

**Management Development Institute, Gurgaon  
invite Tender for**

**“Conducting Soil Investigation/Testing survey  
works at MDI campus (approx..35 acre)**

**For the Proposed Construction work of Academic  
block, PGPM Hostel and other allied buildings at  
MDI campus, Gurgaon.**



**Management Development Institute Gurgaon  
Mehrauli Road, Sukhrali, Gurgaon-122007**

**Ph:- +91-124-4560000, Fax:- +91-124-4560005, [www.mdi.ac.in](http://www.mdi.ac.in)**

### NOTICE INVITING TENDER

1. Sealed tenders are invited for the work for Soil Investigation/Testing survey of land measuring approx. 35 acres located land at Management Development Institute (MDI), Mehrauli Road, Sukhrali. Gurugram – 122007, Haryana
2. The quotations should be submitted in a sealed cover addressed to: -

**The Chief Administrative Officer (Admin)  
Management Development Institute  
Mehrauli Road, Sukhrali,  
Gurugram – 122007, Haryana**

3. The quotations should reach on or before 03.00 PM on 27<sup>th</sup> January 2022. The rates of items being quoted will include the cost of material, wastage, labour etc. The cost of item being quoted in the BOQ will be exclusive of GST. Brief specification & make and schedule of quantities are enclosed at Annexure-'A'.

4. **GENERAL INTRODUCTION**

The Structures will be RCC framed construction with proposed basements.

The basement floor finish level is at appx. 9 m from the external sectoral road leading to main entry to the complex.

The purpose of Soil Investigation is to evaluate the safe soil bearing capacity of soil and other physical/chemical characteristics of soil to enable the Architect/Consultant to carry out the structural design.

5. **Brief Scope of work- Geo-technical works:**

This specification covers complete soil exploration work including carrying out field tests and laboratory tests to evaluate soil parameters and preparation of detailed report including the recommendation regarding the following main items

- The type of foundation system to be used.
- The depth of foundation
- Recommended bearing capacity at the foundation strata with the permissible settlement.
- Recommended Bearing capacity and subgrade reaction at different depth i.e. at every 1.5 m upto depth of 10.5 m (e.g. 1.5 m, 3m, 4.5m,....., 10.5 m).
- Pile capacity (Compression, uplift, lateral) in case the report recommends piles for Blocks.
- Suitability of the excavated earth in back filling.
- Quantitative assessment of chlorides and sulphate contents in the ground water and earth. Recommendations on the use of water for concreting and drinking purposes.
- Modulus of sub-grade reaction for the design of raft foundations.

- Other soil parameters (coefficient of pressure at active, passive and at rest condition, angle of repose, friction coefficient etc.) required for design of sub-structure including retaining walls.
- Requirements for stabilisation of earth slopes in open excavations.
- Liquefaction analysis of soil

**6. SPECIFICATION & DETAILED SCOPE OF WORK FOR SOIL INVESTIGATION:**

- All field, laboratory work and presentation of boring records shall be done in accordance with relevant Indian Standard Specifications.
- Bore holes as specified in BOQ into refusal strata or to the refusal whichever is less, to be carried out by shell and auger or by rotary drilling.
- The diameter of the bore holes shall be minimum 150mm for auger boring and 76mm for rotary drilling. Undisturbed samples shall be of 100mm diameter and 300mm long to be collected at approximately 1.5M interval and at every significant change in strata. The depth at which ground water level is struck shall be recorded in each bore hole and record of water levels to be maintained in all the bore holes till the completion of field work.
- Standard penetration shall be carried out at approximately 1.5M or at change of strata. Samples for split spoon sampler shall be placed in plastic bags as disturbed samples for lab tests. Standard penetration test shall be discontinued when 'N' is greater than 50 blows for 30 cms of penetration.
- Laboratory tests shall be carried out on disturbed and undisturbed samples of soil as follows:
  - Atterberg limits to determine index properties.
  - Mechanical analysis by sieve or hydrometer to determine gradation.
  - Unconfined compression and/or tri axial compression test to determine cohesion and angle of internal friction.
  - Specific gravity.
  - Consolidation test to determine settlement characteristics.
  - Chemical analysis on water/soil sample to determine PH, sulphates and chlorides.
- CBR value of soil at specified location.
- Soil Resistivity test ( $\Omega$  per mt.) as per IS.
- The soil investigation report shall be submitted in four copies and shall comprise of the following:
  - Geological note of the site.

