily passed any final test that may be prescribed by the contract, the contractor may give a notice to that effect to the engineer or to the engineer's representative accompanied by an undertaking to finish any outstanding work during the period of maintenance. Such notice and undertaking shall be in writing and shall be deemed to be a request by the contractor for the engineer to issue a certificate of completion in

respect of the works. The Engineer-in- Charge shall, within twenty-one days of the date of delivery of such notice, issue a certificate of completion stating the date on which, in his opinion, the works were substantially completed in accordance with the contract or give instructions in writing to the contractor specifying all the work which, in the Engineer's opinion, requires to be done by the contractor before the issue of such certificate. The engineer shall also notify the contractor of any defects in the works affecting substantial completion that may appear after such instructions and before completion of the works specified therein. The contractor shall be entitled to receive such certificate of completion within twenty-one days of completion to the satisfaction of the engineer of the works so specified and making good any defects so notified.

- b) If any part of the permanent works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed by the contract, the engineer may issue a certificate of completion in respect of that part of the permanent works before completion of the whole of the works and upon the issue of such certificate, the contractor shall be deemed to have undertaken to complete any outstanding work in that part of work during the period of maintenance.
- c) Provided always that a certificate of completion given in respect of any section or part of the permanent works before completion of the whole shall not be deemed to certify completion of any ground or surfaces requiring reinstatement, unless such certificate shall expressly so state.

21.0 TOLLS AND DUTIES

The contractor shall, unless otherwise specifically provided in the contract, pay all duties, tolls, quarry fees, royalties and other taxes on all materials and articles that he may use.

22.0 OLD CURIOSITIES

All old curiosities, relics, coins, minerals and any other item of archeological importance found in excavation or pulling down shall be the property of the Government and shall be handed over to the Engineer-in-Charge. Should any structure be uncovered, the Engineer-in-Charge's instruction shall be obtained before its demolition or removal.

23.0 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 drawings and contract specifications, 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.

24.0 OTHER CONTRACTORS

When two or more contractors are engaged on work in the same vicinity, they shall work together in a spirit of cooperation and accommodation. The contractor shall not take any steps or actions that may cause disruptions, discontent or disturbance in the neighboring and project localities. In cause of any difficulties amongst the contractors, the Engineer-in-Charge shall direct the manner in which each contractor shall conduct his work so far as it affects the others.

25.0 OTHER WORKMEN

The Engineer-in-Charge shall have full authority to depute workmen on the work site to execute other works not included in the contract. The contractor shall afford every reasonable facility during working hours, to enable such workmen to carry out the other works provided that such works shall be carried out in such a manner as not to impede the progress of the work included in the contract. The contractor, however, shall not be liable for any damage which may happen to or be occasioned by such other works, provided he complies with the instructions in connection therewith and provided that the damage is not caused by the contractor or his workmen.

26.0 VARIATIONS AND EXTRA ITEM

(A) *Variations:*

- a) All quantities set out in the bill of quantities are the estimated quantities of the work based on preliminary drawings and they are not to be taken as the actual and correct quantities of the works to be executed by the contractor in fulfillment of his obligations under the contract.
- b) The Engineer-in-Charge shall make any variation of the form, quality or quantity of the works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any other reason it shall, in his opinion be desirable, he shall have power to order the contractor to do so and the contractor shall do any of the following:
 - (i) Increase or decrease the quantity of any work included in the contract,
 - (ii) Omit any such work,
 - (iii) Change the character or quality or kind of any such work,
 - (iv) change the levels, lines, position and dimensions of any part of the works, and execute additional work of any kind necessary for the completion of the works, change any specified sequences, method or timing of construction of any part of the works and no such variation shall in any way vitiate or invalidate the contract. The quantities given in the tender may vary up to any amount on either side. The contractor shall not claim anything on this account and will carry out the work at his tendered rates.

(B) *Extra items:*

The extra or additional work done or work omitted by order of the Engineer-in- Charge shall be valued at the rates and prices set out in the contract if, in the opinion of the Engineer-in-Charge, the same shall be applicable. If the contract does not contain any rates or prices applicable to the extra or additional work, then rates will be fixed as per clause-16 of I.D. Form No.–111 annexed with the tender.

27.0 CLAIMS

The contractor shall send to the engineer-in-charge all claims for any additional payment to which the contractor may consider himself entitled within a fortnight of the claim as enumerated in Form–111 (Conditions of the contract). He shall also give details of all extra or additional work ordered by the engineer-in-charge which he has executed during the preceding month. No final or interim claim for payment for any such work or expense will be considered which has not been included in such particulars. Provided always that the engineer shall be entitled to authorize payment to be made to any such work or expense, notwithstanding the contractor's failure to comply with this condition, if the contractor has, at the earliest practicable opportunity, notified the engineer-in-charge in writing that he intends to make a claim for such work.

28.0 MEASUREMENT AND PAYMENT

- a) The engineer-in-charge shall, except as otherwise stated, ascertain and determine by measurement the value in terms of the contracts of work done in accordance with the contract. He shall, when he requires any part or parts of the works to be measured, give notice to the contractor's authorized agent or representative, who shall forthwith attend or send a qualified agent to assist the engineer-in-charge or the engineer's-in-charge representative in making such measurement, and shall furnish all particulars required by either of them. Should the contractor not attend, or neglect or omit to send such agent, then the measurement made by the engineer-in-charge or approved by him shall be taken to be correct measurement of the work. For the purpose of measuring such permanent work as is to be measured by records and drawings, the engineer's-in-charge representative shall prepare records and drawings month by month of such work and the contractor, as and when called upon to do so in writing, shall, within fourteen days, attend to examine and agree such records and drawings with the Engineer's-in-Charge representative and shall sign the same when so agreed. If the contractor does not so attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the contractor does not agree the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the contractor shall, within fourteen days of such examination, lodge with the engineer's-in-charge representative, for decision by the engineer-in-charge, notice in writing of the respects in which such records and drawings are claimed by him to be incorrect.
- b) The works shall be measured net, notwithstanding any general or local custom, except where otherwise specifically described or prescribed in the contract.
- c) Payments will be made to the contractor according to availability of funds.
- d) On completion of the entire work, the contractor will submit his final bill. Payment of this bill shall not be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which it relates, nor shall it relieve the contractor from his liabilities arising from any defects.
- e) All interim payments shall be treated as advance payments. All payments will be made by cheque.

29.0 RECOVERIES

Any debts due from Indian contractors, advised by the Government, shall be recovered from any bill or money retained from this contract.

30.0 JURISDICTIONS

The contract shall be governed by the laws of India and of Uttar Pradesh for the time being in force and be subject to the jurisdiction of the High Court of judicature at Allahabad.

31.0 PATENTS AND COPY RIGHTS

The contractor shall save harmless and indemnify the employer from and against all claims and proceedings for or on account of infringement of any patent rights, design, trademark or name or other protected rights, design, trademark or name or other protected rights in respect of any constructional plant, machine, work or material used for or in connection with the works or any of them and from and against all claims, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. Except where otherwise specified, the contractor shall pay all tonnage and other royalties, rent and other payments or compensation, if any, for getting stone, sand, gravel, clay or other materials required for the works or any of them.

32.0 RULES REGARDING LABOUR LAWS IN UTTAR PRADESH

The contractor shall be bound and shall be responsible to comply with the provisions of the labour laws in force in the state of Uttar Pradesh including the Minimum Wages Act to any enactment in suppression, extension or modification there of which may be passed at any time or from time to time by a competent legislative body and may have effect in the State of Uttar Pradesh and Rules and Regulations made there under or any amendment of modifications thereof for the time being in force; All expenses in connection with the compliance of such laws and rules shall be borne by the contractor, and the contractor shall neither demand nor claim nor shall be entitled to any additional payment for the reason that he failed to take into account any such expenses in his tender of that any subsequent amendments in such laws or rules have changed the basis on which he worked out such expenses shall submitting his tender. In every case in which by virtue of the provisions of the labour laws in force in the State of Uttar Pradesh and the rules and regulations made there-under, the employer is obliged to pay any sum in the execution of the work. Employer will recover from the contractor the amount so paid, and without prejudice to the other rights of the Department, the Department shall be at liberty to recover such amount or any part thereof by deducting it either from the security money deposited by the contractor or to his credit under clause-1 of I.D. Form No.-111 or from any other sum due by employer to the contractor whether under this contract or otherwise.

33.0 SAFETY PROVISIONS

The contract shall arrange for the safety in his operation as required including the provisions in the safety manual published by the Central Water Commission New Delhi. In case the contractor fails to make such arrangements the engineer-in-charge shall be entitled to cause them to be provided and to recover the cost thereof from the contractor. For failure to comply with provisions of the safety manual the contractor shall without prejudice to any other liability pay to employer a sum not exceeding Rupees one hundred per day for each day of default.

34.0 TAXATION

(1) *Local Taxation:*

The prices bid by the contractor shall include all customs, duties, import duties, business taxes, income and other taxes that may be levied according to the laws and regulations in being as of the date 30 days prior to the closing date for submission of bids on the constructional plant, materials and supplies (both permanent, temporary and consumable) acquired for the purpose of the contract and on the service performed under the contract. Nothing in the contract shall relieve the contractor from his responsibility to pay any tax that may be levied on profits made by him in respect of the contract.

(2) *Income Tax:*

- a) Deduction will be made towards income tax at source by the Employer as directed by Income Tax Department from contractors.
- b) The contractor's staff, personnel and labour will be liable to pay personal income taxes in respect of such of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

35.0 G. S. T. DEDUCTION

- (1) As per government rule applicable and recovered from contractor's bill
- (2) Any tax imposed by U.P. Govt. shall be recovered from contractor's bill.

