JAMMU AND KASHMIR PROJECTS CONSTRUCTION CORPORATION LTD.

TENDER DOCUMENT

FOR

Supply of Quality Control equipments at J&K P.C.C Ltd.

Laboratory at Jammu.

JAMMU AND KASHMIR PROJECTS CONSTRUCTION CORPORATION LTD.

Tender No. JKPCC/P/J/07 of 2011-12 Dt. 16.07.2011
Tender Document for :-
Supply of Quality Control equipments at J&KPCC Ltd., Jammu.

TECHNICAL & COMMERCIAL BID

Tender Fee	:	Rs. 1500.00
Earnest Money Deposit In shape of FDR.	:	Rs. 50000.00
Time limit for completion	:	2 months
Date of issuance of tender Document	:	upto 26.07.2011
Date of receipt of tender	:	30.07.2011
Date of opening of tender	:	30.07.2011 Subsequent date convenient To tender authority.

Issued to M/s _____
_____

Sd/-
Signature Dy. General Manager,
Of the Tenderer JKPCC Ltd., Procurement Unit Quality Control,
Jammu.

INVITATION FOR THE BIDS

Sealed separate Bids are invited under Two Bids System i.e 1. Techno-commercial Bid and 2. Fiancial Bid for the purchase of the above equipments required to be supplied, installed, commissioned and demonstrated at J&KPCC Ltd. Office Complex Rail Head Jammu, Techno-Commercial Bid and Financial Bid should be identical in all respects except that in the Techno-Commercial Bid should have blank spaces where prices are to be indicated should be left blank.

Bidders are requested to submit their Bids in two separate envelopes 2. Techno-Commercial Bid Envelope and 2. Financial Bid Envelope, duly sealed and super scribed with "Tender No. and Description of item" strictly as per our Technical specifications and Terms and conditions.

2. Techno-Commercial Bid should consist of:
1. NABL certification of the manufacturer.
2. Technical specifications of the products being offered by the firm as per Annexure 'A' of Tender Documents along with Brochures and literature giving All features of the products.
3. Proforma Invoice without indicating prices.
4. List of clients to whom similar equipments have been supplied in J&K State and India alongwith with their addresses. Telephone Numbers, fax Numbers, Contact Persons.
5. Performance Certificate/Bench marking of the equipment by recognized National And International Institutions and other departments of Government of India.
6. Telephone Numbers of Service Centre.
7. Last Audited Balance Sheet of the firm.
8. Certificate of Registration of firm showing Civil Engineering instruments as core Area of manufacturing.
9. Authorization Letter from the manufacturer/Bidder to quote and submit tender.
10. Certificate of Authorized Distributorship/Dealership/Retailer ship from the Manufacture
11. Manufacture should have ISO certification for at least for the last 3 years.
12. Trained person in the state for maintenance.
13. Experience of setting up of Quality Control Lab. In the State through dealer/self.
14. Certificate of value Added Tax/Central Sales Tax/Local Sales Tax Registration No.
15. Authorized Service Provider Certificate from the Bidder/Manufacturer only in Case of dealer/distributor.
16. Photocopy of Warrantee Agreement between the Bidder and the Service Provider

Percentage rate of Value Added Tax/Central Sales Tax/Local Sales Tax, Octroi, Freight and forwarding charges, handling charges, loading/ unloading charges, And any other tax/charge as applicable should be clearly mentioned. The offers Indicating “Taxes as applicable” or “Taxes inclusive” may be rejected.

b. Validity period of Quotation.
c. Delivery Period
d. Payment Terms
e. Warranty
f. Training of personnel in India and abroad.
g. Discount
h. Terms of Delivery
i. Post Warranty AMC
j. Performance Bank Guarantee
k. Liquidated Damages

ii. Financial Bid should consist of : Basic price and applicable taxes.