- (ii) Site conditions stating location, topography and sub-soil conditions.
- (iii) Note on laboratory tests.
- (iv) Calculations for bearing capacity of soil at various depths.
- (v) Discussions and recommendations covering various types and depths of foundations, net allowable bearing capacity, anticipated settlement for recommended foundations and other relevant information.
- (vi) The report shall indicate the possibility of differential settlement of the foundations and recommendations in respect of the suitability of laying foundations at different depths.
- (vii) Boring records, results of in-situ and laboratory tests.
- (viii) Graphs, charts, diagrams relating to the work.
- (ix) Protective remedial measures if soil/water contains harmful chemicals.
- (x) Location of ground water table.
- (xi) Recommendation for the composition of sub-grade for the internal road design
- (xii) Precaution to be taken for excavation
- (xiii) Level of ground water table and its' expected seasonal variation. Yield of water, Soiltype upto water aquifer
- (xiv) Percolation rate/ Infiltration capacity.
- (xv) Dewatering method to be adopted for excavation related to foundation work.
- (xvi) Electrical resistivity of soil

## **7. TERMS AND CONDITIONS**

- (a) The tenderers shall quote for all the items as mentioned in the Schedule of Quantities attached. The quantities indicated are approximate and are liable to be varied to any extent. The rates quoted shall be applicable for all such variations.
- (b) The rates quoted shall be firm and shall not be subject to any variation on account of any variation in the scope of work or any contingent expenses or on any other account whatsoever.
- (c) **EARNEST MONEY DEPOSIT**

Not applicable.

(d) **TAX/DUTIES**

All sales tax/duties or any other taxes or levies including Sales Tax on works contract, Service tax payable to any authorities whatsoever shall be borne by the Contractor, and MDI (Gurugram) accepts no responsibility or liability whatsoever on any account.

(e) **INCOME TAX**

Income Tax shall be deducted from the payments to the Contractor at the prevalent applicable rates.

(f) MDI (Gurugram) reserves the right to reject any or all quotations.

(g) **SITE VISIT**

The Bidders shall visit the site and acquaint themselves with all the site conditions and all aspects affecting the execution of the work. MDI (Gurugram) shall not entertain any claim or liability on account of the Contractors ignorance or negligence of this or on any other account whatsoever.

As soon as the field work is started, the Contractor shall inform the Estate deptt MDI (Gurugram) and MDI (Gurugram) reserves the right to depute their representative for checking the work of the Contractor whenever considered necessary.

(h) **TIME SCHEDULE**

The time allowed for completion is 14 days from date of issue of Letter of intent. The time is the essence of the contract.

(i) **WATCH AND WARD & RESPONSIBILITY**

The Security, watch and ward and supply of men, materials, instruments and all other equipments required for the work as also all the messing and lodging arrangements, staying and transport arrangements of the Contractor's men, materials and equipment etc. to the site shall be the sole responsibility of the Contractor himself at his own cost in all respects. MDI (Gurugram) shall not entertain any liability and/or responsibility on any such account.

(j) **WATER AND ELECTRICITY**

The Contractor shall make his own arrangement for the water and electricity required for the execution of the work.

(k) **PRICE**

This is an item rate tender. The tenderers to submit his item rates for the works as specified in the bill of quantities.

(l) **TERMS OF PAYMENT**

(i) 100% payment after successfully completion of work as per specification.

(m) **INFORMATION**

Any particulars of information regarding the proposed work can be obtained from the office of the Estate deptt MDI, Gurgaon or Architects M/s C.P. Kukreja Associates., Ashirwad Building, 3rd Floor, D-1, Green Park, New Delhi 110016 of any working day during office hours.

