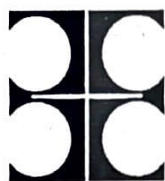


A
REPORT
ON
GEOTECHNICAL INVESTIGATION
FOR
PROPOSED
G+IV-STORIED BUILDING
AT
64A, PRATAPADITYA ROAD, WARD NO.-88,
TOLLYGUNGE, KOLKATA-700026
CONDUCTED
BY



BOSE ENGINEERS
53, PURNA CHANDRA MITRA LANE
KOLKATA – 700033

A NABL ACCREDITED LABORATORY

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Project: Geotechnical Investigation for Proposed Building at Pratapaditya Road, Kolkata.

1. *Introduction*

Soil exploration, investigation and testing of soil samples for the Proposed G+IV-Storeyed Building at 64A, Pratapaditya Road, Ward No.-88, Tollygunge, Kolkata-700026 was entrusted to M/s Bose Engineers, 53, Purna Chandra Mitra Lane, Kolkata- 700033. The objective was to ascertain the subsoil characteristics and stratification and propose suitable load carrying capacity of the soil and facilitate design of the foundation for the proposed structure. The field work involved in the investigation including boring, recovery of samples and in-situ tests were carried on 31st to 01st February, 2026.

The scope of the work comprised of sinking two boreholes. It included advancing the boreholes by auger & rotary equipment. The boreholes were of 150 mm in diameter. The scope also included conducting standard penetration tests (SPT), collecting disturbed samples at regular intervals for identification and logging purposes, collecting undisturbed tube samples at suitable intervals or at change of strata whichever is earlier and testing these in the laboratory.

Based on the above, this report presents the subsoil profile and laboratory and field test results. On the basis of field tests and laboratory test results and their analysis thereof, the most suitable type of foundation with its safe bearing capacity is suggested. The field profile was sometimes modified in the light of laboratory test results.

2. *Field Exploration*

Geotechnical Investigation was envisaged in an attempt for optimization in the design of foundation for the proposed structures to be constructed at this site. The entire Investigation programme had been divided mainly into two parts, I) Field works & II) Laboratory tests.

- I) Field works unfold the sub-surface deposit types and their characteristics
- II) Laboratory tests part would help determining the relevant physical and geotechnical properties of the sub-surface deposits leading to finalisation of foundation depths of the structures and the bearing capacity with particular reference to the sub-surface types and their

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strength parameters and settlement potentials at the site.

A list of the boreholes with the terminating depth and standing water level are presented in a tabular form below:

Bore Hole No.	Terminating Depth (m)	Standing Water Table (m)	Date of Commencement	Date of Completion
01	20.10	-5.40	31.01.26	31.01.26
02	10.10	-4.10	01.02.26	01.02.26

The locations of boreholes are shown in Figure 1.

2.1 Boring

Boring was carried out by auger and rotary method to sink nominal 150 mm diameter boreholes to desired depths and operated by a team of experienced technicians. Flush jointed seamless casings were used to stabilize the boreholes and prevent caving of the soil inside the boreholes. The casing pipes were advanced by turning in order to minimize the disturbance. Undisturbed soil samples were collected at suitable intervals or at change of strata whichever is met earlier by open drive sampling method since it was intended to ascertain the subsoil characteristics. The standing water table in each borehole was determined at least 24 hours after the termination of boring work.

2.2 Sampling

Nominal 100 mm diameter undisturbed samples were recovered. The sampling equipment used consists of a two-tier assembly of sample tubes 400 mm in length fitted at its lower end. The sampling assembly was driven by means of a jarring link to its full length or as far down as was found practicable. After withdrawal the ends of the tubes were sealed with wax at both ends and capped before transmission to the laboratory. At close intervals in depth, disturbed samples were collected both from split spoon sampler after the standard penetration test and from cutting edge for identification and logging purpose. These were tagged and packed in polythene packets and transported to the laboratory. The depthwise locations of all the undisturbed and disturbed samples were used in the preparation of borehole log data and





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for general identification and classification purposes. The details of boring are presented in the Appendix in the form of bore log sheets.

2.3 *Standard Penetration Test*

Standard Penetration Tests were conducted in the boreholes at suitable intervals as per IS: 2131-1963 using a split spoon sampler. The split spoon sampler used is of a standard design having an outer diameter of 50.8 mm and inner diameter of 35 mm, driving with a monkey weighing 63.5 kgs, falling freely from a height of 75 cm. A record of the number of blows required to penetrate every 15 cm to a maximum depth of 45 cm was made. The first 15 cm of drive was considered to be seating drive and was neglected. The total blows required to effect each 15 cm of penetration was recorded. The "N" values were obtained by counting the number of blows required to drive the spoon from 15 cm to 45 cm. On completion of a test, the split spoon sampler was opened and soil specimens were preserved in polythene bags for logging purpose.

All the boreholes were sunk with winch. However, raising of hammer for SPT was done manually. Hence there will not be any inertia loss and the efficiency of hammer blows should be considered as 100%.

2.4 *Measurement of Water Table*

Level of water was noted when struck in. This is termed as observed water level. Standing water level after 24 hours of removal of casing was also noted and shown in the profile.

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3. *Laboratory Testing*

For proper identification and classification of the sub-soil deposits and for deriving adequate information regarding its relevant physical and geotechnical properties at the site under investigation, the soil samples from the 10 cm diameter sampling tubes were extracted in the laboratory by pushing out the core by using the extractor frame. The core was jacked out in a direction that corresponded with the soil movement within the tube during sampling. In general, the following laboratory tests were conducted on the soil samples collected from the exploratory bore holes:

- a) Grain size distribution (Sieve as well as Hydrometer).
- b) Determination of Atterberg Limits.
- c) Determination of Natural Moisture Content.
- d) Determination of Specific Gravity.
- e) Determination of Bulk & Dry Unit Weight.
- f) Strength determination by Triaxial Unconsolidated Undrained Test (UU).
- g) Strength Determination of Unconfined Compression Test on (UC)
- h) One-dimensional Consolidation Test for determining settlement potentiality.

The triaxial tests/unconfined compression test 38 mm diameter x 76 mm long specimens were obtained by jacking out the soil core into thin-walled brass tubes. The inside of the tubes was coated with a thin layer of silicon oil. Self-explanatory test results are presented in the Appendix.

To obtain specimens for consolidation test the oedometer ring was placed on the trimmed horizontal face of the soil within the 10 cm sampling tube and the soil around the cutting edge was gradually removed with a spatula as the ring was gently pushed into the soil. The ring with the soil was then removed by cutting across the soil core with the help of a piano wire saw.





The laboratory tests were done to ascertain the engineering properties of the subsoil and to obtain the necessary data required to design the foundation. These are detailed below. Summary of all the test results are given in a tabular form in Table -1.

3.1 *Atterberg Limits and Natural Water Content*

Liquid limit, plastic limit and natural water content of the silty clay/clayey silt samples were determined (a) to classify the soil by the IS classification system and (b) to qualitatively assess their consistency and compressibility.

3.2 *Bulk density*

These were determined by measuring the weight and dimension of triaxial/unconfined compression test samples.

3.3 *Undrained Triaxial Test/ Unconfined Compression Test*

These were run on the clay/ clayey silt samples to determine their shear strength. The cell pressures employed in triaxial tests were 0.5, 1.0 and 2.0 kg/cm². The samples were tested under quick condition at the rate of 1.25 mm/min and were loaded upto a maximum of 20% of axial strain.

3.4 *Grain Size Analysis*

The grain-size distribution of a quantity of representative samples were determined from sieve analysis/combined sieve analysis and hydrometer analysis. The results are plotted in the Appendix.

3.5 *Consolidation Test*

Consolidation tests were run in floating ring type oedometers, in an eight unit consolidation frame under standard load increment ratio of one, starting from ¼ kg/cm² and going up to 8 kg/cm². The e vs. log₁₀p curves are given in the Appendix.



