



4	Reconnaissance Geodetic Survey of an area to be surveyed and mapped on a scale larger than 1:5000 (i.e. 1:2500, 1:2000, 1:1000) on thick forest cover.	Hectare	1800/ha
5	Reconnaissance Geodetic Survey of an area to be surveyed and mapped on a scale of 1:500 in either within forest cover of barren/semi barren land	Hectare	1800/ha
6	Reconnaissance Geodetic Survey of alignment for new road construction in semi barren/barren land.	Km	3600/ha
7	Reconnaissance Geodetic Survey of alignment for new road construction in thick forest cover.	Km	4200/ha
8	Reconnaissance Geodetic Survey of an area for major projects/establishment.	Day	1800/ha
9	Reconnaissance Cadastral Survey (boundary survey)	Hectare	600/ha

## II. CONTOUR SURVEY

Sl. No.	Subject	Unit	Amount in Rs.
10.	Contour surveying of an area larger than 10 hectares on a scale of 1:500 in semi barren/barren land. (N.B. Add 50% of the job cost per hectare if the survey area falls below 10 hectares).	Hectare	8640/ha
11.	Contour surveying of an area larger than 10 hectares on a scale of 1:500 in thick forest land (N.B. Add 50% of the job cost per hectare if the survey area falls below 10 hectares).	Hectare	9360/ha
12.	Contour surveying of an area larger than 10 hectares on a scale of 1:1000 and 1:2000 in semi barren /barren land (N.B. Add 30% of the job cost per hectare if the survey area falls below 10 hectares)	Hectare	9690/ha
13.	Contour surveying of an area larger than 10 hectares on a scale of 1:1000 and 1:2000 either within thick forest cover or urban township or cities (N.B. Add 30% of the job cost per hectare if the survey area falls below 10 hectares)	Hectare	10290/ha
14.	Contour surveying of an area on a scale of 1:5000 and smaller in semi barren /barren land	Hectare	9090/ha
15.	Contour surveying of an area on a scale of 1:5000 and smaller in thick forest cover	Hectare	9390/ha

### III. CADASTRAL SURVEY

Sl. No.	Subject	Unit	Amount in Rs.
16	Detail cadastral survey of an area for Demarcating private holdings /real estates on a scale of 1:2000, 1:1000 on rural area with minor jungle clearance etc.	Hectare	12600/ha
17	Detail cadastral survey of an area for demarcating private holding /real estate properties etc. within thick forest/urban township and cities on a scale of 1:2000, 1:1000,1:500	Hectare	14850/ha

### IV. ROAD ALIGNMENT

Sl. No.	Subject	Unit	Amount in Rs.
18	Detail Contour Surveying of 30 metre one either side of road alignment on a scale of 1:500/1:1000 with a contour interval of 1 metre including cutting / clearance of minor jungle /bushes, detail alignment of road on the proposed site, providing Pegs/Katcha bullies at 20 m interval on both side of the road to be built all complete	Km	90,000/km

### V. OTHER PROJECTS

Sl. No.	Subject	Unit	Amount in Rs.
19	Transfer of the plans of the major projects on the ground from the pre-planned drawing, providing necessary identification marks on required areas etc. all complete.	Day	30,000/day
20	Short site visits by a survey team involving instrumentation to verify/study the spot (all expenses included)	Day	30,000/day

### REVENUE RECEIPT CHARGES

For the work listed from II to V

Sl.No.	Subject	Amount in Rs.
21	Upto 5 un interrupted working days	15,000.00
22	Upto 10 un interrupted working days	27,000.00
23	Upto 20 un interrupted working days	52,500.00
24	Upto 100 un interrupted working days	2,25,000.00
25	For uninterrupted working days beyond 100 days upto 250 days.	3,75,000.00
26	For un interrupted working days beyond 250days	7,50,000.00

## **SAMPLING**

<b>Sl. No.</b>	<b>Subject/Nature of work</b>	<b>Unit</b>	<b>Amount in Rs.</b>
27	Channel sampling in exposed soft rock	(10cmx100cmx10cm)	1350.00
28	Channel sampling in exposed soft rock	(10cmx100cmx15cm)	1650
29	Channel sampling in buried soft rock	(10cmx100cmx10cm)	1650
30	Channel sampling in buried soft rock	(10cmx100cmx15cm)	1950
31	Channel sampling in hard rock out crop	(10cmx100cmx10cm)	1650
32	Channel sampling in hard rock out crop.	(10cmx100cmx15cm)	1950
33	Channel sampling in buried hard rock	(10cmx100cmx10cm)	1950
34	Channel sampling in buried hard rock	(10cmx100cmx15cm)	2250
35	Grab sampling	1 nos.	120
36	Augur sampling	1 nos.	150