Thanking you,

**Yours faithfully,**

**(Arun Kumar Singh)**  
**Chief Administrative Officer (Admin)**

Encl:

1. Annexure-A

## ANNEXURE A

## MDI, GURUGRAM

## SOIL INVESTIGATION SURVEY

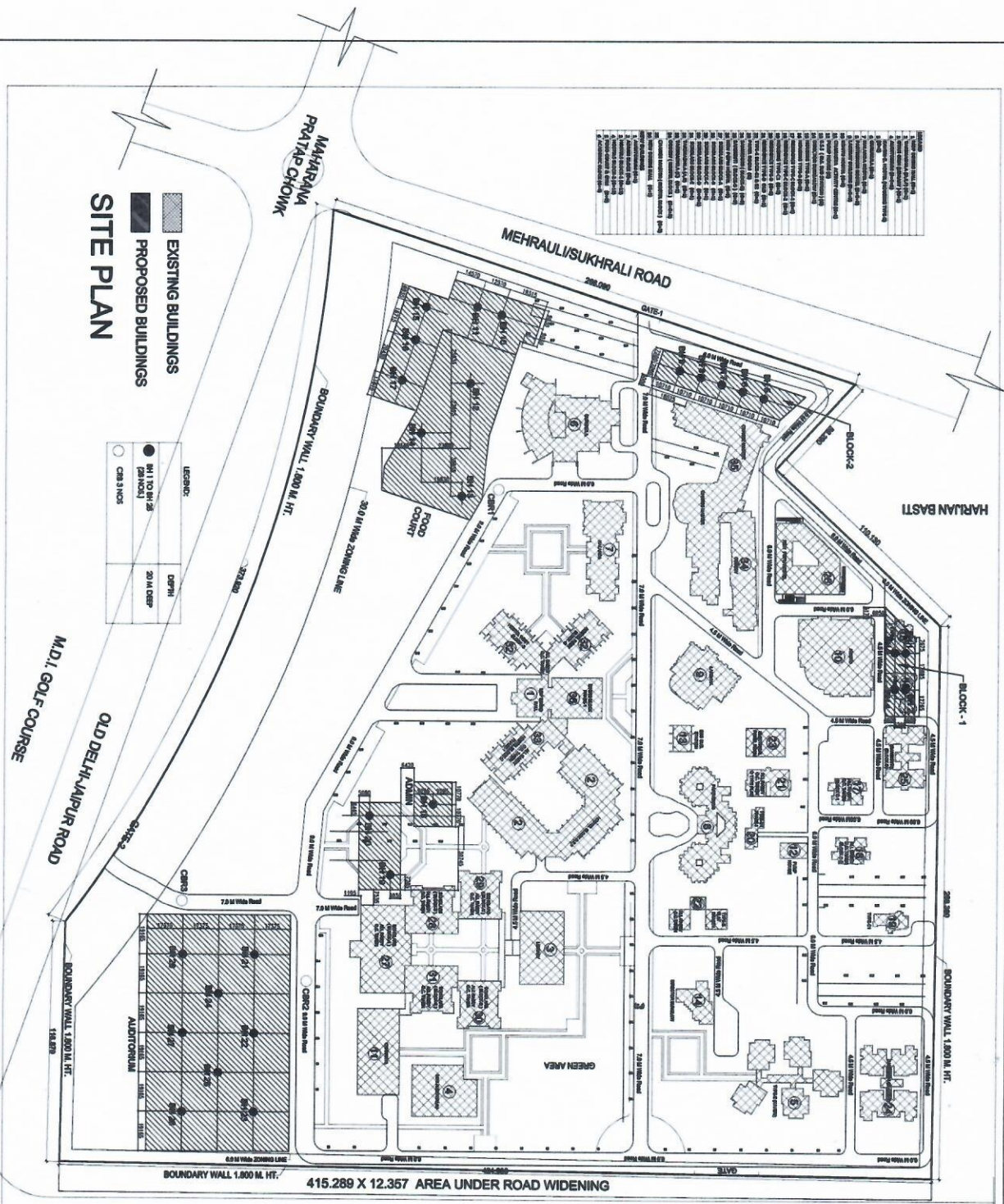
S.NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1	Site mobilization including transportation of equipment to site and ack.	JOB	1		
2	Drilling holes of 150mm dia, in all type of soil (sand, silt or clay) by shell and auger method upto the depths required or refusal (refusal means when the SPT/number of blows will be more than 50 for 30cms of penetration) whichever is earlier including: (a) Conduction Standard Penetration tests in the boreholes at regular intervals as per the standard practice, (b) Collection of undisturbed soil samples from the bore holes at regular intervals, (c) Recording or water table level if met with within the depth drilled, (d) Conducting all the necessary laboratory tests on the samples collected, (e) Preparation and submission of report (in four copies) recommending the type of foundation and the safe bearing pressure: (a) 0 – 20M or refusal	EACH	28		
(A)	0 – 20M or refusal				
3	Making 76mm size bore holes using hydraulic rotary rig below existing ground surface upto 20m depth through strata consisting of all kinds of soil including gravel /pebble / boulder complete as per below items from (a) to (e).				
(A)	Conducting standard penetration test in the bore holes at 1.5m interval or at every change of strata whichever is earlier as per IS:2131-1981.	EACH	RO		
(B)	Collecting the undisturbed soil samples from each bore hole at 3.0m interval or change of strata whichever occurs earlier.				
(C)	Recording the ground water table level if observed up to the depth of exploration during boring work as per IS				