36.0 Labour Cess DEDUCTION

- (1) As per government rule applicable and recovered from contractor's bill

37.0 CONTRACTOR DYING, BECOMING INSOLVENT, INSANE OR IMPRISONED

In the event of the death or insanity of the contractor, the contract may be terminated by notice in writing, pasted at the site and advertised in the issue of the local newspaper. All acceptable works shall thereafter, be paid at appropriate rates after recovering all the contractor's dues to Government, to the persons entitled to receive and give a discharge for such payments.

If the contractor is imprisoned, becomes insolvent, compounds with his creditors, has a receiving order made against him or carries on business under a receiver for the benefit of the creditors or any them, or being a partnership firm becomes dissolved, or being a corporation goes into liquidation or commences to be wound up not being a voluntary winding up for the purpose only of amalgamation or reconstruction, the Employer shall be at liberty:

- a) To give such liquidator, receiver, or other person in whom the contract may become vested the option of carrying out the contract, or a portion thereof to be determined by the employer, subjects to his providing an appropriate guarantee for the performance of such contract, or
- b) To terminate the contract forthwith by notice in writing to the contractor, the liquidator, the receiver or person in whom the contract may become vested and take further action as provided in the clause 'Default by Contractor' treating as if this termination is ordered under that clause.

38.0 COMPENSATION FOR DELAY

The compensation for delay shall be as per clause-2 of I.D. form No.-111.

39.0 CARE OF WORKS AND EXPECTED RISKS

- (1) From the commencement of the works until the date stated in the certificate of completion for the whole of the works pursuant to relevant clause here of the contractor shall take full responsibility for the care thereof. Provided that if the Engineer-in-Charge shall issue a certificate of completion in respect of any part of the permanent works the contractor shall cease to be liable for the care of that part of the permanent works from the date stated in the certificate of completion in respect of that part and the responsibility for the care of that part shall pass to the employer. Provided further that the contractor take full responsibility for the care of any outstanding work which he shall have undertaken to finish during the Period of maintenance until such outstanding work is completed. In case any damage, loss or injury shall happen to the work, or to any part thereof, from any cause whatsoever, save and except the excepted risks as defined in sub-clause
- (2) Of this clause, while the contractor shall be responsible for the care thereof the contractor shall, at his own cost, repair and make good the same, so that at completion the permanent works shall be in good order and condition and in conformity in every respect with the requirements of the contract and Engineer's instructions. In the event of any such damage, loss or injury happening from any of the excepted risks, the contractor shall, if and to the extent required by the Engineer-in-Charge and subject always to the provisions of relevant clause here of repair and make good the same as aforesaid at the cost of the Employer. The contractor shall be liable for any damage to the works occasioned by him in the course of any operations carried out by him for the purpose of completing any outstanding work.
- (3) The 'excepted risks' are war, hostilities (whether war be declared or not), invasion, act of foreign enemies, rebellion, revolution, insurrection or military or usurped power, civil war, or unless solely restricted to employees of the contractor or of his sub-contractors and arising from the conduct of the

works, riot, commotion or disorder or use or occupation by the employer of any part of the permanent works, or a cause solely due to the engineer's design of the works, or ionizing radiations or contamination by radioactivity from any nuclear

fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosive, or other hazardous properties of explosive, nuclear assembly or nuclear component thereof, pressure waves caused by aircraft or other aerial devices traveling at sonic or supersonic speeds, or any such operation of the forces of nature as an experienced contractor could not foresee, or reasonably make provision for or insure against all of which are herein collectively referred to as the excepted risks.

40.0 EXTENSION OF TIME FOR COMPLETION

Time shall be considered as the essence of the contract. Should the amount of extra or additional work of any kind or any cause of delay referred to in these conditions or any cause of delay referred in earlier clauses here of, or exceptional adverse climatic conditions, or other special circumstances of any kind whatsoever which may occur, other than through a default of the contractor, be such as fairly to entitle the contractor to an extension of time for the completion of works, the Employer shall determine the amount of such extension and shall notify the contractor accordingly. Provided that the Employer is not bound to take into account any extra of additional work or other special circumstances unless the contractor has **within three days** after such work has been commenced, or such circumstances have arisen, or as soon thereafter as is practicable, submitted to the engineer's-in-charge representative full and detailed particulars of any extension of time to which he may consider himself entitled in order that such submission may be investigated at the time.

41.0 SETTLEMENT OF DISPUTES

If the contractor considers any work demanded of him to be outside the requirements of the contract or considers any drawings, record or ruling of the Engineer-in- Charge on any matter in connection with or arising out of the contract or the carrying out of work to be unacceptable, he shall promptly ask the Engineer-in-Charge in writing, for written instructions or decision. Thereupon the Engineer-in-Charge shall give his written instruction 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 delay to comply with such instructions 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 instructions or decision of the Engineer-in-Charge, the contractor may within thirty days after receiving the instructions or decision appeal to the Executive Engineer, who shall afford an opportunity to the contractor to be heard and to offer evidence in support of his appeal. The Executive Engineer shall give a decision within a period of thirty days after the contractor has given

the said evidence in support of his appeal. If the contractor is dissatisfied with this decision, the contractor within a period of thirty days from receipt of the decision shall indicate his intention to refer the dispute to Arbitration failing which, the said decision shall be final and conclusive.

42.0 ARBITRATION

All the dispute or differences in respect of which the decision has not been final and conclusive shall be referred to Superintending Engineer for arbitration whose decision shall be final and binding on both the Parties.

43.0 CONTRACT DOCUMENT AND MATTERS TO BE TREATED AS CONFIDENTIAL

All documents, correspondence, decisions and orders concerning to the Contract shall be considered as confidential and / or restricted in nature by the contractor and he shall not divulge or allow access to them by any unauthorized person.

44.0 JOINT VENTURES

If the contractor is a joint venture, all partners of the joint venture shall be jointly and severally liable to the employer for the execution of the entire contract in accordance with its terms.

45.0 SECURITY DEPOSIT FOR PERFORMANCES & SECURITY DEPOSIT

The contractor will deposit for performance full security as per clause No.-1 of I.D. form No.-111 and its amendment or as per latest orders of U.P. Irrigation department at the time of entering into the agreement. The E.M.D. already deposited will be adjusted towards the security amount. The security deposit may be in the form of the F.D.R./N.S.C. pledged in the name of Executive Engineer, Irrigation Division, Sitapur.

46.0 SPECIAL CLAUSE

If there is any discrepancy between the condition of contract and I.D. form No.-111 attached with the tender, the conditions given in I.D. form No.-111 will prevail and will be binding on the contractor.

47.0 INSPECTION OF WORK BY TECHNICAL EXAMINER

The work may be examined by the Technical Examiner or his representatives. If in the opinion of the said examiner or his representatives, the work executed by the contractor is found defective and consequently the penalties are imposed, the penalties so imposed shall be recovered from the contractor. The decision of the Engineer-in-Charge or his representatives shall be final and binding on the contractor in this respect.

48.0 If any person whosoever is found actively associated with Mafia and unsocial elements or engaged in organized crime or is a Mafia or Mafioso is disqualified from bidding.

49.0 Even if it comes to knowledge after award of a contract that the contractor is associated with Mafia and unsocial elements or engaged in organized crime or is a Mafia or mafiso, the contract will be

cancelled after serving a showcase notice and if the contractor is found repeating the same, then the proceeding of black listing him shall also be initiated.

50.0 If it is found that the contractor or the bidder has threatened the other bidders or prevented them from bidding, the tender / contract will be cancelled.

51.0 Any advocate registered in state bar council will not be authorized for bidding. If it comes in knowledge that contractor is a state bar council registered advocate, the contract will be cancelled after having been satisfied of this fact.

CONDITIONS OF CONTRACT

| | |
|------------------------|--|
| Further deposit | <p>Clause 1– The persons whose tender is accepted (herein after called the contractor) shall within one week after his or their tender has been accepted, deposit with the Government of Uttar Pradesh (here in after called the Government) either in cash or in securities as provided in paragraph 614 of the Financial Hand book, Volume VI such sum as will with the earnest money deposited with the tender amount to Rupees and where any securities so deposited is not payable to bearer, the contractor shall endorse or transfer it to the said</p> |
| Deduction from Payment | <p>Government in such a manner that the sum represented by it can be realized without the consent or assistance of the contractor. Apart from the earnest money deposited with the tender, the contractor shall also deposit balance security amount @ 8% of the cost of work at the time of agreement in cash or in the form of Government Securities or Fixed Deposit receipts or Guarantee Bonds of any Nationalized Bank in India.</p> |
| Security Deposit | <p>If the security is furnished in the form of guarantee bonds the contractor undertakes to renew or to furnish fresh guarantee to cover the period of time extension, if any, and failure on his part to do so shall be construed as a breach of this contract and without prejudice to any other remedy provided in these conditions the Engineer-in-Charge shall have right to withheld the payment and deduct the entire security amount from moneys becoming payable to the contractor. The amount of security money shall, if not withheld on the account of breach of contract be refunded after six months of the date of completion of the work or after payment of the final bill, whichever is later, subject to the condition that in case of the building work of the first rainy season comprising of months of June, July, August & September is not fully covered within the period of six months mentioned above, the amount of security money, if not withheld on account of breach of contract, be refunded after the expiry of the first rainy season comprising of the months mentioned above or after the payment of the final bill whichever is later.</p> <p>Provided that in case the payment of the final bill is not made within six months of the completion of the work, 75% of the amount of the security money can be refunded with the prior approval of the authority next higher to the person accepting the contract on behalf of the Government.</p> <p>All compensation or other sums of money payable by the contractor to Government under the terms of this contract may be deducted from or realized by the</p> |

sale of a sufficient part of his security deposit, or from the interest arising there-from or from any sums which may be due or may become due to the contractor by the 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 10 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 of his security deposit or any part thereof.

