

**NEW MANGALORE PORT AUTHORITY
DEPARTMENT OF CIVIL ENGINEERING
MARINE WORKS DIVISION**

TO WHOMSOEVER IT MAY CONCERN

Request for Budgetary Rates

Marine Works Division of Civil Engineering Department, New Mangalore Port Authority intends to carry out Geotechnical- Investigations of hard strata stretches existing in its Outer Approach Channel. Template of Bill of Quantities involving 29 items is attached herein. In order to prepare a realistic estimate for the subject work, firms /agencies involved in the field of Geotechnical- Investigations in marine condition (Sea) are hereby requested to submit their lowest budgetary rate (excluding GST) and submit the same to the undersigned through email /post on or before 14.02.2025.

Sd/-

Executive Engineer(MW),
Civil Engineering Department,
NMPA,Panambur,Mangalore-575010
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Template of Bill of Quantities

Name of Work: Carrying out Geotechnical-investigations of hard strata stretches existing in Outer Approach Channel at New Mangalore Port

Sl No	Item Code	Description	Approximate Quantity	Unit	Rate (Rs.)	Amount (Rs.)
1	NC1	Drilling boreholes of dia. not less than 100 mm in soft rock / weathered rock / conglomerate in marine condition using suitable equipment viz Calyx rig, Jackup platform, boat etc.,from the existing top level of hard strata (existing between -10.0 mCD) and -16.00 mCD) at the locations shown by the department in the Outer Approach Channel, including shifting of equipment with all required components using DGPS at the bore locations complete including mobilization and De mobilization of all men, equipment etc., all other incidental charges etc. complete for successful completion of the work.	110.00	m		

2	NC2	Drilling Nx size with rotary core drilling equipment of suitable capacity in Hard Rock in marine condition from the existing hard rock touch level (HRTL between -10mCD and -15.40 mCD) up to -16.0 mCD level at the exact location of the bore point using suitable equipment viz Calyx rig, jackup, platform, boat etc., shifting of equipment with all required components using DGPS at the bore locations as shown in the drawings/as directed by the Engineer-in-charge complete including mobilization and De mobilization of all men, equipment etc., complete to carry out the work as per direction of Engineer in charge for the successful completion of the work.	30.00	m		
3	NC3	Collection of Undisturbed Samples (UDS) with thin-walled sampling tube of standard length, packing and handing over at site boring from the specified levels including handing over to the department or laboratory for testing as directed by the department including cost of sampling tube, labour charges etc., complete.	28.00	Nos.		

4	NC4	Conducting insitu Standard Penetration Test (SPT) in bore holes at every change of stratum or 2 meters whichever is earlier including providing necessary skilled labour assistance materials such as rods, ropes, clamps, standard penetrometer etc., as required and as directed by the department for conducting standard penetration test and collection of disturbed samples, packing in good quality polythene bags of approved size, properly labelled etc., Handing over to the laboratory tests as directed by the department including cost and conveyance of all materials, labour, T & P and all other incidental charges etc. complete	28.00	Bore holes		
5	NC5	Collecting of ground water samples for conducting chemical analysis handing over to the department or laboratory for testing as directed by the department including cost and conveyance of all materials, labour charges etc., complete.	28.00	Nos.		
6	NC6	Collection of soil samples for conducting chemical analysis handing over to the department or laboratory for testing as directed by the department including cost and conveyance of all materials, labour charges etc., complete	28.00	Nos.		
7	NC-7	Conducting Dutch Penetrometer (Sounding).	28.00	Nos.		

8	NC8	Conducting other Penetrometer based on standardized test procedures	28.00	Nos.		
9	NC9	Conducting Vane Shear test	28.00	Nos		
10	NC10	Conducting petro graphic test on rok sample.	7.00	Nos.		
11	NC11	Conducting carbonate content test.	28.00	Nos.		
12	NC12	Conducting Brazilana Split test.	7.00	Nos.		
13	NC13	Providing Core Boxes to preserve samples	28.00	Nos.		
14	NC14	Carrying out grain size analysis- By Sieve.	28.00	Nos.		
15	NC15	Carrying out grain size analysis- By Hydrometer	28.00	Nos.		
16	NC16	Determine Atterberg's limits: Liquid limit, Plastic limit & Shrinkage limit.	28.00	Nos.		
17	NC17	Determine Specific Gravity.	28.00	Nos.		
18	NC18	Determine Natural Moisture Content of undisturbed samples.	28.00	Nos.		
19	NC19	Determine bulk and dry densities of undisturbed samples.	28.00	Nos		
20	NC20	Carrying out unconfined compression on undisturbed samples.	7.00	Nos.		
21	NC21	Consolidation Test.	28.00	Nos.		
22	NC22	Carrying out unconsolidation undrained triaxial tests.	28.00	Nos.		
23	NC23	Determining unit weight of rock.	28.00	Nos.		
24	NC24	Determining porosity and absorption of rock	28.00	Nos.		

25	NC25	Determine rock crushing strength.	7.00	Nos.		
26	NC26	Point load tests on rock samples.	7.00	Nos.		
27	NC27	Carrying out chemical analysis of water samples as directed (a) pH value, (b) Chloride content, (c) Sulphate content.	28.00	Nos.		
28	NC28	Carrying out chemical analysis of soil samples	28.00	Nos.		
29	NC29	Preparation and submission of one copy of draft report and three copies of the final report on Geotechnical investigation with bore hole logs, recommendation on incorporating clients comments. The approved report shall also submit in soft copy. The Report shall include photograph of strata/rock cores/soil samples, rock exposures and other feature, pits etc., as directed by Engineer in charge.	1.00	Job		

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