

**Purchasing of soil physical characteristics determining laboratory equipment for “RMG Group”
Geotechnical Department**

No	Name	Description	Quantity
1	50 Litre Drying Oven	Drying Oven 50 Litre Capacity 220-240V 50/60Hz 1Ph w/fan	1
2	8in Dia ASTM Sieve complect	8in Dia ASTM Sieve complect must include:	
	2,01	6.30mm Stainless Steel Mesh.	1
	2,02	4.75mm Stainless Steel Mesh	1
	2,03	4.00mm Stainless Steel Mesh	1
	2,04	3.35mm Stainless Steel Mesh	1
	2,05	2.80mm Stainless Steel Mesh.	1
	2,06	2.36mm Stainless Steel Mesh	1
	2,07	2.0mm Stainless Steel Mesh	1
	2,08	1.18mm Stainless Steel Mesh	1
	2,09	1.00mm Stainless Steel Mesh.	1
	2,10	850 Mic Stainless Steel Mesh.	1
	2,11	600 Mic Stainless Steel Mesh	1
	2,12	425 Mic Stainless Steel Mesh	1
	2,13	300 Mic Stainless Steel Mesh.	1
	2,14	250 Mic Stainless Steel Mesh.	1
	2,13	130 Mic Stainless Steel Mesh	1
	2,16	106 Mic Stainless Steel Mesh.	1
	2,17	75 Mic Stainless Steel Mesh	1
	2,18	63 Mic Stainless Steel Mesh.	1
	2,19	45 Mic Stainless Steel Mesh	1
	2,20	20 micron Stainless Steel Mesh	1
	2,21	9.50mm Stainless Steel Mesh.	1
	2,22	19.0mm Stainless Steel Mesh	1
	2,23	25.0mm Stainless Steel Mesh.	1
	2,24	50.0mm Stainless Steel Mesh	1
	2,25	63.0mm Stainless Steel Mesh	1
	2,26	75.0mm Stainless Steel Mesh.	1
	2,27	90.0mm Stainless Steel Mesh.	1
	2,28	100mm Stainless SteelMesh	1
3	200mm Dia BS Sieve complect	200mm Dia BS Sieve complect must include:	
	3,01	212Mic Stainless Steel Mesh.	1
	3,02	5.00mm Perforated Plate.	1
	3,03	6.30mm Perforated Plate	1
	3,04	10.0mm Perforated Plate.	1
	3,05	14.0mm Perforated Plate	1
	3,06	20.0mm Perforated Plate.	1
	3,07	28.0mm Perforated Plate	1
4	Sieve Brush	Sieve Brush Double Ended Brass & Nylon Bristle	2
5	Sieve Brush	Double Ended Nylon.	2
6	Sieve Shaker	Sieve Shaker Complete with Separate Control Panel. 220-240V 50Hz 1Ph (size Must be appropriate for 200mm and 8in diameter sieves)	1
7	Electronic Top Loading Balance	Electronic Top Loading Balance 1200g at 0.01g. 100-240 Volts 50/60Hzs	1
8	Soil Hydrometers	Soil Hydrometer following type:	
	8,01	Soil Hydrometer Type 131H ASTM D422 Graduated 0.995 to 1.038 Specific Gravity	1

	8,02	Soil Hydrometer Type 132H ASTM/Aashto Graduated -5 to + 60G/Litre.	1
	8,03	Soil Hydrometer BS EN DD ENV graduated 0.995 to 1.030 g/ml	1
9	Pyknometer complect	Pycnometer complete must include following:	
	9,01	Pyknometer Complete with Non-Corrodable Cone and Rubber Seal 1 kg Capacity	1
	9,02	100ML Density Bottle with Perforated Stopper.	2
	9,03	50ML Density Bottle with Perforated Stopper.	2
	9,04	Density Bottle 25ML.	2
	9,05	pyknometer Gasket diameter, i.d; o.d " 2-1/4" (57.2 mm) i.d.; 2-7/8" (73 mm) o.d.	1
10	Measuring Cylinder	Measuring Cylinders must include:	
	10,01	250 X 2ML Soda Glass Spouted. BS604.	2
	10,02	500 X 5ML Soda Glass Spouted. BS604	2
	10,03	1000 X 10ML Soda Glass Spouted. BS EN ISO4788	2
11	Evaporating Dish	Evaporating Dish must include:	
	11,01	100mm Dia X 40mm Depth.	3
	11,02	200mm Dia X 80mm Depth	3
12	Proctor Penetrometer	Proctor Penetrometer complete must include:	
	12,01	Proctor Penetrometer Spring Type with Adaptor Stem. Supplied Complete with Set of Needle Points	1
	12,02	Case for Proctor Penetrometer.	1
13	Semi-Automatic Cone Penetrometer complect	Semi-Automatic Cone Penetrometer with accessories:	
	13,01	Semi-Automatic Cone Penetrometer to BS:1377 Bench mounted apparatus to determine the liquid limit of soils to BS1377	1
	13,02	Penetration Test Cup. Brass construction, 55mm dia x 40mm depth to fit BS1377	1
	13,03	Test Gauge for Checking Condition of Cone Point. 55 mm diameter by 40 mm deep, with the rim parallel to the flat base. Meets to BS 1377-2	1
	13,04	Penetration Test Cone, Stainless steel, 35 mm long with smooth surface at an angle of 30°. Meets to BS 1377-2	1
14	Motorised Liquid Limit Device	Complies to ASTM D4318, AASHTO T89 and BS 1377:2. Supplied Less Grooving Tool Motor operated at 120 drops/min speed. Power supply: 220-240V 50Hz 1Ph	1
15	Liquid limit determination devices	Liquid limit determination devices must include:	
	15,01	Glass Plate for Determination of Liquid Limit Casagrande Method, Determination of Plastic Limit 500 mm square x 10 mm thick.	1
	15,02	Spatula complect for Determination of Plastic Limit must include:	
	15.02.1	200 mm	1
	15.02.2	130 mm	1
	15.02.3	100 mm	1
16	High Speed Stirrer Complete	Compact bench top stirrer used for dispersing soil samples in water. High Speed Stirrer Complete with Paddle Cup & Baffle. 220-240V 50/60Hz 1Ph. Must be meet standarts: BS 1377 ASTM D422, AASHTO T88	1
17	Mixing Paddle	Mixing Paddle for 24-4125 Series High Speed Stirrer	1

