NIT No.: NRO/CON/752/642

CONDITIONS OF CONTRACT FOR GEOTECHNICAL SOIL INVESTIGATION WORK FOR ARTIFICIAL LIMBS MANUFACTURING CORPORATION OF INDIA (ALIMCO) AT KANPUR, U.P.
CONDITIONS OF CONTRACT (CC)

Name of Work: Tender for carrying out geotechnical soil investigation work including drilling of boreholes for Artificial Limbs Manufacturing Corporation of India (ALIMCO), Kanpur.

1.0 BRIEF OF PROJECT

ALIMCO, HQ located at Kanpur adjacent to IIT, Kanpur is spread over in an area of approximately 44 acres. The existing Plant (workshop) & office building of ALIMCO, Kanpur built up area is approximately 15 Acres, beside these a land of approximately 1800/2400 Sq Mtrs. is located outside near ALIMCO premises which is proposed to accommodate approximate 16 flats for PWD employees and a school of primary level upto V at ALIMCO, Kanpur.

2.0 SCOPE OF WORK

The scope of work included in this tender shall include (but not be limited to) carrying out soil investigation work including drilling of bore holes as per relevant BIS Standards at various locations of the buildings/structure to be constructed to ascertain the physical and Engineering properties of sub-soil strata underlying the construction site and to provide a geotechnical report with field investigation, laboratory analysis of soil samples, and recommendation of foundation etc for the design and construction of design & construction of modernized and technologically advanced work centers (Approx. Seven work centers) and other buildings for offices and State of the Art Research & Development Centre at ALIMCO, Kanpur and construction of Auxiliary production unit at Ujjain and other Civil Renovation works required at ALIMCO-HQ, AAPCs, RMCs & AoC etc. and any other services not covered above but required in totality for overall completion of work as per the direction of PMC/EPI as per the scope of work, BOQ and specified in condition of contract & elsewhere.

The scope of services shall thus cover the following major tasks:

2.1 SOIL INVESTIGATION

The work covered under soil investigations includes setting out, field investigations, laboratory tests and submission of soil investigation Reports incorporating the observations made during the field investigations & the result of laboratory tests, analysis of field & laboratory test results, foundation recommendations and other related information along with all charts, curves, drawings, tables etc.

The field investigation shall consist of sinking boreholes by boring, chiseling and drilling, conducting standard penetration tests, collection of disturbed and undisturbed soil sample, collection of blocks sample of solid/disintegrated rock and core samples of rock, collection of water samples etc.
All samples collected at field shall be properly preserved and transported by the contractor to recognized and approved soil testing laboratory for conducting necessary laboratory tests. The expenses on this account shall be borne by the contractor.

The purpose of the sub-surface investigations is to arrive at the design parameters indicated below that shall be included in the Report with full background, justifications and calculations. All calculations shall be based on appropriate latest BIS Codes with proper reference to clauses.

a) Mobilization of men, equipment, setting equipment and carrying out drilling of Boreholes as per scope of work up to the specified depths or refusal, whichever is earlier.

(i) GL to 4m depth or refusal-2 or more boreholes as per site requirement to design the various buildings.

(ii) GL to 10m depth or refusal-2 or more boreholes as per site requirement to design the various buildings.

b) Depth of foundation of the Safe bearing capacity at founding level of raft and open foundations from shear and settlement consideration.

c) Recommending safe / allowable bearing capacities of soil for foundation based on existing soil condition.

d) Plotting of a compiled soil profile for the site.

e) Chemical analysis of sub-soil water and the sub-strata and their suitability for concreting purpose.

f) Observed as well as predicted maximum level of water table.

g) Effect of water table on bearing capacities of soil shall be taken into Account.

h) Suitability of excavated material for back filling and as fill material for landscaping etc.

i) Compactness of the top sub-strata revealed by CBR Test from the point of view of the constructing internal roads and pavements.

j) Any other pertinent information relating to foundation design considered necessary by the Contractor.

2.2 LABORATORY TESTS

The main tests in the laboratory shall include the determination of all relevant soil parameters, such as, classification (by particle size analysis as per BIS) and by triaxial tests, void ratio, permeability, Atterberg limits, water content,
coefficient of consolidation (by Odometer), stress-strain modulus (by stress-strain curves from triaxial tests), unconfined compression tests for cohesive soils, CBR Test and Proctor Density Test. The laboratory tests shall also include chemical analysis of ground water for determining suitability for concreting (samples taken at depths of 3m, 9m, 12m and 15m) and analysis of water and soil samples to assess aggressiveness in relation to attack on concrete / reinforcement. The tests shall be done in case of soil sub-strata. Determination of CBR value of 150mm dia re-moulded samples as per IS:2720 (Part 16) and IS:9669 and as per relevant BOQ item.

