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V.K.P.GEOTECH

GEOTECHNICAL INVESTIGATION REPORT

FOR

M/s. DIAMOND CITY DEVELOPERS, COIMBATORE

Ref No: VKP/2022-23/R/23

PROJECT NAME

GEOTECHNICAL INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE

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ISO 9001:2015

VKP/2022-23/R/23

19.05.2022

To:

M/s. Diamond City Developers,
Coimbatore.

Name of Work: GEOTECHNICAL INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT 37/1,2B,WARD 44,BLOCK 3, KUMARAPALAYAM VILLAGE IN COIMBATORE

Sub : Submission of Geotechnical Investigation work Report

Dear Sir,

We are pleased to hereby transmit Two (02) original Hard Copies and Soft Copies sent to your concern address, our final Geotechnical Investigation Work for the above mentioned project.

It has been a pleasure being of service to you on this project. Assuring you of our continued co-operation, we remain.

For VKP Geotech,

(Authorized Signatory)

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1. INTRODUCTION

1.1. PURPOSE AND SCOPE

Geotechnical site Investigation Work for "Construction of New Residential Villas (G+2) at Kumarapalayam Village in Coimbatore" The primary purpose of our investigation is to obtain data to develop foundation design recommendations for the above work. At, first instance, Three boreholes were bored at site. Client's representatives selected the locations of borings. To accomplish these purposes, the following tasks were performed:

1. Detailed soil borings were done up to stratum to explore the sub surface stratigraphy and obtain soil samples for testing.
2. Field and laboratory tests were conducted to evaluate the index and engineering properties of the soils
3. Engineering analysis were performed to develop foundation design information for proposed structure

1.2. THE SITE:

Construction of New Residential Villas (G+2) at Kumarapalayam Village in Coimbatore

1.3. SIESMIC ZONE:

The Proposed Project is Kumarapalayam Village in Coimbatore. It falls under the Seismic Zone – III, according to the Indian Standard Seismic Zoning Map, Zone – III. This is to be Moderately Active Seismic Zone.

2. FIELD INVESTIGATIONS

2.1. ROTARY BORING

Rotary drilling technique was adapted using Calyx machine in this field. In this method, boring is effected by the cutting action of a rotating bit that is kept in firm contact with the bottom of the hole. The bit is attached to the lower end of a hollow drill rod that is rotated by a suitable chuck. Drilling mud (usually Bentonite) is continuously forced down the hollow drill rods. The mud returning upwards though the annular space between the drill rods and the side of the hold bring the cutting to the surface.

2.2. STANDARD PENETRATION TEST

It is now most commonly used in site test. The test measures the penetration resistance of the split spoon sampler, when it is driven into the soil, at the bottom of a borehole in a standard manner. The N-value, which is the number of blow required to achieve 300mm penetration of the soil, indicates the relative density of sand or gravel, the consistency of other soil such as silts or clays and the strength of weak rocks. The test is described in IS 2131 - 1981. The split spoon sampler is attached to stiff drill rod and lowered to the bottom of the bore hold.

A standard blow consists of dropping a mass of 63.5kg free fall through 750 mm on to an anvil at the top of the rods and ensuing that this amount of dynamic energy is transferred to the sampler as much as possible.

The number of blows required to achieve each 150mm penetration is recorded for a fall penetration of 450mm. The initial 150mm penetration is referred to as seating drive and the blows required for this penetration are not considered as this zone is in disturbed soil. The next 300mm of penetration is referred to as the test drive and the number of blows required to achieve this fully is termed the penetration resistance or N-value.

The total number of blows (N) required, to advance the spoon into the bore, for another two successive 15cm (a total of 30 cm) is recorded as a measure of the soil relative density or consistency as given in Table.

CO – RELATION FOR SATURATED SAND/NON – PLASTIC SILT

RELATIVE DENSITY	PENETRATION VALUE (Blows/Ft)
Very loose	0 to 4 Blows
Loose	5 to 10 Blows
Medium	11 to 30 Blows
Dense	31 To 50 Blows
Very Dense	> 50 Blows

CO – RELATION FOR SATURATED CLAY/PLASTIC SILT

RELATIVE DENSITY	PENETRATION VALUE (Blows/Ft)
Very Soft	0 to 2 Blows
Soft	3 to 4 Blows
Medium Stiff	5 to 8 Blows
Stiff	9 To 16 Blows
Very Stiff	17 To 32 Blows
Hard	>32 Blows