S.NO	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
(D)	Conducting relevant laboratory tests on selected soil samples.				
(E)	Submitting geotechnical investigation report in triplicate.				
4(I)	Add/deduct for every 1m depth of RM RO bore hole in item no.2a) above.	RM	RO		
(II)	Add/deduct for every 1m depth of RM RO bore hole in item no.3) above.	RM	RO		
5	Collecting samples at specified location and determining CBR values. Each 3	EACH	3		
6	Conducting Earth resistivity test. Each 3	EACH	3		
7	Furnish recommendation/guidelines for stability during basement excavation i.e. safe angle of cut for excavated soil ,safe stepping, sloping for earth retention on the basis of borehole data, and available basement limit and setback line as marked in the plan.	L.S			
8	Dynamic cone penetration test upto.	EACH	RO		
(A)	A maximum of 10M or refusal				
	TOTAL				
	GST				



AS PER SUBMISSION REVICED FROM AMIT ARYA

1. Proposed Buildings	2. Existing Buildings
3. Boundary Wall 1,800 M. HT.	4. Boundary Wall 1,800 M. HT.
5. Boundary Wall 1,800 M. HT.	6. Boundary Wall 1,800 M. HT.
7. Boundary Wall 1,800 M. HT.	8. Boundary Wall 1,800 M. HT.
9. Boundary Wall 1,800 M. HT.	10. Boundary Wall 1,800 M. HT.
11. Boundary Wall 1,800 M. HT.	12. Boundary Wall 1,800 M. HT.
13. Boundary Wall 1,800 M. HT.	14. Boundary Wall 1,800 M. HT.
15. Boundary Wall 1,800 M. HT.	16. Boundary Wall 1,800 M. HT.
17. Boundary Wall 1,800 M. HT.	18. Boundary Wall 1,800 M. HT.
19. Boundary Wall 1,800 M. HT.	20. Boundary Wall 1,800 M. HT.
21. Boundary Wall 1,800 M. HT.	22. Boundary Wall 1,800 M. HT.
23. Boundary Wall 1,800 M. HT.	24. Boundary Wall 1,800 M. HT.
25. Boundary Wall 1,800 M. HT.	26. Boundary Wall 1,800 M. HT.
27. Boundary Wall 1,800 M. HT.	28. Boundary Wall 1,800 M. HT.
29. Boundary Wall 1,800 M. HT.	30. Boundary Wall 1,800 M. HT.
31. Boundary Wall 1,800 M. HT.	32. Boundary Wall 1,800 M. HT.
33. Boundary Wall 1,800 M. HT.	34. Boundary Wall 1,800 M. HT.
35. Boundary Wall 1,800 M. HT.	36. Boundary Wall 1,800 M. HT.
37. Boundary Wall 1,800 M. HT.	38. Boundary Wall 1,800 M. HT.
39. Boundary Wall 1,800 M. HT.	40. Boundary Wall 1,800 M. HT.
41. Boundary Wall 1,800 M. HT.	42. Boundary Wall 1,800 M. HT.
43. Boundary Wall 1,800 M. HT.	44. Boundary Wall 1,800 M. HT.
45. Boundary Wall 1,800 M. HT.	46. Boundary Wall 1,800 M. HT.
47. Boundary Wall 1,800 M. HT.	48. Boundary Wall 1,800 M. HT.
49. Boundary Wall 1,800 M. HT.	50. Boundary Wall 1,800 M. HT.
51. Boundary Wall 1,800 M. HT.	52. Boundary Wall 1,800 M. HT.
53. Boundary Wall 1,800 M. HT.	54. Boundary Wall 1,800 M. HT.
55. Boundary Wall 1,800 M. HT.	56. Boundary Wall 1,800 M. HT.
57. Boundary Wall 1,800 M. HT.	58. Boundary Wall 1,800 M. HT.
59. Boundary Wall 1,800 M. HT.	60. Boundary Wall 1,800 M. HT.
61. Boundary Wall 1,800 M. HT.	62. Boundary Wall 1,800 M. HT.
63. Boundary Wall 1,800 M. HT.	64. Boundary Wall 1,800 M. HT.
65. Boundary Wall 1,800 M. HT.	66. Boundary Wall 1,800 M. HT.
67. Boundary Wall 1,800 M. HT.	68. Boundary Wall 1,800 M. HT.
69. Boundary Wall 1,800 M. HT.	70. Boundary Wall 1,800 M. HT.
71. Boundary Wall 1,800 M. HT.	72. Boundary Wall 1,800 M. HT.
73. Boundary Wall 1,800 M. HT.	74. Boundary Wall 1,800 M. HT.
75. Boundary Wall 1,800 M. HT.	76. Boundary Wall 1,800 M. HT.
77. Boundary Wall 1,800 M. HT.	78. Boundary Wall 1,800 M. HT.
79. Boundary Wall 1,800 M. HT.	80. Boundary Wall 1,800 M. HT.
81. Boundary Wall 1,800 M. HT.	82. Boundary Wall 1,800 M. HT.
83. Boundary Wall 1,800 M. HT.	84. Boundary Wall 1,800 M. HT.
85. Boundary Wall 1,800 M. HT.	86. Boundary Wall 1,800 M. HT.
87. Boundary Wall 1,800 M. HT.	88. Boundary Wall 1,800 M. HT.
89. Boundary Wall 1,800 M. HT.	90. Boundary Wall 1,800 M. HT.
91. Boundary Wall 1,800 M. HT.	92. Boundary Wall 1,800 M. HT.
93. Boundary Wall 1,800 M. HT.	94. Boundary Wall 1,800 M. HT.
95. Boundary Wall 1,800 M. HT.	96. Boundary Wall 1,800 M. HT.
97. Boundary Wall 1,800 M. HT.	98. Boundary Wall 1,800 M. HT.
99. Boundary Wall 1,800 M. HT.	100. Boundary Wall 1,800 M. HT.



EXISTING BUILDINGS  
 PROPOSED BUILDINGS

LEGEND:

●	RI 1 TO RI 26 (RANKS)	□	OPEN
○	CBS 1 TO 3	□	20 M. DEP.

M.D.I. GOLF COURSE  
 OLD DELHI/JALPUR ROAD

MAHARAJA  
 PRATAP CHOK

N.H-8

415.289 X 12.357 AREA UNDER ROAD WIDENING