EXPLANATION— For the purpose of this clause if the work under this contract includes construction, reconstruction of repair or any structure having roof over it, the whole work will be classed as building work.

Clause 2-A— Time is the essence of the contract. The contractor shall commence and shall complete the work covered by the tender on the dates fixed by the Executive Engineer for the commencement and completion of such work and shall in the interval between those dates keep the work up so the schedule of quantities and dates shown in the Progress Statement to be signed by the contractor and attached to the tender the contractor and attached to the tender. If the work falls in arrears of the Progress Statement either in quantity or in time, then for every day that the work is so in arrears the contractor shall be liable to pay as compensation an amount equal to one percent or such smaller amount as the Engineer (whose decision in writing shall be final) may decide, on the estimated cost of the whole work : Provided always that the entire amount of compensation to be paid under the provisions of this clause shall not exceed ten percent of the estimated cost of the work as shown in the tender.

(Clause 2-B— To be used instead of 2-A when the latter is from the nature of the work impracticable).

Compensation for delay.

Clause 2-B— Time is the essence of the contract. The contractor shall complete the work within the period specified in the tender. Such period shall be reckoned from the date on which the order to commence work is given, to the contractor. The Contractor shall at all times during such period proceed with the work with due diligence and he shall pay as compensation an amount equal to one percent or such smaller amount as the Engineer (whose decision in writing shall be final) may decide on the amount of the estimated cost of the whole work as shown in the tender for every day that the work remains uncommenced, or unfinished after the proper dates. And further, in order to ensure good progress during the execution of the work the contractor shall be bound in all cases in which the time allowed of any work exceeds one month to complete one-fourth of the value or quantity (as the Executive Engineer may determine) of the whole of the work before one-fourth of the whole-time allowed under the contract elapsed; one-half of the value or quantity (as the Executive Engineer may determine) of the work before one-half of

such time has elapsed; and three-fourths of the value or quantity (as the Executive Engineer may determine) of this work before three fourths of such time has elapsed. If the contractor fails to comply with this condition he shall be liable to pay as compensation

an amount equal to one percent of such smaller amount as the Executive Engineer (whose decision in writing shall be final) may decide on the said estimated cost of the whole work for every day that the quantity of work remains incomplete. Provided

always that the entire amount of compensation to be paid under the provision of this clause shall not exceed ten percent on the estimated cost of work as shown in the tender.

Clause 3—(i) In any case in which under any clause or clauses of his contract the contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of the security deposit (whether paid in one sum or deducted by installments) the Executive Engineer shall have power to adopt such of the following courses, as he may deem best:

(a) He may rescind the contract by giving the contractor notice of rescission signed by the Executive Engineer and may then take the whole of the contractor's security deposit for the use of Government as compensation for the loss caused by the contractor's default.

(b) He may, after giving the contractor thirty Days notice in writing of his intention to do so, measure up the work done by the contractor and then employ and pay labourers and supply or procure materials and carry out all or any part of the work himself on behalf of Government debiting the contractor with the actual cost and crediting him at the contract rates with the value of the work so done, and may postpone till completion of the work so taken over assessment of the compensation to be paid by the contractor. If any work is so taken over by the Executive Engineer the certificate in writing of the Executive Engineer as to its cost and value shall be final and conclusive against the contractor.

(c) He may, after giving the contractor thirty days notice in writing of his intention to do so, measure up the work done by the contractor, take the work out of his hands and give a contract for its completion to another contractor and may postpone till the completion of the work the assessment of the compensation to be paid by the original contractor. If the Executive Engineer elects to give the completion of the work to another contractor, the original contractor shall pay expenses which may be incurred in excess of the sum which would have been paid to him if the whole work had been carried out by him, and a certificate in writing of the Executive Engineer or of the shall be final & conclusive as against the contractor as to the amount of any such expenses.

(ii) If the Executive Engineer does not desire to do so the work, the contractor shall not be entitled to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagements, or made any advances on account of or with a view to the execution of the work or the performance of the contract; and shall not be entitled to recover or be paid or be given credit for any sum for any work therefore actually performed by him under this contract, unless and until the Executive Engineer or Asstt. Engineer acting under his order shall have certified in writing the performance of such work and the value thereof the contractor shall only be entitled to be paid the value as so certified.

(i) If upon any occasion the Executive Engineer abstains from exercising the powers given to him by this clause, such abstention shall not

(ii) prevent him from exercising such powers upon a subsequent occasion if the contractor again makes default; nor shall such abstention absolve the contractor from liability to pay compensation for any default which he may have made.

Clause 4— If the Executive Engineer exercise any of the powers given to him by clause 3 he may, if he so desires take possession of all or any tools plant materials and stores in or upon the work or the side thereof and belonging to the contractor or procured by him and intended to be used for the execution of the work or any part

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

thereof, and pay or allow the contractor for the same at the contract rate, or in the case of these not being applicable, at current market rates to be certified by the Executive Engineer, whose certificate thereof shall be final, and if the Executive Engineer does not desire to do so, the Executive Engineer may, by notice in writing to the contractor or his clerk or the work's foreman or other authorized agent, required him to remove such tools, plant, material or stores from the premises (within a time to be specified in such notice); and if the contractor fails to comply with any such requisition, the Executive Engineer may remove them at the contractor's expense and at his risk in all respects by auction or private sale and the certificate of the Executive Engineer as to expenses of any such removal and the expenses of any such sale shall be final and conclusive against the contractor.

Extension of times

Clause 5— If the contractor desires an extension of the time for completion of the work on the ground of any unavoidable hindrance to its execution having arisen, he shall apply in writing to the Executive Engineer within 30 days the existence of such hindrance first becomes known to him and the Executive Engineer shall if in his opinion (which shall be final) reasonable grounds be shown there for, authorize such extension of time as may, in his opinion be necessary or proper.

Final certificates

Clause 6— On completion of the work the contractor shall send a registered notice to the Executive Engineer (thereinafter called Engineer-in-Charge) giving the date of completion and shall also send a copy of such notice to the S.E, and shall request the Engineer-in-Charge to give a certificate of completion. No such certificate will be given nor shall the work be considered to be complete until the contractor has removed from the premises on which the work has been executed all scaffolding, surplus materials and rubbish, and cleaned all wood-work, door, windows walls floor or other part of any building in, upon or about which the work has been executed or of which he may have had possession for the purpose of the execution thereof, and, if the contractor fails to do so on or before the date fixed for completion of work Engineer-in-Charge may do so, and may sell such scaffoldings and materials as have not been removed by the contractor and contractor shall forthwith pay all expenses so incurred and shall have no claim in respect of any such scaffolding, surplus materials as aforesaid except for any sum actually realized by the sale thereof. On completion the work shall be measured by the Engineer-in-Charge, whose measurements shall be binding and conclusive against the contractor.

Payment on
intermediate certificate
to be regarded as
advances

Clause 7— In the case of work estimated to cost more than rupees one thousand, the contractor shall, on submitting the bill thereof be entitled to receive a monthly payment proportionate to the part thereof then approved for

such purpose by the Engineer-in-Charge, whose certificate of approval and passing of the sum so payable shall be final and conclusive against the contractor. But any such payments will only be made as advances to be credited to Government in the final settlement of accounts, with the contractor and not as payment for work completed and passed, and the making of-any such payment shall not either preclude the Executive Engineer or Asstt. Engineer from requiring the contracts to remove or reconstruct or re-erect any work on the ground that such work is bad, unsound, imperfect or unskilled or prevent Government from enforcing any claim against the contractor on account of any default by him or conclude, determine or affect in any way the default by him or conclude, determine or affect in any way the powers of the Engineer-in-Charge under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contractor. The Engineer-

Inability to complete the work

inj-Charge's certificate of the measurement and of the total amount payable for the work shall be final and binding on all parties.

Clause 8— If the contractor abandons, or is unable to complete the work, the Executive Engineer may certify in writing the value of the work done by the contractor towards the completion of the contract. Such a certificate shall be final and conclusive against the contractor and he will not be paid more than the value of such work as so certified irrespective of the contract rates.

Lump sum in estimates

Clause 9— When the estimate on which a tender is made includes lump sum 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 other such items of work, unless the part of the work in question is not in the opinion of the Engineer-in-Charge, capable of measurements in which case the Engineer-in-Charge, may pay such lump sum as he may determine to be the value thereof, and the certificate in writing of the Engineer-in-Charge shall be final and conclusive against contractor as to the basis upon which payment is to be made in such cases and as the amount to be paid.

Bill to be submitted monthly

Clause 10— Every month on or before a date to be fixed by the Engineer-in-Charge the contractor shall if so required, submit a bill for all works executed by him during the previous month and the Engineer-in- Charge shall take or cause to be taken all measurements necessary for checking the contractor's bill and adjusting his claim as speedily as possible. if the contractor does not submit his bill within the time so fixed, the Engineer-in-Charge may after giving the contractor 7 days notice in writing measure or depute someone to measure such work in the presence of the contractor whose signature on the list of measurements shall be sufficient authority to the Engineer-in-Charge to draw up a bill based on such measurements and any bill drawn up shall be binding on the contractor. If the contractor fails to attend when such measurements are taken, such measurements shall be binding on him, and if he attends but refuses to sign the list of measurements, the matter shall be referred to the immediate superior of the Engineer-in-Charge whose decision shall be binding on the contractor.

Bill to be on printed forms

Clause 11— The contractor shall submit all bills on the printed form which will be supplied to him at the office of the Engineer-in- Charge and all items in such bills shall be charged at the rates specified in the tender or in the case of any extra work ordered in pursuance of these condition; and not mentioned or provided for in the tender, at the rates here-in after provided for such work.

Stores supplied by Govt.