## **PITTING AND TRENCHING AND BACK FILLING**

<b>Sl. No.</b>	<b>Subject/Nature of work</b>	<b>Unit</b>	<b>Amount in Rs.</b>
37	Excavation of pits/trenches in mixed soil to a depth of 150 cms max. and lifting of material all complete (Length & breath depending upon working condition).	Cum	300/cum
38	Excavation of pits/trenches in mixed soil upto a depth of 300 cms max. and lifting of material all complete (Length & breath depending upon working condition).	Cum	405/cum
39	Excavation of pits/trenches in mixed soil upto a depth of 400 cms max. and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	600/cum
40	Excavation of pits/trenches in mixed soil upto a depth of 500 cms cum max. and vertical uplift of material all complete (Length & breath cum depending upon working condition).	Cum	795/cum
41	Excavation of pits/trenches in mixed soil upto a depth of 600 cms max. and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	1200/cum
42	Excavation of 150 cm pits/ trenches in soft rock/mixed soil formation and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	405/cum
43	Excavation of 300 cms pits/ trenches in soft rock/mixed soil formation and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	600/cum

44	Excavation of 400 cms pits/ trenches in soft rock/mixed soil formation and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	795/cum
45	Excavation of 500 cms pits/ trenches in soft rock/mixed soil formation and vertical uplift of material all complete (Length & breath depending upon working condition).	Cum	1200/cum
46	Excavation of 600 cms pits/ trenches in soft rock/mixed soil formation and vertical uplift of material all complete (Length & breath depending upon working condition)	Cum	1500/cum
47	Back filling of pits/trenches by excavated material	Cum	150/cum

## **GEOTECHNICAL TESTS**

### **Soil Testing**

<b>Sl. No.</b>	<b>Subject</b>	<b>Amount in Rs.</b>
48	Particle Size Analysis for determining sand, silt and clay percentages (including pipetting)	1700/sample
49	Determination of Atterberg's Limits (LL,PL & PI) (LL – or set of 3 tests)	800.00
50	Laboratory vane shear test	1800.00
51	Laboratory Permeability test (By Jodhpur Permeameter)	2900.00
52	Swelling Index test	2800.00
53	Particle Specific Gravity	900.00
54	Optimum moisture content by Proctor Compaction	2900.00
55	Density and moisture content (in-situ)-a Set of 3 tests	800.00
56	Density and moisture content of disturbed Sample.	1500.00
57	pH of a particular sample by pH meter.	800.00
58	Direct Shear Test (a test by 3 tests) by any of these methods.	
	i) Unconsolidated undrained (uu)condition	1400.00
	ii) Consolidated undrained (cu)condition	1600.00
	iii) Consolidated undrained (cd) condition	3000.00
59.	Soil triaxial test (a set of least 3 test) by any of these methods.	
	i) Unconsolidated undrained (uu)Condition – without pore pressure	1400.00
	ii) Consolidated undrained (cu)condition	3500.00
	iii) Consolidated drained (cd) condition	3500.00
	iv) Unconsolidated undrained condition –With pore pressure	3500.00
	v) Unconfined compression test(ucc)	

## Rock Testing

Sl. No.	Subject	Amount in Rs.
60.	Cutting of rock core faces (one core)	800.00
61.	Cutting of one rock cube	1200.00
62.	Uni-axial compressive strength of a Set of at least 3 cores including Cutting and polishing of faces.	5100.00
63.	Tensile Strength of a set of at least 3 Cores including cutting and polishing of faces as per specification.	5100.00
64.	Point Load Strength Index test	700.00
65.	Modulus of elasticity and Poison's Ratio—a set of 3 samples	3379.00
66.	Determination of Bulk density and void ratio (including cutting & polishing) & water absorption.	2100.00
67.	Determination of specific Gravity.	2100.00

