27th May, 2024

Name of Work : Construction of School Buildings, Staff Quarters and other facilities including Electrical works for Kendriya Vidyalaya at Haveri, Karnataka.

E-Tender ID No : 2024_FACT_806473_1

Corrigendum(Technical)

CLARIFICATIONS TO PRE-BID QUERIES RAISED BY BIDDERS, SUPPORTING DOCUMENTS AND CHANGES IN TECHNICAL DOCUMENTS ARE ATTACHED.

Amrutha Terence
Officer(Des)Mat-C

FEDO

CLARIFICATIONS ON QUERIES RAISED BY VENDORS

Name of Work : Tender No: 8001/2024-2025/E29456 – Construction of School Buildings, Staff Quarters and other facilities including Electrical works for Kendriya Vidyalaya at Haveri, Karnataka.

Queries raised by : M/s Subramaniyan Constructions, M/s Magnus Projects, M/s Nandi Associates and Evercrest Projects.

Sl No.	Query & Reply
1	**Query:** Please confirm if the multiplication factor for the value of work orders submitted for PQ is applicable **FEDO Reply:** Not applicable as per tender conditions.
2	**Query:** Please confirm the scope of work mentioned in the tender, which includes 13 quarters and a multipurpose hall. **FEDO Reply:** Revised document attached.
3	**Query:** Requested to confirm on 10% cum PBG and 5% retention from running bills **FEDO Reply:** Tender conditions prevail as per GCC Clauses 2.0 and 3.0 and the 'Payment Schedule,' Schedule G.
4	**Query:** Requested to confirm SCC Clause 3.4 **FEOD Reply:** Tender conditions prevail.
5	**Query:** Requested to confirm on extra quantities of item and extra work. **FEDO Reply:** As per tender conditions, refer to GCC Clause 15
6	**Query:** Requested to confirm on Price escalation for the work. **FEDO Reply:** As per tender conditions, refer to GCC Clause 19

7	**Query:** Requested to confirm on Labor accommodation at site. **FEDO Reply:** As per tender conditions, refer to clause 3.6 of SCC Schedule Q
8	**Query:** Requested to confirm on use of concrete mixer machine at site. **FEDO Reply:** Concrete mixer machine can be used, but the design mix must be approved by FEDO and the quality checks at the site shall be conducted as per the instructions of the engineer in charge.
9	**Query:** Requested to confirm on Fund availability and payment of RA Bills. **FEDO Reply:** It shall be as per the tender conditions outlined in 'Payment Schedule,' Schedule G."
10	**Query:** Requested to issue soil investigation report **FEDO Reply:** Soil investigation report attached.
11	**Query:** Requested to confirm on Survey and land demarcation along with statutory bodies. **FEDO Reply:** It shall be in scope of Contractor with the concurrence of KVS Official.
12	**Query:** Requested to confirm on Removal of Vegetation and trees and necessary approval from statutory authorities. **FEDO Reply:** It shall be in scope of Contractor as per SCC Schedule A XII b
13	**Query:** Requested to confirm on issue of hardcopy of EMD and solvency to FACT along with the bid. **FEDO Reply:** Only a hardcopy of the solvency certificate (original or copy duly attested by a Notary) shall be sent to the office of FACT

CORRIGENDUM FOR CONSTRUCTION OF SCHOOL BUILDING, STAFF QUARTERS AND OTHER FACILITIES INCLUDING ELECTRICAL WORKS FOR KENDRIYA VIDYALAYA AT HAVERI, KARNATAKA

Following corrections in tender document may be noted:

SCOPE OF WORK -SCHEDULE A

Document: Schedule A ,Page No: 1 of 5, description under heading

I) Civil Works

1. "h) Multi-storeyed RCC framed Type – III Quarters (G+1) – Total; Area = 320 Sq.m (2 Block of 4 Units each)"

The above clause shall be read as

"h) Multi-storeyed RCC framed Type – III Quarters (G+1) – Total; Area = 320 Sq.m (1 Block of 4 Units)"

2. "j) Scooter Shade for Type – III Quarters – 2 Blocks of 4 Scooter Parking each"

The above clause shall be read as

"j) Scooter Shade for Type – III Quarters – 1 Blocks of 4 Scooter Parking"

3. "l) Multipurpose Hall (size 39.4 m x 19.65 m) – RCC framed structure with steel roofing and false ceiling."

*The above clause is **DELETED.***

Document: Schedule A ,Page No: 2 of 5, description under heading

II) Electrical works

"d) Internal Electrification of Multipurpose Hall with all fittings."

*The above clause is **DELETED.***

Document: Schedule A ,Page No: 2 of 5, description under heading

III. Water supply works

"e) Internal water supply system for the Multipurpose Hall with all fittings including overhead tanks."

*The above clause is **DELETED.***

Document: Schedule A ,Page No: 2 of 5, description under heading

IV. Sanitary Works

"d) Internal sanitary system for the Multipurpose Hall with all fittings & fixtures including Septic Tank & Soak Pit."

*The above clause is **DELETED.***

Document: Schedule A ,Page No: 3 of 5, description under heading

VII. Fire fighting systems

"Fire extinguishers are proposed at the required locations for the Multi-Purpose Hall of capacity 300 persons."

