

SCHEDULE OF RATES

Sl. No.	Description of work	Quantity (Q)	UoM	Unit Rate (R)	Total Rate (T = R * Q)	Total GST (G = GST% of T)	Final Rate (G+T)
Package 1: Geotechnical Investigation							
1	Making Bore Holes as per Technical Specifications at various locations in all types of soil, performing Standard Penetration Tests as per specifications, collection of soil and water samples complete including storing, transporting of sample to laboratory, back-filling of boreholes all complete as per specifications and as directed by the Engineer in charge.						
(a)	From natural ground level to 5 m	35	RM				
2	Conducting Electrical Resistivity test as per IS: 3043 at specified location as shown in reference drawing and /or directed by Engineer	7	Each				

	3	<p>Making Trial Pits of specified size(3 m x 3 m) at various location up to 4.0 m depth in all type of soil and weathered rock which can be excavated with pickaxe/crow bar, including sheeting or shoring the sides for the purpose of stability dewatering and maintaining the pit dry at all times, collecting disturbed/undisturbed samples at 1.0 m interval, conducting in-situ density etc., testing by pocket penetrometer, collecting water samples and transporting all soil and water sample to laboratory, backfilling of the pits all complete as per the specification and direction of the Engineer in charge.</p> <p>Trial pits shall be backfilled and compacted with the excavated soil.</p>	3	Each				
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4	Conducting CBR tests as per specification, at specified location as shown in reference drawing and /or directed by Engineer.	3	Each				
5	Conducting various Laboratory Tests on soil samples at an approved laboratory including preparation of soil sample to determine the following properties- Note: Test for shear strength shall be dependent on soil type.						
(a)	Bulk Density and Moisture Content	28	Each				
(b)	Sieve Analysis	28	Each				
(c)	Hydrometer Analysis	28	Each				
(d)	Liquid Limit, Plastic Limit, Shrinkage Limit and Plasticity Index	28	Each				
(e)	Specific Gravity	28	Each				
(f)	Swell Pressure and Free Swell Index (samples up to 6m depth below GL)	14	Each				
(g)	Relative Density (for sand)	28	Each				
(h)	Unconfined Compressive Test	14	Each				
(i)	Tri-axial Shear Test						

	i) Unconsolidated Undrained Test	14	Each				
	ii) Consolidated Undrained Test with Pore Water Pressure	-	Each				
	iii) Consolidated Drained Test	-	Each				
(j)	Direct Shear Test	14	Each				
(k)	Chemical Analysis of soil as per specification	7	Each				
(n)	Consolidation test	14	Each				
6	Chemical Test on water samples for Carbonate, Sulphate, Chloride, pH value, organic matter, turbidity complete as per specification.	8	Each				
7	Submitting Report (soft copy of draft reports and final reports in both hard copy & soft copy) with all field and laboratory test records, graphs, charts, recommendations complete as specified.	1 Job	LS				

Package 2: Topographical Survey							
1	Submitting Report (soft copy of draft reports and final reports in both hard copy & soft copy) with contour drawing as detailed under specification	1 Job	LS				
TOTAL EVALUATED BID VALUE (TEBV) (Figures) (Package 1 + Package 2)							
TOTAL EVALUATED BID VALUE (TEBV) (Words) (Package 1 + Package 2)							

ANNEXURE-A

Sample for record: Summary of Laboratory Test Results - Rock Core Samples

BORE HOLE NO.	
DEPTH	
CORE PIECE NO.	
MOISTURE CONTENT	
SPECIFIC GRAVITY	
HARDNESS	
POROSITY	
DRY DENSITY	
SLAKE DURABILITY	
POINT LOAD STRENGTH INDEX	
DEFORMABILITY (DRY /SATURATED)	
UNCONFINED COMPRESSIVE STRENGTH (INSITU/SATURATED)	
CORE DESCRIPTION	
REMARKS	

ANNEXURE - B

Sample for Record: Boreholes

LOCATION	BH NO.	UTM COORDINATES			TERMINATING DEPTH	DEPTH OF WATER TABLE	TOP OF ROCK BELOW EGL
		EASTING	NORTHING	EGL RL (M)	(M)	(M)	(M)

Sample for Record: Borelog

[illegible]

ANNEXURE - C

Sample Format of Record: Trial Pit

Trial Pit No.	UTM Coordinates		E.G.L. (M)	Depth (M)	DWT (M)
	Easting	Northing			

ANNEXURE-D

Sample format of record: Electrical Resistivity Tests

Table – 1

Location	ERT No.	Co-ordinates (UTM)		Ground Level, (M)
		Easting	Northing	

Table – 2

Sl. No.	S (M)	(N - S)	(E - W)	Mean resistivity (Ohm-m)

ANNEXURE-E

Sample format of record: Laboratory Rock Test Result

	BH No.
	Run No.
	Depth (M)
	Description
	Bulk Density (gm/cm ³)
	Dry Density (gm/cm ³)
	Water Absorption (Natural) %
	Porosity (%)
	Specific gravity
	Unconfined Compressive Strength (N/mm ²)
	Dry
	Sat.
	Coefficient of Softening
	Point Load Index, (N/mm ²)
	Slake Durability Index (%)

ANNEXURE-F

Sample format of record: Standard Proctor Compaction & CBR Values

SI No.	Location	Sample No	Depth (M)	Description	Standard Proctor Compaction Test		CBR (%)		CBR (%)		Recommended CBR Value (%)
					OMC (%)	MDD (gm/cm³)	Unsoaked Condition	Soaked Condition	Unsoaked Condition	Soaked Condition	
							2.50mm Penetration	5.00mm Penetration	2.50mm Penetration	5.00mm Penetration	

ANNEXURE-G

Sample format of record: Swelling Index & Swelling Pressure Test Results

Bore Hole No.	Sample No.	Depth (M)	Description	Swelling Index (%)	Swelling Pressure (N/mm ²)	Plasticity Index (%)

ANNEXURE-H

Sample format of record: Recommended Net Allowable Bearing Capacity

Borehole No.	Structure/ Building	NGL (M)	Depth of Foundation below NGL (M)	Founding Level (R.L. in M)	Recommended Net Allowable Bearing Capacity (KN/m ²)			
					Isolated / Strip		Raft	
					S = 25mm	S = 40mm	S = 40mm	S = 75mm

ANNEXURE - I

Sample Format of Record: Chemical Test on Soil

BH No	Depth (M)	pH value	Sulphate (%) as		Chloride (%)	Nitrate (%)	Carbonates (%)	Organic Matter (%)
			SO ₃	SO ₄				

Sample Format of Record: Chemical Test on Water

BH No	Depth (M)	pH value	Sulphate (mg/l)	Chloride (mg/l)	Carbonate (mg/l)	Nitrate (mg/l)	Organic Matter (mg/l)	Turbidity (JTU)

ANNEXURE - J

Sample Format of Record: Laboratory Test

	Bore Hole	
	Sample Number	
	Depth (M)	
	Sample Description	
	KN/m ³	Bulk Density
	KN/m ³	Dry Density
		Specific Gravity
	%	Natural Moisture Content
		Void Ratio
	N/ mm ²	Pc/Pn
	N/ mm ²	Shear
	N/ mm ²	Cohesion
	Deg	Friction Angle
	%	LL
	%	PL
	%	SL
	Soil Classification	
	%	Gravel
	%	Sand
	%	Silt
	%	Clay

ANNEXURE - K

Khasra Map for Mithakhari Site

Attached separately with the tender document.