## Aggregate Testing

### Coarse Aggregate Testing: -

Sl. No.	Subject	Amount in Rs.
68.	Aggregate impact value (average of a set of 3 test)	3500.00
69.	Soundness loss test (average of a set of 3 tests)	4200.00
70.	Los Angeles Abrasion test (one set of 3 tests)	3500.00
71.	Crushing Strength (one set of 3 tests).	2300.00
72.	Compressive strength by uniaxial compression testing machine (a set of 3 sets)	4400.00
73.	Compressive strength by Point Load Strength machine after computation (a set of 3 tests).	700.00
74.	Modulus of elasticity & Poison's ratio.	3700.00
75.	Bulk density & Void ratio	1400.00
76.	Specific Gravity	900.00
77.	Water absorption	1900.00

### Fine Aggregate Testing:-

Sl. No.	Subject	Amount in Rs.
78.	Sieve Analysis and determination of fineness Modulus	1800.00
79.	Specific Gravity (particle)	1800.00
80.	Mica Content determinations	1800.00
81.	Organic impurities Test	1800.00
82.	Combined Silt and Clay Content	1800.00

**Field Testing:-**

Sl. No.	Subject	Amount in Rs.
83.	Collection of undisturbed soil samples with wax sealing etc. by usual method.	Rs. 1600.00
84.	Sampling by hand augur upto 2 mt. depth–(charge per mts. Calculated).	Rs. 1800.00
85.	Determination of bearing capacity of soil by Vicks berg Cone-penetrometer.	Rs. 2500.00
86.	Field Vane Shear test In situ stress determination in underground openings under construction by flat	Rs. 10,100.00
	jack 2 pin method (a set of two tests).	Rs.55700.00

**CIVIL WORKS IN GEOENGINEERING****REMEDIAL MEASURES:**

Sl. No.	Subject	Amount in Rs.
87.	Retaining Structure	As per PWD, CPWD, GSI & Nhpc scheduled
88.	Drainage	
89.	Grouting	
90.	Bio-technical stabilization	
91.	Fitting, fixing of 25mm – dia. Of different length, different rock bolts in all types of rocks including reinforcement of cement grouting for rock bolting all complete. (Cost of rock bolts extra as per prevailing market rates)	Rs.360/m

**CHARGES FOR SERVICES RENDERED BY THE DEPARTMENT OF MINES AND GEOLOGY, GOVT. OF SIKKIM, BEYOND THEIR ACREDITED ACTIVITIES  
(To be deposited in State Bank of Sikkim, under the Departmental receipt head)**

Sl. No.	Subject	Amount in Rs.
92.	Geo-technical studies for a period not exceeding 3days	
	a) East District (Gangtok and Pakyong)	15000.00
	b) West District (Geyzing and Soreng)	18000.00
	c) North District (Mangan)	18250.00
	d) South District (Namchi)	17250.00
93.	Geo-technical studies for a period not exceeding 5days	
	a) East District (Gangtok and Pakyong)	26250.00
	b) West District (Geyzing and Soreng)	27750.00

	c) North District (Mangan)	29250.00
	d) South District (Namchi)	26250.00
94.	Geo-technical studies for a period not exceeding 10days	
	a) East District (Gangtok and Pakyong)	49500.00
	b) West District (Geyzing and Soreng)	52500.00
	c) North District (Mangan)	54000.00
	d) South District (Namchi)	52500.00
95.	Charges for geotechnical and geological investigation including drainage mapping, geo-morphology etc per km (30 mts on both side of proposed road).	
	i) East District (Gangtok and Pakyong)	Rs. 18,000/- for 1 <sup>st</sup> km and Rs. 15,675/-km for additional kms
	ii) South District. (Namchi)	Rs. 21,000/- for 1 <sup>st</sup> km and Rs. 15,675/-km for additional kms
	iii) West District (Geyzing and Soreng)	Rs. 24,000/- for 1 <sup>st</sup> km and Rs. 15,675/-km for additional kms
	iv) North District (Mangan)	Rs. 23,250/- for 1 <sup>st</sup> km and Rs. 15,675/-km for additional kms
96.	Geological and Geotechnical studies on suitability of area for road construction in all parts of Sikkim.	36,000/-km + requisite fee for as per schedule XII (Sl. No. 1 to 3) above

