



#### Section - 6

## **SPECIFICATIONS**

(General specifications have been mentioned in drawings and Bills of Quantities)





#### **Specifications**

#### **General Specifications.**

The works under this contract shall be executed in accordance with the specifications given in the following document issued by the construction Industry Development Authority (CIDA), "Savsiripaya", Wijerama Mawatha, Colombo 07, as applicable. The Specification given in this document, if any, shall take precedence over the CIDA documents wherever relevant.

1.Specification for site investigation for Building & Civil Engineering works Sri Lanka CIDA publication ICTAD/DE V/17R.

#### **Particular Specifications**

- 1.All the Bore hole shall proceed up to the fresh rock and penetrate 2.0 m within the fresh rock. Report shall include all necessary parameters required for foundation design.
- 2.Bidder shall submit qualification details of all key personals involving for whole process of sample collection to foundation recommendation with the bidding documents.
- 3.Bidder shall submit sample report satisfying the specified requirements along with the bidding documents. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site.

The report shall include design criteria, correlations, formulas and references used to define parameters

4.Daily progress of the site including site bore hole record shall be submitted to the CMC and format of them shall be submitted with bidding document.

Non submission of any of above may lead to reject the bid.

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#### • Section - 7

## • BILLS OF QUANTITIES

- 1. Include Preliminary Bill items as Bill No. 1
- 2. VAT Component shall be filled in Bills of Quantities and it shall not be carried to Form of Bid.
- 3. Any discount offered will not be considered for Provisional Sum Items





# COLOMBO MUNICIPAL COUNCIL

### MUNICIPAL ENIGNEERS' DEPARTMENT

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Issued to:	
Form fee:	Form fee receipt No

### BILL OF QUANTITIES AND SCHEDULE OF RATES

scription of work	Soil Investigation conc
vseripitori or ivora	
	for Proposed new Construction
	works in budget 2021
•	
Drawing No	:

Bill NO 1 - Preliminaries

#### Note:

The pricing of this bill is optional. But, omission to price this bill will not exempt the bidder from complying with the Conditions of Contract and the cost of executing these items shall be deemed covered by the other rates and prices in the Bill of Quantities. This libe paid pro-rata according to the work done on each of the bills tendered for.

This bill provides for the typical general items complementary to the works which are required to be provided by the Contractor in compliance with the General Conditions of Contract (General obligations).

The Contractor should price item 15 for the minimum personnel stipulated in the Bid document for providing Construction Management Services above the supervisory grade.

The Bidder in pricing the provisional item 15 shall furnish the names and qualifications of such personnel and indicate whether they are in house or on contract, and if on contract accompany a firm commitment from the individual or the firm. Payment against provisional items will be certified by the Engineer on compliance by the Contractor in the manner listed in Clause 63 of Conditions of Contract.

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Item No	Description	Amount(Rs)
1	Allow Lump Sum for providing security bonds and guarantees etc.(Item)	
2	Allow lump sum for providing a performance guarantee/Bond.(Item)	•
3	Provide Lump sum for taking adequate precautions to minimize any damage to existing utility service lines belongs to drainage division of CMC, NWS&DB, CEB, etc. to decide upon the exact location of the borehole against tentative location given in the site layout to the satisfaction of Engineer.(item)	
4	Allow Lump sum for complying with Condition Of Contract not specified above.(Item)	
~	<i>,</i>	
		*
		•
	*	
	Total carried over to Summary	











# Bill of Quantities for Soil Investigation for Construction of Proposed New Depot and Quarters at Campbell Park.

Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	BILL NO 02	2		•	
	Note:				
	Quantities are given for two boreholes. Rate has to be done accordingly.				
	2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.	,			,
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				
	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item	A COMPANY OF LATER OF		
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		
2.3	Drilling through overburden				
2.3.1	i) 0m - 10m	m.	20		
2.3.2	ii) 10m - 20m	m	20		TO COMPANY TO SHARE
2.3.3	iii) 20m - 30 m	m	20		BOOK WARRY TO THE RE
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	6		
2.3.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		On the Property of the Control of th
2.3.7	Conducting standard penetration test	nr	60		
2.3.8	Collection of undisturbed samples		2		Particular Co.