*The above clause is **DELETED.***

SCOPE OF WORK AND GENERAL CONDITION (8153-12-DA-001)

Document: 8153-12-DA-001 ,Page No: 2 of 12, description under heading

I)*Civil works*

1. "8. Multi-storeyed RCC framed Type – III Quarters (G+1) – Total; Area = 320 Sq.m (2 Block of 4 Units each)"

The above clause shall be read as

"8. Multi-storeyed RCC framed Type – III Quarters (G+1) – Total; Area = 320 Sq.m (1 Block of 4 Units)"

2. "9. Scooter Shade for Type – III Quarters – 2 Blocks of 4 Scooter Parking each"

The above clause shall be read as

"9. Scooter Shade for Type – III Quarters – 1 Blocks of 4 Scooter Parking"

3. "11. Multipurpose Hall (size 39.4 m x 19.65 m) – RCC framed structure with steel roofing and false ceiling."

*The above clause is **DELETED.***

Document: 8153-12-DA-001 ,Page No: 3 of 12, description under heading

II. Electrical works

"4. Internal Electrification of Multipurpose Hall with all fittings."

*The above clause is **DELETED.***

Document: 8153-12-DA-001 ,Page No: 3 of 12, description under heading

III. Water supply works

"4. Internal water supply system for the Multipurpose Hall with all fittings including overhead tanks."

*The above clause is **DELETED.***

Document: 8153-12-DA-001 ,Page No: 4 of 12, description under heading

IV. Sanitary Works

"4. Internal sanitary system for the Multipurpose Hall with all fittings & fixtures including Septic Tank & Soak Pit."

*The above clause is **DELETED.***

Document: 8153-12-DA-001 ,Page No: 4 of 12, description under heading

VII. Fire fighting systems

"Fire extinguishers are proposed at the required locations for the Multi Purpose Hall of capacity 300 persons."

*The above clause is **DELETED.***

BRIEF SPECIFICATIONS FOR CIVIL WORKS FOR KENDRIYA VIDYALAYA SCHOOL BUILDINGS(8153-12-DA-001)

Document: 8153-12-DA-001 ,Page No: 7 of 12, description under heading

4.2 **Type – III Quarters**

"Type – III Quarter proposed shall be two blocks of G+1 storied building of RCC framed structure having total plinth area of 320 Sqm. Scooter shed with brick wall and rcc roofing for 8 Nos. shall be provided."

The above clause shall be read as

"Type – III Quarter proposed shall be one block of G+1 storied building of RCC framed structure having total plinth area of 320 Sqm. Scooter shed with brick wall and RCC roofing for 4 Nos. shall be provided."

Document: 8153-12-DA-001 ,Page No: 7 of 12, description under heading

5.**Foundation**

"Shallow foundation comprising of individual or combined footing are proposed at 2.5 m depth below existing ground level with a safe bearing capacity of 150 kN/m2. Top 500 mm thick agricultural soil from the existing ground level shall be removed from the building areas and the foundation has to be taken 2m depth below this level. Excavated portion has to be backfilled with sand / good quality earth and compacted in layers."

The above clause shall be read as

"Shallow foundation comprising of individual or combined footing are proposed at 1.5m depth below existing ground level with a safe bearing capacity of 150 kN/m2. Top 500 mm thick agricultural soil from the existing ground level shall be removed from the building areas and the foundation has to be taken 1m depth below this level. Excavated portion has to be backfilled with sand / good quality earth and compacted in layers."

Document: 8153-12-DA-001 ,Page No: 9 of 12, description under heading

13. **Multipurpose Hall**

"Multipurpose hall for 300 person capacity shall be provided as per the layout."

The above clause is ***DELETED.***

SPECIFIC REQUIREMENTS OF WORK(8153-12-DA-002)

Document: 8153-12-DA-002 ,Page No: 3 of 20, description under heading

2.0 SCOPE OF WORK

"The scope of work is detailed in the Scope of work & General Conditions (Doc No. 8153-12-DA-001) which include construction of school building, sports areas, quarters, multi purpose hall, compound wall, road, paving, etc with related electrical, water supply and sewage facilities."

The above clause shall be read as

"The scope of work is detailed in the Scope of work & General Conditions (Doc No. 8153-12-DA-001) which include construction of school building, sports areas, quarters, compound wall, road, paving, etc with related electrical, water supply and sewage facilities."

SOIL INVESTIGATION REPORT
FOR PROPOSED KENDRIYA VIDYALAYA
AT HAVERI

PROJECT MANAGEMENT CONSULTANT

FACT ENGINEERING & DESIGN ORGANISATION

ARCHITECT

M/s BUILDCON SOLUTIONS
L-11,2nd Floor, DDA SFS Flats, Sarita Vihar,
New Delhi-110076

SOIL TESTING AGENCY

Sri Guru Engineering Consultancy Services
Survey, Soil Investigation, Concrete and NDT Testing & Consultancy
No. 173, "KOUSTAB" 3rd Main, Vayalikaval Layout (Near GKW Layout Bus stand)
Vijaynagar, , BANGALORE – 560 040

Name of the Project

Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.

.

Report Number

SGECS/260/2016-17

Clients Reference

Work order-Email dated-05.05.2016

Field & Laboratory Investigations Conducted By

Mr. B. H. Satish M.Tech.

Mr. S.M. Ravikumar D.C.E

OF

M/s. Sri Guru Engineering Consultancy Services.