#### IV. CHEMICAL ANALYSIS:

Sl. No.	Subject	Amount in Rs.
97.	Quantitative chemical analysis of rock by conventional wet chemical method for SiO <sub>2</sub> , Al <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> , FeO, Fe <sub>2</sub> O <sub>3</sub> , MnO, Cr <sub>2</sub> O <sub>3</sub> , CaO, MgO, Na <sub>2</sub> O <sub>3</sub> , K <sub>2</sub> O <sub>3</sub> , P <sub>2</sub> O <sub>5</sub> , CO <sub>2</sub> (+/-), H <sub>2</sub> O	Rs. 9090.00
98.	Quantitative wet chemical analysis by conventional methods	
	a) First radical	Rs. 700.00
	b) Each additional radical except rare earth elements	Rs. 468.00
	c) Rare earth elements, viz, Ta, Nb, W, Zr, Mo, Cd, V, Li etc	Rs. 986.00
99.	Gold or silver analysis (first as say)	Rs. 1450.00
100.	Organic matter/carbon analysis	Rs. 603.00



**V. WATER ANALYSIS:**

Sl. No.	Subject Amount in Rs.	
101.	Partial (pH, conductivity, total hardness, alkalinity, chloride)	₹ 1153/sample
102.	Detailed (pH, conductivity, total hardness, Alkalinity, Carbonate, Biocarbonate, T.D.S., Nitrate, Sulphate, Chloride, Iron, Calcium, Magnesium, Sodium, Potassium, Boron, Fluoride.	₹ 4355/sample
103.	a) Coliform count, Presence or absence test in the Laboratory	Rs. 450/sample
	b) Sample collection within East District and test for Coliform presence, or absence and count.	
	i) First sample	Rs. 975.00
	ii) Each subsequent sample	Rs. 543.00
	c) Sample collection within West District and test for Coliform presence or absence and count	
	i) First sample	Rs. 1315.00
	ii) Each subsequent sample	Rs. 543.00
	d) Sample collection within North District and test for Coliform presence or absence and count	
	i) First sample	Rs. 1665.00
	ii) Each subsequent sample	Rs. 543.00
	e) Sample collection within South District and test for Coliform presence or absence and count	
	i) First Sample	Rs. 1143.00
	ii) Each subsequent sample	Rs. 543.00

**DIAMOND CORE DRILLING (Preparation)**

Sl. No	Amount	Revised amount
104.	Dismantling of Drilling Machine all complete.	Rs. 4890.00
105.	Assembly of Drill Machine all complete.	Rs. 9300.00
106.	Carriage of Machine parts in Hilly Terrain other than vehicular transport.	Rs. 3.00,kg/100mts
107.	Transportation cost for vehicular transport.	As per SNT rate
108.	Construction of Platform all complete.	Rs.12000.00
109.	Laying of temporary water supply pipe line and construction of temporary (2m x 1m x 0.5m) Water tank with concrete.	Rs. 3600.00

**RATE OF DIAMOND CORE DRILLING PER METER.**

Sl. No.	Subject	Amount in Rs.
110.	Cost of diamond core drilling per metre in soft rock formation upto a depth of 40 metres all complete.	3945+72 lts of HSD under prevailing market rates.
111.	Cost of diamond core drilling per metre in soft rock formation between 40 mts to 60 mts. all complete	4890+58 lts of HSD under prevailing market rates
112.	Cost of diamond core drilling per metre in medium soft rock formation between 40 mts to 60 mts. all complete	5880+70 lts of HSD under prevailing market rates
113.	Cost of diamond core drilling per metre in medium rock formation between 40 mts to 60 mts. all complete	7050+84 lts of HSD under prevailing market rates
114.	Cost of diamond core drilling per metre in medium hard rock formation upto a depth of 40 mts all complete.	4335+72 lts of HSD under prevailing market rates
115.	Cost of diamond core drilling per metre in medium hard rock formation between 40mts to 60 mts. All complete.	5235+64 lts of HSD under prevailing market rates
116.	Cost of diamond core drilling per metre in medium hard rock formation between 60mts to 100 mts. All complete.	6480+77 lts of HSD under prevailing market rates
117.	Cost of diamond core drilling per metre in medium hard rock formation between 100 mts to 150 mts. All complete.	7785+93 lts of HSD under prevailing market rates
118.	Cost of diamond core drilling per metre in hard rock formation upto 40 mts all complete.	5070+58 lts of HSD under prevailing market rates
119.	Cost of diamond core drilling per metre in hard rock formation upto 40 to 60 mts. all complete.	5925+71 lts of HSD under prevailing market rates
120.	Cost of diamond core drilling per metre in hard rock formation upto 60 mts to 100 mts. all complete.	7140+85 lts of HSD under prevailing market rates
121.	Cost of diamond core drilling per metre in hard rock formation upto 100 mts to 150 mts. all complete.	8565+104 lts of HSD under prevailing market rates
122.	Borehole Logging/per hole	12000+required P.oil for visiting official.