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1	Item	Description	Unit	Qty	Rate Rs.	Arnount Rs.
	2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)				
	2.4.1	a). Natural Moisture Content	Per test			
	2.4.2	b). Bulk and dry density	Per test			,
	2.4.3	c). Atterberg Limits	Per test			
	2.4.4	d). Sieve Analysis	Per test			
	2.4.5	e). Hydrometer Analysis	Per test			
	2.4.6	f.) Specific Gravity	Per test			
	2.4.7	g). Triaxial test		a		,
	2.4.7.1	UU	Per test			
	2.4.7.2	CU	Per test	(5) S		
9	2.4.8	h). Consolidation	Per test			
	2.4.8.1	i). pH, Sulphate, Chloride contents of ground water				
-	2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test			
	2.5	Preparation of geotechnical investigation report	Item	ų.		
		Total of Bill 02 carried to Main Summery				





# Bill of Quantities for Soil Investigation for Construction of Proposed New fire station at Kirulapana.

Description	Unit	Qty	Rate Rs.	Amount Rs.
BILL NO 03			•	
Note:				
Quantities are given for three boreholes. Rate has to be done accordingly.				
2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				,
3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				
3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			•	
Transport of men and equipment to site, mobilization and demobilization including site visits	Item			
Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	3		Wilescond Control Cont
Drilling through overburden		the characters of		THE CALL OF THE CA
1 i) 0m - 10m	m	30		
	m	30		
	m	30		agenty Con-
	m	9		And another resident
	m	9		No. Completely virginities and section of the secti
6 Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		CORE AND TAXABLE PARAMETERS OF THE PARAMETERS OF
.7 Conducting standard penetration test	nr	60		
Toolidadang danies a period				
3	BILL NO 03 Note:  1. Quantities are given for three boreholes. Rate has to be done accordingly.  2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.  3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.  3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.  Transport of men and equipment to site, mobilization and demobilization including site visits  Shifting and setting up Drilling Machine within the work site (including setting up a platform).  Drilling through overburden  ii) 0m - 10m  iii) 10m - 20m  iii) 20m - 30 m  Drilling through weathered rock type I (CR < 50%)  Drilling through weathered rock type II (CR > 50% and RQD < 50%)  Drilling through hard rock (CR > 50% and RQD > 50%)	BILL NO 03 Note:  1. Quantities are given for three boreholes. Rate has to be done accordingly.  2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.  3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.  3. 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Drilling through hard rock (CR > 50% and RQD > 50%)	BILL NO 03 Note:  1. Quantities are given for three boreholes. Rate has to be done accordingly.  2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.  3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.  3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. 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Drilling through weathered rock type II (CR > 50% and m 9 Pilling through hard rock (CR > 50% and RQD > 50%)  3. Drilling through hard rock (CR > 50% and RQD > 50%)  4. Drilling through hard rock (CR > 50% and RQD > 50%)







	Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)			110.	173.
	2.4.1	a). Natural Moisture Content	Per test			
	2.4.2	b). Bulk and dry density	Per test			
	2.4.3	c). Atterberg Limits	Per test			
	2.4.4	d). Sieve Analysis	Per test			
	2.4.5	e). Hydrometer Analysis	Per test			
	2.4.6	f.) Specific Gravity	Per test			
	2.4.7	g). Triaxial test				,
	2.4.7.1	UU	Per test			
	2.4.7.2	CU	Per test	¥		e + 5
9	2.4.8	h). Consolidation	Per test			
1	2.4.8.1	i). pH, Sulphate, Chloride contents of ground water				
	2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test		* *	- A - ,
	2.5	Preparation of geotechnical investigation report	Item			
	D.	Total of Bill 03 carried to Main Summery				



## Bill of Quantities for Soil Investigation for Construction of Jayawardane Ground Pavilion.

Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	BILL NO 04			•	
	Note:				
	Quantities are given for two boreholes. Rate has to be done accordingly.				
	2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				ŕ
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				
	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item	AND COMPANY AND AND COMPANY AND AND COMPANY AND COMPAN		
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		
2.3	Drilling through overburden				
2.3.1	i) 0m - 10m	m	20		
2.3.2	ii) 10m - 20m	m	20		Control of the Contro
2.3.3	iii) 20m - 30 m	m	20		
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	6		
2.3.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		Approximate a participant
2.3.7	Conducting standard penetration test	nr	60		
2.3.8	Collection of undisturbed samples	nr	2		