Period of Field Investigation

07.05.2016 to 14.07.2016

Report Submitted

To

M/s BUILDCON SOLUTIONS

L-11,2nd Floor, DDA SFS Flats, Sarita Vihar,

New Delhi-110076

Report Submitted On

17.05.2016

Contents

1.0 INTRODUCTION

Kendriya Vidyalaya Sangathan has proposed to construct School Building and Staff Quarters at Proposed Site in Haveri. In order to get necessary data for designing the foundation structure the soil investigation at the above site has been carried out by M/s. Sri Guru Engineering Consultancy Services. Accordingly, necessary field investigation and laboratory tests were conducted and the results with recommendation are furnished herein.

2.0 OBJECTIVE AND SCOPE OF WORK

This includes the following:

- General Survey.
- Drilling boreholes up to 10.0m at specified location by Mechanical calyx drilling method.
- Collection of disturbed and undisturbed soil samples for laboratory investigation.
- Report and recommendation for safe bearing capacity and suitable type of foundation.

3.0 FIELD AND LAB INVESTIGATION

RECONNAISSANCE

The Sub with soil essentially consists of Reddish Brown Sandy Silt with clay is under laid by Brownish Soft disintegrated rock.

FIELD INVESTIGATION

This consists of the following:

Physical observation and general survey.

- Sinking of 6 bore hole up to 10.0m at each location
- Excavation of 6 nos trial pits of Approximate Size of 1.5m x 1.5m and upto a depth of 1.5 m for Analysis of soil for shallow foundation. These trial pits are

excavated manually and disturbed and undisturbed sample was collected for testing and backfilled properly after investigation and collection of Samples.

- Conducting standard penetration tests (SPT) at relevant depths.
- Collection of undisturbed soil samples at specified depths for determination of cohesion (C) and friction factor (ϕ).
- Collection of disturbed soil sample at specified depths for conducting grain size analysis, determination of proctor density, water content, liquid limit and plastic limit

LABORATORY INVESTIGATION

This includes the following.

- Conducting liquid & plastic limit tests on disturbed soil for classification.
- Grain Size Distribution by wet sieve analysis.
- Determination of natural moisture content and in-situ density.
- Conducting proctor density and optimum moisture content.
- Conducting shear tests on undisturbed soil sample and determination ofC and (ϕ).
- Conducting soil Permeability test for determination of Permeability of soil.
- The tests are conducted as per the methods and guidelines given in relevant Indian

Standard Codes and Specifications. The test results are given in tables

Details of standard penetration tests (SPT)

The standard penetration tests were conducted at relevant depths of borehole to Determine penetration resistance as per IS –2131- 1981 and Collection of disturbed soil Samples for laboratory investigation.

The No. of blows is recorded at every 15cm penetration up to 45cm .The Number of blows required to drive the split spoon sampler for 30cm beyond seating drive is termed

as penetration resistance “N” value. Refusal is said to have been reached when the sampler penetrates less then 15cm under 50blows.

RECOMMENDATIONS:

From the bore logs, Trial Pits field and laboratory investigations, it is concluded that the sub soil Essentially consists of Reddish Brown Sandy Silt with clay is under laid by Brownish Soft Disintegrated rock. The above soil having Liquid limit 31 to 36 & Plasticity index 4 to 7 in soil. N-Value varying from 39 to >50 in BH-01, >50 in BH-02, 41 to >50in BH-03 & >50 in BH4 and Bore hole were terminated at 8.0m from the existing ground level The water table not countered during investigation.

A safe bearing capacity is recommended as below for isolated Footing type of Foundations.

Bore Hole No.	Depth of Foundation	Type of Stratum	SPT Values	Recommended Allowable Bearing Capacity
BH-01	1.5	Reddish Brown Sandy silt with clay	39	16.0
	3.0	Reddish Brown Sandy silt with clay	>50	20.0
	4.0	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	30.0
BH-02	1.5	Reddish Brown Sandy silt with clay	>50	20.0
	2.5	Reddish Brown Sandy silt with clay	>50	25.0
	3.0	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	30.0
BH-03	1.5	Reddish Brown Sandy silt with clay	41	16.0
	3.0	Reddish Brown Sandy silt with clay	>50	20.0
	4.5	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	25.0
BH-04	1.5	Reddish Brown Sandy silt with clay	>50	19.0
	3.0	Reddish Brown Sandy silt with clay	>50	25.0
	4.5	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	30.0

BH-05	1.5	Reddish Brown Sandy silt with clay	>50	20
	3.0	Reddish Brown Sandy silt with clay	>50	25.0
	4.5	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	30.0
BH-06	1.5	Reddish Brown Sandy silt with clay	>50	19.0
	3.0	Reddish Brown Sandy silt with clay	>50	25.0
	4.5	Soft Disintegrated Rock(Brown Sandy silt with trace mica)	>50	30.0
Trial Pit-1	1.5	Reddish Brown Sandy silt with clay		15.0
Trial Pi-2	1.5	Reddish Brown Sandy silt with clay		16.0
Trial Pit-3	1.5	Reddish Brown Sandy silt with clay		15.0
Trial Pit-4	1.5	Reddish Brown Sandy silt with clay		18.0
Trial Pit-5	1.5	Reddish Brown Sandy silt with clay		18.0
Trial Pit-6	1.5	Reddish Brown Sandy silt with clay		18.0

- This may be raft Foundation or combined footing or block foundation.
- All depth of foundations are given with respect to top of natural ground level.

