



भारतीय विमानपत्तन प्राधिकरण
AIRPORTS AUTHORITY OF INDIA

NOTICE INVITING QUOTATION

Ref : AAI/LKO/PRJ/DGM (E-C)/Cargo /SOIL/NIQ-02

Dated : 11/05/2018

Name of work Construction of Interim cargo Complex at C.S.S. International Airport, Lucknow
Subhead : Soil Investigation(Balance Work)Reg.
Period of Completion: 30 (Thirty) days

Sealed Quotations are invited by DGM (Engg.-Civil)-Project, AAI,C.C.S.I Airport Lucknow, on behalf of Chairman, AAI from eligible agencies having valid Certificate of Accreditation from NABL or AICTE approved engineering colleges/Govt. Institutions OR registered with MSEs units (to submit documentary evidence for eligibility criteria from statutory authority) for the above-mentioned work, and having Permanent Account Number (PAN) and GST Registration.

Schedule of events for quotation process shall as per following.

- a) Last date & time of issue of blank Quotation form to eligible contractors through mail : 15/05/2018 upto 17.30 hrs.
- b) Last date & time of submission of Quotation forms to DGM (Engg.-Civil)-Project, AAI,C.C.S.I Airport : 22/05/2018 upto 17:30 hrs
- c) Date & time of opening of Quotation : 24.5.2018 upto 15.00 hrs.

You are requested to quote your competitive rate and submit the same in a Sealed Envelope mentioning the name of work and due date opening and should reach the office of the undersigned on or before as mentioned above.

AAI reserves the right to accept or reject any or all applications without assigning any reasons. AAI also reserves the right to call off quotation process at any stage without assigning any reason.

AAI shall not be responsible for any postal loss/delay of Quotation documents.

Yours truly,


(Anoop Gupta)

Bid. Manager)

For DGM (Engg-C)-P

AAI,CCSI Airport,,Lucknow

Encl: As Above



**"Construction of Interim cargo Complex at
C.S.S. International Airport, Lucknow Subhead
: Soil Investigation(Balance Work)Reg.**

QUOTATION DOCUMENT

**AIRPORTS AUTHORITY OF INDIA
ENGINEERING WING
C.C.S. INTERNATIONAL AIRPORT
LUCKNOW-226009**

Name of work: Construction of Interim cargo Complex at C.S.S. International Airport, Lucknow Subhead : Soil Investigation(Balance Work)Reg.

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Certified that this tender document contains pages 01 to 12 only.


DGM (Engg-C)-P
AAI, C.C.S.I. Airport, Lucknow

AIRPORTS AUTHORITY OF INDIA
GENERAL GUIDELINES & TERMS AND CONDITIONS FOR THE BIDDERS

1. The Quotation shall be in the prescribed Form.
2. Not more than one Quotation shall be submitted by a contractor or by a firm of contractors.
No two or more concerns in which an individual is interested, as Proprietor and/or partner shall Quote for the execution of the same works. If they do so, all such Quotation shall be liable to be rejected.

3. **Qualifying requirements of contractors/firms.**

- i) Should have Valid Certificate of Accreditation from NABL (National Accreditation Board for Testing Calibration Laboratories) or AICTE approved engineering colleges/Govt. Institutions OR registered with MSEs units (to submit documentary evidence for eligibility/criteria from statutory authority)
- ii) Should possess following minimum equipments for testing :-

S.No.	Equipment Description	No.
1.	Equipment for Mechanical soil exploration.	1

Documentary proof (undertaking/bill/Lease) of owning and possessing required equipment shall also be submitted alongwith the application. Ownership can be either freehold or lease hold.

4. **Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their Tenders/Quotations**
5. Submission of a Quotation by a bidders implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the works to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by Airports Authority of India, local conditions, local material rates and other factors bearing on the execution of the works.
6. All rates shall be quoted in the standard BOQ format only and should be submitted in sealed envelope. Sealed documents should be reached to DGM (Engg-C)-P, AAI, C.C.S.I. Airport, Lucknow-226009 latest by **22.05.2018 upto 17:30 hrs.** Any postal delay will not entertained and agency will not have any claim in this regard. Decision of Engg-in- charge will be final and binding.
7. In the case of item rate Quotation only rates quoted shall be considered. Any Quotation containing percentage below/above the rates quoted is liable to be rejected.
8. Notification of Award of contract will be made in writing to the successful Bidder by the Accepting Authority or his representative. The contract will normally be awarded to the qualified and responsive Bidder offering lowest evaluated bid in conformity with the requirements of the specifications and contract documents and

the Accepting Authority shall be the sole judge in this regard. The Accepting Authority does not bind himself to accept the lowest or any Quotation or to give any reason for his decision.