Rock samples were extracted by Rotary drilling technique using double tube core barrel of 76mm diameter, filter with a diamond bit. The extracted cores for every run, not exceeding 1.0 meter were arranged in the core boxes and the T.C.R as well as R.Q.D values were measured. The appropriate estimation of the properties of the encountered rock strata can be obtained by referring to the borehole logs and the following description

R.Q.D %	ROCK QUALITY
90 – 100	Excellent
75 – 90	Good
50 – 75	Fair
25 – 50	Poor
0 - 25	Very Poor

RECOVERY %	DESCRIPTION OF ROCK
0 – 20	Rock is treated as soil
20 – 35 with SPT > 50 blows / 30 cm	Soft or disintegrated rock
35 – 50	Intermediate rock
50 – 85	Medium rock
>85	Sound rock

The fieldwork was carried out under the close supervision of our engineer in accordance with Indian Standard mentioned earlier.

2.3. SAMPLING

Soil samples were collected through Split spoon and rock core sample were collected through single tube core barrel.

3. LABORATORY TESTS

The operations to be performed in the laboratory depend upon the type of the nature of data required for the problem at hand. In case of cohesion less, material, like sand, the laboratory tests are usually minimum and the design parameters are worked out from field test data such as form SPT- N value, Core resistance and plate load test data.

In the case of cohesive soils, the programme of laboratory testing can vary from carrying out simple tests such as unconfined tests to comprehensive study of soil behaviour using tri-axial shear tests and consolidation tests.

Laboratory tests are conducted.

For cohesion less soil

a) Specific gravity
b) Sieve analysis
c) Direct shear test

For cohesive soil

a) Specific gravity
b) Natural moisture content
c) Atterberg's limits
d) Sieve Analysis
e) Unconfined compression test
f) Consolidation test
g) Tri-axial test

4. FOUNDATION ANALYSIS

4.1 Soil Profile

The profile of the area as observed in the bore hole is given in the chart. The water level is observed in all bore holes after 24 hours of drilling and it is mentioned in bore logs. The Borehole is terminated at maximum depth of 10.00 m.

4.2 Safe Bearing Capacity

The bearing capacity of granular soil depends upon the unit weight and angle of internal friction of the soil. These two properties of granular soils are determined by standard penetration tests.

The allowable bearing pressure based on tolerable settlement has been established empirically by Terzaghi and Peck, 1974 and may be expressed by the equation.

Safe bearing capacity (SBC) of Stratum consider Water Table is at Ground Surface,

For 25 mm Settlement,

Safe bearing capacity (SBC) = 10.25(CwN)

For 40 mm Settlement,

Safe bearing capacity (SBC) =16.40(CwN)

$Cw = 0.5 + 0.5 \times Dw / (Df + B)$

Where,

N = Corrected N Value
Df = Depth of Foundation
Dw = Depth of Water table Below the ground Surface.
Cw = Water Correction
B = Breath of Foundation

5. DESIGN CRITERIA

5.1 Design of Foundations

As per the client's information Construction of New Residential Villas (G+2) at Kumarapalayam Village in Coimbatore

The design of foundation depends upon the founding strata, loading intensity at the foundation level and configuration at loading points.

For the above conditions, Open Foundation is recommended for the proposed structure. The recommendation is given in below.

5.2 Depth of Foundation

Minimum depth of foundations is governed by the following factors:

- Top loose zone.
- Adequate depth of soil above founding level, to ensure mobilization of full safe bearing capacity.
- Adequate depth of soil strata below founding level of requisite strength to mobilize the safe bearing capacity and at the same time restricts the total and differential settlements within the allowable limits.
- The type and depth of foundation shall be decided by the design engineer.

6. FOUNDATION RECOMMENDATIONS

- The Engineering properties of soil and SPT N value are to be considered for the foundation recommendation
- The site **CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE.** The borehole investigation was conducted and SBC was determined.

Maximum Borehole Depth	10.00 m
Type of Foundation	Open Foundation
Type of Footing	Isolated Footing
Depth of Foundation	2.50 m depth from the EGL
Safe Bearing Capacity	26.14 t/m^2 @ 2.50 m depth

- **The Design Engineer may choose an alternate foundation based on structure and load.**

7. PRECAUTIONS

Entire report should be studied before implementing the recommendations. Loose pockets of soil, if encountered shall be removed and backfilled with a levelling course of concrete shall be laid and construction of foundations with **IS CODE recommends** can be taken up subsequently.

8. LIMITATIONS

The soil investigations have been carried out at locations in the site chosen by the client so as to represent the entire site. The recommendations provided in this report are hence valid only for these test locations. However, if there is any change in sub soil conditions and properties at places between or beyond chosen test locations, VKP GEOTECH may be contacted for further advice.