All loose soil in the foundation shall be removed before placing the concrete. Any change in soil strata if found during execution shall be brought to the notice of the Engineer-in-charge

- All loose soil in the foundation shall be removed before placing the concrete. Any change in soil strata if found during execution shall be brought to the notice of the Engineer-in-charge

- The safe bearing capacity is calculated using C, ϕ values from the laboratory Investigation and with allowable differential settlement of 20mm & allowable total settlement of 25mm .The allowable soil pressure is also calculated based on N values as per IS 6403-1981 & IS 12070 with allowable total settlement of 40mm .The least of the two is recommended for the design. A typical calculation is shown in appendix. The recommendation is restricted to the location around the investigation points only.

For Sri Guru Engineering Consultancy Services.,

Satish.B.H. M Tech.
Technical Officer

APPENDIX

SAFE BEARING CAPACITY

From Shear failure criteria

qa=(1.3*0.67*C*Nc'+r*Df*(Nq'-1)*Rw1+0.4*r*B*N r*Rw2)/2.5+r*Df

BH1-1.50	262
C (T/m2)	0.82
Bf(m)	2
Df(m)	1.5
Rw1	1
Rw2	1
r (T/m3)	1.86
ϕ	28
ϕ′	20
Nc'	14.830
Nq'	6.4
Nr'	5.39
Rd	1.2
SBC (T/m2)	16.29
Rw2	1

BH2-1.50	262
C	1.02
Bf	2
Df	1.5
Rw1	1
Rw2	1
r	1.79
ϕ	31
ϕ′	22
Nc'	17.186
Nq'	8.104
Nr'	7.586
Rd	1.2
SBC	20.76
Rw2	1

For 40mm Allowable SETTLEMENT CRITERIA

N	39
N'	27
N''	21

qa=54.4(N-3)(B+0.3/2xB)2 xRdxRw2

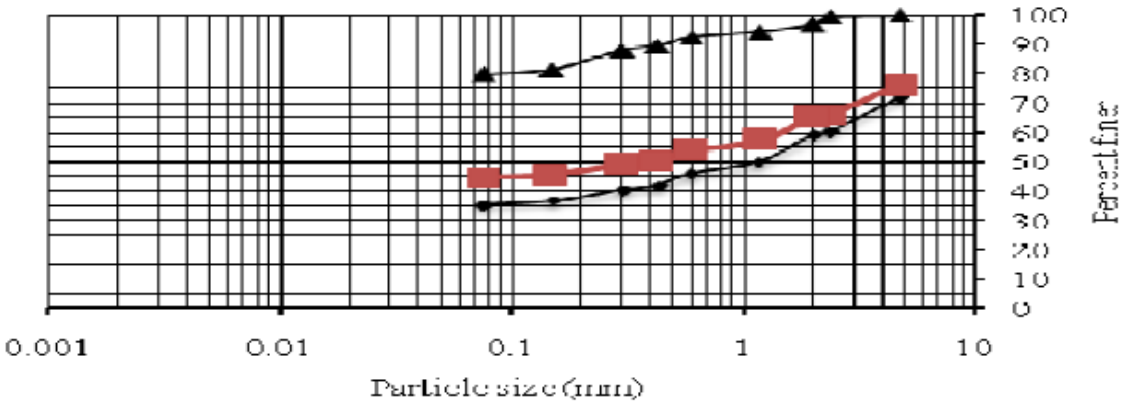
qa	524.47	KN/m2
	52.45	T/m2
qa	391.74	KN/m2
	39.17	T/m2
Recommended	16.00T/m2	

N	50
N'	35
N''	25

qa=54.4(N-3)(B+0.3/2xB)2 xRdxRw2

qa	690.66	KN/m2
	69.07	T/m2
qa	474.83	KN/m2
	47.48	T/m2
Recommended	20 T/m2	

BORE HOLE-1



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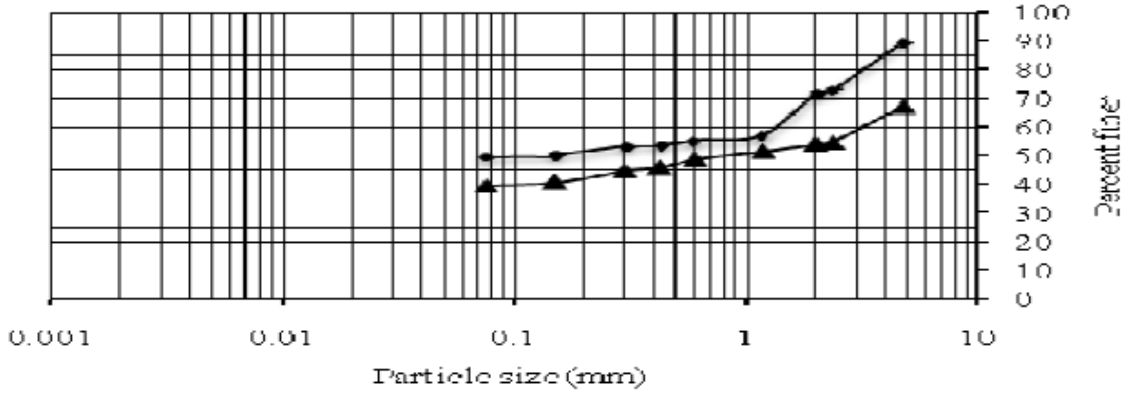