2.3 FIELD INVESTIGATIONS

The field investigations shall include boring with mechanically operated shell and auger soil/ rock for Nx to Bx size bore holes, boring rig, taking undisturbed samples and conducting Standard Penetration Tests, Static Cone Penetration Tests (using 10T capacity equipment with hydraulic pushing), observing ground water table and identification of soil strata. The bore-hole locations identified on the enclosed drawing are contemplated for depths ranging between 30mm to 50mm. These investigations are specified for soil sub-strata. Determination of Field CBR value at 750mm depth below ground level as per IS:2720 (Part 31) and as per relevant BOQ items.

Shell and auger boring shall be done at all bore holes upto wherever it is feasible. Thereafter, bore-holes shall be advanced through drilling unless instructed by the Engineer otherwise.

2.4 REPORT

A detailed Draft Report covering details of Laboratory Tests Field investigations and recommendations shall be submitted in two hard copies along with soft copy in CD / Pen drive.

After scrutiny and comments by the EPI / ALIMCO, a Final Report incorporating the comments shall be submitted in six hard copies along with soft copy in CD / Pen drive.

2.5 CODES AND STANDARDS

All field and laboratory work shall be carried out strictly in accordance with BIS specifications unless otherwise approved by the Engineer-in-charge. Where not specified, the latest edition of one or more of the following codes of practice shall be followed. In case of conflict between any of the codes mentioned below, the BIS Codes of Practice shall prevail unless otherwise approved by the Engineer-in-charge.

BIS:1498 Classification and identification of soil for general engineering purposes.

BIS:1888 Method of Load test on soils
BIS:1892 Code of practice for sub-surface investigations for foundations (includes pressuremeter)

BIS:2131 Method of Standard Penetration Test for soils (SPT)

BIS:2132 Code of Practice for Thin walled tube sampling of soils

BIS:2720 Part I to Part XXXXI - Method of test for soil

BIS:2809 Glossary of terms and symbols relating to soil engineering

BIS:4434 Code of Practice for in-situ vane shear test for soils.

BIS:4968 Method for sub-surface sounding for soils

Part I : Dynamic method using 50mm cone without bentonite slurry (DCPT)
Part II : Dynamic Method using cone & bentonite slurry (DCPT)
Part 3 : Static Cone Penetration Test (SCPT)

BIS:6929 Code of Practice for in-site permeability test

Part I : Test in observation
Part II : Test in bed rock

BIS:7422 Symbols and abbreviations for use in geological maps, sections and sub-surface exploratory logs.

Part I : Abbreviations.
Part II : Igneous Rock
Part III : Sedimentary Rock

BIS:9143 Method for the determination of unconfined compressive strength of rock materials.

2.6 SAFE BEARING CAPACITY

The results and interpretation of all the laboratory tests shall be corporate in the soil investigation report indicating borehole / field test number sample number, sample description and depth of collection of sample from ground level.

2.7 REMOVAL OF VEGETATION

The contractor shall clear all vegetation and rubbish etc from the site as may be required to carry out the soil investigation work and disposes then suitably in areas as per direction of Engineer-in-charge.
3.0 QUALIFICATION OF TENDERERS

The bidders are required to fulfill all the eligibility criteria as stipulated in NIT documents and elsewhere in the Tender documents. The price bid of bidders who fulfill the eligibility criteria as per evaluation of EPI shall only be opened. The decision of EPI in this regard shall be final & binding on the bidders.

4.0 EPI reserves its right to take appropriate action including disqualification of bidder(s) as may be deemed fit and proper by EPI at any time without giving any notice to the contractor in this regard. The decision of EPI in the matter of disqualification shall be final and binding on the bidders.

5.0 EPI reserves the right to independently verify the performance of the bidder from the existing owners/users/owners’ consultants. In case any carrying out geotechnical soil investigation work is found to be performing unsatisfactorily, EPI reserves the right to reject the tender and price bid of such bidder shall not be opened, even if the bidder is meeting the technical and other qualifying requirements.

In such circumstances the bidder shall have no claim on EPI of whatsoever nature.

6.0 VALIDITY OF TENDER

The bidder for the works shall remain open for acceptance for a period of ninety days (90) from the date of opening of Price Bid of tenders. The earnest money will be forfeited without any prejudice to any right or remedy. In case the bidder withdraws his tender during the validity period or in case he changes his offer to his benefits, which are not acceptable to EPI. The validity period may be extended on mutual consent.