TERMS AND CONDITIONS

1. The manufacturer/Indian Agents may submit their offer for their established brand only.
2. The offer may be submitted by the manufacturing companies or by their Indian Agents for which Indian Agent has to submit the valid authorization certificate (Annexure "B") from their manufacturer regarding Indian Agent or distributor in India.
3. The offer may be submitted and technical bid (part-I)/single bid will be opened in the presence of intending tenderers, if any. The price/commercial bid (part-II) of the tenders will be opened of evaluation of technical bids by the technical evaluation committee and only such bidders whose bids are qualified in technical evaluation shall be called for opening of their price bid.
4. Delivery Period: The delivery of equipment/machinery will be one month from the date of the Purchase order or as early as possible.
5. Guarantee/Warranty: Compulsory one year onsite warranty. Desirable three years from the date of commissioning of the equipment onsite warranty.
6. Technical Literature/Descriptive Catalogue/pamphlets: The venders should submit their offer alongwith relevant technical literature/descriptive catalogue/pamphlets alongwith their technical bid.
7. Operation Manual : A comprehensive manual on the system.
8. The offer of the venders should include the cost of installation and commission. In case of delay on the part of the vendor, penalty @ ½ % per week of the total order value will be deducted from the supplier's bill subject to maximum of 5% of the total order value without prejudice to the interest of the buyer/seller.
9. Payment Terms: The letter of credit will be opened for 100% of the order value but 80% payment will be released on negotiation of dispatch documents and balance 20% on completion of installation commissioning, demonstration and acceptance of the system upon submission of performance bank guarantee @ 10% of the total order value valid till 60 days after the warranty period before payment is released (Performance Security Form-Annexure "C")
10. Earnest Money deposit (EMD): The Tenderer should submit the EMD as mentioned by means of a cross Demand Draft or Banker's Cheque from scheduled bank drawn in favour of Financial Controller, JKPCC Ltd. payable to Jammu.
11. Validity of the offer: The offer which will be submitted by the venders should be valid for 180 days from the date of opening of the commercial bids, the offer submitted by the venders should not be in excess amount submitted recently to any Government or private organization. The difference if any noticed at any stage the vender will be liable to refund the same to JKPCC Ltd. Jammu.
12. Taxes & Duties: The offer which will be submitted by the venders should be inclusive of all taxes and duties or should indicated clearly & separately.
13. Refund of 10% performance Bank Guarantee: The performance bank guarantee @ 10% will be deposited by successful vender within 21 days from the date of issue of the purchase order and will be return after sixty days from the date of completion of the warranty period and no interest would be paid thereon.

14. Spare Part Kit. The venders should submit their offers alongwith cost of spare parts kit as per our NIT technical specification for a period of two years after expiry of warranty period.
15. Training: The vender should submit their offer taking into account the cost involved for parting training to JKPCC Ltd. Jammu Operational staff outside or within JKPCC Ltd. as per NIT technical specification in addition to normal demonstration of equipment.
16. Service Tool Kit: The vender should submit their offer indicating the cost of service tool kits required a per out NIT technical specification.
17. Calibration: The venders should submit their offers indicating the cost of calibration alongwith the offer of the system.
18. Annual Maintenance Contract (Optional): The venders should indicate the rate of AMC as to required as per our NIT Technical specification after expiry of warranty period on annual basis for two years.
19. System validation: The venders should submit their offers indicating the charges for system validation required as per our NIT Technical specification.
20. Technical & Price Bids.

    a) Technical Bids: The quantity and specification of the equipment required will be as per Annexure 'A'. The envelope containing technical bids should contain the details of specification of the equipment to be supplied, technical terms and conditions, technical catalogue/Broacher, list of customers worldwide where same equipment have been supplied and their performance certificate etc. and the EMD. The technical bid will be opened at the Ist instance and will be evaluated by a Expert Technical Evaluation Committee. The price bid will be opened only of the technical successful venders (Technical Bid from-Annexure 'E'). No conditional offer will be accepted.