		1							
.6	Item	Description	Unit	Qty	Rate	Amount			
	2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)			Rs.	Rs.			
1	2.4.1	a). Natural Moisture Content	Per test			~			
	2.4.2	b). Bulk and dry density	Per test						
	2.4.3	c). Atterberg Limits	Per test						
	2.4.4	d). Sieve Analysis	Per test						
	2.4.5	e). Hydrometer Analysis	Per test	i.		) · · · · ·			
	2.4.6	f.) Specific Gravity	Per test						
	2.4.7	g). Triaxial test							
	2.4.7.1	υυ	Per test			,			
	2.4.7.2	cu	Per test	-					
	2.4.8	h). Consolidation	Per test						
	2.4.8.1	i). pH, Sulphate, Chloride contents of ground water							
	2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test	E J		S .			
	2.5	Preparation of geotechnical investigation report	Item	اخي					
		Total of Bill 04 carried to Main Summery			g #				
						1			





Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
-	BILL NO 05				
	Note:				, at the same
5 5	Quantities are given for two boreholes. Rate has to be done accordingly.				
	2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				
1	<u> </u>		5		
3 <sup>3</sup>	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after		,×		
	Msc qualification. The report should consist with suitable foundation types with at least 3 options including, allowable bearing capacity and tolerable			· ·	. s ext i .
y 's	settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item			
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		* .
2.3	Drilling through overburden				16
2.3.1	i) 0m - 10m	m	20		
2.3.2	ii) 10m - 20m	m	20		
2.3.3	iii) 20m - 30 m	m	20		a.
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	6	9 a s	e e e
2.3.6	Drilling through hard rock (CR`> 50% and RQD > 50%)	m	4		
2.3.7	Conducting standard penetration test	nr	60		
2.3.8	Collection of undisturbed samples	111	2		





- 8						
1	Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)				
	2.4.1	a). Natural Moisture Content	Per test			ti.
	2.4.2	b). Bulk and dry density	Per test			
	2.4.3	c). Atterberg Limits	Per test			
	2.4.4	d). Sieve Analysis	Per test	a -	8	
	2.4.5	e). Hydrometer Analysis	Per test			
	2.4.6	f.) Specific Gravity	Per test			
	2.4.7	g). Triaxial test				,
	2.4.7.1	υU	Per test			
	2.4.7.2	CU	Per test			*
-	2.4.8	h). Consolidation	Per test			
ĺ	2.4.8.1	i). pH, Sulphate, Chloride contents of ground water		,		V
	2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test		,	-
	2.5	Preparation of geotechnical investigation report	Item	g.b.		
		Total of Bill 05 carried to Main Summery	W 1 V			





### Bill of Quantities for Soil Investigation for Construction of Rajamalwatta Depot.

Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	BILL NO 06				
(9)	Note:				
	Quantities are given for two boreholes. Rate has to be done accordingly.				
	2. The standard penetration test should be conducted at				
	every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and				, i
	BS -5930.			,	
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				
	shall not take any responsibility for providing them.				
			10		
	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least				
	MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options including allowable bearing capacity and tolerable				
	settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			•	
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item			. *** ** **
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		ir
2.3	Drilling through overburden				
2.3.1	i) 0m - 10m	m	20		
2.3.2	ii) 10m - 20m	m	20		
2.3.3	iii) 20m - 30 m	m	20		
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	' m	6		
2.3.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		
2.3.7	Conducting standard penetration test	nr	60		
1	Collection of undisturbed samples	111	2		





	1							
	Item	Description	Unit	Qty	Rate	Amount		
	2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)			Rs.	Rs.		
1	2.4.1	a). Natural Moisture Content	Per test					
	2.4.2	b). Bulk and dry density	Per test					
	2.4.3	c). Atterberg Limits	Per test					
	2.4.4	d). Sieve Analysis	Per test			*		
	2.4.5	e). Hydrometer Analysis	Per test					
	2.4.6	f.) Specific Gravity	Per test					
	2.4.7	g). Triaxial test						
	2.4.7.1	UU	Per test			,		
	2.4.7.2	CU	Per test					
	2.4.8	h). Consolidation	Per test					
-	2.4.8.1	i). pH, Sulphate, Chloride contents of ground water		*		ē o		
	2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test					
	2.5	Preparation of geotechnical investigation report	Item	g.b.				
		Total of Bill 06 carried to Main Summery						





# Bill of Quantities for Soil Investigation for proposed stores and quarters building for Drainage Division and Veterinary department at Sarath fonseka Mawatha, Maligakanda,Colombo 10