7.0 SITE VISIT

Before bidding, the bidder, at his responsibilities, risk and expenses, must be visit the site to ascertain nature of soil, local site conditions etc and satisfy himself as to the conditions prevalent at the site and submit the our site In-charge meeting certificate with tender.

The bidder shall be deemed to have inspected the site, it’s surrounding and acquainted itself with the nature of the ground, accessibility of the site and full extent and nature of all operations necessary for the full and proper execution of the contract.

8.0 WATER AND ELECTRICITY

Water and electricity is available in the proposed area of campus i.e. ALIMCO, Kanpur, the contractor has to tap/take his own power connection to the site of work/location of work from the earmarked location at his own cost. May it be informed that power supply in the region is erratic and power cuts are frequent. Accordingly, it is in the own interest of the agency to have its dedicated power
supply arrangement through D.G. sets to keep the required progress of the work.

This facility will be on chargeable basis as per prevailing rates of ALIMCO, Kanpur.

9.0 ROAD PERMIT AND LICENSE

Road permit for transportation of plant & machinery across state border shall not be issued by EPI and will have to be arranged by contractor on his own. Entry tax & Transit Insurance etc of the equipment shall be arranged by the contractor. Nothing extra shall be paid on this account.

The contractor shall arrange for obtaining the license and clearances for the operation (if required) from the local authorities and statutory bodies at his own cost & nothing extra shall be payable.

10.0 The Soil Investigation work in general shall be carried out as per latest relevant BIS codes of practice / CPWD specification and as per direction of Engineer-in-Charge. Accuracy and preciseness of the Soil Investigation work has to be ensured.

11.0 Transportation facility at site for the plant & equipments etc and agency’s personnel shall not be provided by EPI. Transportation of machinery/equipments/ agency’s personnel up to site and further sifting of machinery up to bore hole location shall be arranged by agency at their own cost.

12.0 VARIATION IN TAXES, DUTIES, LEVIES & IMPOSITION OF NEW TAXES ETC

i) The bid price shall be inclusive of work contract tax / VAT/GST/ Labour Cess or any other tax levied on the transfer of property and goods involved in the “Works Contract” in accordance with the relevant Act in the State Act and rules made there under including amendments, if any. The liability on account of such tax as per the rates of tax prevailing as on seven days prior to last date of bid submission shall be included in the price bid. In case of any variation in the rates of tax after this date, the same shall be paid / recovered from the contractor subject to the submission of documentary evidence and proof of having made the payment at the revised rate.

ii) The Bid Price shall also be inclusive of Service Tax, if applicable on Construction Services as per the rates prevailing as on seven (7) days prior to the last date of submission of tender (including abatement as applicable). In case of any variation in the rate of Service Tax, after this date, an equitable adjustment of the Contract Price shall be made to fully take into account any such change by addition / deduction to the Contract Price.
iii) If a new tax, duty or levy is imposed under statute or law in India after the date seven (7) days prior to the last date of submission of tender and the contractor becomes liable there under to pay and actually pays the said new tax, duty or levy for bonafide use on the works contracted, the same shall be reimbursed to the contractor against documentary evidence of proof of payment, provided that the amount thus claimed is not paid / payable under price variation provision of the Contract.

iv) The payment / reimbursement of statutory variations in the rates of tax and / or of new tax, duty or levy imposed under statute or law in India as per para (i), (ii) & (iii) above, would be restricted only to direct transaction between the EPI and the Contractor.

v) Rates shall remain firm till completion of entire works and shall be inclusive of all taxes, entry tax, duties, VAT/ WCT/GST, Labour Cess and other levies etc as applicable.

13.0 SECURITY DEPOSIT

“Within 10 (ten) days from the date of issue of letter of intent, the agency shall submit to EPI a Security Deposit Bank Guarantee in accordance with the prescribed Performa (Enclosed), from any Nationalized Bank / Scheduled Bank equivalent to 5% of the contract value for the due and proper execution of the contract. This bank guarantee shall remain valid upto 1 month after the end of completion period.

In case the agency fails to submit the Security Deposit Bank Guarantee of the requisite amount within the stipulated period, letter of intent will stand withdrawn and EMD of agency shall be forfeited.

14.0 RETENTION MONEY

The Retention Money shall be deducted from each running bill of the agency at 5% of the gross value of the Running Account Bill. The Earnest Money Deposited by the bidder in the form of Demand Draft will be treated as part of the Retention Money. The Retention Money shall be refunded to the agency after expiry of completion period or on payment of the amount of the final bill whichever is later.