**4. Soil Profile and Properties**

Based on visual classification and results of field and laboratory tests on the samples recovered the proposed site may be divided into the following major soil strata as described below:

Layer Details				Average Field N-Value	Bulk Density (t/m ³)	Liquid Limit (%)	Plasticity Index (%)	Shear strength Parameters
Stratum No.	Description	Depth below EGL (m)						
		From	To					
I	Top soil filled up by soil, root and rubbish etc.	0.00	1.30	-	-	-	-	-
II	Soft greyish silty clay/clayey silt with traces of kankar.	1.30	2.40/2.50	4	1.84	37	9	C= 3.1 t/m ² , ϕ =0 deg
III	Soft to firm greyish silty clay/clayey silt with traces of sand.	2.40/2.50	6.80/7.00	4 to 5	1.86	34	16	C= 3.2 t/m ² , ϕ =*deg
IV	Medium dense to dense whitish grey silty fine sand with mica.	6.80/7.00	10.10/20.10	11 to 47	1.90-1.93*	Non-Plastic		C= 0.0 t/m ² , ϕ =30-33* deg

* Suggested

A profile through the boreholes is shown in Figure 2. The distribution of Field N-value with depth is shown in the borelogs sheets.

5. Hydrogeology

The ground water table at the site was found to exist at 4.10m to 5.40m below the ground level for the boreholes explored during the time of investigation work.



**6. Calculations****6.1 Shallow Foundation****Bearing Capacity**

For a shallow foundation resting on cohesive deposit, the following bearing capacity relations may be used as specified by IS: 6403-1981.

The net ultimate bearing capacity –

$$q_{\text{net ultimate}} = C_u \cdot N_c \cdot S_c \cdot d_c \cdot i_c + q \cdot (N_q - 1) \cdot S_q \cdot d_q \cdot i_q + 0.5 \cdot B \cdot \gamma \cdot N_\gamma \cdot S_\gamma \cdot d_\gamma \cdot i_\gamma \cdot W'$$

The net safe bearing capacity is calculated as

$$q_{\text{net safe}} = q_{\text{net ultimate}} / \text{FOS}$$

where, C_u = undrained cohesion of the soil

N_c, N_q, N_γ = bearing capacity factors

S_c, S_q, S_γ = shape factor

d_c, d_q, d_γ = depth factor

i_c, i_q, i_γ = inclination factor

q = effective surcharge at the base level of the foundation

W' = correction factor for water table location

B = least width of the foundation

γ = bulk unit weight of foundation soil

FOS = factor of safety

Settlement

The foundation settlement occurs for cohesive layers of soil which are stressed due to the superstructure loads. The settlements may be computed using the following relations following IS: 8009(Part-I)-1976.

$$\text{Immediate settlement } \rho_i = \{q_{\text{net}} \cdot B \cdot (1 - \nu^2) \cdot I_p\} / E$$

$$\text{Consolidation settlement } \rho_c = \sum m_v \cdot \Delta p \cdot H$$

where, q_{net} = net pressure on soil

B = least width of the foundation



E = modulus of elasticity of soil

ν = Poisson's ratio

I_p = Influence factor

m_v = co-efficient of volume compressibility

H = Thickness of compressible layer

Δp = effective overburden pressure at the center of the corresponding layer

7. Discussions on Foundation

The structure for which the subsoil exploration was conducted is proposed G+IV-storied building.

For anticipated loading from superstructure, shallow foundation in the form of isolated and strip footings are suggested. The bearing capacities for such isolated and strip foundation along with allowable settlement are tabulated below.

Foundation type	Foundation size	Depth of foundation	Safe bearing capacity (t/m^2)	Allowable settlement (mm)
Isolated footing	2.0mx2.0m	1.5m below E.G.L.	9.5	75
	2.0mx2.5m		8.5	75
	2.5mx2.5m		9.3	75
	2.75mx2.75m		9.2	75
	2.5mx3.0m		8.3	75
	3.0mx3.0m		9.1	75
	3.25mx3.25m		9.1	75
	3.0mx3.5m		8.2	75
	3.5mx3.5m		9.0	75
Strip footing	1.5m wide	1.5m below E.G.L.	7.6	75
	2.0m wide		7.4	75
	2.5m wide		7.2	75


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8. *Recommendations*

- The subsoil characteristic of site at 64A, Pratapaditya Road, Ward No.-88, Tollygunge, Kolkata-700026 in connection with the construction of Proposed G+IV-Storied Building was determined from soil exploration with two boreholes.
- Shallow foundation in the form of isolated and strip footings is recommended for anticipated loading from the structure. The foundation shall be placed at 1.5m below E.G.L. The bearing capacities for such shallow foundations shall be governed by the table given in section 7.
- The shallow foundations should be adequately connected with grade beams to minimize differential settlement. Construction in stages is also advised.
- The final decision regarding the foundation will depend on the judgment of the engineer concerned.