With passage of time, the recommendations may vary due to manmade and natural environmental changes.

GEOTECHNICAL ENGINEER

Er. K. PRAKASH., ME(GEOTECH)
GEOTECHNICAL ENGINEER

9. REFERENCES

1. IS: 2911-(part1/sec-2 0-1979); Design and Construction of Pile Foundations.
2. IS 1498 1970; Classification and identification of soils for general Engineering purposes.
3. IS 1892 1979; Code of practice for subsurface investigation for foundations
4. IS 1904 1986; Code of practice for design and construction of foundations in soils: General requirements.
5. IS 2131 1981; Method for Standard Penetration test for soils.
6. IS-2132; Code for practice for Thin Walled Tube Sampling of Soil.
7. IS 2720-1 1983; Methods of test for soils, Part 1: Preparation of dry soil samples for various tests.
8. IS 2720-2 1973; Methods of test for soils, Part 2: Determination of water content.
9. IS 2720-3-1 1980; Methods of test for soils, Part 3: Determination of Specific Gravity, Section 1: Fine grained soils.
10. IS 2720-3-2 1980; Methods of test for soils, Part 3: Determination of Specific Gravity, Section 2: Fine, Medium and Coarse Grained soils.
11. IS 2720-4 1985; Methods of test for soils, Part 4: Grain Size Analysis
12. IS 2720-5 1985; Methods of test for soils, Part 5: Determination of Liquid and Plastic limit.
13. IS 2720-7 1980; Methods of test for soils, Part 7: Determination of water content-dry density relation using light compaction.
14. IS 2720-10 1991; Methods of test for soils, Part 10: Determination of Unconfined Compressive Strength.
15. IS 2720-13 1986; Methods of test for soils, Part 13: Direct shear test.
16. IS 2720-40 1977; Methods of test for soils, Part 40: Determination of Free Swell Index of soils.
17. IS 2720-41 1977; Methods of test for soils, Part 41: Measurement of Swelling Pressure of Soils.
18. IS-5313; Guide for Core Drilling Observations.
19. IS 6403 1981; Code of practice for determination of Bearing Capacity of Shallow Foundations.
20. IS 8009-1 1976; Code of Practice for Calculation of Settlements of Foundations, Part 1: Shallow foundations subjected to Symmetrical Static Vertical Loads.

21. IS 9259 1979; Liquid Limit apparatus for soils.
22. IS 9640 1980; Split Spoon Sampler.
23. IS 9669 1980; CBR Moulds and its Accessories.
24. IS: 8009 (Part-1) 1976 Code of Practice for Calculation of Settlements of Foundations.
25. IS 13365-1 (1998): Quantitative classification system of rock mass - Guidelines, Part 1: RMR for predicting of engineering properties.
26. IS 12070 (1987): Code of Practice for Design and Construction of Shallow Foundations on Rocks
27. IRC 78:2000; Standard Specifications and code of Practice for Road Bridges.
28. Wayne CT Eng (1992) Foundation design, 13th reprint, Prentice - Hall of India Pvt. Ltd.
29. Bowles J.E, (1982) Foundation Analysis and design, 3rd edition, McGraw Hill International Book Co.
30. Tomlinson M.J. (1995) Foundation Design and Construction, 6th edition, Longman Group

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10. ABBREVIATIONS

BH	-	Bore Hole
CH	-	Chainage
RL	-	Reduced level
*	-	Sample Not Retrieved
SPT	-	Standard Penetration Test
DS	-	Disturbed Sample
UDS	-	Undisturbed Sample
FS	-	Filled Soil/ Filledup Material
GW	-	Well-Graded Gravel
GP	-	Poorly Graded Gravel
GM	-	Silty Gravel
GC	-	Clayey Gravel
SW	-	Well-Graded Sand
SP	-	Poorly Graded Sand
SC	-	Claycy Sand
CL	-	Lean Clay
ML	-	Silt Clay
OL	-	Organic Clay/Organic Silt
CH	-	Fat Clay
MH	-	Elastic Silt
OH	-	Organic Clay/Organic Silt
Pt	-	Peat
NCR	-	Non Core Recovery
NP	-	Non Plastic
N/A	-	N/A – Not Applicable
SBC	-	Safe Bearing Capacity
C	-	Core
R	-	R – Refusal, Rebound,
CR	-	Core Recovery
RQD	-	Rock Quality Designation
RMR	-	Rock Mass Rating
CWR	-	Completely Weathered Rock
HWR	-	Highly Weathered Rock
MWR	-	Moderately Weathered Rock
SWR	-	Slightly Weathered Rock
FR	-	Fresh Rock