15.0 COMPLETION PERIOD

The time for carrying out geotechnical soil investigation work at site will be 6(six) month. The date of start of contract shall be reckoned 10 (ten) days from the date of issue of LOI/ Work order.

16.0 ESCALATION

No escalation on account of labour, fuel & tool and tackles etc. involved due to any reason, shall be entertained.
17.0 PAYMENT TERMS

i) The bill shall be submitted by Contractor against the actual work done at site. Detailed measurement of items along and abstract of bill are to be submitted along with bill/running bills for checking and verification. The payment due to the contractor shall be made within fifteen (15) days of getting the measurements verified from the Engineer-In-Charge or his subordinate/representative and certification of bill by the Engineer-In-Charge.

ii) No advance shall be paid.

iii) 80% payment shall be released after completion of field work and submission of reports along with one soft copy and two hard copies.

iv) Balance 20% shall be released after checking and verification of the reports within one month from the date of submission of Final reports.

v) The payment shall be made in favour of the agency through RTGS transfer / by multi city cheque.

vi) The statutory deductions such as income tax, sales tax, VAT or any other taxes & duties etc. shall be made from the payment released to the agency from time to time. The above taxes & duties are deemed to be included in the Agency’s price and nothing extra shall be payable to the agency in this regard.

vii) The service tax and cess, if applicable, on the subject work shall be reimbursed to the Agency on submission of proof of depositing the same with Statutory Authority.

viii) Invoice should be raised by Contractor in the name of Engineering Projects (India) Ltd., A/c ALIMCO Project, Kanpur.

18.0 INSURANCE

Insurance policy for their equipments & Insurance coverage for their personnel to be deployed at site shall be arranged by the agency on their own cost.

19.0 LIQUIDATED DAMAGES

In case of delay in execution of work due to reason attributable to you, liquidated damages shall be charged at the rate of two percent (2%) of the contract value per week, subject to maximum of five percent (5%) of the total value of the contract.

20.0 The PMC / EPI reserves the right to terminate the contract, with a 10 (ten) days notice, if in EPI opinion and in such case the Security Deposit of the agency shall be forfeited. It is construe that the agency is not discharging the services specified to the complete satisfaction of the PMC /EPI in the agreed time frame.
21.0 The agency shall be responsible for all claims, damages, losses or expenses including attorney’s fees, arising out of or resulting from the performance of the services contemplated in this contract provided that any such claims, damage, loss or expense is caused by any negligent act, error, any Sub Consultant or associate thereof, or any directly or indirectly employed by the agency.

22.0 The agency shall be bound to sign the site order book as and when required by Engineer-In-Charge at Site and carry out compliance of instruction promptly to the satisfaction of Engineer-In-Charge.

23.0 **TOOLS & TACKLES, SAFETY AND PRECAUTIONARY MEASURES**

All equipments, plants, tools and tackles shall be arranged by the contractor for carrying out the soil investigation work complete in all respects. Similarly all safety and precautionary measures such as reptile repellents, insecticides etc. as required shall be arranged by the Contractor.

The agency shall make all necessary safety arrangement at site and indemnify EPI against any consequence of accident at site.

24.0 **QUANTITY VARIATION**

The Quantities and locations mentioned in the BOQ are tentative and are subject to variation both on lower as well as on higher side. However, the quantity actually executed at site shall be paid without any variation in the rate.

25.0 In case the performance of the contractor/ agency is found unsatisfactory. The work order / contract shall be terminated by EPI at any time by giving seven day’s notice in writing for the non performance or any default and violation of the terms of the contract by the Agency.

26.0 The Contractor shall follow all rules & regulations of Labour laws and other statutory requirements.

27.0 EPI is awarding this Contract on behalf of Artificial Limbs Corporation of India (ALIMCO), Kanpur. In case M/s. EPI cease to be PMC, the right and responsibility etc. of EPI in the Contract shall get transferred to ALIMCO or their nominated agency shall operate this Contract.

28.0 The EPI will not be responsible for the delay/ stoppage of work and losses, if any, suffered by the Agency due to force majeure conditions like natural calamities, civil disturbances, strikes, war, etc. EPI shall not be liable in any way to bear such losses and no compensation of any kind whatsoever will be payable by EPI to the Agency.
29.0 DISPUTE RESOLUTION

All the disputes of any nature shall be settled through mutual settlement only. There is no Arbitration clause in this contact.

The courts in Delhi/ New Delhi alone will have jurisdiction to deal with matters arising from the contract, to the exclusion of all other courts.

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