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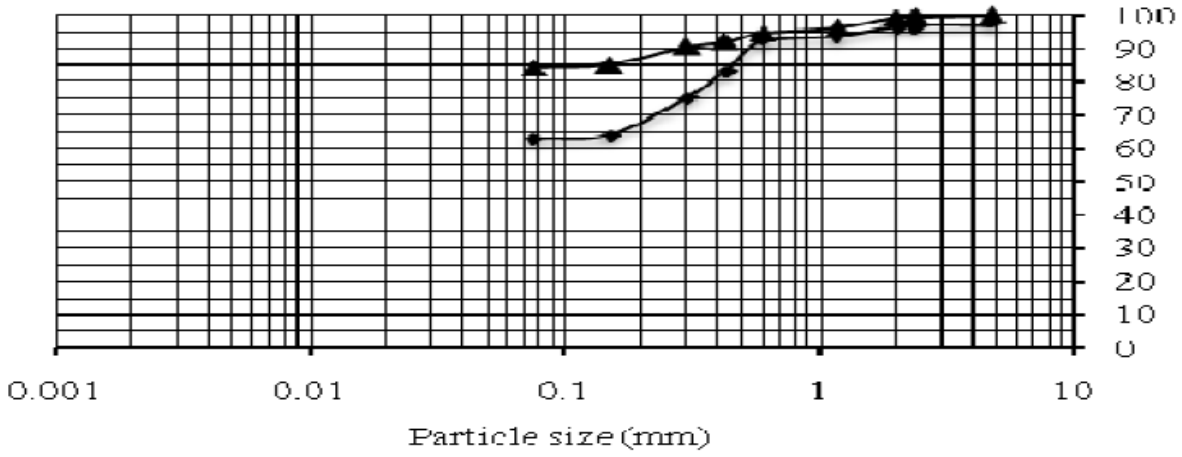
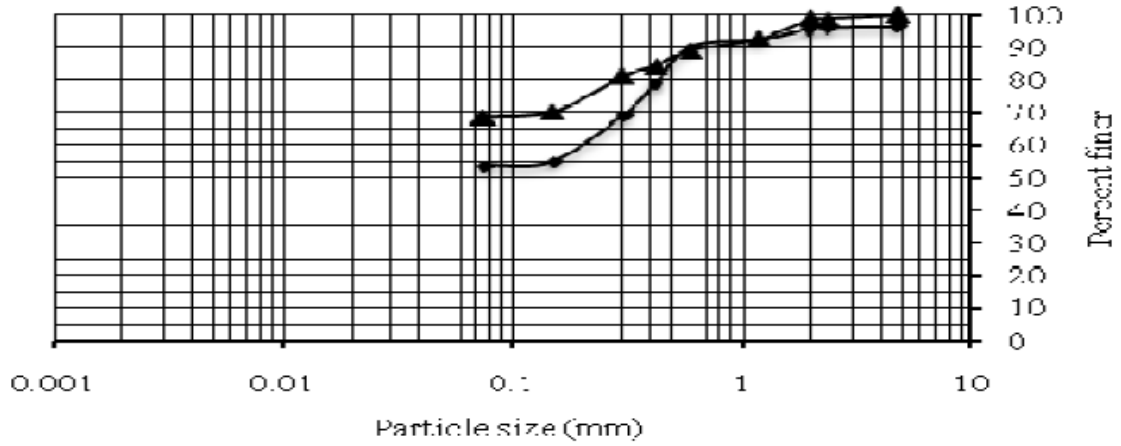


BORE HOLE-4

BORE HOLE No.4 SGECS/SI/260/2016-17



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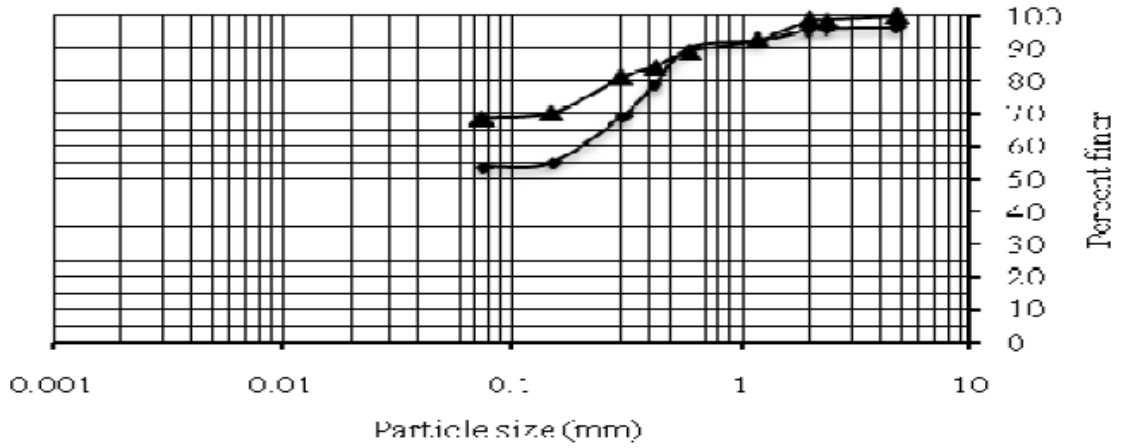