    b) Price Bid: The envelope containing price bid should contain price only alongwith traxes and duties no details of terms and conditions should be enclosed in the price bid. (Price Bid from Annexure 'F').
21. Both the bids should be sealed separately only marked technical bid or price bid And kept in another envelop mentioning the name of the item, tender enquiry no. And date and due date should be addressed and forwarded to the
22. Managing Director, JKPCC Ltd., reserve the right to delete or alter any item given in the Annexure-'A' depending on prevailing requirement. The JKPCC Ltd. also reserve the right to place order for any item indicated as per Annexure 'A' for which quotations will be submitted by the tenderers. The quantities shown in the Annexure 'A' are tentative and may be vary. The offers shall also be valid in that case also.
23. The acceptance of the tender rest with Managing Director, JKPCC Ltd. who does not bind himself to acceptance the lowest tender and reserves the right with himself to accept or reject any or all the bids by giving the reasons thereof. He also reserve the right to modify and/or relax, any terms and conditions of this tender document to safequard the interest of JKPCC Ltd.
24. The tender should be complete in all respect and should be duly signed. Late and delayed tenders due to any reasons including postal delays should not be considered incomplete, unsigned and tenders without prescribed EMD shall not be considered offers send through FAX/e-mail/cable/telegram will not be considered.

25. The vendors declaration, security bid/EMD, performance security and pre-receipt for refund of EMD will have to be submitted as per Annexure-'G'.
26. The successful vender after getting the purchase order from JKPCC Ltd. will have to send the order acknowledge/proforma Invoice per return post or through FAX (followed by Hard Copy) confirming acceptance of the rates and the terms and conditions of the supply. Any clarification, variation in price or specification will have to be checked with their offer/quotation and will have to be intimated for our acceptance before effecting supply.
27. Inspection:

a) The inspection of the system will be done by JKPCC Ltd. technical expert/scientist in the presence of firm's representative.
b) In case of receipt of the material in short supply or damage condition the supplier will haove to arrange the supplies/replacement of goods free of cost pending the settlement of the insurance case where ever applicable on FOR JKPCC Ltd. basis till satisfactory installation of the system.

28. The manufacturer/supplier have to submit a no deviation certificate indicating that their offer submitted have no deviation from the NIT terms and conditions and binding on them to supply the ordered items as per order terms and conditions at any stage of execution of the order.
29. Patent Indemnity. The successful bidder shall defend at its own expenses any suit or action brought against JKPCC Ltd. based on a claim that any individual piece of equipment designed and supplied by the successful bidder, constitutes direct infringement of any patent claim. The successful bidder shall also pay all costs and damages awarded therein against JKPCC Ltd.
30. The bidder will also indemnity JKPCC Ltd. against any possible damage due to any copy right violation by them.
31. Any additional condition other than the condition of this tender will not be binding on JKPCC Ltd.
32. Failure and termination: If the supplier/contractor fails to deliver the stores or any installation there of within the perid fixed for such delivery or at any time repudiates the contract before the expiry of such period, the Managing Director, may without prgndine to the right of purchase my recover damages for breach of contract.
33. The bidder should have a qualified permanent personnel in the state for after sales support.
34. The bidder should have experience of setting up quality contract labs. In the state.

VENDOR'S DECLARATION

(To be submitted on the Business Letter Head of the venfor, duly signed by the authorized signatory with Company's Seal/Stamp).

I/We_____ in the capacity of Director/Partner (Proprietor etc. please specify) of M/s _____ Name of the Company/Firm) hereby declare that ours is a bona fide business concern registered with (Sales Tax/Income Tax_____ please specify) as per certified copies enclosed. I/we am/are submitting our offer for _____ (please specify item) in response to J&K Projects Construction Corporation Ltd., open tender inquiry dated: _____ have purchased tender documents from J&KPCC Ltd. Rail Head Jammu.

I/We declare that I/We have read all the Terms & conditions of the tender document and agree fully/or partly abide by them unconditionally except the clause No:_____ and our terms and conditions will be as indicated_____
_____
_____

Yours faithfully,

Signed by Authorized Signatory,
For & on behalf of M/s……..
……..
…….
(Name of the company/Firm)

Name:……..
Designation…….
Fax No…….
Mobile No……...