Clause 12— If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the Engineer-in-Charge's store, or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-Charge (such materials and stores and the prices to be charged thereof as hereinafter mentioned being so far as practicable and for the convenience

of the contractor specified in the Schedule hereto annexed but not so as in any way to control the meaning or effect of this contract), the contractor shall be supplied with such materials and stores as may from time to time be required by him for the purposes of the contract but only for such purposes and he shall pay for the same at the rates specified in the said Schedule or if no rates are so specified at cost price as defined in clause 13 thereof.

All materials so supplied to the contractor will become the property of the contractor, but shall not on any account be removed from the site of the work until the whole work is certified to be completed by the Executive Engineer, except with the written permission of the Executive Engineer, and shall at all times be open to inspection by the Engineer-in-Charge. The Executive Engineer shall, however, have the option to take over any such materials, if unused at the time of the completion or

termination of the contract at the specified issue rate or the current market rate, whichever is less.

Clause 13— All articles required by the contractor for the construction of the work and which the contractor is to supply himself, shall be obtained by the contractor from the firms which the Director of Industries has made arrangements and if for the supply of any article no such arrangements have been made, any such articles supplied by the contractor shall conform to such specification and/or tests, if any, as may be prescribed by the Director of Industries in consultation with the consuming department.

Clause 14— The contractor shall obtain from the stores of the Engineer-in-Charge, all such imported stores or materials as may be required in any considerable quantity for the work or any part thereof or for making up articles required therefore or in connection therewith. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-Charge will be debited to the contractor in his account at the rates shown in the Schedule attached to the contract and if they are not entered in the Schedule they will be debited at the cost price, which for the purpose of this contract shall include the cost of carriage and all other expenses whatever which shall have been incurred in obtaining delivery of the same at the stores aforesaid. The Executive Engineer may issue materials to a contractor from existing stock if he ask for any excess of these entered in the schedules. In such cases the price charges will be stock rate or the market rate whichever is greater.

Clause 15— The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner and in every respect in strict accordance with the specification both as regards materials and otherwise. The contractor shall also conform 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 the contractor shall be entitled to inspect the same during office hours and may at his own expense have copies of the specifications, and of all such designs, drawings and instructions as aforesaid made for his own use.

Clause 16— The Engineer-in-Charge shall have power to make such alteration or additions to, the original specifications, drawing, design and instructions as may appear to him to be necessary or advisable during the

progress of the 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 alternations shall not invalidate the contract; and any additional work which the contractor may be so directed to do 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 per specified in the tender for the main work. The

time for the completion of the work shall be extended in the proportion that the additional work bears to the original contract

work, and the certificate of the Engineer-in-Charge shall be conclusive as to such proportions. If the additional work includes any item for which no rate is specified hereunder, then the contractor shall carry out the work at the rate entered in the Schedule of Rates of the District but if the Schedule does not contain any rate for such work, then the contractor shall not begin such work until a rate in respect of such work has been settled by mutual agreement between him and the Engineer-in-Charge with the approval of the officer accepting the contract, and if they are unable to agree upon a rate within two weeks from the date when the contractor received the order, the Engineer-in-Charge may by a notice in writing cancel the order for such work and carry it out in such manner as he may think best. In the event of a dispute, the decision of the Executive Engineer shall be final and binding on the contractor.

Stores imported from Europe to be obtained from govt.

Work to be executed in accordance with Specifications, drawings, orders etc.

Alterations Specifications and designs

Do not invalidate contract

Extension in time in consequence of alternations

Rates for additional works not in estimate or schedule of rate of the district

No Compensation or alteration in or restriction of work to be carried out

Clause 17— The Executive Engineer acting on the written orders of his immediate superior, may at any time by notice in writing to the contractor either stop the work altogether or reduce or cut it down. If the work is stopped altogether, the contractor will only be paid for work done and expenses legitimately incurred by him on, or preparation for the execution of the work up to the date on which such notice is received by him. Such expenses shall be assessed by the Executive Engineer, whose decision shall be final and binding on the contractor. If the work is cut down, the contractor will be paid for the work as so cut down but in neither case will he be paid any compensation whatsoever for the loss or profit which he might have made if he had been allowed to complete all the work included in the tender.

Action and compensation payable in case of handwork

Clause 18— If the Engineer-in-Charge is satisfied that the construction of any part of the work is faulty or that materials used in the same are inferior to those for which the specification provides or that materials or articles provided by the contractor are not in accordance with the contract, he may, notwithstanding that such work materials or articles may have been passed, certified or paid for, serve the contractor with notice in writing specifying the work, materials or articles of which he complains and requiring the contractor to remedy such defects or to replace such materials or articles within a specified period of time. If the contractor fails to comply, in all respects with the requirements of any such notice within ten days after the expiration of the period specified in that notice, the Engineer-in-charge may himself remedy such defects, or as the case may be, replace such materials or articles, and contractor shall pay all expenses incurred by the Engineer-in-charge in so doing and the certificate in writing of the Engineer-in-Charge as to the amount of any such expense shall be final and binding upon the contractor.

Works to be open to inspection

Clause 19— All works under or in course of execution or executed in pursuance of the contract shall at all times be open for inspection and supervision by the Engineer-in-Charge and his subordinates and the contractor shall at all times during the usual working hours, and on any other occasion of which he shall have had reasonable notice, either himself be present to receive orders and instructions, or have responsible agent duly accredited in writing present for that purpose. Orders given to any such agent have the same effect as order given to the contractor himself.

Clause 19-A— No labourer below the age of 18 years shall be employed on the work.

Clause 19-B— The contractor shall pay to his labourers a fair wages.

Clause 19-C— The contractor before he commences work shall (a) post in conspicuous place on the work a notice giving the rates of wages have been certified as fair by the Executive Engineer, and (b) send a copy of the notice to the Suptdg. Engineer.

Clause 19-D— The contractor shall be bound and shall be responsible to comply with the provisions of the labour laws in force in the State of Uttar Pradesh including the Minimum Wages Act or any enactment in supersession, extension or modification thereof which may be passed at any time or from time to time by a competent legislative body and may have effect in the State of Uttar Pradesh and the Rules and Regulations made there under or any amendments or modifications thereof for the time being in force. All expenses in connection with the compliance of such laws and rules shall be borne by the contractor with the compliance or such laws and rules shall be borne by the contractor, and the contractor shall neither demand nor claim nor shall be entitled to any additional payment for the reason that he failed to take into account any such expenses in his tender or that any subsequent amendments in such laws or rules have changed the basis on which he worked out such expenses while submitting his tender. In every case in which by virtue of the provisions of the labour laws in force in the State of Uttar Pradesh and the rules and regulations made

thereunder, the Government is obliged to pay any sum in the execution of the work, Government will recover from the contractor the amount so paid; and without prejudice to the other rights of the Government, the Government shall be at liberty to recover such amount or any part thereof by deducting it either from the security money deposited by the contractor or to his credit under clause I of these conditions or from any other sum due by Government to the contractor whether under this contract or otherwise.

Clause 19-E— The contractor shall engage labour for the work through nearest Employment Exchange.

Clause 19-F— The contractor will request the Employment Exchange to provide him labour on wages to be maintained by him which shall not be less than fair wages for the locality of the work fixed by the Engineer consultation with the District Magistrate concerned. He will also specify the period of the supply of labour which shall not be less than a week from the date of contractor's request for labour of the Employment Exchange. If the Employment Exchange fails to supply labour within the specified period the contractor will have the option to engage labour from other sources.

Clause 19-G— The labour employed through Exchange will be kept at par with and shall have no preference over the labour engaged by the contractor privately as regards their transport, wages, accommodations, working hours and amenities. The contractor will have the option to dispense with the labour without any reference to the Employment Exchange when such labour is not required for the work or when he is not satisfied with it but he will give due information of the discharge of labour to the Exchange.

Clause 20— In order that the work may be measured and the correct dimensions thereon taken, the contractor shall not cover up any part of the same or otherwise place it beyond reach of measurement until he has either obtained the consent in writing of the Engineer-in-Charge or of his subordinate in-charge of the work or until he has given to the Engineer-in-Charge or to such subordinate five day's notice in writing that the work is ready for measurement. If the contractor covers up any work or places it beyond reach of the measurement without such consent and before the expiration of the period of such notice, the contractor shall either, as he

may elect, strip such work at his own expense in order that it may be measured or shall forfeit the price of such work and of the materials used in its construction.

Clause 21— All works to be executed under the contract shall be executed under the direction and subject to the approval in all respect of the Engineer-in-Charge 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. Direction of work.

Clause 22— Except where otherwise specified in the contract the decision of the Executive Engineer for the time being shall be final, conclusive and binding on all parties to the contract upon all questions relating to the meeting of the specifications, designs, drawings and instructions herein-before mentioned. The decision of such Engineer as to the quality of workmanship or materials used on the work, or as to any other question, claim, right, matter or thing whatsoever in any way arising out of or relating to the contract, design, drawing, specifications, estimates, instructions, order of these conditions, or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of the work or after the completion or abandonment of the contract by the contractor, shall also be final, conclusive and binding on the contractor.

Clause 23— 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,

Contractor or responsible agent to be present

Notice to be given before work is covered up

Direction of work

Decision of Engineer to be final, Contractor liable for damages done and for imperfections

road, fence, enclosure or grass land or ground contiguous to the premises on which the work or any part of it is being executed, or if any damage shall happen to the work while in progress from any cause due to negligence of responsibility (the decision of the Executive Engineer shall be final), the contractor shall at his own expense make good such damage, or In default, the Engineer-in-Charge may cause the same to be made good and the contractor, shall pay any expenses so incurred and the certificate of the Engineer-in-Charge as to the amount of such expenses shall be final and binding on the contractor.