ANNEXURE – I

1

Bore Log

VKP/2022-23/R/23

Name of Work:	**GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE**		
Soil Investigation done by:	V.K.P.GEOTECH Soil Exploration Contractor, Coimbatore - 21	**Type of Drilling:** Rotary – Mud Circulation	Date of Commencement: 09/05/2022
			Date of Completion: 10/05/2022
		Stagnant Water Level: 3.00 m	Bed Level: 0.00 m
Bore hole No:	1		
Location:	Mentioned on Map		

Depth of Exploration (m)	Description of Soil	Sample Type	Sample No	Standard penetration test data: N – Value- Depth of penetration 15cm	30cm	45cm	For 30cm	Relative density / Consistency	Graphical representation of penetration resistance 20	40	60	80	100
0.00													
1.00	Clayey Gravel	SPT	1	6	4	7	11	Stiff					
2.00	Clayey Gravel	SPT	2	13	50/4	R	>50	Hard					
2.50	Completely Weathered Rock	NCR	3	50/2	R	-	>50	V Dense					
3.00	Completely Weathered Rock	NCR	4	R	-	-	>50	Do					
4.00	Completely Weathered Rock	SPT	5	50/3	R	-	>50	Do					
5.00	Completely Weathered Rock	NCR	6	R	-	-	>50	Do					
7.00	Completely Weathered Rock	NCR	9	R	-	-	>50	Do					
8.00	Completely Weathered Rock	NCR	10	R	-	-	>50	Do					

CORE RECOVERY DETAILS

			CORE LENGTH in cm	TCR cm	CR %	RQD %
6.00	Highly Weathered Rock	C	7 - 8	3, Small Pieces Collected (13cm)	16	16	NIL
9.00	Highly Weathered Rock	C	11	Small Pieces Collected	13	13	NIL
10.00	Highly Weathered Rock	C	12 - 13	7, 4	11	11	NIL

Bore hole Terminated at : 10.00 m

Contd...2

Bore Log

VKP/2022-23/R/23

Name of Work:	**GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE**		
Soil Investigation done by:	V.K.P.GEOTECH Soil Exploration Contractor, Coimbatore - 21	**Type of Drilling:** Rotary – Mud Circulation	Date of Commencement: 10/05/2022
			Date of Completion: 11/05/2022
		Stagnant Water Level: 2.40 m	Bed Level: 0.00 m
Bore hole No:	2		
Location:	Mentioned on Map		

Depth of Exploration (m)	Description of Soil	Sample Type	Sample No	Standard penetration test data: N – Value- Depth of penetration 15cm	30cm	45cm	For 30cm	Relative density / Consistency	Graphical representation of penetration resistance 20	40	60	80	100
0.00													
1.00	Clayey Gravel	SPT	1	9	6	10	16	Stiff					
2.00	Clayey Gravel	SPT	2	16	50/3	R	>50	Hard					
3.00	Completely Weathered Rock	NCR	3	50/2	R	-	>50	V Dense					
4.00	Completely Weathered Rock	NCR	4	50/2	R	-	>50	Do					
5.00	Completely Weathered Rock	NCR	5	50/2	R	-	>50	Do					
6.00	Completely Weathered Rock	NCR	6	R	-	-	>50	Do					
7.00	Completely Weathered Rock	NCR	7	R	-	-	>50	Do					
8.00	Completely Weathered Rock	NCR	8	R	-	-	>50	Do					

CORE RECOVERY DETAILS

		CORE LENGTH in cm	TCR cm	CR %	RQD %
9.00	Highly Weathered Rock	C	9	3, Small Pieces Collected (19 cm)	22	22	NIL
10.00	Highly Weathered Rock	C	10 - 12	10, 8, 5	23	23	NIL

Bore hole Terminated at : 10.00 m

Contd...3

Bore Log

VKP/2022-23/R/23

Name of Work:	**GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE**		
Soil Investigation done by:	V.K.P.GEOTECH Soil Exploration Contractor, Coimbatore - 21	**Type of Drilling:** Rotary – Mud Circulation	Date of Commencement: 11/05/2022
			Date of Completion: 12/05/2022
		Stagnant Water Level: 2.70 m	Bed Level: 0.00 m
Bore hole No:	3		
Location:	Mentioned on Map		