Iten	n Description	Unit	Qty	Rate Rs.	Amount Rs.
	BILL NO 07	0			
	Note:				
	Quantities are given for two boreholes. Rate has to be done accordingly.		,		* w ,
	2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				,
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.			·	
	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with suitable foundation types with at least 3 options		,		
	including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	e e e e
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item			
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		
2.3	Drilling through overburden				
2.3.1	i) 0m - 10m	m	20		
2.3.2	ii) 10m - 20m	m	20		
2.3.3	iii) 20m - 30 m	m	20		
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	6		
2.3.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		
2.3.7	Conducting standard penetration test		60		
2.3.8	Collection of undisturbed samples	nr nr	2		





Item	Description	Unit	Qty	Rate	Amount
2.4	Classification and conducting laboratory tests (only the			Rs.	Rs.
	necessary tests to be carried out)				
2.4.1	a). Natural Moisture Content	Per test			
2.4.2	b). Bulk and dry density	Per test			
2.4.3	c). Atterberg Limits	Per test			
2.4.4	d). Sieve Analysis	Per test			
2.4.5	e). Hydrometer Analysis	Per test			
2.4.6	f.) Specific Gravity	Per test			e .
2.4.7	g). Triaxial test				7
2.4.7.1	UU	Per test			
2.4.7.2	CU	Per test			
2.4.8	h). Consolidation	Per test			
2.4.8.1	i). pH, Sulphate, Chloride contents of ground water		1		
2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test			
2.5	Preparation of geotechnical investigation report	Item	ga <sup>te</sup>		
1	Total of Bill 07 carried to Main Summery				,





# Bill of Quantities for Soil Investigation for proposed Pavilion for Rudra playground , Wellawatta.

lt.	em	Description	Unit	Qty	Rate Rs.	Amount Rs.
		BILL NO 08 Note:			•	
		Quantities are given for two boreholes. Rate has to be done accordingly.				
		2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				
		3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.			,	
ŧ		3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with				
		suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	. 6 4 7
2.	1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item			
2.3	2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		
2.3	3	Drilling through overburden			,	W 1813
2.3	.1	i) 0m - 10m	m	20		
2.3	.2	ii) 10m - 20m	m	20		
2.3.	.3	iii) 20m - 30 m	m	20		
2.3.	.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.		Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	6		
2.3.	.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		
2.3.	7	Conducting standard penetration test	pr	60		
2.3.	8	Collection of undisturbed samples	nr nr	2		





Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)				
2.4.1	a). Natural Moisture Content	Per test			
2.4.2	b). Bulk and dry density	Per test			
2.4.3	c). Atterberg Limits	Per test		ii.	
2.4.4	d). Sieve Analysis	Per test			
2.4.5	e). Hydrometer Analysis	Per test			
2.4.6	f.) Specific Gravity	Per test			
2.4.7	g). Triaxial test		9		,
2.4.7.1	υυ	Per test			
2.4.7.2	CU	Per test			
2.4.8	h). Consolidation	Per test		*	
2.4.8.1	i). pH, Sulphate, Chloride contents of ground water	2			
2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test			
2.5	Preparation of geotechnical investigation report	Item	*		
	Total of Bill 08 carried to Main Summery				



# Bill of Quantities for Soil Investigation for proposed & Renovation to Madampitiya Bridge.

Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
	BILL NO 09				
	Note:		* .		7 1 - 1
	Quantities are given for two boreholes. Rate has to be done accordingly.				
	2. The standard penetration test should be conducted at every 1.00m depth intervals down to bed rock level and all testing will be carried out as per the BS - 1377 and BS -5930.				· · ·
	3. Rate shall include for necessery electricity and water supply arrangement to complete the work in order. CMC shall not take any responsibility for providing them.				A + 5%
	3. Preparation of geotechnical investigation report and recommendation for suitable foundation should be given by a recognized geotechnical Engineer who has at least MSc in geotechnical field and 5 years' experience after Msc qualification. The report should consist with		*	J.	
	suitable foundation types with at least 3 options including allowable bearing capacity and tolerable settlements with calculation. The loads for footing will be provided by CMC when mobilizing to the site. The report shall include design criteria, correlations, formulas and references used to define parameters.			,	
2.1	Transport of men and equipment to site, mobilization and demobilization including site visits	Item			
2.2	Shifting and setting up Drilling Machine within the work site (including setting up a platform ).	nr	2		
2.3	Drilling through overburden				
2.3.1	i) 0m - 10m	m	20		
2.3.2	ii) 10m - 20m	m	20		
2.3.3	iii) 20m - 30 m	m	20		
2.3.4	Drilling through weathered rock type I (CR < 50%)	m	6		
2.3.5	Drilling through weathered rock type II (CR > 50% and RQD < 50%)	m	, 6		
2.3.6	Drilling through hard rock (CR > 50% and RQD > 50%)	m	4		
2.3.7	Conducting standard penetration test	nr	60		
2.3.8	Collection of undisturbed samples	nr	2		