PERFORMANCE SECURITY FORM

To:_____ (Name of Purchaser)
WHEREAS_____ (Name of successful Bidder) hereinafter called "the successful Bidder" has undertaken, in pursuance of Contract No._____ dated _____2011 to supply _____ (Description of Goods and Services) hereinafter called "the Order".

AND WHERE AS it has been stipulated by you in the said order that the successful Bidder shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with the successful Bidder's performance obligations in accordance with order.

AND WHERE AS we have agreed to give the Successful Bidder a Guarantee:

THEREFORE WE hereby affirm that we are Guarantors and responsible to you, on behalf of the successful Bidder., up to a total of _____ (Amount of the Guarantee in Worlds and figures) and we undertake to pay you, upon your first written demand declaring the sum or sums within the limit of_____ (Amount Guarantee) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

This guarantee is valid until the _____ day of _____ 2011.

Signature and Seal of Guarantors
Date
Address

All correspondence with reference to this guarantee shall be made at the following address:
_____
_____
_____

(Name & address of the lab.)

BID SECURITY FORM

Where as_____ (hereinafter called "the Bidder") has submitted its Bid dated _____ date of submission of Bid) for the supply of _____ (name and/or description of the goods) (hereinafter called "the Bid).

KNOW ALL PEOPLE by these present that we _____ (name of bank) of _____ (Branch), having our registered office at _____ (address of bank)(hereinafter called The Bank"),are bound unto----------(name of Financial Controller, JKPCC Ltd.) in the sum of _____ for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these present. Sealed with the Common Seal of the said Bank this _____ day of _____ 2011 THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Bid from : or
2. If the Bidder, having been notified of the acceptance of its Bid by JKPCC Ltd. during the period of Bid validity:

(a) Fails or refuses to execute the Contract from if required: or
(b) Fails or refuses to funish the performance security, in accordance with the instruction to Bidders.

We undertake to pay J&K Projects Construction Corporation Ltd., up to the above amount upon receipt of its first written demand, without the Purchae having to substantiate its demand, provided that in its demand the Purchase will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including forty five (45) days after the period of the Bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

_____
(Signature of the Bank)
With date & Seal

Financial Bid Form

(To be submitted on the Letter Head of the agency making the Bid)

To

The Managing Director,
J&K Projects Constrn. Corpn. Ltd.
Rail Head Complex, Jammu.

Ref : Tender No.

Sir,

Having examined the Tender documents and having submitted the technical Bid for the same, we, the undersigned, hereby submit the Financial Bid for supply of goods and services as per the schedule of requirements and in conformity with the said Tender documents.

We hereby offer to supply the Goods/Services at the prices and rates mentioned in the Financial Bid.

We do hereby undertake that, in the event of acceptance of our Bid, the supply of Goods/Services shall be made as stipulated in the schedule to the Bid documents and that we shall perform all the incidental services.

If our Bid is accepted, we will submit a unconditional performance bank guarantee for the sum equivalent to 10% of the Contract Price i.e Total Order value for the due performance of the Contract, in the form prescribed by the JKPCC Ltd. Rail Head Complex, Jammu.

We enclose herewith the complete Financial Bid as required by you. This includes:
Financial Bid Letter
Price Schedule
Statement of deviations from Financial terms and conditions.

We agree to abide by our offer for a period of One Hundred Eighty (180) days from the date fixed for opening of the Bid documents and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and condition of the Bid document and we do hereby undertake to supply as per these terms and conditions. The financial Deviation are only those mentioned in the statement of deviation from financial terms and conditions.

Certified that the Bidder is :

A sole proprietorship firm and the person signing the Bid document is the sole proprietor/constituted attorney of sole proprietor.

Or

A partnership firm and the person signing the Bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney.

Or

A company and signing the Bid document is the constituted attorney.

(Note: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the Bid document).

We do hereby undertake, that until a formal work order is prepared and executed, this Bid, together with your written acceptance thereof and placement of letter of intent awarding the work order, shall constitute a binding contract between us.