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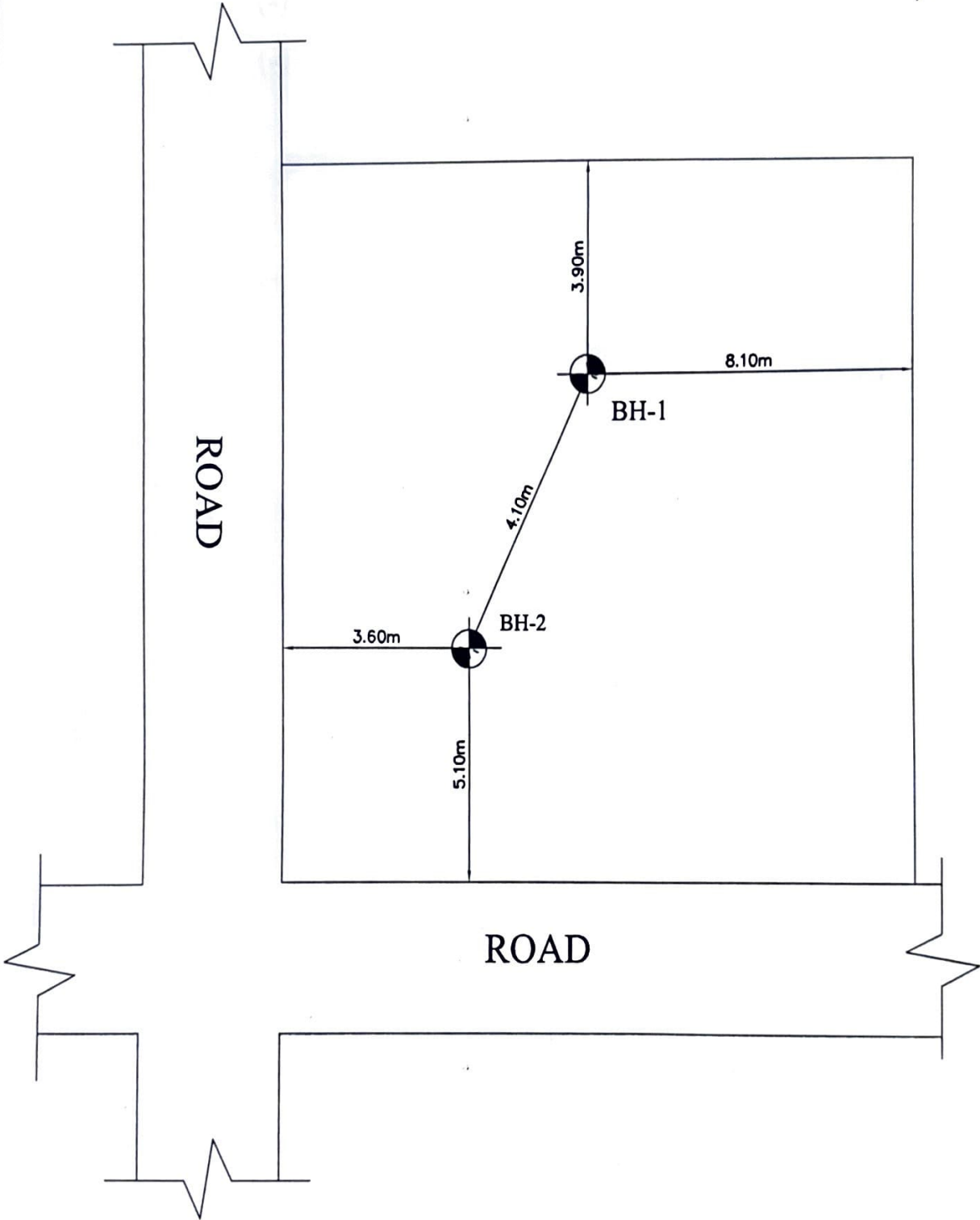
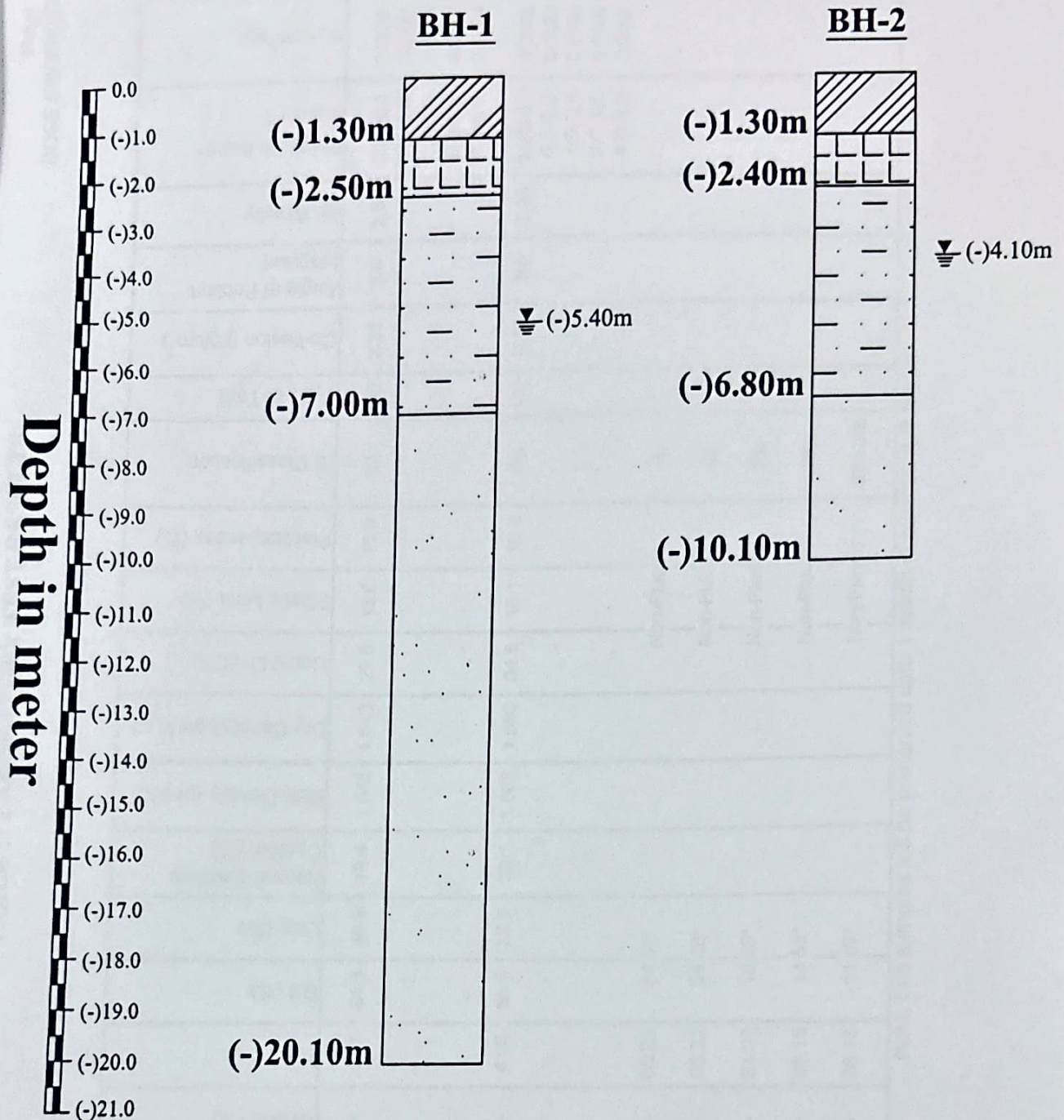


Figure 1 : Site Plan and Location of Boreholes
Not To Scale



**LEGEND**

- Layer-I : Top soil filled up by soil, root and rubbish etc.
- Layer-II : Soft greyish silty clay/clayey silt with traces of kankar.
- Layer-III : Soft to firm greyish silty clay/clayey silt with traces of sand.
- Layer-IV : Medium dense to dense whitish grey silty fine sand with mica.

Figure 2: Generalized soil profile
 NOT TO SCALE

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TABLE 1: LABORATORY TEST RESULTS

Bore Hole No.	Type	Depth (m)	Standard Penetration Resistance 'N' value	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Natural Moisture Content (%)	Bulk Density (gm/cc)	Dry Density (gm/c.c.)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	IS Classification	Type of Test	Co-hesion (kg/cm ²)	Angle of Friction (degree)	Sp. Gravity	Pressure Range (kg/cm ²)	m _v (cm ² /kg)
Bore Hole No.1	U	3.00	-	-	4.87	64.3	30.9	19.4	1.842	1.543	29.6	15.6	13.9	CL	UU	0.31	3.0	2.64	0.25-0.5 0.5-1.0 1.0-2.0 2.0-4.0 4.0-8.0	0.0229 0.0193 0.0158 0.0097 0.0054
	U	6.00	-	-	4.92	66.6	28.5	20.1	1.862	1.550	34.5	18.1	16.4	CL	UU	0.32	2.0	2.66	0.25-0.5 0.5-1.0 1.0-2.0 2.0-4.0 4.0-8.0	0.0246 0.0228 0.0155 0.0105 0.0057
	P	9.00	16	-	65.20	34.80*					Non-Plastic			SC						
	P	12.00	24	-	65.32	34.68*					Non-Plastic			SC						
	P	15.00	38	-	81.02	18.98*					Non-Plastic			SM						
	P	18.00	43	-	85.15	14.85*					Non-Plastic			SM						
	P	19.50	47	-	88.13	11.87*					Non-Plastic			SW-SM						

* Silt & Clay

Note: Soil samples will be preserved upto 1 month of submission of the report



TABLE 1: LABORATORY TEST RESULTS

Bore Hole No.	Type	Depth (m)	Standard Penetration Resistance 'N' value	Gravel (%)	Sand (%)	Silt (%)	Clay (%)	Natural Moisture Content (%)	Bulk Density (gm/cc)	Dry Density (gm/c.c.)	Liquid Limit(%)	Plastic Limit (%)	Plasticity Index (%)	IS Classification	Type of Test	Co-hesion (kg/cm ²)	Angle of Friction (degree)	Sp.Gravity	Pressure Range (kg/cm ²)	m _v (cm ² /kg)
Bore Hole No.2	U	1.50	-	0.9	2.57	64.8	31.7	18.6	1.856	1.565	37.3	27.6	9.6	CI	UU	0.31	2.0	2.63	0.25-0.5 0.5-1.0 1.0-2.0 2.0-4.0 4.0-8.0	0.0245 0.0194 0.0127 0.0076 0.0044
	U	4.50	-	-	4.94	66.4	28.7	19.8	1.874	1.564	32.4	17.2	15.2	CL	UU	0.32	2.0	2.65	0.25-0.5 0.5-1.0 1.0-2.0 2.0-4.0 4.0-8.0	0.0212 0.0162 0.0124 0.0084 0.0043
	P	7.50	11	-	64.82	35.18*					Non-Plastic			SC						
	P	9.50	14	-	65.93	34.07*					Non-Plastic			SC						

* Silt & Clay

Note: Soil samples will be preserved upto 1 month of submission of the report



UC: Unconfined Compression Test
UU: Unconsolidation Undrained Test



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BORE / DRILL LOG

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Bore Hole No. :

BH-1

Location : Pratapaditya Road, Kolkata

Reduced Level :

Water Level (State) :
Standing Water Level : 5.40m b g.l
Casing Lowered : 1.50m

Method of Boring/ Drilling :
Dia of Boring/ Drilling :

Auger & Rotary
150 mm

Date : From 31.01.26 To

31.01.26

Date (dd / mm)	Depth (m)		Length (m)	Nature of Sampling	SPT : No. of blows				N Value	Description	N- Value Distribution with Depth
	From	To			0-15 cm	15-30 cm	30-45 cm	45-60 cm			
31.01.26	0.50			D						Top soil filled up by soil, root and rubbish etc.	
	1.00			D						1.30m	
	1.50	2.10	0.60	P	2	2	2	2	4	Soft greyish silty clay / clayey silt with traces of kankar.	
	3.00	3.45	0.45	U						2.50m	
	4.50	5.10	0.60	P	2	2	2	2	4	Soft greyish silty clayey silt with traces of sand.	
	6.00	6.45	0.45	U						7.00m	
	7.50	8.10	0.60	P	5	5	6	7	11		
	9.00	9.60	0.60	P	6	7	9	11	16		
	10.50	11.10	0.60	P	8	8	11	12	19		
	12.00	12.60	0.60	P	9	11	13	13	24		
31.01.26	13.50	14.10	0.60	P	11	13	17	19	30	Medium dense to dense whitish grey silty fine sand with mica.	
	15.00	15.60	0.60	P	13	17	21	25	38		
	16.50	17.10	0.60	P	15	19	22	27	41		
	18.00	18.60	0.60	P	15	20	23	29	43		
	19.50	20.10	0.60	P	17	22	25	31	47		
	20.10			(Termination Depth)							

Abbreviations: U-Undisturbed Sample D-Disturbed Sample P-Standard Penetration Test





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BORE / DRILL LOG

Project: Geotechnical Investigation for Proposed G+IV-Storeyed Building at 64A, Pratapaditya Road, Ward No.88, Tollygunge, Kolkata-700026

Bore Hole No : BH-2

Location : Pratapaditya Road, Kolkata.

Reduced Level :

Water Level (Static) :

Method of Boring / Drilling : Auger & Rotary

Standing Water Level : 4.10m b.g.l

Dia. of Boring / Drilling : 150 mm

Casing Lowered : 1.50m

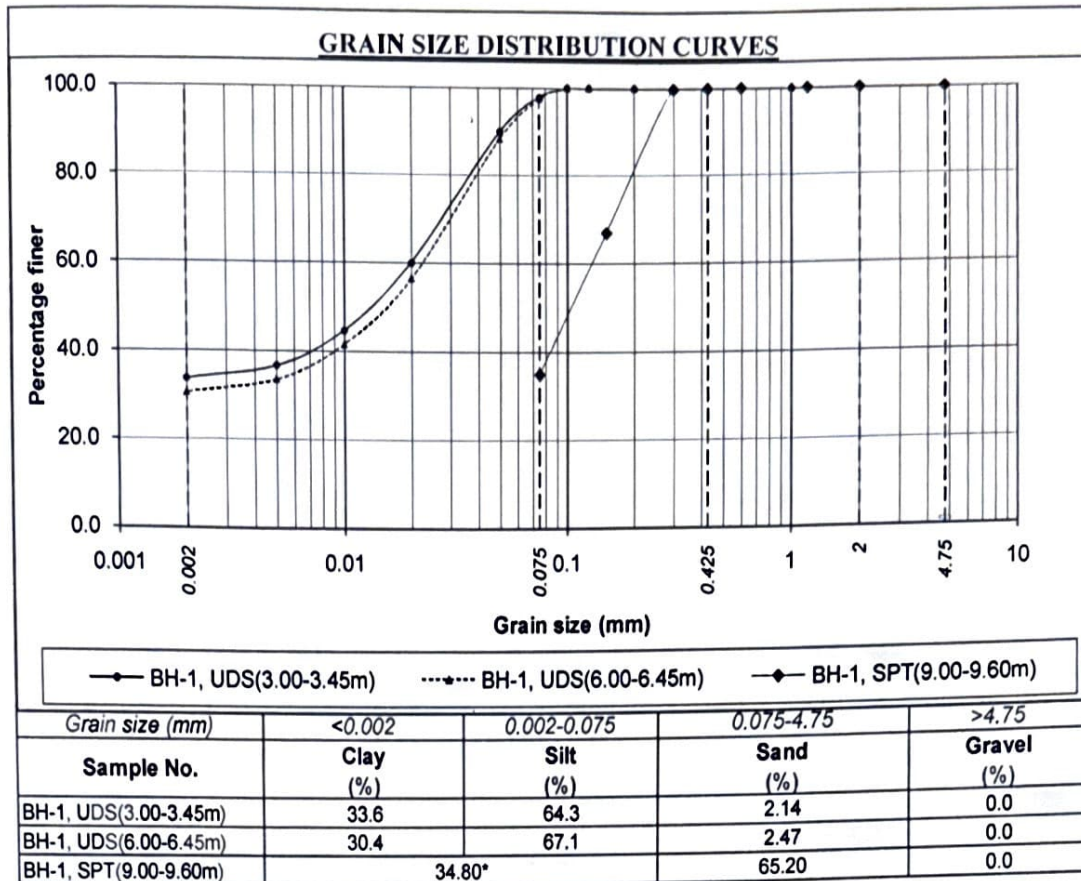
Date : From 01.02.26 To 01.02.26

Date (dd / mm)	Depth (m)		Length (m)	Nature of Sampling	SPT : No. of blows					Description	N- Value Distribution with Depth
	From	To			0-15 cm	15-30 cm	30-45 cm	45-60 cm	N' Value		
01.02.26	0.50			D						Top soil filled up by soil, root and rubbish etc.	
	1.00			D							
	1.50	1.95	0.45	U						Soft greyish silty clay/clayey silt with traces of kankar.	
	3.00	3.60	0.60	P	2	2	2	2	4		
	4.50	4.95	0.45	U						Soft to firm greyish silty clay/clayey silt with traces of sand.	
	6.00	6.60	0.60	P	2	2	3	3	5		
	7.50	8.10	0.60	P	4	5	6	6	11		
01.02.26	9.50	10.10	0.60	P	5	6	8	10	14	Medium dense whitish grey silty fine sand with mica	
	10.10			(Termination Depth)							

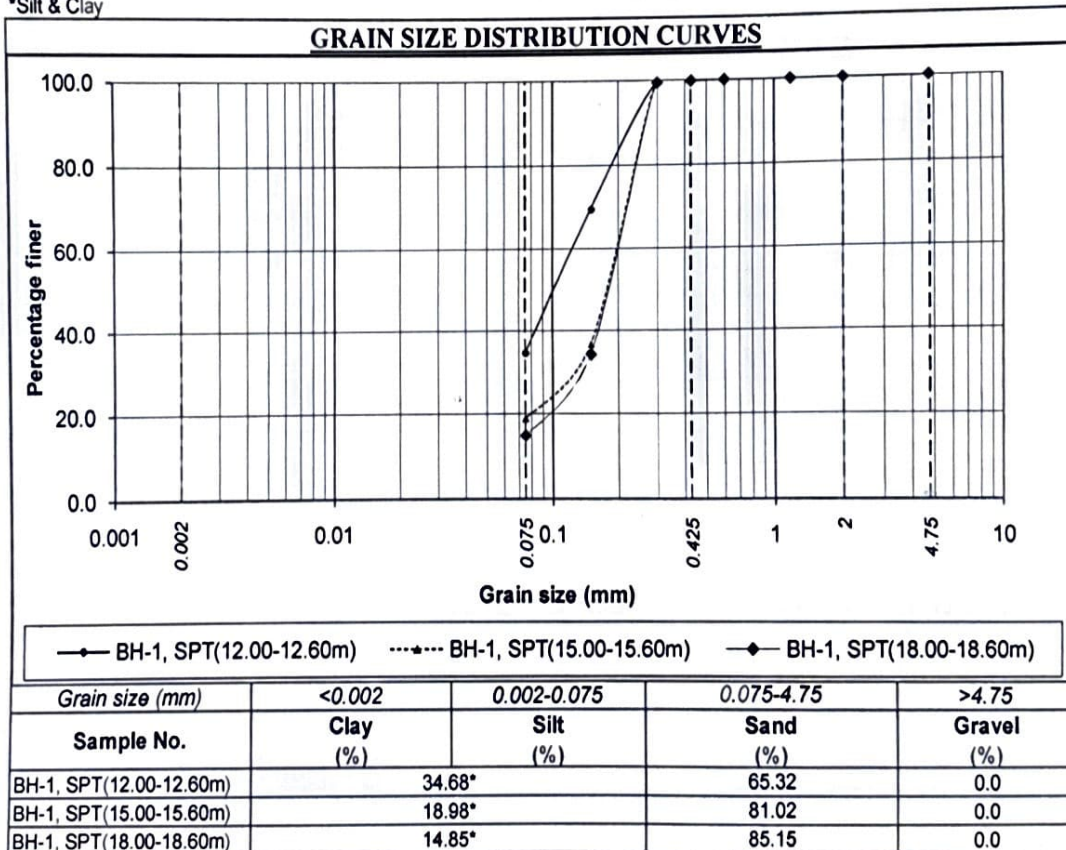
Abbreviations: U-Undisturbed Sample D-Disturbed Sample P-Standard Penetration Test



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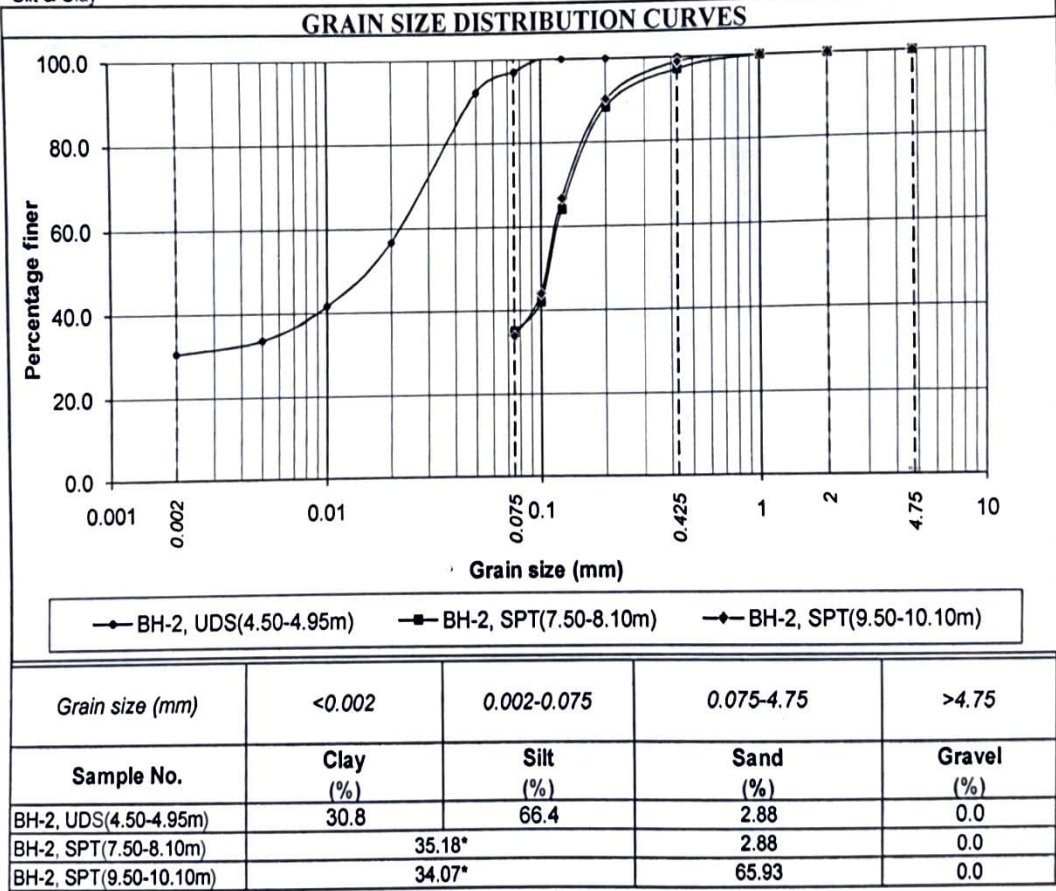
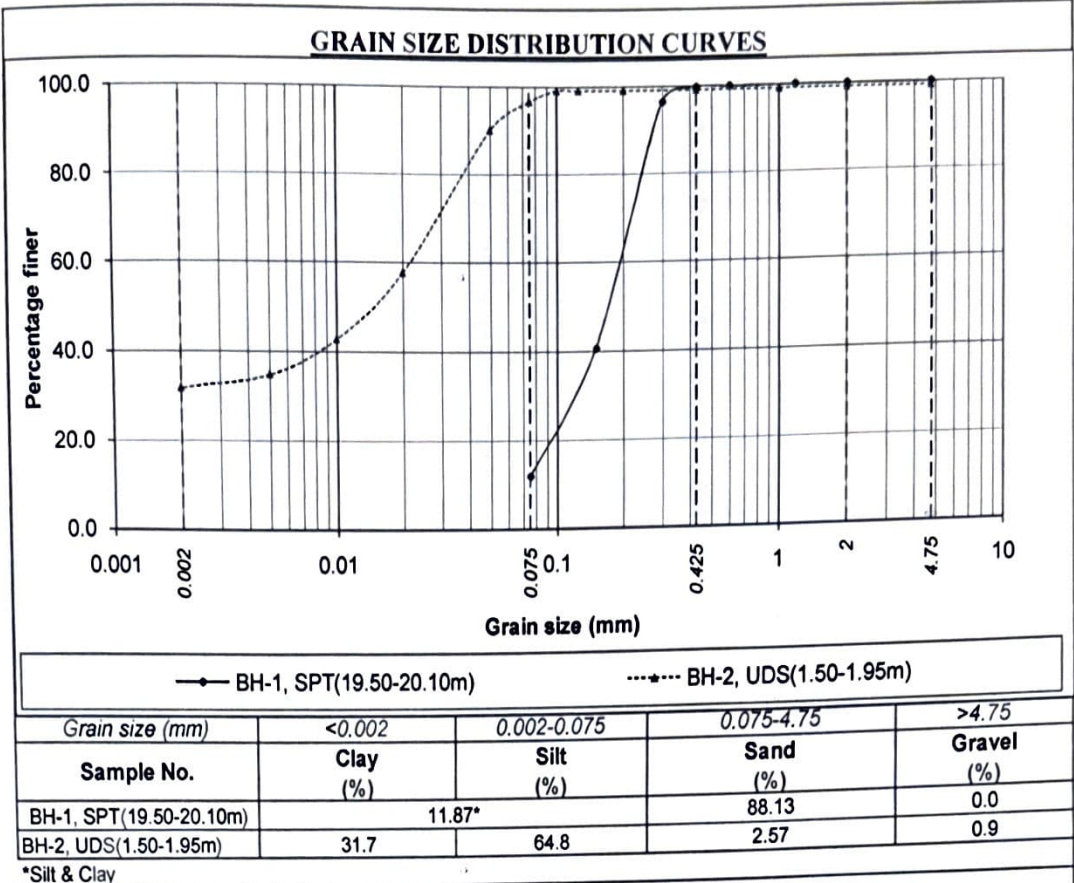
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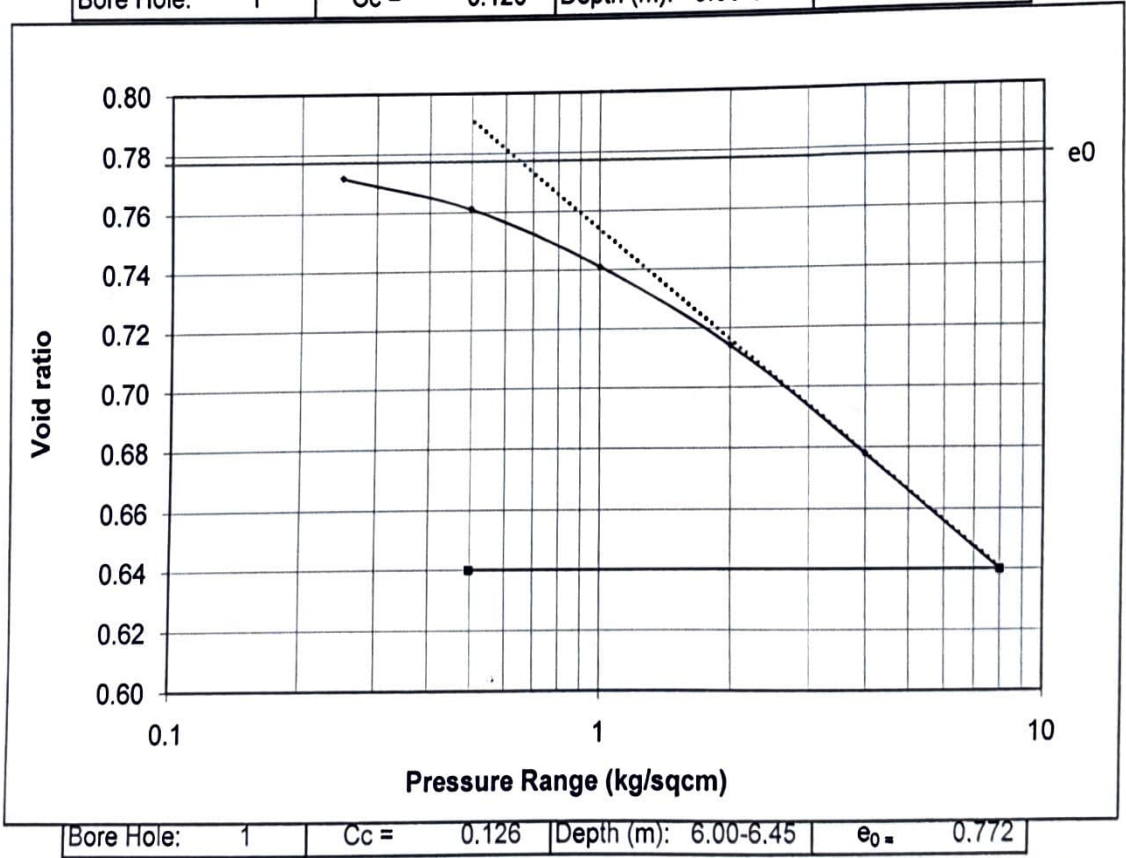
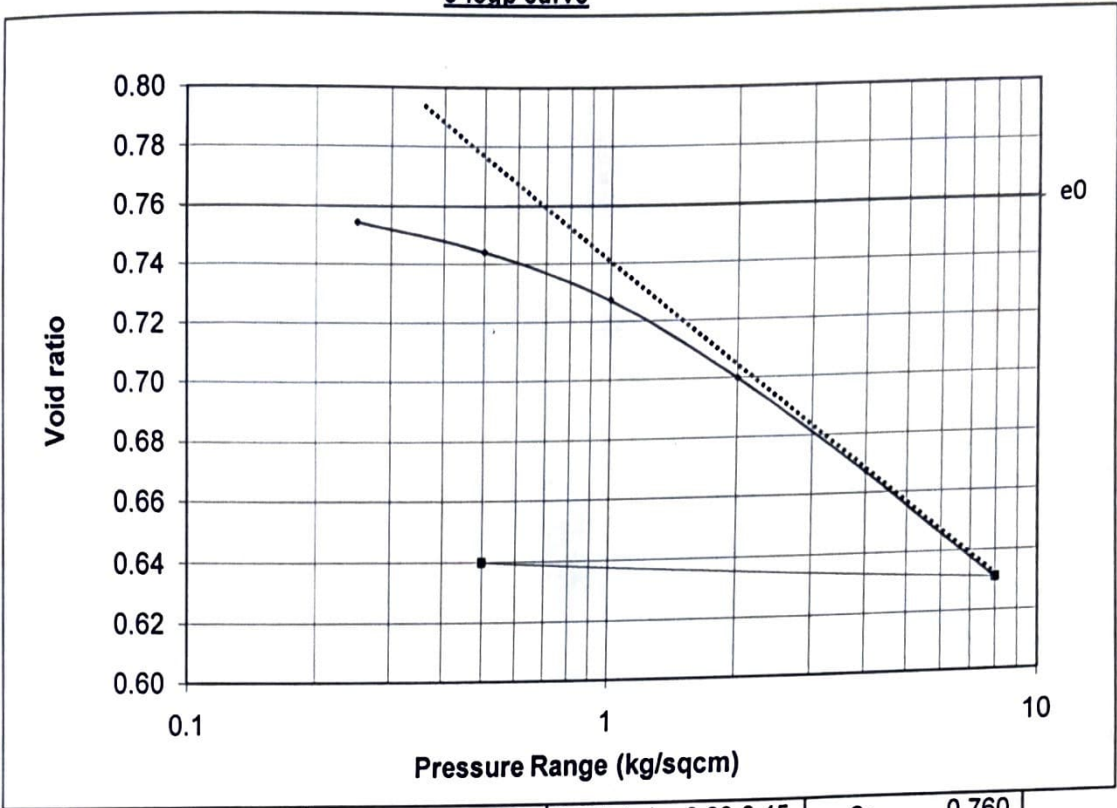


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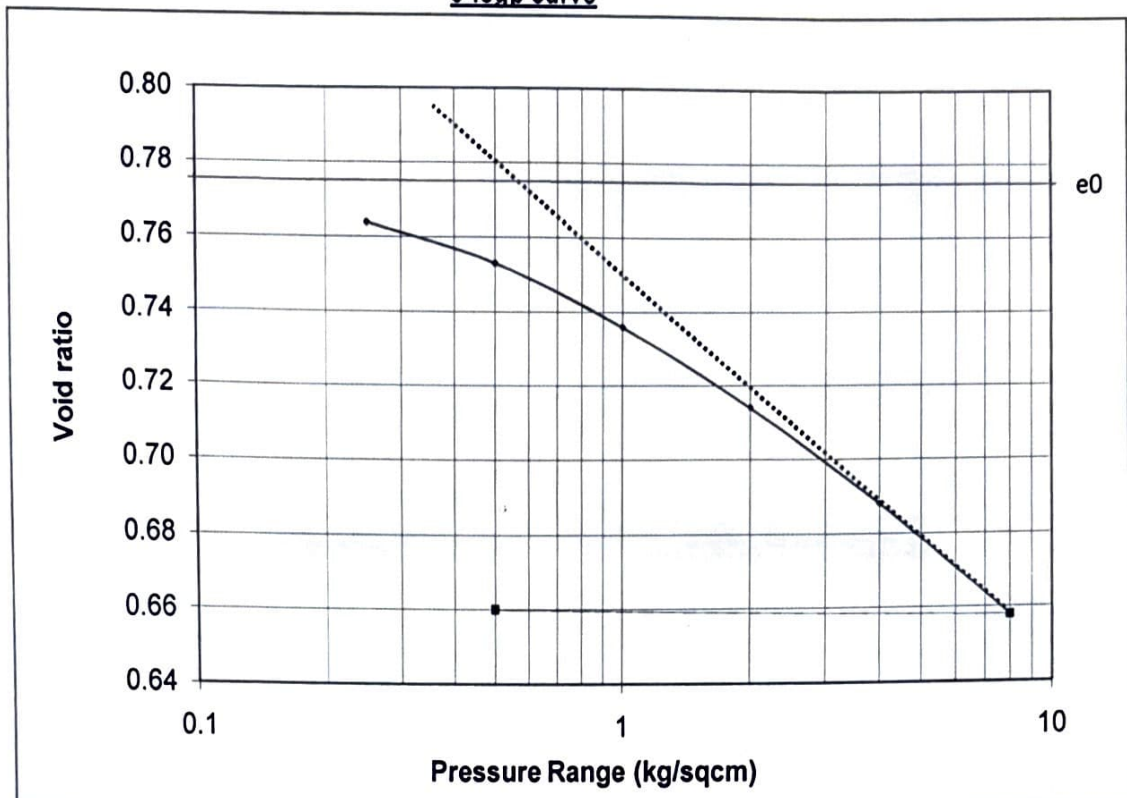
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e-logp curve

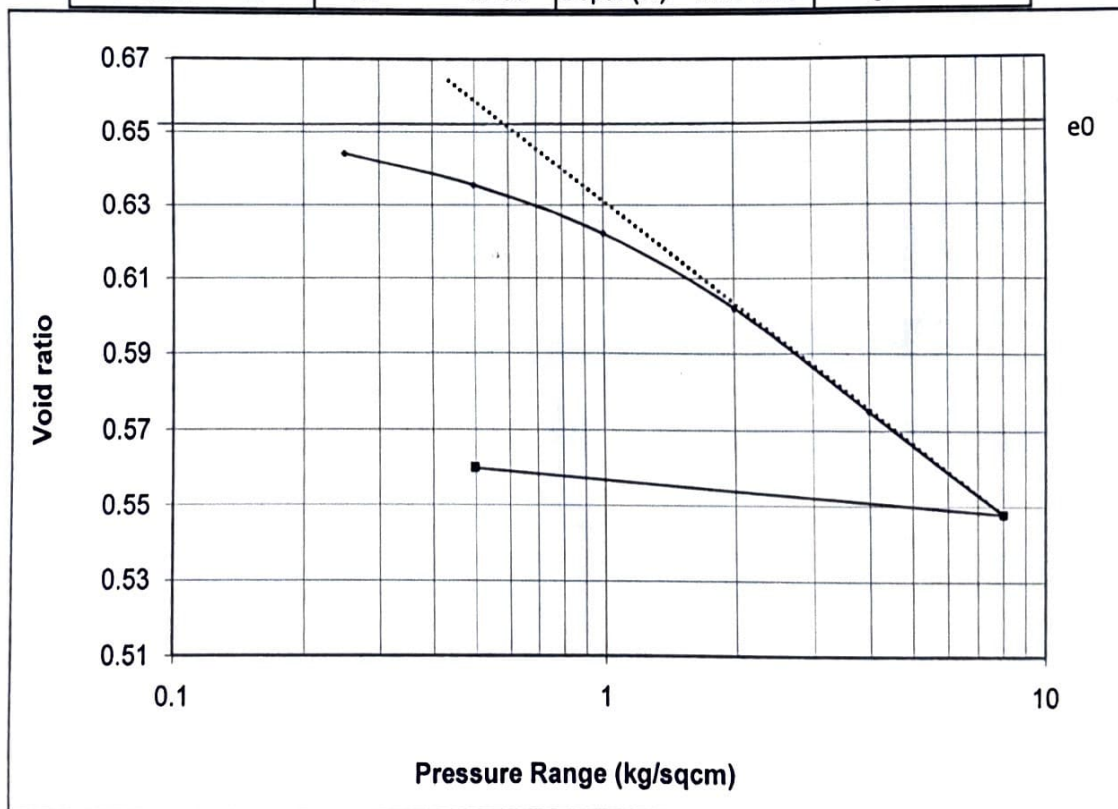


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e-logp curve



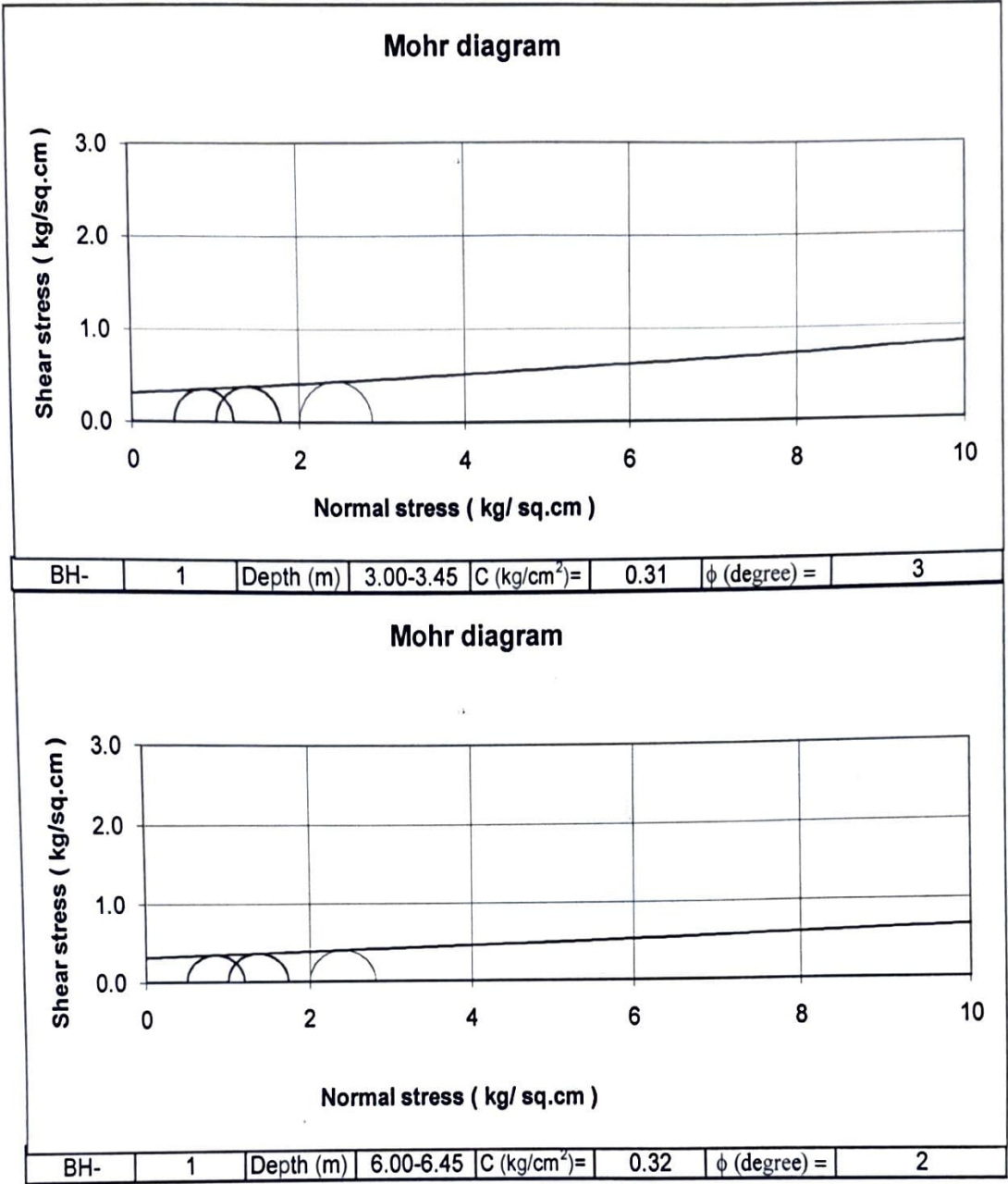
Bore Hole: 2	$C_c = 0.100$	Depth (m): 1.50-1.95	$e_0 = 0.774$
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Bore Hole: 2	$C_c = 0.090$	Depth (m): 4.50-4.95	$e_0 = 0.653$
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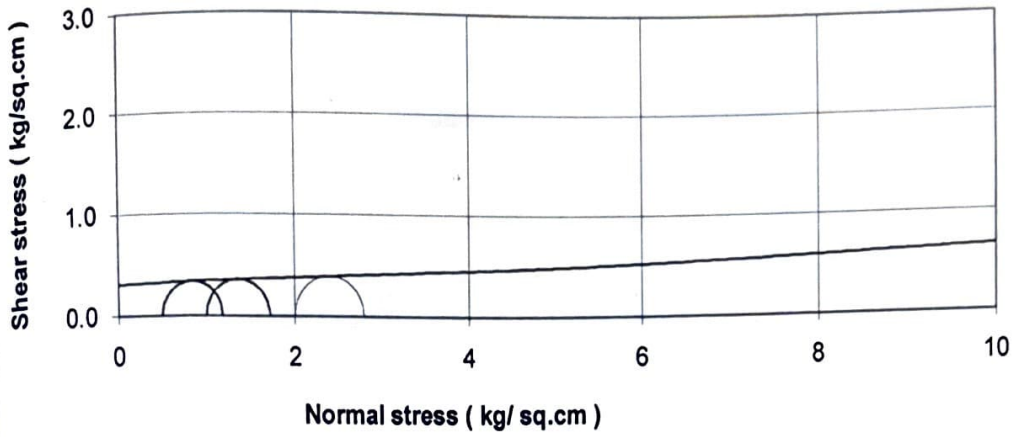


Project: Proposed Building at Pratapaditya Road, Kolkata.



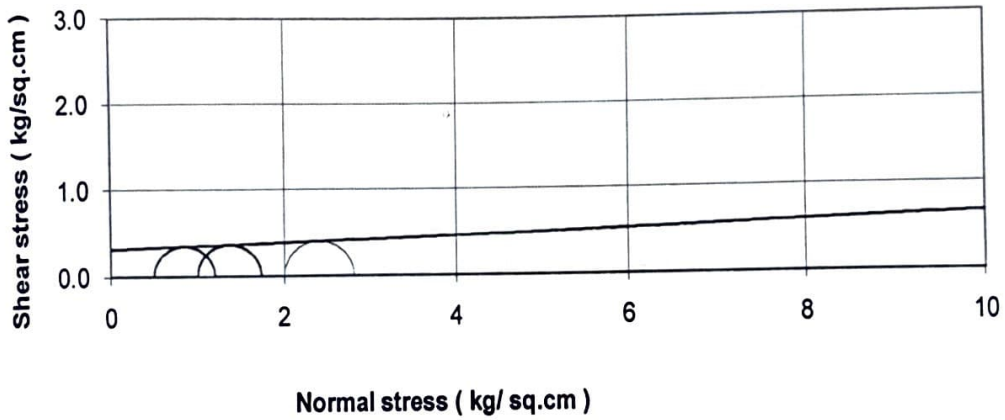
Project: Proposed Building at Pratapaditya Road, Kolkata.

Mohr diagram



BH-	2	Depth (m)	1.50-1.95	C (kg/cm ²)=	0.31	ϕ (degree) =	2
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Mohr diagram



BH-	2	Depth (m)	4.50-4.95	C (kg/cm ²)=	0.32	ϕ (degree) =	2
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Project : Geotechnical Investigation for Proposed Building at Pratapaditya Road, Kolkata.
Bearing Capacity Calculation For Shallow/Well Foundation
Code used:- IS:6403-1981

Bore hole data used BH-1
Depth of Foundation below ground level, D= 1.50m
Width/Diameter of Foundation, B= 2.75m
Ratio of Depth to Width, D/B= 0.55

Depth of Water Table, D_w= 0.00m
Depth of Water Table after Base of Footing, D_w-D= 0.00m
Length of Foundation, L= 2.75m
Ratio of Length to Width, L/B= 1.0
Inclination of the load to the vertical in degrees, α= 0

Code of Foundation= 3
Put 1 for raft/well foundation and 0 for others: 0

Code: Continuous Strip= 1
Rectangle = 2
Square= 3
Circle= 4

Layer Details:

Layer No.	Level of different layers(m)		Thickness of Layers above Footing(m)	Cohesion (t/m ²)	φ(°)	Density(t/m ³)	
	Top	Bottom				Bulk	Submerged
I	0.00	1.30	1.30	2.00	0	1.60	0.60
II	1.30	2.50	0.20	3.10	0	1.84	0.84
III	2.50	7.00	0.00	3.20	0	1.86	0.86
IV	7.00	20.10	0.00	0.00	30	1.90	0.90

Bearing Capacity Equation:

$$q_d = cN_c s_c d_c i_c + q(N_q - 1) s_q d_q i_q + 0.5B \gamma N_\gamma s_\gamma d_\gamma i_\gamma W'$$

Various values taken (when φ < 28° & φ > 36°) :

Depth of influence of foundation = 0.7xB = 1.93m
φ_{av} = 0 (in degrees)
c_{av} = 3.10 t/m²
Φ = 0.00 (in degrees)
c = 3.10 t/m²
γ = 0.85 t/m³
N_φ = 1
q = 0.95 t/m²

Factors :

Shape Factors			Depth Factors			Inclination Factors		
s _c	s _q	s _γ	d _c	d _q	d _γ	i _c	i _q	i _γ
1.30	1.20	0.80	1.11	1.00	1.00	1.00	1.00	0.00

Bearing Capacity Factors :

N_c = 5.14
N_q = 1
N_γ = 0

Water Table Correction:

D = 1.500 m
(D+B) = 4.250 m
D_w = 0.000 m
W' = 0.50

Net Ultimate Bearing Capacity= 22.97 t/m²
Considering Factor of Safety(F.O.S)= 2.5
Net Safe Bearing Capacity to be considered= 9.2 t/m²



Settlement Calculation For Same Foundation :

Code Used: IS 8009(Part-I)-1976

Final settlement, $S_f = S_i + S_c$

$$S_i = pB(1-\mu^2) \cdot I/E$$

where, p = Foundation pressure = 9.19 t/m²
 B = Width/Diameter of foundation = 2.75 m
 D = Depth of foundation = 1.50 m
 L = Length of Foundation = 2.75 m
 μ = Poisson's Ratio = 0.5
 I = Influence Factor = 1.12
 C = 3.10 t/m²
 E = Modulus of Elasticity = 1860.00 t/m²
 $S_c = \Delta p \cdot m_v \cdot XH$

where, Δp = Pressure increment, t/m²

m_v = Coefficient of volume compressibility, m²/t

H = Thickness of compressible stratum measured from foundation level, m

Depth of influence of foundation for settlement = 5.5 m

Layer No.	m_v (m ² /t) for Pressure range (t/m ²)							
	0.0	2.5	2.5	5.0	5.0	10.0	10.0	20.0
I	0.00000		0.00000		0.00000		0.00000	
II	0.00249		0.00249		0.00219		0.00168	
III	0.00253		0.00253		0.00213		0.00147	

Layer No.	Middle Point of Each Layer from Footing Level (m)	$B/2z$	$L/2z$	Influence value, I_g (from Fig.18)	Δp (t/m ²)	S_c (mm)
I	0.00	0.00	0.00	0.000	0.00	0.00
II	0.50	2.75	2.75	0.969	8.91	21.01
III	3.25	0.42	0.42	0.263	2.42	27.51

Immediate settlement, S_i = 11 mm

Total consolidation settlement, S_c = 49 mm

$D/\sqrt{LB}$ = 0.55 $\sqrt{LB}/D$ = 1.83 L/B = 1.00

From Fox's Correction Curve Table, depth factor (d)

= 0.81588

Co-efficient due to pore pressure for normally consolidated soil (λ) =

1

Rigidity Factor 1

Total corrected settlement (S) = 49 mm

Computation of Allowable Bearing Capacity

Permissible settlement = 75.0 mm

Allowable bearing capacity (q_a) = 9.2 t/m²