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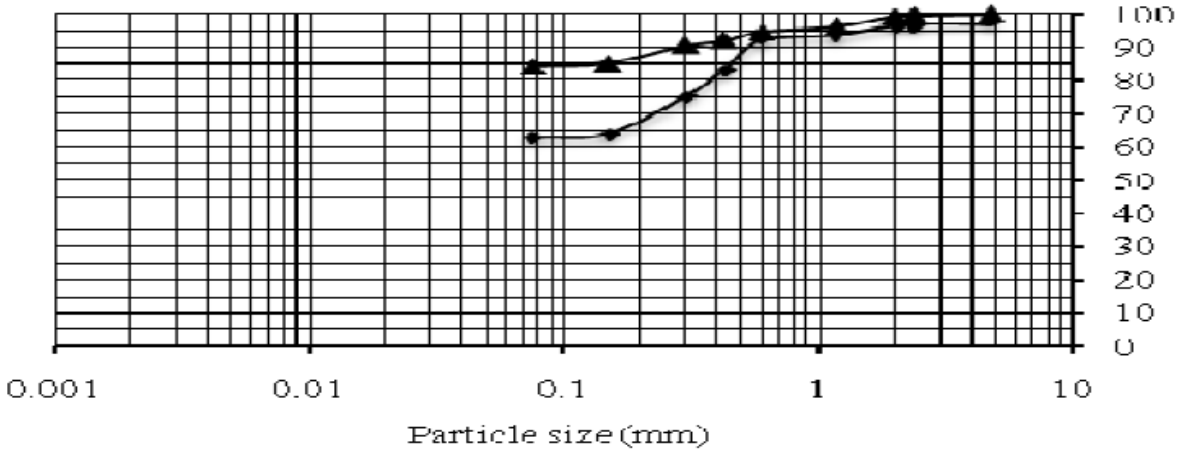

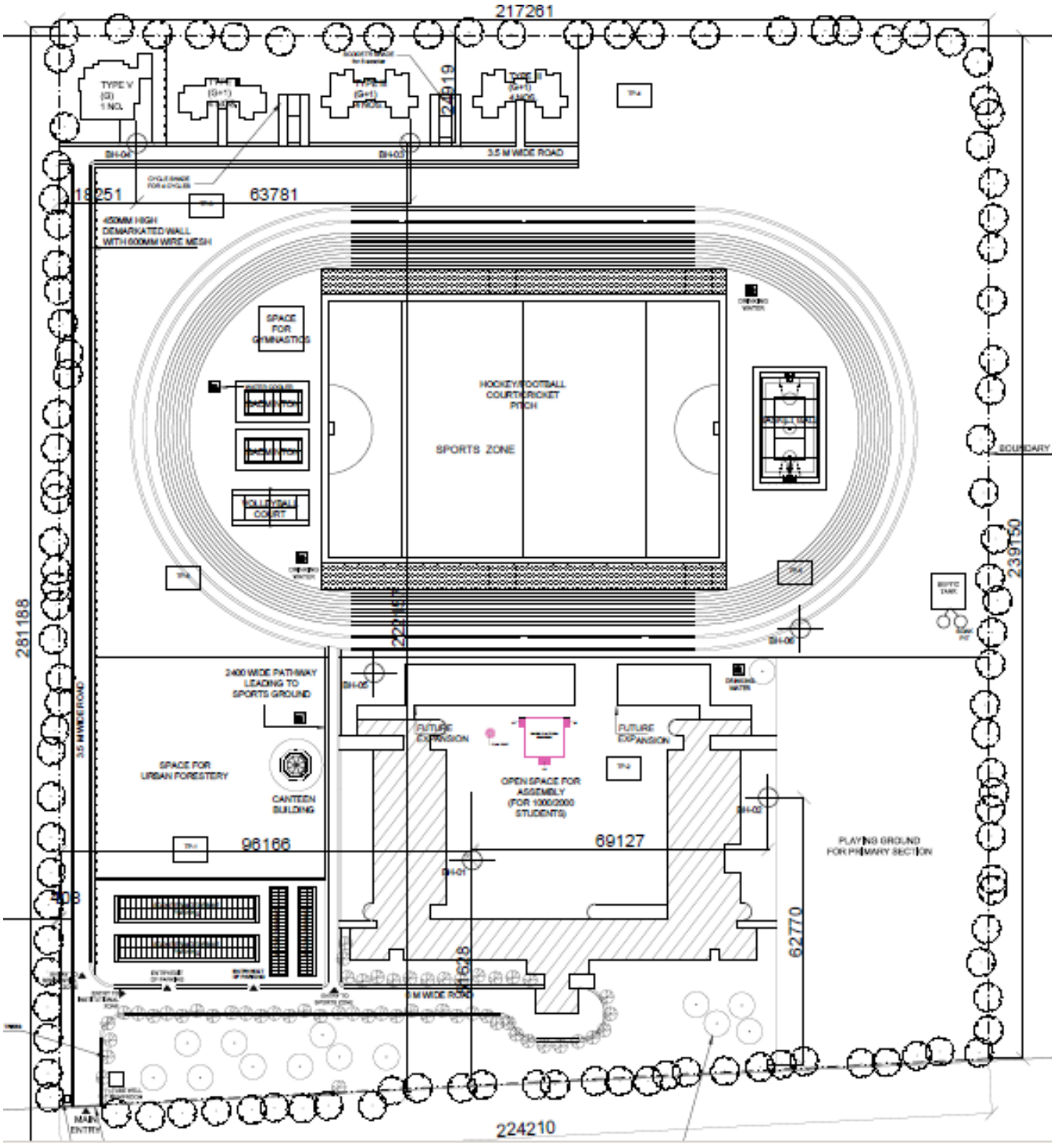

LOCATION OF BORE HOLES & TRIAL PITS

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling	Mechnical Drilling	BH-01	Bore hole level	0.00
			Ground water level	Not Encountered

Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohesive Strength	Angle of Internal Friction
					%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL													
1.00		Reddish Brown Sandy Silt with clay													
			UDS/1.50		0.2	3.0	7.2	9.7	79.9	24	4	6.20	1.98	0.82	31
2.00			SPT/2.00	N=39 10/11/28	27.6	12.9	17.2	6.8	35.5						
3.00			SPT/3.00	N>50 52/R (rebound 6cm Balance)	23.7	11.1	14.7	5.8	44.7						
					Core Recovery		Rock quality disgnation		Unit wt of Rock	Compressive Strength kg/m2					
4.00		Soft Disintgrated Rock(Brown Sandy silt with trace mica)	CS/3.5		CR-0%		RQD-0%		-	-					
5.00			CS/4.5		CR-0%		RQD-0%		-	-					
6.00			CS/5.5		CR-0%		RQD-0%		-	-					
7.00			CS/6.5		CR-0%		RQD-0%		-	-					
8.00															
10.00			CS/7.5		CR-0%		RQD-0%		-	-					

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	08.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling	Mechnical Drilling	BH-02	Bore hole level	0.00
			Ground water level	Not Encountered

Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohesive Strength	Angle of Internal Friction
					%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL													
1.00		Brownish Sandy silt with clay													
			UDS/1.50		32.96	13.14	7.92	6.36	39.62	23	5	6.20	1.90	1.02	36
2.00			SPT/2.00	N>50 54/R (rebound-4cm)	10.20	18.20	17.60	4.6	49.4						
					Core Recovery		Rock quality disgnation		Unit wt of Rock	Compressive Strength kg/m2					
3.00		Soft Disintgrated Rock(Brown Sandy silt with trace mica)	CS/2.5		CR-0%		RQD-0%		-	-					
4.00			CS/3.5		CR-0%		RQD-0%		-	-					
5.00			CS/4.5		CR-0%		RQD-0%		-	-					
6.00			CS/5.5		CR-0%		RQD-0%		-	-					
7.00			CS/6.5		CR-0%		RQD-0%		-	-					
8.00															
10.00			CS/7.5		CR-0%		RQD-0%		-	-					

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling		Mechnical Drilling		**BH-03**						Bore hole level **Ground water level**				0.00 Not Encountered		
Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters		
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohesive Strength	Angle of Internal Friction	
					%	%	%	%	%	%		%	g/cc	T/m2	(ф)	
0.00		Existing GL														
1.00																
		Reddish Brown Sandy silt with clay	UDS/1.50		0.04	0.64	7.28	7.76	84.28	36	7	6.20	1.92	0.82	25	
2.00			SPT/2.00	N=41	2.67	0.67	13.33	20.27	63.07							
				18/18/23												
3.00			SPT/3.00	N>50	Core Recovery		Rock quality disgnation		Unit wt of Rock		Compressive Strength kg/m2					
				56/R (rebound 10cm Balance)												
4.00		Soft Disintgrated Rock(Brown Sandy silt with trace mica)	CS/3.5		CR-0%		RQD-0%		-		-					
5.00			CS/4.5		CR-0%		RQD-0%		-		-					
6.00			CS/5.5		CR-0%		RQD-0%		-		-					
7.00			CS/6.5		CR-0%		RQD-0%		-		-					
8.00																
10.00																

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	10.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling		Mechnical Drilling		**BH-04**						**Bore hole level**			0.00		
										Ground water level			**Not Encountered**		
Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohessive Strength	Angle of Internal Friction
					%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
		Existing GL													
1.00		Reddish Brown Sandy silt with clay													
			UDS/1.50		0.1	1.3	14.6	15.5	68.6	31	6	8.20	1.92	0.94	28
2.00			SPT/2.00	N>50 58/R (rebound 8cm Balance)	3.3	0.8	16.7	25.3	53.8						
		Soft Disintgrated Rock(Brown Sandy silt with trace mica)			Core Recovery		Rock quality disgnation		Unit wt of Rock	Compressive Strength kg/m2					
3.00			SPT/3.00												
			CS/3.0		CR-0%		RQD-0%		-	-					
4.00															
			CS/4.0		CR-0%		RQD-0%		-	-					
5.00															
			CS/5.0		CR-0%		RQD-0%		-	-					
6.00															
			CS/6.0		CR-0%		RQD-0%		-	-					
7.00															
			CS/7.0		CR-0%		RQD-0%		-	-					
8.00															
10.00															