- 8.1 A **responsive bidder** is one who submits the financial bid and accepts all the terms and conditions of the Quotation document.
- 8.2 A **major modification** is one which affects in any way the quality, quantity and period of completion of the work or which limits in any way the responsibilities or liabilities of the Bidder or any right of AAI, as required in the specifications and contract documents. Any modification in the terms and conditions of the Quotation which are not acceptable to AAI shall also be treated as a major modification.
- 8.3 A Bidders shall submit a responsive bid, failing which his Quotation will be liable to be rejected.
- 8.4 The Accepting Authority reserves to himself the right of accepting the whole or any part of the Quotation and Bidders shall be bound to perform the same at his quoted rates.
9. The Bidders shall not be permitted to tender for works in Airports Authority of India Engineering Department, responsible for award and execution of contracts, in which his near relative is posted as Manager Finance & Accounts or Sr. Officer or as an engineer in any capacity. He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any officer in Airports Authority of India. Any breach of this condition by the contractor would render him liable to be debarred from Tendering for next 2 years.
10. The contractors shall give a list of AAI employees related to him.
11. No Engineer of Gazetted rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of Airports Authority of India/Govt. of India is allowed to work as a contractor for a period of two years of his retirement from Airports Authority of India/ Government service, without the previous permission of Airports of India/Govt. of India. The contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of Airports Authority of India/Govt. of India as aforesaid before submission of the Quotation or engagement in the contractor's service.
12. The Quotation for works shall remain open for acceptance for a period of **Ninety days** from the date of opening of Quotation.

13. On acceptance of the Quotation, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Engineer-in-Charge shall be communicated to the Engineer-in-Charge.
14. If at any stage, any information /documents submitted by the applicant is found to be incorrect/false or have some discrepancy which disqualifies the firm then AAI shall take the following action:
 - a) The agency shall be liable for debarment from tendering in AAI, apart from any other appropriate contractual / legal action.
15. The site for the work will be made available.
16. Income Tax, Cess, or any other tax in respect of this work shall be payable by the contractor as per prevailing rates. GST will be reimbursed as per AAI policy as applicable.
17. The quoted rates should be inclusive of all materials, loading-unloading, transportation charges etc complete to carry out testing in operational/Non-operational area (as applicable) of at Lucknow Airport, for which AEP is required to be applied before entering inside operational area, the charges on account of this has to be borne by the Agency. Vehicle permit is also to be obtained on payment of charges applicable, nothing extra on these accounts will be paid by AAI.
18. A written order from AAI shall be issued on approval of quotation. The work should be started only on receipt of written order from the AAI. No responsibility will be borne by AAI for the works executed in absence of such written order. Work shall be executed as per term and condition of Quotation document, Specifications for carrying out soil investigation and submission of soil investigation report as per Annexure-B
19. The time allowed for carrying out the work and submission of Soil test Report shall be 30 **days** and shall be reckoned from 10 days after issue of work order. The contractor must complete the work within the stipulated period as mentioned, which shall be essence of the contract. In case of failure to complete the work within the time period, the AAI, will be at liberty to cancel the order.
20. On satisfactory completion of work, bill shall be submitted by agency to the Engineer-in-charge and same shall be processed with following documents: -
 - a) Your final bill
 - b) Measurement book jointly signed by you and representative of Engineer-in-charge.
 - c) Completion certificate issued by Engineer-in-charge.
 - d) Other relevant documents. If any
 - e) Test Report
21. **Compensation for delay:**

Compensation for delay shall be levied at the rate of one percent of contract value per week in case the work is not completed within the stipulated period and the delay is due to the reasons attributable to the contractor. The amount of compensation thus leviable will be subject to the maximum of ten percent of contract value.

22. You are also directed to contact Asst. Manager (Engg-Civil), AAI, C.C.S.I. Airport, Lucknow Authorized Representative, who will arrange the hand over the site to you for this work.
23. You are requested to comply with the provisions of Contract Labour (Regulation and Abolition) Act 1970 and Contract Labour (Regulation and Abolition) 1971 and minimum wages act and rules there of Central and State Governments.



DGM, (Engg.-C)-P
(For and on behalf of the Chairman
Airports Authority of India)

**SPECIFICATIONS FOR CARRYING OUT SOIL INVESTIGATION
FOR BUILDING/CULVERT/DRAINAGE WORKS**

GENERAL

The soil consultant should visit the site and shall carry out soil investigation as per the scope of work given below and shall submit the soil report as per the enclosed proforma.