Dated this day of _____ 2011 Signature of Bidder

Details of enclosures

Full Address :_

Telephone No:

Telegraphic Address:

E-mail:

COMPANY SEAL

S.No.	Particulars	Qty.	Rate	Amount
1	**Riffle Sample Divider**			
	The equipment will comprise of 13mm slot width, 14 slots and approx 2:1 dm3 capacity. Mould, Cast Iron, for 150mm Cube with ISI Certification Mark, IS:10086**.**	1		
2	**Liquid Limit Device. (Motorized)**			
	Liquid limit device motorized comprising of counter, casa grande grooving tools and gauge block and should operate on 50 Hz, single phase AC supply the grooving tool should conform to (type A of IS:9259) and ASTM grooving tool (Type B of IS:9259)	1		
3	**Sieve Shaker Motorized.**			
	The design should be compact, light weight and should be mounted on a bench top. A digital timer adjustable from 0-99 minutes must be incorporated as an integral part of the equipment. The apparatus should carry upon 8 sieves. It should be driven by a ¼ HP geared motor. The addition to the gyratory motion of the table, there should be a tapping motion with operating on 220 V, single phase AC with required adapters.	1		
4	Direct shear test setup computerized with all accessories.			
	Digi. Direct Shear apparatus should accept specimens of 60mm, 100mm square or 2.5 inches in diameter. The use of Microprocessor controlled drive system and key board entry provides the apparatus with wide range of features which include pause and speed reset during test, Rs.232C interface for computer, operator programming of speed and control functions. Safety forward/reverse travel limit switches are fitted as standard and monitored through the electronic system control. It should be supplied complete with carriage, loading hanger and 10:1 lever loading device. Type of : Direct/residual Shear Measurement : Motorised Operation : 10mm/min. Fast forward/reverse : 0.00001 to 9.99999mm/minurte Rate of Strain : Direct and through lever-0.05 to 3.00 Kg/Sq Cm minimum. Shear Box : Size 60 x 60 x 50 of brass (two halves) Shear Box housing : Made of brass with two roller strips. Specimen cutter : 60 x 60 x 25mm height made of brass Specimen size power : 60 x 60 x 25mm Specifications : 220V, 50 Hz, single phase, AC supply. **Transducer:** **a) Load : Universal type load cell, 2 KN capacity.** **b) Displacements : 3 channel LCD/LED on panel and on PC monitor.** **Date sampling and : Adjutable from 1 second to 1 hour** **Interval continuous.** Printing interval Includes all essential accessories like 6mm thick porous stones (4 nos) perforated grid plate for shear box, one pair grooved and one pair perforated base plates, weights to give normal stress of 0.05 (4 nos), 0.1, 0.2, 0.5 (3 nos), 1.0Kg/ Sq cm etc**.** **DATA ACQUISITION SYSTEM** The data acquisition system should comprise of 16 Channel, 16 bit system for IBM- PC and 100% compatible. The data acquisition system should have an integrated hardware system which provides user friendly data logging facility upto 16 channels.	1		