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	10.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling		Mechnical Drilling		**BH-05**						**Bore hole level**			0.00		
										Ground water level			**Not Encountered**		
Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohessive Strength	Angle of Internal Friction
					%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
		Existing GL													
1.00		Reddish Brown Sandy silt with clay													
			UDS/1.50		0.1	1.5	15.2	18.2	65.0	32	6	8.80	1.92	0.92	26
2.00			SPT/2.00	N>50 58/R (rebound 10cm	3.3	0.8	16.7	25.3	53.8						
		Soft Disintgrated Rock(Brown Sandy silt with trace mica)			Core Recovery		Rock quality disgnation		Unit wt of Rock	Compressive Strength kg/m2					
3.00			SPT/3.00												
			CS/3.5		CR-0%		RQD-0%		-	-					
4.00															
			CS/4.5		CR-0%		RQD-0%		-	-					
5.00															
			CS/5.0		CR-0%		RQD-0%		-	-					
6.00															
			CS/6.0		CR-0%		RQD-0%		-	-					
7.00															
			CS/7.0		CR-0%		RQD-0%		-	-					
8.00															
10.00															

BORE LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client	M/s BUILDCON SOLUTIONS L-11,2nd Floor, DDA SFS Flats, Sarita Vihar, New Delhi-110076	Project No: SGECS/SI/260/2016-17 **Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		Bore hole Terminated at 10.0m

Method of Drilling	Mechnical Drilling	BH-06	Bore hole level	0.00
			Ground water level	Not Encountered

Depth Below RL in mt	Legend	Soil Description	Sample Type& Depth in m	SPT Value	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
					Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohesive Strength	Angle of Internal Friction
					%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL													
1.00		Reddish Brown Sandy silt with clay	UDS/1.50		0.04	0.80	6.90	7.16	85.10	35	7	7.00	1.92	0.84	26
2.00			SPT/2.00	N=41 18/18/23	2.67	0.67	13.33	20.27	63.07						
3.00			SPT/3.00	N>50 56/R (rebound 8 cm Balance)	Core Recovery		Rock quality disgnation		Unit wt of Rock	Compressive Strength kg/m2					
4.00		Soft Disintgrated Rock(Brown Sandy silt with trace mica)	CS/3.0		CR-0%		RQD-0%		-	-					
5.00			CS/4.0		CR-0%		RQD-0%		-	-					
6.00			CS/5.5		CR-0%		RQD-0%		-	-					
7.00			CS/6.5		CR-0%		RQD-0%		-	-					
8.00															
10.00															

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M

Method of Excavation	Manual	TRIAL PIT-1	Ground water level	Not Encountered

Depth Below RL in mt	Legend	Soil Description	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
			Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohesive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00		Reddish Brown Sandy silt with clay											
			0.04	0.90	6.86	8.10	84.10	35	6	7.50	1.92	0.84	28
2.00													

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M

Method of Excavation	Manual	**TRIAL PIT-2**						Ground water level			Not Encountered		
Depth Below RL in mt	Legend	Soil Description	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
			Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohessive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00													
		Reddish Brown Sandy silt with clay	0.06	0.80	6.50	8.40	84.24	35	6	7.50	1.92	0.89	29
2.00													

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M

Method of Excavation	Manual	**TRIAL PIT-3**						Ground water level			Not Encountered		
Depth Below RL in mt	Legend	Soil Description	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
			Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohessive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00													
		Reddish Brown Sandy silt with clay	0.1	1.3	14.6	15.5	68.6	35	6	7.50	1.92	1.02	30
2.00													

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M

Method of Excavation		Manual	**TRIAL PIT-4**					**Ground water level**			Not Encountered		
			Grain Size Analysis									Shear Parameters	
Depth Below RL in mt	Legend	Soil Description	Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Cohesive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00		Reddish Brown Sandy silt with clay											
			32.96	13.14	7.92	6.36	39.62	23	5	6.20	1.90	1.02	36
2.00													

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M

Method of Excavation		Manual	**TRIAL PIT-5**					**Ground water level**			Not Encountered		
			Grain Size Analysis									Shear Parameters	
Depth Below RL in mt	Legend	Soil Description	Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay	Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Cohesive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00		Reddish Brown Sandy silt with clay											
			30.00	12.20	7.20	5.5	45.1	24	6	6.30	1.90	0.97	35
2.00													

TRIAL PIT LOG, SUB - SOIL PROFILE AND LABORATORY TEST RESULTS

Name and address of the client		**Date of field work**	09.05.2016
Name of the project	Soil Investigation Conducted for Proposed Construction Kendrya Vidayalaya School Building at RS NO 290, Karajagi Village & Hobli, Haveri Taluk & District, Karnataka.		TRIAL PIT UPTO 2.5 M
Method of Excavation	Manual	**TRIAL PIT-6**	**Ground water level** Not Encountered

Depth Below RL in mt	Legend	Soil Description	Grain Size Analysis					Liquid Limit	Plasticity Index	Insitu Moisture Content	Insitu Bulk Density	Shear Parameters	
			Gravel	Coarse Sand	Medium Sand	Fine Sand	Silt & Clay					Cohessive Strength	Angle of Internal Friction
			%	%	%	%	%	%		%	g/cc	T/m2	(ϕ)
0.00		Existing GL											
1.00		Reddish Brown Sandy silt with clay											
			20.60	9.50	7.90	8.2	53.8	25	7	6.90	1.90	0.95	33
2.00													