OBJECTIVE

To decide safe & cost effective type of foundation, depth of foundation, load bearing capacity of soil, location of ground water and possible corrosive effects of soil and water on foundation material, ground improvement/soil treatment, if any, required before laying/casting of foundation.

In order to achieve the above objective, following engineering properties of the soil need to be evaluated:

- a) Soil type and its engineering properties.
- b) Depth of water table.
- c) Chemical properties of sub-soil and sub-soil water.
- d) Sub soil profile indicating thicknesses of various soil strata upto the depth as indicated in Table-1

Table-1

S. No.	Type of Building Structure	Depth of Bore Hole form existing Natural GL	Spacing of Bore Holes	Minimum No. Bore Holes	Remarks
(1)	(2)	(3)	(4)	(5)	(6)
1.	Operational Boundary Wall	3 to 4m	500m	3Nos.	
2.	Electric Sub-station	6 to 10m	--	3Nos.	
3.	Culverts	10m from Invert level of Culvert	30m	3Nos.	As applicable
4.	Underground Water Tanks, Fire Stations	10m	--	3Nos.	
5.	Residential Colony up to 4 Stories	10 to 15m	40 to 45m	3Nos.	
6.	a) Airport terminal Cargo buildings where open foundation are anticipated: i) column spacing upto 10m. ii) column spacing more than 10m b) Airport terminal, Cargo building where Pile foundation are anticipated.	15 to 20m 20 to 25m 30 to 40m	30 to 40m 30 to 40m 30m	5 Nos. 5 Nos. 5 Nos.	
7.	Air Traffic Control Tower of Height 25 to 40m	20 to 30m	--	1. Boreholes of 30m depth & 2. Boreholes of 20m depth	Also Plate Load Test to be conducted as per scope of Work [Ref. clause 3 (d)]

Note: -

- i) The diameter of bore hole should be as per IS standards.
- ii) Borehole can be terminated at a shallower depth than that specified in column No.3 if hard strata is encountered or N value is more than 50.
- iii) In case hard strata is encountered at a shallow depth say about 2.5m from the existing ground level, it is advisable to extend, minimum No. of bore holes as specified in column No.5, 3 to 7m into such strata.
- iv) Spacing of bore holes can be reduced than that specified in column No.4, if large variation is encountered between successive bore holes.

3. SCOPE OF WORK

- a) No, spacing and depth of bore holes as per Table-1. The bore holes shall be located at possible location of column of building structure, heavily loaded RCC walls, in such a way so as to have a representative cross-section of soil profile for the area under investigation.
- b) Collection of disturbed/undisturbed samples shall be done at 0.75m, and there onwards at every 1.5m interval or change of strata whichever is earlier shall be taken.
- c) SPT test-shall be carried out at 0.75m, 1.5m, 2.25m, 3m and there onward at every 1.5m interval or at change of strata, whichever is earlier.
- d) Particle size analysis of soil – **to be conducted for all locations.**
- e) Triaxial Test – **minimum at 3 locations.**
- f) Specific gravity test – **minimum at 3 locations.**
- g) Liquid limit, Plastic Limit, Plasticity, Index, Swell Index, Shrinkage limit – **to be conducted for all locations for clayey and swelling soils.**
- h) In situ density, dry density, Natural moisture content of soil - **to be conducted for all locations.**
- i) Permeability tests – to be conducted on granular soils – **minimum at 3 locations.**
- j) Vane shear test – to be conducted on soft and sensitive clays – **minimum at 3 locations.**
- k) Consolidation test – to be conducted on clayey soils – **minimum at 3 locations.**
- l) Determination of organic material in soil by wet combustion- **minimum at 3 locations.**
- m) Determination of chlorides & sulphates, organic matter in soil – **minimum at 3 locations.**
- n) Moisture – density relation of soil – **to be conducted for all locations.**

- o) Chemical analysis of ground water indicating sulphates, chlorides, **pH** value – **minimum 3 No. tests.**
- p) Recommendation of the consultant including soil stabilization/ground improvement, if required.
- r) In case rock is encountered at a depth less than or equal to 1.5m below the existing ground level, tests for soil as stipulated in **scope of work** need not be carried out. In that situation, following test on rocks may be carried out in consultation & approval from EIC.
 - i. Probing shall be done to ascertain rock profile.
 - ii. RQD and rock mass rating.
 - iii. Visual examination.
 - iv. Unit weight.
 - v. Water absorption
 - vi. Porosity
 - vii. Petrographic analysis
 - viii. Compressive strength
 - ix. Shear Strength

All test shall be carried out as per latest BIS codal provisions including all applicable official amendments and revisions. The consultant may use any other code in case there is no BIS code for a particular test.