	The software should enable the user to calibrate transduceers by direct measurement from the laboratory standards. The user should also enter transducer sensitivities and lookup tables. Groups of transducers can be associated into sets corresponding to specific locations called stations. Data acquisitions from each station should be independently controlled. **System should comprise.** ✓ DAQ Hardware ✓ Software. ✓ Transducer signal conditioners and Transducers ✓ Automates data logging, analysis and reporting to the selected standards. ✓ Standardized test procedures. ✓ Multi tasking: perform several tests concurrently. ✓ Up scalable. **HARDWARE SPECIFICATIONS** Number of channels : 16 single ended/8 differential Resolution : 16 bits for plus full range or minus full range Input voltage ranges : =+ 10V, + IV or + 100m V Input impedance : Normal power on 7 G-0mm Power OFF-820 Ohm. Temperature coefficient : + 5PPM/deg C **SOFTWARE FOR ANALYSIS** GeoS Tar" Geotechnical Software system for Testing, Analysis and Reporting ➢ Windows compatible software package. ➢ Automatic report generation in accordance with IS, BS and ASTM standards. ➢ Real-time graphical outputs to display monitor and printer. ➢ Test can be performed using, SI, imperial or mertric units. ➢ Off-line data processing and all calculations for Direct Shear test area, volume, bulk density, dry density, moisture content and to display plots of Horizontal, displacement vs shear force, horizontal displacement vs vertical displacement, Normal stress vs shear force. **Computer Peripherals** **Latest Desk Top computer with HP DESKJET PRINTER 500VA UPS (APC)** **ORIGINAL WINDOWS XP WITH LICENSE** **Manual for operation, maintenance and calibration shall be provided. Certification of load cell and LVDT will be from any NABL accredited lab.**			
5	**Proctor Compaction Apparatus**			
	The apparatus should consist of compaction mould 152mm ID, 116.4mm height, 2124 ml volume and conform to IS:2720 (part 7) IS:2720 (part 8) IS:9198, IS:10074, BS:1377 ASTM D 698, D 1557.			
6	Universal Automatic compactor			
	The equipment should comprise of electrically operated mechanical compactor for soil compaction in 100mm and 150mm dia moulds. The nammer should confrise of circular faced 50mm dia adjustable to 2.5 kg or 4.9 kg weight the number of blows per layer should be programmabel at the beginning of the test the drop should be adjustable to 310mm or 450mm. The equipment should be suitable for operation on 220V, 50HZ, single phase, AC supply.			

7	**Lab. California Bearing Ratio apparatus.**			
	The equipment should comprise of the following accessories Laboratory test apparatus, Motorised three speed Ref: Standards IS:2720 (part 16) the apparatus consisis of Load frame, 50 KN (5,000Kgf) Capacity, three speed 1.5.1.25.2.5mm/min Mould-Mild steel 150m ID x 175mm H. Perforated base plate mild steel for Extension Collar Mild steel 150mm ID x 50mm hig Penetration piston 50mm face dia Adjustable Bracket for Penetration dial gauge. Circular Metal spacer disc with detachable handle, 148mm dia x 47.7mm high. Annular metal weight 2.5Kg. 147mm dia with 53mm dia central hole Slotted metal weight 2.5 kg. 147mm dia with 53 mm dia slot Perforated plate 148mm dia, with adjustable stem and lock nut. Metal tripod for dial gauge cutting collar Rammer 2.6 kg. 310mm controlled drop. Rammer 4.9 Kg. 450mm controlled drop Proving Ring Capacity 50 Kn Dial gauge 25mm travel. 0.01mm least count. Optional extras Annular metal weight 5 Kg 147mm dia with 53 mm dia central hole. Slotted metal weight 5 Kg 147 mm dia with 53mm dia slot. Hand operated model can also be supplied on request. Soaking Tank for 6 Nos. CBR moulds.	1		
8	**Technical specifications for Electronic 1 single Gang Consolidation apparatus**			
	Ref standards : IS 2720 (Part 15), IS:12287, BS: 1377 It should have one loading system capacity to apply pressure on soil specimen upto 10 Kg.f/sq.cm and it comprises of : 1. 7 Nos : 0.05Kgf/Sq.cm 2. 5 Nos : 0.1Kgf/Sq.cm. 3. 6 Nos : 0.2 Kgf/Sq.cm. . Additional set of weights should be provided to obtain maximum capacity of Loading system upto 20 Kgf/sq.cm. . One fixed ring type consolidometer should consist of : 1. One fixed ring type consolidometer should consist of : 2. One guide ring for above. 3. One porous stones (top porous stone 60mm dia x 12.7mm thickness and bottom stone of 64mm x 12.7mm thickness) 4. One pressure pad, perforated. 5. One steel ball 6. One flanged water jacket. 7. One gasket. 8. One thrust piece. 9. Water reservoir with plastic tube, t-connection and a pinch cock. 10. One displacement sensor 0-10mm complete with 3m long cable (side entry) mounting bracket. . Digital indicator (Single channel/Three Channel) . Displacement sensors (LVDT)- range of 0.001 mm x +/-10mm . One water reservoir. . T-connection with rubber tubes. . Three pinch cocks.	1		
9	**Plate Bearing Test Apparatus**			
	Ref. standard IS:1888 The system should comprise of Hand Operated Hydraulic lack capacity 500 KN (50,000 Kgf) 1 No.	1		