18	Sodium Hexametaphosphate	Sodium Hexametaphosphate for Mechanical Analysis Stirrer must be meet standarts: ASTM D422, AASHTO T88, ASTM E100	1
19	Soil Dispersion Cup & Baffle	Soil Dispersion Cup & Baffle must be meet folowing standarts: BS 1377 ASTM D422, AASHTO T88	1
20	Wash bottle complect	Wash bottle complect must include:	
	20,01	Wash bottle 1000ml	1
	20,02	Wash bottle 250ml	1
21	Mortar and Pestle Porcelain	Thick walled porcelain mortar; 107mm internal diameter and porcelain pestle.	1
22	Aluminium Scoops	Aluminium Scoops must include:	
	22,01	Aluminium Scoop Small, 82 x 127 x 50 mm, cast aluminium with handle	1
	22,02	Large Aluminium Scoop Weight, kg 0.294 kg	1
23	Trowel - Gauging	Trowel - Gauging	1
24	Rod Comparator	3mm diameter rod comparator for Determination of Plastic Limit. must meet standarts: BS 1924-2 EN 1997-2. ASTM D4318. BS 1377. AASHTO T90	1
25	Plastic Limit Plate	Plastic Limit Plate 12 x 12	1
26	Bulk Density Measure 10 Litre	10 Dm ³ bulk density measure. Manufactured from heavy gauge steel these bulk density measures comply with the requirements of either BS 812, EN 1097-3, 12350-6 or ASTM C138.	1
27	Hydrometer Sedimentation Cylinder	1000ml Glass Hydrometer Sedimentation Cylinder with Rubber Bung. Hydrometer sedimentation cylinder Graduations 1,000 ml at 20°C. BS 1337, ASTM D422, AASHTO T88	2
28	Nomographic Chart for The Determination of Stokes Law.	Nomographic chart For the determination of Stoke's Law. Must be meet standarts: ASTM D422, AASHTO T88	1
29	trimming knife	trimming knife for soils and clay	1
30	Straight Edge	Straight Edge	1
31	Vernier Caliper	Vernier Caliper Range 0 to 200mm X 0.02mm. Must meet standards EN 933-4,BS 1377	1
32	sample tray	metal samle trays:	
	32,01	metal sample Tray - 406 x 406 x 50 mm	2
	32,02	metal Sample Tray - 305 mm Diameter x 50 mm	2
33	Beaker	Beaker - 500 ml	2
34	Bowls	Bowl complect:	
	34,01	Bowl - 2.5 litre	2
	34,02	Bowl 5.0L	2
	34,03	Bowl 11.0L	2
35	Core Cutter Apparatus	Core cutter apparatus complect must include:	
	35,01	Core Cutter 100mm Id By 130mm Long. Must meet BS 1377	1
	35,02	Driving Dolly for Core cutter, Must meet BS 1377	1
	35,03	Driving Rammer for Driving dolly must meet BS 1377	1
36	Digital Pocket Thermometer	Thermometer Temperature range -49.9 to +199.9	3
37	Sand Replacement apparatus	This equipment is used to determine the dry density of in-situ soils. Apparatus is included which satisfies BS, ASTM and AASHTO specifications.	
	37,1	Sand pouring cilinder (200ml)	1
	37,2	Calibrating container 200ml)	1
	37,3	Metal Tray 500 mm ² x 50 mm deep with a 200 mm diameter hole	1

37,4	REPLACEMENT SAND FOR IN-SITU DENSITY TESTS ASTM D 1556-07 – BS 1377: PART9 (25kg)	1
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Prepared by:

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