4. REPORT SHALL INCLUDE THE FOLLOWING

- a) Introduction: (Pl. give description of work).
- b) Site description: (Pl. give detailed description of site indicating levels w.r.t. surrounding area including drainage. Whether the area under investigation is fairly level or have ups & downs or inclined etc.)
- c) Field Investigation: (Pl. give Summary of various tests carried out in the field)
- d) Field Investigation Photographs: (Please attach colour Photograph showing the field test in progress along with concerned technician/Engineer)
- e) Lab Investigation: (Pl. give Summary of various test carried out in the lab.)
- f) Location Map: (Pl. give Location map of the area under investigation indicating land marks which can clearly indentify the area under investigation. Further the location plan should also indicate test locations viz. borehole, plate load tests on a **WELL-PROPORTIONATE SCALE**).
- g) Longitudinal Section: (Pl. give Longitudinal section of soil profile passing through various bore holes. The longitudinal section must indicate RL at location of bore hole, water table, soil specification etc. at each borehole).

- h) The Soil Profile: (Pl. give Detailed description of each layer/stratification of soil considering all the bore holes, lab & field test.)
- i) Recommendations:** (Based on the field and lab investigation the consultant shall give clear cut recommendation for):
- 1) R.L. at which foundation of building structure can be placed
 - 2) Recommended foundation type.
 - 3) If open foundation is recommended SBC of soil at 2-3 typical depths of foundation for square, rectangular & strip as well as raft foundation – supported with proper calculation.
 - 4) Pile capacity for different dia/lengths, if pile foundation is recommended- supported with proper calculation.
 - 5) SBC & depth of foundation for non-load bearing walls.
 - 6) In case fissures are found in rock at foundation level, consultant shall give details of joining of two adjacent rocks to avoid splitting under imposed load.
 - 7) Depth up to which the virgin soil need to be removed, if any.
 - 8) Ground improvement required, if any, along with detailed specifications, procedure for ground improvement including proper reasoning for value added.
 - 9) Local practice being followed, if any, for ground improvement.
 - 10) Local practice being followed, in-case of filling areas. The consultant shall recommend the material for filling along with detailed specifications for compacting the same.

TERMS & CONDITIONS

- a) Since the entire construction project would be based on soil investigation report, the accuracy and adequacy of report shall be the criteria of the contract, any sort of negligence makes the contractor/consultant liable to pay damages.
- b) The consultant will associate AAI engineers throughout the soil investigation work and shall provide AAI with all the details pertaining to the studies or works including collection of data.
- c) The work at site shall be carried out under full time supervision of a skilled geotechnical engineer, who shall be capable or coordinating and responsible for the entire work.
- d) Consultant shall make enquiries and verify regarding earlier use of the site, which can have important bearing on its suitability for the proposed structure.

- e) All tests shall carried out as per latest BIS codal provisions including all applicable official amendments and revisions. The consultant may use any other code in case there is no BIS code for a particular test.
- f) The Consultant shall intimate AAI giving reasons, if any additional tests be considered necessary to be carried out duly considering the considering the local soil conditions before starting of such tests.
- g) The Consultant shall interact with AAI in assessing load on columns and other structural elements, types of structures envisaged at the area under investigation so as to enable him to make specific recommendations for the depth, type of foundations and allowable bearing pressure.
- h) The Consultant shall be liable and responsible for the correctness and accuracy of the data, calculations, analysis and recommendations furnished by them. Should any inadequacy or discrepancy be observed in the work performed by the Consultant and recommendation made by them, the Consultant shall at his own initiatives perform all such survey/investigation and other works as may be necessary for adequacy of the recommendation/requirements without any extra cost.
- i) The report shall be submitted in **triplicate**.

SCHEDULE OF QUANTITY

Name of work: "Construction of Interim cargo Complex at C.S.S. International Airport, Lucknow"

Subhead : Soil Investigation(Balance Work)Reg.

S.No.	DESCRIPTION OF ITEM	UNIT	QTY.	RATE i/c GST		AMOUNT
				In Figures	In Words	
1	Providing & conducting Standard penetration test on soil making bore holes at various location upto desired depth or when refusal strata (Rock) is encountered (Which ever is less) i/c collection of distributed/undistributed soil sample at different depths from existing G/L or change of strata which ever is earlier i/c making bore hole log & conducting various tests all complete as per Annexure'B' i.e. Scope of work a) At minimum 6 locations for a total depth of about 92 mtrs as per site requirements.	Mtr.	92			

Total Amount: -

(Rupees: _____ Only)

Signature of Agency /Consultant