**Charges for service rendered to public for issue of stability/ report for construction of residential building**

Sl. No.	Place/Location.	Revised amount
(A).		Notified Nagar Panchayat and Municipal Area Rs. 3500/-
123.	Gangtok and suburb	
124.	Singtam, Rangpo, Pakyong, Kabi, Phodong	
125.	Rhenock, Dikchu	
126.	Rongli, Jorethang, Nayabazar, Namchi, Ravangla, Mangan.	
127.	Soreng, Sombarai, Gyalzing, Tashiding, Chungthang, Dzongu.	

128.	Hilley, Kaluk, Dentam, Uttaray, Lachen-Lachung.	Rural Area Rs. 3000/-
(B).	Name Transfer of Stability Report	Rs. 1500.00
129.	Geological /Geotechnical studies of road alignment in different parts of state.	Rs. 20,000/km

**RATE OF GEOLOGICAL AND GEOTECHNICAL INVESTIGATION.**

Sl. No.	Place/Location.	Revised amount
130.	Geological/Geotechnical mapping over one hectare of area with rock exposures and semi barren land. Gangtok and suburb.	Rs. 1800/ha
131.	Geological/Geotechnical mapping over one hectare of area with few rocks exposures with moderate to thick soil overburden	Rs. 2100/ha
132.	Geological/Geotechnical mapping over one hectare of area in thick jungle with few rock exposer	Rs. 7400/ha
133.	Deep resistivity method(Four soundings with AB/2 =3-10 kms)(40 soundings)	Rs. 11,53,600/-
134.	Electrical resistivity survey (20-50 soundings)	Rs. 10,66,100/-
135.	Seismic Survey (150Stations)	Rs. 11,29,300

**GIS (Geographical Information Laboratory) Charges for data compilation at GIS laboratory.**

**Scanning of Maps, Diagrams etc. (one hard copy included)**

Sl. No.	SIZE & TYPE	Amount
136.	A4: Colour	900.00
	BW	600.00
137.	A3: Colour	900.00
	BW	600.00
138.	A2: Colour	1200.00
	BW	900.00
139.	A1: Colour	1800.00
	BW	1500.00
140.	A0: Colour	3000.00
	BW	1400.00

**Digitization and editing (including one draft and one hard copy)**

<b>Sl. No.</b>	<b>SIZE &amp; TYPE</b>	<b>Amount</b>
141.	A4: Point	3000.00
	Line	4200.00
	Polygon	6300.00
142.	A3: Point	5850.00
	Line	6150.00
	Polygon	7950.00
143.	A2: Point	10800.00
	Line	12000.00
	Polygon	15600.00
144.	A1: Point	19950.00
	Line	20700.00
	Polygon	27450.00
145.	A0: Point	28800.00
	Line	30000.00
	Polygon	39450.00

**Scanning, Editing & Processing a column of black & white map to produce colour hard copy complete with all annotation and legend (Using GIS software Arc View).**

<b>Sl. No.</b>	<b>SIZE &amp; TYPE</b>	<b>Revised Amount</b>
146.	A4: Simple	4945.00
	Moderately complicated	8682.00
	Complicated	17192.00
147.	A3: Simple	6785.00
	Moderately complicated	11327.00
	Complicated	19895.00
148.	A2: Simple	10637.00
	Moderately complicated	14375.00
	Complicated	28520.00

149.	A1: Simple	21217.00
	Moderately complicated	30590.00
	Complicated	40882.00
150.	A0: Simple	33867.00
	Moderately complicated	42205.00
	Complicated	56752.00
151.	Monitoring of dumping site/newly constructed road alignment per km/per site.	15,000/- per site

**By order and in the name of the Governor.**

**(A K Mohanty) IFS,  
Principal Secretary  
Department of Mines and Geology  
File no. 145/DMG/99/2000 vide n.s.p-117 and 119.**