Depth of Exploration (m)	Description of Soil	Sample Type	Sample No	Standard penetration test data: N – Value- Depth of penetration 15cm	30cm	45cm	For 30cm	Relative density / Consistency	Graphical representation of penetration resistance (20 / 40 / 60 / 80 / 100)
0.00									
1.00	Clayey Sand	SPT	1	10	25	30	55	Hard	
2.00	Clayey Sand	SPT	2	16	50/2	R	>50	Do	
3.00	Completely Weathered Rock	NCR	3	R	-	-	>50	V Dense	
4.00	Completely Weathered Rock	NCR	4	R	-	-	>50	Do	
5.00	Completely Weathered Rock	NCR	5	R	-	-	>50	Do	
6.00	Completely Weathered Rock	NCR	6	R	-	-	>50	Do	

CORE RECOVERY DETAILS

Depth of Exploration (m)	Description of Soil	Sample Type	Sample No	CORE LENGTH in cm	TCR cm	CR %	RQD %
7.00	Highly Weathered Rock	C	8	2, 3	5	5	NIL
8.00	Highly Weathered Rock	C	9 - 11	2, 3, Small Pieces Collected (6 cm)	11	11	NIL
9.00	Highly Weathered Rock	C	12 - 16	5, 4, 2, 3, Small Pieces Collected (2 cm)	16	16	NIL
10.00	Highly Weathered Rock	C	17 - 19	15, 13, 2	30	30	28

Bore hole Terminated at : 10.00 m

V.K.P. GEOTECH Soil Exploration Contractor Coimbatore

Geotechnical Engineer

Er. K. PRAKASH., ME(GEOTECH)
GEOTECHNICAL ENGINEER

ANNEXURE – II

I

Ref: VKP/2022-23/R/23

SOIL TEST RESULTS

Name of Project: GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE

Soil Investigation done by: V.K.P.GEOTECH, Soil Exploration Contractor, Coimbatore -21	Bore Number 01	Location: Mentioned on Map	Stagnant Water Level: 3.00 m	Test Commenced On	14/05/2022
				Test Completed On	16/05/2022

DEPTH OF TESTING M	SAMPLE TYPE	SOIL CLASSIFICATION	NATURAL WET DENSITY (g/cc)	NATURAL MOISTURE CONTENT %	INDEX TEST			SIEVE ANALYSIS					SPECIFIC GRAVITY	SHEAR TEST		STANDARD PENETRATION TEST		
					LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX	GRAVEL	COARSE SAND	MEDIUM SAND	FINE SAND	SILT & CLAY		COHESION C Ton / M^2	ANGLE OF INTERNAL FRICTION °	OBSERVED N VALUE	CORRECTED N VALUE	SAFE BEARING CPACITY T/m^2
1.00	SPT	GC	2.02	25	26	14	12	12	4	7	20	57	2.69	1.10	23	11	20	10.25
2.00	SPT	GC	2.03	31	25	12	13	8	3	7	25	57	2.69	1.15	24	>50	50	26.14

ROCK PROPERTIES - ROCK MASS RATING(RMR)

Depth (m)	Rock Type	Strength of Intact of Rock Material Point Load Index Strength/ Compression Strength		Rock Quality Designation		Spacing of Discontinuities		Condition of Discontinuities		Ground Water Condition		Adjustment for Joint Orientation		Total RMR	Net Safe Bearing Capacity (t/m^2)
		Value (Mpa)	RMR	Value (%)	RMR	Value (m)	RMR	Value (mm)	RMR	Value	RMR	Value	RMR		
2.50	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
3.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
4.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
5.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
6.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
7.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
8.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
9.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
10.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81

Bore hole Terminated at : 10.00 m

Contd...2

Ref: VKP/2022-23/R/23

SOIL TEST RESULTS

Name of Project: GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE

Soil Investigation done by: V.K.P.GEOTECH, Soil Exploration Contractor, Coimbatore-21	Bore Number 02	Location: Mentioned on Map	Stagnant Water Level: 2.40m	Test Commenced On	14/05/2022
				Test Completed On	16/05/2022

DEPTH OF TESTING M	SAMPLE TYPE	SOIL CLASSIFICATION	NATURAL WET DENSITY (g/cc)	NATURAL MOISTURE CONTENT %	INDEX TEST			SIEVE ANALYSIS					SPECIFIC GRAVITY	SHEAR TEST		STANDARD PENETRATION TEST		
					LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX	GRAVEL	COARSE SAND	MEDIUM SAND	FINE SAND	SILT & CLAY		COHESION C Ton / M²	ANGLE OF INTERNAL FRICTION °	OBSERVED N VALUE	CORRECTED N VALUE	SAFE BEARING CPACITY T/m²
1.00	SPT	GC	2.03	19	27	15	12	10	4	10	22	54	2.69	0.95	25	16	25	13.10
2.00	SPT	GC	2.05	24	25	14	11	10	4	13	27	46	2.67	0.80	27	>50	50	26.14