	Hydraulic Hand Operated Pump with 200mm dia load Gauge Capacity 500 KN (50,000 Kgf) 1 No. High pressure flexible metallic pipe 5m long 1 No. Ball and socket arrangement consisting of two steel pleates, With one steel ball in-between the plates. 1 No. Extension Rod 12mm dia x 25cm long, for taking dia Gauge readings. 16 Nos Magnetic base with female thread on top, for holding extension Rod. 4 Nos Top end plate 50mm dia with male thread, for fitting on to the extension roads and positioning the dial gauge plunger. 4 Nos Column 15cm dia x 50cm long with flanges, complete with four bolts And nuts. 1 No.			
10	Load Truss, capacity 500 Kn (50,000 Kgf) should comprise of the following accessories.			
	1. Truss 2 parts 2. Joists 2 parts 3. Anchor spikes 200 4. Semi-cylindrical 16 5. Bolts with nuts for anchor straps 32 6. Anchor straps 16 7. Guy wires with six turn buckles 6 8. Top flange splice plate 1 9. Small bolts with nuts for item (8) 8 10. Jointing bolts with nuts 8 11. Bolts with nuts for bottom splice plate 6 12. Sledge hammer 1 13. Spanners 2	1		
11	**Automatic Compression Testing Machine of 2000 KN Capacity :** **Capacity – 2000 KN** The Automatic compression Testing Machine should consist of a loading unit. A digital head, an RS 485 to RS 232 converter and a hardware system running the ACTM software. The digital head should be a Micro Controller based intelligent pace rate controller cum data-logger, capable of transmitting data, on-line, to the PC, via the converter. The ACTM should have features, among others, of the online display of Load Vs Time, automatic pace rate control, data logging, data-printing , load hold and logged-data analysis. It should be able to be used to test for compressive strength of cement/concrete, samples. Other attachments with the ACTM. Should include a Linear Variable Differential Transformer (LVDT) for measurement of strain, a Flexural Loading Unit for measurement of Flexural strength, along with appropriately enhanced versions of the associated electronics and software. The Loading unit should be of fully welded construction having a cross head, base and solid side plates. The hydraulic jack should be fitted to the base. The platens of the machine should be hardened, ground and polished. The lower platen should be provided with wheels moving on rails to faciliate it pulling out of LU for placing and removal of samples. The upper platen should be provided with self aligning action. To faciliate testing of various size speciments, a moving lead screw fitted with upper platen should be provided. The lead screw should be rotated through chain and sprocket mechanism by a 415 volt 3 phase AC supply geared motor. . Loading Range 2000 KN . Least Count 1 KN . Maximum clearance between platens 1050mm . Maximum clearance between side plates 620mm . Plate size 535mm x 535mm . Piston diameter 316 25mm . Specimen sizes for test: 150mm to 300mm cube 150mm x 300mm cylinder.	1		

	Specifications : . Samples size of 150mm cube to 300mm cube can be tested. . Cylindrical sample form 150 x 300mm to long can be tested. . To facilitate testing of various size specimens, a moving power driven lead screw fitted with self Aligning upper platen should be provided. . Lower platen should be provided with wheels moving on rails for easy handling of the sample. . A rapid approach pumping unit should be provided to lift ram at faster rate. . Automatic pace rate 4 control- should be implemented through 3 term PID control with high Torque stepper motor & micro controller. . Automatic Data Logging Data Storage for 15000 secs run. . Online display of Load Vs time. . Automatic Pace rate control. . A load held facility. . Automatic on line data logging. . Logged Data Printing Facility. . Measurement of strain with a resolution of upto 0.001 mm (Optional) . Automatic Tripping of Power supply to three-phase pump in case of failure of any phase . Connectivity of the ACTM computer to the local network with a pre-installed LAN Card. . Automatic load release facility. . A 2-line multifunction LCD. . A menu driven interface with prompts for easy operation. Adjustable maximum load setting. . Adjustable pace rate setting. . Auto shutdown when the sample breaks. . Auto shutdown when the load exceeds the set maximum load. . Continuous flashing of the maximum load on the seven-segment display. . Automatic release of oil-pressure as soon as the pump stop. . A four –digit load display. . A bar graph display to monitor the quality of control. . Flexure test attachment to be used with ACTM. . Brick platen set with spherical seating. **Following Graphs can be generated** . Stress Vs Time . Load Vs Time .calibration report . Batch summery report . Stress strain curve for automatic compression testing machine capacity 2000 KN **Essential Accessories:** **Computing hardware system consisting of CPU, PIV, GHZ/256RAM40GB, HDD 52 x CD** RAM DRIVE/1.44 MB FDD, 15" COLOUR MONITOR, II 0/1 00 LAN CARD/KBD/MOUSE WITH DUST COVER, UPS AND PRINTER DESKJET. Hydraulic lift crane of 1 ton capacity with sample lifting clamps. **Installation** The loading unit should preferably be placed in a pit with upper edge of the jack assembly bring kept at ground level with adequate space in pit around the machine for the ease of maintenance and serviceability.			
12	**Slump test apparatus**			
	It should conform to IS: 7320, BS:1881 ASTMC 143, AASHTO T119. It shold be supplied complete with base plate, having cleats and swivel handle and tamping road of 16mm dia x 60 cm long, having ISI Certification mark IS:10086.	1		
13	**Beam Mould 100mm x 100mm x 500mm**	1		
14	**Beam Mould 150mm x 150mm x 700mm**	1		
15	**Vibrating table, 1m x 1m, single phase**	1		
	The table top should be of 1m x 1m size the max. load capacity should be 140kg and variable pitch pulley arrangement should permit the frequency to be varied sleeplessly between 60 cycles/Sec and 43 cycles/sec. The equipment should be suitable for operation with 415, 3 phase, 50 Hz, AC supply.			
16	**Vicat Apparatus with Dashpot**			
	It should conform to IS:5513 with ISI Certification mark, it should have each one of Vicat mould, Glass Base Plate, Initial Needle (in plastic case), final Needle (in Plastic Case) Consistency Plunger (in plastic case). Mild steel base plate and Vicat Mould Split Type, with clamping Ring.	1		

17	**Le-Chateller Mould, with ISI Certification mark, IS:5514 each.**			
	Le-Chatelier Mould with ISI certification mark, IS:5514	1		
18	**Le-Chateller Flask**			
	It should be used for the determination of specific gravity and hydraulic cement as specified in IS:4031	1		
19	**Los Angles Abrasion Testing Machine with Abrasive charge (IS:10070)**			
	The machine should consist of a hollow cylinder, mounted on a sturdy frame on ball bearings. A detachable shelf which extends through out the inside length of the drum should catch the abrasive charge and should not allow it to fall on the cover. The drum should rotate at a speed of 30-33 rpm by an electric motor through a heavy duty reduction gear. Motor suitable for operation on 415 V3 phase, 50Hz, AC supply. Should be supplied complete with a tray for collection of the material with abrasive charge and revolution counter and should consist of a set of 12 hardened steel balls of 48mm dia and revolution counter.	1		
20	Automatic Free Fall Hammer			
	The equipment should consist of the following. Front Wheel Anvil Front Wheel Hammer Guide Assembly Fall Hammer attached to a flexible rope and drum, operated manually. Base Assembly for the hammer system with suitable wheels for moving about when attached to a vehicle. Essential accessories should include. Split spoon sampler Tripod with pulley and built-in ladder. 'A' drill rod. 1.0 long with adapter.	1		
21	Sieve G.I. frame 45cm dia complete set	1		
22	Sieve G.I. frame 30cm dia complete set	1		
23	Sieve G.I. frame 20cm dia complete set	1		
24	Cube mould (150x150x150) mm with IS certification	24		

Sd/-
Dy. General Manager,
J&KPCC Ltd. Procurement Unit,
Jammu.