Clause 24— The contractor shall supply at his own cost all materials (except such special materials, if any, as may in accordance with the contractor be supplied from the Engineer-in-Charge's stores), plant, tools, appliances, implements, ladders, cordage, tackle, scaffolding and temporary works requisite for the proper execution of the work, whether original, altered or substituted and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not or which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in- Charge as to any matter as to which under these conditions he is entitled to be satisfied or which he is entitled to require, and shall pay for the carriage of all such things to and from the work. The contractor shall also supply without charge workmen with the means and materials necessary for the purpose of setting out works, and for counting weighing and assisting in the measurement or examination of the work, or materials at any time. If the contractor fails to do so, the same may be provided by the Engineer-in-Charge and the contractor shall pay the cost of the same as certified by the Engineer-in-Charge, whose certificate shall be final. The contractor shall also provide all necessary fencing and lights required to protect the public from accident and shall bear the expenses of defense of every suit, action or other proceeding at law that may be brought by any person for injury sustained owing to neglect of the above precautions, and shall also pay any damages and costs which may be awarded in any such suit action or proceeding to any such persons, or which may with the consent of the contractor be paid to compromise any claim by any such person.

Clause 25— The contractor shall not employ female labour in the execution of the work or any part thereof within the limits of cantonment.

Clause 26— The contractor shall not assign or sub-let the contract without the written approval of the Executive Engineer and if the contractor does or attempts soto or becomes insolvent or commences any insolvency proceedings or makes attempts to make any composition with his creditors, or if he or any of his servants or agents either directly or indirectly, gives, offers or promises any bribe, gratuity, gift, loan, perquisite, reward or advantage pecuniary or other-wise to any public officer or person in the employ of Government in any way relating to his office or employments, or if any such officer or shall become in any way directly or indirectly interested in the contract without having first obtained the permission in writing of the Government, the. Engineer may thereupon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of Government and the same consequences shall ensure as if the contract has been rescinded under clause 3 hereof, and in addition the contractor shall not be entitled to recover or be paid for any work there for actually performed under the contract.

Clause 27— Any sum payable by the contractor as compensation under any of these conditions shall be deemed to be reasonable compensation for the act or default in respect of which the same becomes payable without proof of the actual amount or damage of loss sustained.

And liable for damages arising for non-provision of light, fencing etc.

Female labour not to be employed

Work not to sublet
Contract may be rescinded and security deposit forfeited for subletting, bribing or if contractor becomes insolvent

Sum payable by way of compensation to be considered as reasonable compensation without reference to actual loss

Changes in constitution of firm

Clause 28— In the case of a tender by partners, the contractor shall state the name of the members of the firm and shall notify to the Engineer-in-Charge any change in the constitution of the firm as soon as such change occurs.

Action where no specification

Clause 29— In the case of any class of work for which there is no such specification as is mentioned in rule I, such work shall be carried out in accordance with the district specification, and if there is no district specification, the work shall be carried out in all respect in accordance with instructions and requirements of the Engineer-in-Charge.

Definition of work.

Clause 30— In these conditions unless there is something in the subject or context repugnant to such an interpretation, the expression 'works' or 'work' mean the work to be done or executed under the contract whether such work is permanent or temporary and whether it is original, altered, substituted or additional.

Contractor percentage whether to net /gross amount of bills

Clause 31— The additions and deductions on account of the percentage referred to in the accepted tender will be calculated on the gross, and not the net amounts of the bills for the work done.

Clause 32— (1) In every case in which by virtue of the provisions of section 12, sub-section (1) of the Workmen's Compensation Act, 1932, Government is obliged to pay compensation to a workman employed by the contractor or by any sub-contractor from him in the execution of the work government will recover from the contractor the amount of the compensation so paid; and without prejudice to the rights of the Government under section 12, subsection (2) of the said act, Government shall be at liberty to recover such amount or any part thereof by deducting it either from the security money deposited by the contractor or to his credit under clause 1 of these conditions or from any other sum due by Government to the contractor whether under this contract or otherwise. (2) Government shall not be bound to contest any claim made against it under section 12, sub-section (1) of the said Act, except on the written request of the contractor and upon his giving to Government full security for all costs which government might become liable in consequence of contesting the claim.

Clause 33— notwithstanding anything stipulated in the aforesaid clauses, Government shall have power to retain any sum due to the contractor(s) and set off all claims against him (them) whether arising out of the particular contract or out of any other transaction or contract held him (them) alone or in partnership with others.

Clause 34— All disputes in respect of this contract arising between contractor and the department shall be referred to next higher department authority to the officer entering into the contract. Either side may go in for the arbitration under relevant Arbitration Act in case of disagreement with the decision of the next higher Department authority as enumerated in clause 42 and 43 of General conditions of contract.

Clause 35— The tendered rate of each item of work shall be complete in itself and independent of other items and no loss or profit will be claimed in the event of exclusion of any item, each item of work shall be executed independently. Any item can vary to any extent. The contractor shall not be entitled to any claim or compensation on this account.

Clause 36— Contractor shall himself make proper living accommodation water and sanitary arrangements etc. For labour which should ordinarily be arranged through employment exchange and shall give preference to ex-service men. He will have to remove undesirable labour if ordered by the department.

Clause 37— No extra payment shall be made to the contractor for taking profiles and 'NAMUNAS' in connection with the execution of work.

Clause 38— In case of Violation of condition of contract by the contractor the contract can be rescinded by the officer entering into the contract without entitling the contractor to any claim whatsoever.

Clause 39— All money found recoverable from the contractor in connection with contract may without prejudice to any other remedy provided by law be recovered as arrears of land revenue.

CLAUSE 40:— The contractor supply every labour employed by him with Wages Card in which the rates of wages, the attendance of the labour and payment will be entered.

CLAUSE 41:— During the course of construction if any emergency for putting forward any claim arises the contractor shall send a registered notice to the Engineer-in-Charge within a fortnight of the origin of the claims. If he fails to do so or if he postpones submission of such claim till completion of work, he will be entitled to no compensation.

CLAUSE 42:— The contractor shall not influence or divert labour borne on the Muster Roll of any contractor by paying higher wages or providing extra facilities without the permission of the Executive Engineer and if he does so contrary to the above, he will be responsible for the loss or damage caused or claimed by the other and the decision of the Executive Engineer as of the amount of damage shall be final and binding on both parties.

CLAUSE 43:— The agreement is subject to the standard specification. The clearance of site shall be done by the contractor at his own expenses.

CLAUSE 44:— The sum of money due and payable to the contractor including security deposits returnable to him under this contract may be appropriated by the Government or any other persons contracting through the secretary and set off against any claims of the purchaser or Govt. or such other persons for the payment of a sum of money arising out of or under any other Govt. or such other person or persons.

CLAUSE 45:— 2.266% Income-Tax on all payment or on the gross value of work done (including cost of materials) or at rate in force as per rules at the time of payment shall be deducted at source of the payment in terms of Income-Tax Act.

G.S.T.

The rate quoted by the contractor shall be deemed to be inclusive of The G.S.T if any on the constructional plant, material and supplies (both permanent, temporary and consumables) acquired for the purpose of the contract and on the services performed under the contract. Nothing in the contract shall relieve the contractor from the responsibility to pay any G.S.T that may be in performance of this contract. During pursuance of the contract, the Engineer-in-Charge or any other persons responsible for making the payment to the contractor shall at the time of making such payment to the contractor either in cash or in any other manner, deduct an amount equal to that (as per govt. rule) as in force for the time being towards part or, as the case may be full satisfaction of the tax payable under the said Act on account of this contract.

Schedule showing (approximate) materials to be supplied from Public Works Stores for works contracted to be executed and the rates at which they are to be charged for, vide Clause 12 of Conditions :—

| Particulars | Rate at which the material will be charged to the Contractor | | | Place of Delivery |
|---------------------------------|--|-----|----|-------------------|
| | Unit | Rs. | P. | E.E |
| As per Schedule attached | | | | |

AGREEMENT

Tender invited by Executive Engineer, Irrigation Division , Sitapur

Tender of

Tender Notice No. & Date 02/E.E./2017-18 dt-11/09 2017

Name of Tenderer

In consideration of the Governor of Uttar Pradesh having treated the tenderer to be an eligible person whose tender may be considered, the tenderer hereby agreed the condition that the proposals in response to the above invitation shall not be withdrawn within three months from the date of opening of tender, also to the condition that if thereafter the tenderer does withdraws his proposal within the said period the earnest money deposited by him may be forfeited by the Government of Uttar Pradesh in description of the later. And the tenderer hereby also declares that if subsequent to the submission of his tender the tenderer amends, alters or modifies the contents of his tender which are not acceptable to the employer the tenderer shall, for the purpose of the aforesaid conditions, be deemed to have withdrawn his proposal.

Signed this day of
Signed by Tenderer

The individual, who is proprietor of a firm should furnish the description of the party as under :-

Shri S/o Shri
R/o
Carrying on business under the firm's name of M/s

In case of a partnership firm the description of the party should be as under :-

M/s
a firm within the meaning of the Indian Partnership Act and having their office at
..... are consisting of the following partners :-

1. Shri S/o R/o
2. Shri S/o R/o
3. Shri S/o R/o

IRRIGATION DEPARTMENT UTTAR PRADESH

Name of Work :

Tender Notice No. 02/E.E ./2017-18

Issued to (Name of Contractor).....

GENERAL RULES AND DIRECTIONS FOR THE GUIDANCE OF CONTRACTORS

1. All works proposed for execution by contract will be notified in a form of invitation to tender pasted on a board hung up in the office of and signed by the Executive Engineer, I. D., STP. This form will state the work to be carried out, as well as the date for submitting and opening tender, and the time allowed for carrying out the work, also amount of earnest money to be deposited with the tender, and the amount of security deposit to be deposited by the successful tender and the percentages, if any, to be deducted from bills. This set of contract documents consisting of copies of drawing and details of the proposed work specification, schedules of quantities of various items of work. And a form of the printed conditions of contract together with the form of tender to be used, signed for the purpose of identification by the and approved by the authority competent to make the contract shall be available for public inspection at the office of the Executive Engineer, I.D., STP during the office hours.
2. In the event of the tender being submitted by a firm, it must be signed separately by each member thereof, 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. Receipt for payments made account of work when executed by a firm must also be signed by the several partners except where the contractors are decried in their tender as a firm in which case the receipt must be signed in the name of the firm by one of the partners or by some other persons having authority to give effectual receipts for the firm.
4. Any contractor who submits a tender shall fill up the prescribed form of tender striking out the alternative offer on page 3 of the form not applicable to the case, Tenderer which propose any alteration in the work specified in the form of notice inviting tender or in the time allowed for carrying out the work or which contents any other conditions of any sort, of are not filled up in English or accompanied by the deposit or earnest money notified, will be liable of rejection. Tenders shall have the name of the work to which they refer written outside the envelope.
5. (i) Superintending Engineer Committee or his duly authorized assistant will open tender in the presence of any intending contractors who may be present at the time and will enter the amount of several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, a receipt for the earnest money forwarded here with shall there upon be given to the contractor, who shall there upon for the purpose of identification, sign copies of the specification and other documents mentioned in rule I. In the event of a tender being rejected the earnest money forwarded with such unaccepted tender shall thereupon be returned to the contractor making the same.
(ii) When tenders are received by Executive Engineer, I.D. STP he will open and deal with them in the manner specified above, and will submit them to the Suptdg. Engineer for orders. The earnest money if in currency notes shall be credited in the cash-book and paid into the Treasury, a receipt in account form no. 3 being given to the party tendering. If earnest money is preferred in any of the securities specified in rule 9, it shall be entered in the register of securities account forms 85 and 86. Earnest money received in currency notes shall be returned to unsuccessful tenderness as soon as their tenders are rejected the usual stamp receipt being taken.
6. The accepting authority shall have the right or rejecting all or any of the tenders.

7. The receipt of an accountant or a clerk for the earnest money paid by the contractor Will not be considered as any acknowledgement of payment to and the contractor shall be responsible for seeing that he procures a receipt signed by
8. The memorandum of work tendered for shall be filled in and completed in the office of the before the tender form is issued.
9. The amount of earnest money should ordinarily be :- Rs.

| | |
|--|--------|
| (a) When the amount of the tender does not exceed Rs. 2,000 | 50.00 |
| (b) When exceeding Rs. 2,000 and not exceeding Rs. 5,000 | 100.00 |
| (c) When exceeding Rs. 5,000 and not exceeding Rs. 10,000 | 200.00 |
| (d) For each additional Rs. 5,000 or portion of 5,000 a further sum of | 100.00 |

Such earnest money shall be deposited by the contractor in Government Treasury or sub treasury as laid down in paragraphs 340(b) (1), 344 and 345 (b) of the Financial Handbook Volume V, Part I, Account Rules and receipts treasury challan attached to the tender.

Note:- The Officer calling for the tender may in special cases where it would be inconvenient for tenders to deposit money into Government treasury relax the rule, and permit contractors deposit earnest money with him in cash of currency notes upto a limit of Rs. 100 instead of into a treasury. Such deposits should be treated as "Public Works Department Deposit".

TENDER OF WORKS

"I" or "We"

- Hereby tender for the execution for the Governor of Uttar Pradesh of the work specified in the underwritten memorandum within the time specified in the memorandum at the rate specified therein, and in accordance in all respects, with the specification, designs, drawings and instructions in writing referred to in rule 1 hereof and in clause 2 of the conditions of contract and with such materials as are provided for by and in other respects in accordance with such conditions so far as applicable.

MEMORANDUM

(a) General description.

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

(b) Estimated cost Rs.

(b) vide Rule 9 on ID form 112/2

(c) Earnest money Rs.

(d) Time allowed for the work from date of written order to commence Months.

| Item No. | Item of Work | Approximate number or quantity | Unit Per | (c) TENDERED RATE----- | | (f) in words |
|---------------------------|--------------|--------------------------------|----------|------------------------|-----|--------------|
| | | | | (d) SANCTIONED | | |
| | | | | (f) in Figure | Rs. | |
| | | | | | P | |
| <p>-----Attached-----</p> | | | | | | |
| | | | | | | |

(c) Strike out the alternative and attach signature to it.

N.B.-(When tender are to be submitted at a percentage above or below the rate in the sanctioned estimate, the information in all the columns should be filled by the)

In case of works when contractors are required to quote their own rates for the different items of work the columns (f) should be left blank for tenderers to fill in.

I" or "We"

* tender at percent above the rates entered above.

Strike out the + or

Alternative and Attach signature to it

* Tender at the above rates.

Should this tender be accepted * Hereby agreed to abide by the fulfill all the terms and provisions of the conditions of contract annexed to the approved set of contract documents, or in default thereof to forfeit and pay to Governor of Uttar Pradesh or his successor-in-office the sums of money mentioned in the said conditions.

**Give particulars and numbers

Signature of witness to contractor's signature

Signature of contractor before submission of tender

Here enter recommended or not recommended" signature

Signature

Signature and Official designation of the accepting authority

The sum of Rs. ** is herewith forwarded in currency notes as earnest money the full value of which shall be retained by Government on account of the security deposit specified in clause 1 of the conditions of contract.

Dated the day of, 200

Witness

Address

Occupation

*

+

Date Sub-Divisional Officer Sub-Division

*

+

Date Executive Engineer Division

*

+

Date Superintending Engineer Circle

*

+

Irrigation Works

The above tender is hereby accepted by me on behalf of Governor of Uttar Pradesh.

.....

.....

Dated the day of,

TECHNICAL SPECIFICATIONS

(1) Drawings:

All work shall be carried out in accordance with the drawings to be supplied by the Engineer-in-charge from time to time.

(2) Profiles:

Profiles of work to be excavated shall be constructed at regular intervals of 100 metres or closer if ordered by the Engineer-in-charge before any earth work is started in reach.

(3) Excavation:

- (i) All works shall be carried out as per U.P.I.D. Specifications unless stated otherwise.
- (ii) Before commencement of excavation in any reach the contractor shall obtain instructions in writing from the Engineer-in-charge and schedule of quantities in regard to the disposal and utilization of the excavated material.
- (iii) The contractor shall excavate whatsoever substances may be encountered to the depth of excavation shown on the cross sections of respective works.
- (iv) Excavation to be carried out shall conform strictly to the plans and levels shown on the profile of excavation in the cross sections. The bed of the channel will have definite gradient longitudinally as indicated in the L-section and will be kept level transversely. The side slopes of excavation will be excavated to the gradient prescribed in the drawing and shall be neatly finished.
- (v) All trees, roots or other protruding material shall be removed from the bed of the channel by the contractor.

(4) Embankment / Filling :

- (i) Before the earth is placed in embankment, the ground to be covered shall be strip cal to remove all objectionable matters which might interfere with proper compaction of the embankment.
- (ii) All embankment materials shall be obtained out of useful excavation done elsewhere in accordance with the instructions of the Engineer-in-charge and borrow pits will be allowed for the purpose except with the permission of the Engineer-in-charge and subjected to restrictions imposed by him as to their depth and size.
- (iii) The bank shall be laid and compacted in layers not exceeding 23 cm by wooden durmut weighing not less than 10 Kg. Each layer will be laid in more than full width (30 cm in excess on each side) of the section at that elevation and the banks and berms shall then be dressed after compaction in full width and to the required slope.
- (iv) Height of the banks and berms shall be kept 10 percent higher than the designed section so as to allow for subsequent settlement in case of manual compaction.

(5) CEMENT

- Cement for use in works shall be ordinary Port land Cement (OPC) 43 grade conforming to IS: 8112.
- Pozzolana port land cement (PPC) conforming to IS 1489 may be used in specific locations, components of the work subject to permission of Engineer-in-charge. However difference between the market rates of OPC and PPC at the time of execution of such work shall be deducted for the quantity of PPC actually used.

Properties

1. The compressive strength of cement shall be as under.

| S.No. | Time | Compression strength | |
|-------|-------------------------|------------------------|------------------------|
| | | OPC (IS: 8112) | PPC (IS: 1489 II) |
| 1 | 72 ± 1 hours (3 days) | 230 kg/cm ² | 160 kg/cm ² |
| 2 | 168 ± 2 hours (7 days) | 330 kg/cm ² | 220 kg/cm ² |
| 3 | 672 ± 4 hours (28 days) | 430 kg/cm ² | 330 kg/cm ² |

2. Unit weight of cement shall be 1.44 T/m³. Average net mass of cement per bag shall be 50 kg.

3. The Pozzolana cement requires curing for a longer period.

4. The cement shall have normal setting time. The initial setting time shall not be less than 30 minutes and final setting time shall not be more than 600 minutes.

5. The consistency of cement should conform to IS:4031.

Tests

1. Manufacturer of cement shall furnish, on demand, a certificate to indicate that cement conforms to the requirements of IS: 8112 or IS:1489 regarding chemical constituents, fineness, soundness, setting time and compressive strength.

2. Average weight of cement Bag shall be as per IS:8112.

The number of bags in a sample for calculating the average net mass of a cement bag shall be –

| S.No. | Batch Nos. | Size | Sample nos. |
|-------|------------|----------------|-------------|
| 1 | A | 100 – 150 | 20 |
| 2 | B | 151 – 280 | 30 |
| 3 | C | 281 – 500 | 50 |
| 4 | D | 501 – 1200 | 80 |
| 5 | E | 1201-1200 | 125 |
| 6 | F | 3201 and above | 200 |

The bags in a sample shall be selected at random.

Number of bags showing minus error greater than 2% of standard mass of 50 kg shall not be more than 5% of sample. Also the minus error in no such bag shall exceed 4% of standard mass of 50 kg.

Compressive strength (IS: 4031 – VII)

The average compressive strength at 7 days and 28 days per source of cement shall be tested on 2 sets of at least 3 mortar cubes of size $7.06 \times 7.06 \times 7.06$ cm (face area 50 cm²). Material for each cube shall be mixed separately with following quantities.

Cement 200 gm, standard sand 600 gms and potable water. Standard sand shall be of quartz with grains of spherical shape and shall be free from silt. The sand shall pass 100% through 2 mm IS sieve and shall be retained 100% on 90 micron IS sieve.

Cement and sand are mixed dry and the water is added to prepare a uniform mix of mortar. Mixing time shall not be less than 3 minutes and more than 4 minutes. Mortar is then filled in cube mould and prodded 20 times in 8 seconds to ensure elimination of entrapped air/honey combing. The mortar in the mould is compacted by placing the mould on the table of vibration machine and given vibration for 2 minutes. Top surface of cube is finished with trowel. Filled mould is kept in moist closet for 24 ± 1 hours. Moulds are then removed and cubes are cured for 14 days.

Cubes are tested on their sides without any packing between cubes and steel plates of testing machine. One of the platters shall be carried on the base and load is uniformly increased @ 350 N/mm² per minute starting from zero. Compressive strength is calculated by dividing maximum load with cube surface area. Specimen giving variation of more than 10% is rejected. At least two strength values are considered for determining compressive strength.

Consistency (IS: 4031 IV)

This test is conducted at source of cement. A paste of weighed quantity (about 500 gms) of dry cement with weighed quantity of potable water is prepared. Mixing time shall not be less than 3 minutes and more than 5 minutes which shall be counted from time of adding water to the time of starting to fill the paste in the vicat mould. The mould is placed over non-porous plate and slightly shaken to expel the entrapped air while mixing. Top of paste surface is finished with a trowel.

The test block in mould together with non porous plate is placed under the rod bearing the vicat plunger. The plunger is gently lowered to touch the surface of the test block and is quickly released allowing it to sink into the paste just after filling the mould. Trial pastes with varying %age of water are prepared and tested until the amount of water for allowing the plunger to penetrate to a point 5 mm from bottom of vicat mould is found. This amount of water in percentage gives the standard consistency of cement.

Setting time (IS: 4031 – V)

Initial setting Time – Procedure for preparing cement paste and testing it are similar to those described for consistency test. A neat cement paste is prepared with 85% of amount of water required to procedure a paste of standard consistency. The needle of vicat plunger is gently lowered to just touch the surface of test block and is quickly released to penetrate test cube. Initially needle will completely pierce the block. Process is repeated until needle fails to penetrate the cube beyond 5 ± 05 mm measured from

bottom of cube. The time elapsed from this moment to the moment of adding water to cement to prepare paste shall be the initial setting time of cement.

Final Setting Time:

The needle of vicat apparatus is replaced by a needle with annular attachments. The cement is considered as finally set when upon applying the needle gently to surface of test cube, the needle makes an impression there on while the attachment fails to do so. The time elapsed from these moments to the moment of adding water to cement shall be the final setting time of cement.

Storage

1. The cement shall be stored in such a manner so as to prevent deterioration due to dampness or water.
2. It shall be stored in water proof building and on wooden floor which will prevent the absorption of moisture from ground.
3. The cement shall be staked in rows having two bags in width and 8 bags in height. Bags shall be arranged length wise and cross wise in alternate layers.
4. The rows shall be separated by sufficient space to provide easy access for inspections.
5. Cement shall be used on 'first in first out' basis i.e. cement received first shall be used first.
6. Cement loses strength with storage period. Cement older than 90 days shall be used only after testing its properties.

Delivery

The cement shall be packed in bags bearing manufacturing name or his registered trademarks. The words 43 grade, 53 grade as the case may be (or the trade mark of other type of cement), nominal average net mass of cement, date of manufacture and Batch No. shall be legibly marked on each bag. The bags shall be in good condition at the time of inspection.

(6) COURSE SAND

The fine aggregate to be used in preparation of plain concrete, reinforced concrete, cement sand mortar etc shall conform to IS: 383. It should consist of clean, hard, durable and strong form of crushed stone, gravel or some suitable combination of natural sand, crushed rock/grand. The fine aggregate shall not contain dust, lumps, soft or flaky materials, mica, silt, organic impurities or any other type of deleterious materials. Presence of mica (Muscouite & Biotite) in sand will reduce, considerably, the durability and compressive strength. The sand/fine aggregate shall be washed off all the mixed earth before use. Fine aggregate having positive alkali-silica reactions, shall not be used.

Quick color test shall be conducted in the field to determine the presence of any harmful organic impurities in sand with 3% solution of sodium hydroxide, as under :-

1. A colour less liquid indicate clean sand free from organic matter
2. A Straw color liquid indicates some organic matter but not enough to be seriously objectionable.
3. A dark color will mean unsafe limits of organic matter.

Grading

The grading of fine aggregate has been divided in following four zones.

| IS Sieve size | Zone I | Zone II | Zone III | Zone IV |
|---------------|------------------------|---------|----------|---------|
| | %age passing by weight | | | |
| 10 mm | 100 | 100 | 100 | 100 |
| 4.75 mm | 90-100 | 90-100 | 90-100 | 95-100 |
| 2.38 mm | 60-95 | 75-100 | 85-100 | 95-100 |
| 1.18 mm | 30-70 | 55-90 | 75-100 | 90-100 |
| 600 micron | 15-34 | 34-59 | 60-79 | 80-100 |
| 300 micron | 5-20 | 8-30 | 12-40 | 15-50 |
| 150 micron | 0-10 | 0-10 | 0-10 | 0-15 |

Sand conforming to zone I & II shall be used for concrete works. Sand conforming to zone III & IV can also be used for concrete work but concrete mix shall be properly designed. The sand conforming to zone IV shall not be used in reinforced concrete

works.

If grading falls outside the limits of particular zone of sieves, except 600 micron sieve, by a total amount not more than 5%, it shall be taken as conforming to that zone.

Percentage (by weight) passing through 600 micron sieve as specified in the table gives the grading zone of the sand.

The amount of deleterious substances shall not exceed the percentage given below :

| Deleterious substances | Percentage more than |
|----------------------------------|----------------------|
| Shale | 1.00 |
| Coal and ignite | 1.00 |
| Cinders and clinkers | 1.00 |
| Material passing 75-micron sieve | 0.50 |
| Alkali, mica and coated grain | 3.00 |

The sum of the percentages of all deleterious substances shall not exceed 5% by weight. The sand shall also be sound and free from any amounts of organic impurities.

Tests

1. One test per each consignment of sand shall be conducted.
2. The supplier, on demand, shall supply a certificate to indicate that material as per the requirement of IS 383.
3. The weight of the samples for gradation shall not be less than that shown below.

| Maximum size (mm) present in Substantial proportion | Minimum weight of sample for sieving (kg.) |
|--|---|
| 4.75 | 0.2 |
| 2.36 | 0.1 |

The sample for sieving shall be prepared from larger sample either by quartering or by means of a sample divider. The sample shall be brought to an air dry condition by drying it at room temperature before sieving. Air dry sample is weighed and sieved successively on the appropriate sized sieves, starting with the largest sieve. Each sieve shall be shaken separately over a clean tray until not more than a trace passes but for a period of not less than two minutes. If sieving is done with a nest of sieves on a machine, not less than 10 minutes sieving shall be continued.

To prevent blinding of sieve apertures by overloading, quantum of sand placed on each sieve shall be such that the weight of sand retained on the sieve at the completion of the operation is not greater than as under-

| IS: Sieve | Maximum weight (for 20 cm dia sieve) gm |
|------------|---|
| 2.36 mm | 200 |
| 1.18 mm | 100 |
| 600 micron | 75 |
| 300 micron | 50 |
| 150 micron | 40 |
| 75 micron | 25 |

After completion of sieving, material retained on each sieve together with any material cleaned from mesh shall be weighed. The result shall be reported as –

1. The cumulative percentage, by weight, of the total sample passing each sieve to the nearest whole number.
2. Percentage, by weight, of the total sample passing one sieve and retained on the next smaller sieve to the nearest 0.1%.
3. Specific gravity of sand shall be minimum 2.6

Bulking of Sand

Sand may contain an amount of moisture which will cause it, when loosely filled in a container, to occupy a larger volume than it would occupy if dry. If the sand is measured by loose volume, it becomes necessary to increase the measured volume of sand put into concrete or mortar to compensate for this bulking. In ordinary sand, the bulking varies from 10 – 30%. The bulking is more in fine sand. If sand is measured by weight, no allowance/ increase for bulking are needed.

For estimation of bulking, a graduated cylinder is filled with sand to approximately 2/3 height. The cylinder is shaken and sand is leveled. The height of sand (H1) is noted. The cylinder is then filled with water and is shaken well. The cylinder is kept undisturbed so that the sand settles down. The height of settled sand (H2) is noted.

$$\text{The percentage bulking of sand} = \left(\frac{H_1 - H_2}{H_2} \right) 100$$

Therefore when sand is measured by volume, extra quantity equal to this percentage is added.

(7) BRICK MASONRY

This category of work shall include structures constructed with bricks jointed together by cement mortar in accordance with the details shown on the drawings, such as bridges, culverts, siphons, building including external walls, partition walls, road parapets etc.

BRICKS

The bricks shall be thoroughly burnt, but not over burnt, and should have a uniform deep cherry red or copper colour. The bricks should be regular in shape. The edges must be straight and square and the bricks shall emit a clear ringing sound when struck. The bricks should be free from cracks & chips.

- The bricks should not break when dropped flat on a hard ground from a height of about 1.5 m.
- The bricks shall be moulded with a frog 10 or 20 mm deep on one of its flat side. The width and length of frog will be 40 mm and 100 mm. These should contain (in frog) an indication of the source of manufacture.
- Before the bricks are carried to site, they should be got approved at kiln by the engineer-in-charge.

Properties (IS: 1077)

Size of brick - The standard size of common building bricks shall be $23 \times 11 \times 7$ cm with frog of $100 \times 40 \times 20$ mm or of $100 \times 40 \times 10$ mm size.

Tolerance - The dimension of 20 whole bricks when tested as per IS: 1077 shall be within following limits.

| S.No. | Dimension | As per IS:1077 |
|-------|-----------|---------------------|
| 1 | Length | 4600 mm \pm 80 mm |
| 2 | Width | 2200 mm \pm 40 mm |
| 3 | Height | 1400 mm \pm 40 mm |

Classification & compressive strength

The common burnt clay bricks shall be classified on the basis of average compressive strength as given below-

| Class Designation | Min. Average Compressive strength | |
|-------------------|-----------------------------------|--------------------|
| | N/mm ² | Kg/cm ² |
| 20 | 20.0 | 200 |
| 15 | 15.0 | 150 |
| 12.5 | 12.5 | 125 |

Water Absorption

The bricks shall be tested as specified after immersion in cold water for 24 hours. The average water absorption shall not be more than 15% by weight (IS: 1077).

Efflorescence

With the bricks containing soluble salts, the water used in construction invariably leaves the salts dissolved from the bricks on the surface. When the structures dry up, there is a white powdery layer of salts on the surface. The bricks shall be tested as specified. The rating of efflorescence shall be not more than 'slight' as per IS: 1077.

Tests

Water Absorption (IS: 3495-II)

The brick specimen is dried in a ventilated oven at a temperature of 105 – 115°C till it attains a substantially constant mass. The specimen is cooled to room temperature and its weight is noted (M1). The specimen warm to touch shall not be used. Completely

dried specimen is immersed in clean water at room temperature for 24 hours. The specimen is then taken out of water and any water on surface is wiped out by damp cloths. After 3 – 5 minutes, the specimen is weighed (M2).

Water absorption (% by mass) is $\frac{M_2 - M_1}{M_1} \times 100$

Dimensional Tolerance (IS: 1077)

Twenty clean bricks shall be arranged on a level surface in contact with each other and in a straight line. The overall length of so arranged bricks shall be measured with a steel tape. If for any reason it is found impractical to measure the bricks in one go, it may be divided in two rows of a 10 bricks which shall be measured separately to the nearest millimeter. All these dimensions shall be added.

Similarly measurements shall be taken for width and height of the bricks by arranging 20 whole and clean bricks width wise and height wise.

Compressive Strength (IS: 3495 – I)

Five whole bricks shall be chosen at random from the lot. The dimension shall be measured to 1mm. Any unevenness in bed faces of bricks shall be removed to provide two smooth and parallel faces by grinding. Bricks are immersed in water for 24 hours. The bricks are then removed from water and surplus moisture is wiped out. The frog and all voids in the bed face are filled with 1 : 3 cement mortar. The bricks are covered with damp jute bag for 24 hours and are then immersed in water for three days. The bricks are then removed & skin dried. The specimen of brick is placed with flat faces horizontal and mortar filled facing upwards between two 3- ply and 3 mm thick plywood sheets and is carefully centered between two plates of the testing machine. Load is axially applied at a uniform rate of 140 kg/cm²/minute till failure occurs. The maximum load at failure is noted. The compressive strength is given by dividing the load at failure with average bed face area of brick. The average of the results is reported.

Efflorescence (IS: 3495 – III)

A shallow flat bottom dish made of glass or porcelain and of size 180 × 80 × 40 mm is filled with sufficient distilled water to completely saturate the brick specimen, is taken. The bricks are placed on its ends (length vertical) in the dish. The depth of immersion shall be 25 mm. The whole arrangements is placed in a warm (20 – 30° C) and well ventilated room until all the water in the dish is absorbed by the specimens and surplus water evaporates. The dish with bricks is covered with suitable glass cylinder to avoid excessive evaporation from the dish. When the water has been absorbed and the bricks appear dry, a similar quantity of water is placed in the dish and is allowed to evaporate as before. The bricks are observed for efflorescence after the second evaporation. Slight efflorescence is reported when not more than 10% of the exposed area of brick is covered with the deposit of white salts.

STORAGE

The bricks shall not be dumped. They shall be staked in regular layers as they are unloaded to minimize breakage and defacement of bricks.

LAYING BRICK MASONRY

1. All bricks shall be soaked in water for 24Hrs and should be skin dried before laying.
2. The bricks should be laid in an English bond even and true to line in accordance with the drawing, plumb & level and all joints accurately kept.
3. Half and cut bricks shall not be used except when necessary to complete the bond.
4. All bricks shall be laid with frogs up on a full bed of mortar.
5. Each brick shall be properly bedded and set in position by slightly pressing while laying so that the mortar gets into all their surface pores to ensure proper adhesion.
6. All head and side joints shall be completely filled by applying sufficient mortar to brick already placed and on brick to be placed.
7. All joints shall be properly flushed and packed with mortar so that no hollow spaces are left.
8. All courses shall be laid truly horizontal and vertical joints shall be truly vertical.
9. Vertical joints in alternate courses shall come directly one over the other.
10. During construction no part of work shall rise more than one meter above the general construction level to avoid unequal settlement and improper joining.
11. Before laying bricks in foundation, the foundation concrete shall be thoroughly hacked swept clean and wetted.
12. A layer of mortar of 12 mm thick shall be spread on the surface of concrete and the first course of bricks shall be laid.

13. Only bricks of standard size shall be used on the work.

(8) OLD AND NEW WORK

1. Where fresh masonry is to join with masonry that is partially/entirely set, the exposed joining surface of the set masonry shall be cleaned, roughened and wetted, so as to effect the best possible bond with the new work.
2. All loose bricks and mortar or other material shall be removed.
3. Proper bond between old and new masonry for vertical/inclined joints is obtained by interlocking the bricks.
4. Any portion of the brickwork that has been completed, shall remain undisturbed until thoroughly set.
5. Old masonry work must be wetted well before laying new work.

JOINTS

1. All head and side joints shall be completely filled by applying sufficient mortar to brick already placed and on the brick to be placed so that no hollow spaces are left. All joints shall be properly flushed.
2. Thickness of bed and side joints shall not exceed 10 mm. Brick work shall be done in horizontal courses, care being taken that the joints are straight.
3. The Courses shall be aligned and care shall be taken to keep the perpend, i.e., cross joints can be checked with a plumb line.
4. Tothing may be done where future extension is proposed but shall not be used as an alternative to racking back.
5. Care shall be taken to see that there are no through joints and the lap is not less than half the width of the brick.

MORTAR

1. Cement and sand shall be mixed in specified proportions as given in the drawings/specifications/bill of quantities.
2. All mortar shall be mixed with a minimum quantity of water to produce the desired workability consistent with maximum density of mortar.
3. The mix shall be clean and free from injurious type of soil/acid/alkali/organic matter or deleterious substances.
4. The mixing shall preferably be done in a mechanical mixer operated manually or by power.
5. Hand mixing can be resorted to as long as uniform density of the mix and its strength are assured if permitted by Engineer-in-charge.
6. Hand mixing operation shall be carried out on a clean water tight platform, where cement and sand shall be first mixed dry by being turned over and over, backwards and forwards several times till the mixture is of uniform colour.
7. Minimum quantity of water shall be added to bring the mortar to the consistency of a stiff paste. The mortar shall be mixed for at least three minutes after addition of water.
8. Mortar shall be mixed only in such quantity as required for immediate use.
9. The mix which has developed initial set shall not be used. Initial set of mortar with ordinary Portland Cement shall normally be considered to have taken place in 30 minutes after mixing.
10. In case the mortar has stiffened during initial setting time because of evaporation of water, the same can be re-tempered by additional water as frequently as needed to restore the requisite consistency, but this re-tempering shall not be permitted after 30 minutes.
11. Mortar unused for more than 30 minutes shall be rejected and removed from site of work.

(9) CEMENT PLASTERING

1. The cement mortar mix, to be used for plastering, shall be as shown in the drawings. Generally, it is kept as 1:3.
2. The joints of the brick work shall be squarely raked to a depth of 12 mm for providing key to plaster. The surface shall then be kept wet for 2 days before plastering.
3. The plaster over brick work shall be 12mm thick (as per IS: 2212). To ensure fairly even thickness and truly plane surface small patches of plaster about 150x150 mm or narrow strip of plaster about 100 mm wide, shall be first applied about 3 meter apart to serve as gauges.
4. The plaster shall be applied and brought to a true smooth surface in the level of gauges by means of proper trowels.
5. Corners and junctions must be neat straight lines, truly horizontal, vertical or inclined as in plan.
6. In suspending work at the end of the day, the plaster shall be left, cut clean to line both vertically and horizontally.
7. The plaster shall not be closed on the bends, corners or cornices. No portion of the surface shall be left out initially to be patched up later on.
8. Any cracks in the plaster or any parts which sound hollow when tapped or are found to be soft or otherwise defective shall be

cut out and re plastered.

(10) Measurements:

The measurement shall be taken correct to a cm. The actual measurement of filling shall be measured and also calculated by taking levels of the original ground before start of the work after site clearance and after compaction of the filling at an 50 m intervals or by tape measurement as directed by Engineer-in-charge. The quantity of earth work in filling shall be calculated and this quantity will be reduced by 10% so as to allow for subsequent settlement.

Contractor