ROCK PROPERTIES - ROCK MASS RATING(RMR)

Depth (m)	Rock Type	Strength of Intact of Rock Material Point Load Index Strength#/ Compression Strength		Rock Quality Designation		Spacing of Discontinuities		Condition of Discontinuities		Ground Water Condition		Adjustment for Joint Orientation		Total RMR	Net Safe Bearing Capacity (t/m²)
		Value (Mpa)	RMR	Value (%)	RMR	Value (m)	RMR	Value (mm)	RMR	Value	RMR	Value	RMR		
3.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
4.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
5.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
6.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
7.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
8.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
9.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
10.00	HWR	NIL	0	10	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81

Bore hole Terminated at : 10.00 m

Contd...3

Ref: VKP/2022-23/R/23

SOIL TEST RESULTS

Name of Project: GEOTECHNICAL SITE INVESTIGATION WORK FOR CONSTRUCTION OF NEW RESIDENTIAL VILLAS (G+2) AT KUMARAPALAYAM VILLAGE IN COIMBATORE

Soil Investigation done by: V.K.P.GEOTECH, Soil Exploration Contractor, Coimbatore-21	Bore Number 03	Location: Mentioned on Map	Stagnant Water Level: 2.70m	Test Commenced On	14/05/2022
				Test Completed On	16/05/2022

DEPTH OF TESTING M	SAMPLE TYPE	SOIL CLASSIFICATION	NATURAL WET DENSITY (g/cc)	NATURAL MOISTURE CONTENT %	INDEX TEST			SIEVE ANALYSIS					SPECIFIC GRAVITY	SHEAR TEST		STANDARD PENETRATION TEST		
					LIQUID LIMIT %	PLASTIC LIMIT %	PLASTICITY INDEX	GRAVEL	COARSE SAND	MEDIUM SAND	FINE SAND	SILT & CLAY		COHESION C Ton / M²	ANGLE OF INTERNAL FRICTION °	OBSERVED N VALUE	CORRECTED N VALUE	SAFE BEARING CPACITY T/m²
1.00	SPT	SC	1.82	30	28	16	12	0	0	10	29	61	2.69	1.15	21	55	50	26.14
2.00	SPT	SC	2.03	20	24	11	13	0	1	9	35	55	2.69	1.02	23	>50	50	26.14

ROCK PROPERTIES - ROCK MASS RATING(RMR)

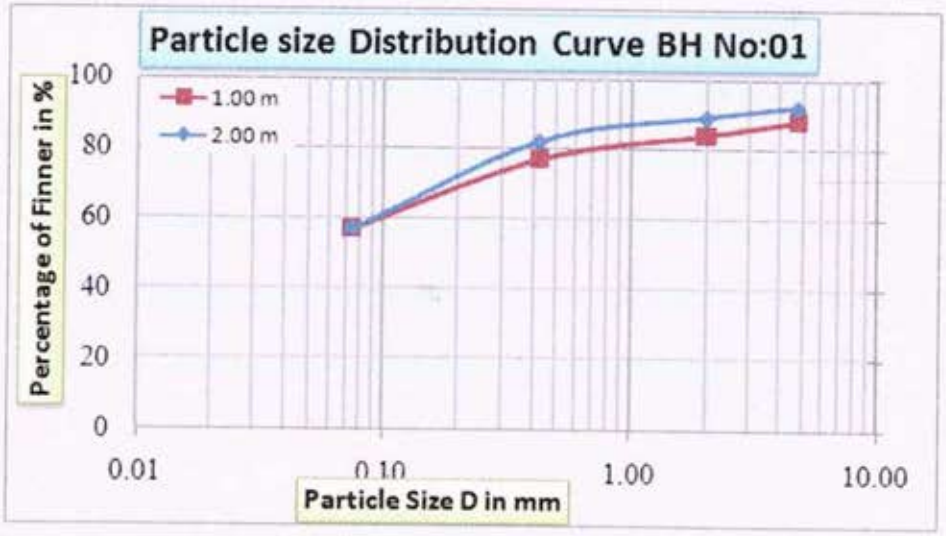
Depth (m)	Rock Type	Strength of Intact of Rock Material Point Load Index Strength#/ Compression Strength		Rock Quality Designation		Spacing of Discontinuities		Condition of Discontinuities		Ground Water Condition		Adjustment for Joint Orientation		Total RMR	Net Safe Bearing Capacity (t/m²)
		Value (Mpa)	RMR	Value (%)	RMR	Value (m)	RMR	Value (mm)	RMR	Value	RMR	Value	RMR		
3.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
4.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
5.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
6.00	CWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
7.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
8.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
9.00	HWR	NIL	0	NIL	3	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	26	81
10.00	HWR	11.78	2	28	8	<0.06	8	1 - 5	10	Wet	7	Favorable	-2	33	113

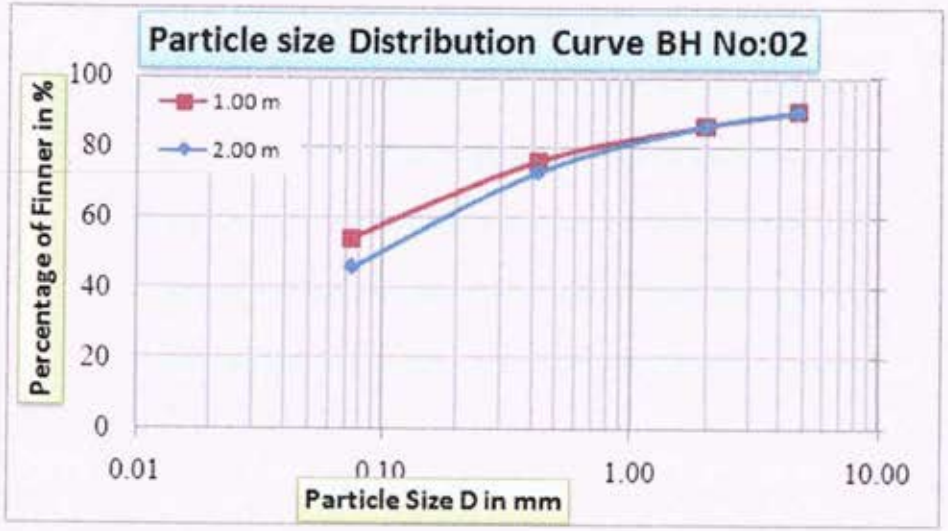
Bore hole Terminated at : 10.00 m

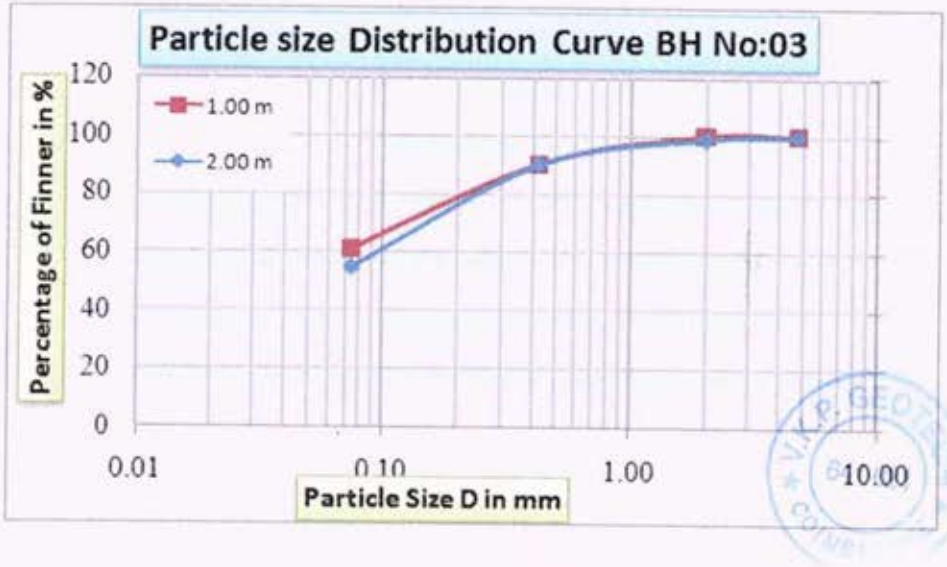
Geotechnical Engineer

Er. K. PRAKASH., ME(GEOTECH)
GEOTECHNICAL ENGINEER

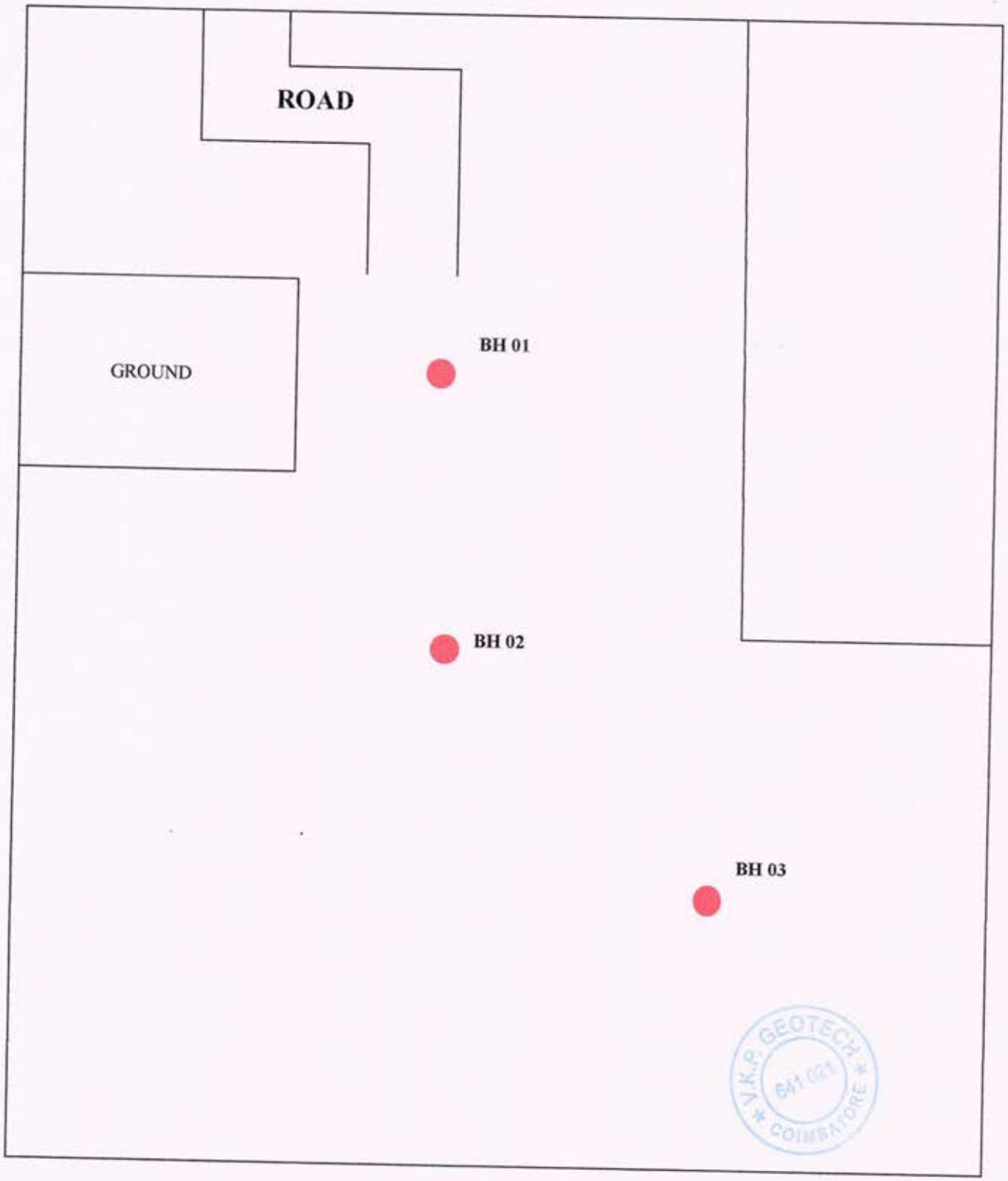
12. SIEVE ANALYSIS:







13. SITE PLAN:



14. SITE & SAMPLE PHOTOS:















our services doesn't just end there

Buying & Selling Services

Property Buying Assistance, Property Selling Support, Market Price Analysis, Owner Outreach and Negotiation.

Legal & Documentation Services

Certified EC, Patta, legal opinions, property verification, due diligence, litigation solutions, and legal heir certificates.

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Building plan approvals, construction, layout and sub-division approvals, zone conversion, and occupancy certification.

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Compliance & Special Services

Demolition, Vaasthu checks, regularization of unauthorized buildings, and office space solutions.



empowering your real estate decisions with smart tools

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Guideline Value, Apartment Composite Value, Stamp Duty & Registration Fees Calculator, Building Value Calculator, Capital Gains Calculator, Area Unit Converter, Length Unit Converter

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Encumbrance Certificate (EC) Search, Find Your SRO, Temple Property Check, WAQF Property Check, View Patta/Chitta, View FMB, Patta Analyzer, EC Analyzer

Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator

Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

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