(51)



Item	Description	Unit	Qty	Rate Rs.	Amount Rs.
2.4	Classification and conducting laboratory tests (only the necessary tests to be carried out)				
2.4.1	a). Natural Moisture Content	Per test			
2.4.2	b). Bulk and dry density	Per test	.5	٠	2 .
2.4.3	c). Atterberg Limits	Per test			
2.4.4	d). Sieve Analysis	Per test			
2.4.5	e). Hydrometer Analysis	Per test			
2.4.6	f.) Specific Gravity	Per test			,
2.4.7	g). Triaxial test	*		*	. ,
2.4.7.1	UU	Per test			
2.4.7.2	CU	Per test			* , 8
2.4.8	h). Consolidation	Per test			
2.4.8.1	i). pH, Sulphate, Chloride contents of ground water				
2.4.8.2	j). Uniaxial Compressive Strength of Rock	Per test Per test			
2.5	Preparation of geotechnical investigation report	Item	. *		5
	Total of Bill 09 carried to Main Summery	THE RESIDENCE OF STREET, STREE			Annual an





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# Bill of Quantities for Soil Investigation for 2021 Budget proposals.

#### MAIN SUMMARY

MAIN SUMMARY	
DESCRIPTION	AMOUNT RS.
PRELIMINARIES	
SOIL INVESTIGATION WORK FOR NEW DEPOT AND QUARTERS AT CAMPBELL PARK	
SOIL INVESTIGATION FOR CONSTRUCTION OF PROPOSED NEW FIRE STATION AT KIRULAPANA.	
SØIL INVESTIGATION FOR CONSTRUCTION OF JAYAWARDANE GROUND PAVILION.	
SOIL INVESTIGATION FOR CONSTRUCTION OF DRUG REHABILITATION CENTER.	ř
SOIL INVESTIGATION FOR CONSTRUCTION OF RAJAMALWATTA DEPOT.	÷
SOIL INVESTIGATION FOR PROPOSED STORES AND QUARTERS BUILDING FOR DRAINAGE DIVISION AND VETERINARY DEPARTMENT AT SARATH FONSEKA MAWATHA, MALIGAKANDA,COLOMBO 10	,
FOR SOIL INVESTIGATION FOR PROPOSED PAVILION FOR RUDRA PLAYGROUND, WELLAWATTA.	
FOR SOIL INVESTIGATION FOR PROPOSED RENOVATION TO MADAMPITIYA BRIDGE.	-
SUB TOTAL	
ADD 10% CONTINGENCIES	
TENDER PRICE (BID PRICE)	
ADD 8% VAT	
FINAL COST (WITH TAXES)	
	PRELIMINARIES  SOIL INVESTIGATION WORK FOR NEW DEPOT AND QUARTERS AT CAMPBELL PARK  SOIL INVESTIGATION FOR CONSTRUCTION OF PROPOSED NEW FIRE STATION AT KIRULAPANA.  SOIL INVESTIGATION FOR CONSTRUCTION OF JAYAWARDANE GROUND PAVILION.  SOIL INVESTIGATION FOR CONSTRUCTION OF DRUG REHABILITATION CENTER.  SOIL INVESTIGATION FOR CONSTRUCTION OF RAJAMALWATTA DEPOT.  SOIL INVESTIGATION FOR PROPOSED STORES AND QUARTERS BUILDING FOR DRAINAGE DIVISION AND VETERINARY DEPARTMENT AT SARATH FONSEKA MAWATHA, MALIGAKANDA, COLOMBO 10  FOR SOIL INVESTIGATION FOR PROPOSED PAVILION FOR RUDRA PLAYGROUND, WELLAWATTA.  FOR SOIL INVESTIGATION FOR PROPOSED RENOVATION TO MADAMPITIYA BRIDGE.  SUB TOTAL  ADD 10% CONTINGENCIES  TENDER PRICE (BID PRICE)

SIGNATURE OF TENDERER

DATE: