

Case 29/2021

**Issue:** Large diameter bored pile found on (i) Meta-sedimentary rock or Meta-sedimentary Rock interbedded with Sedimentary Rock or (ii) Sedimentary Rock

**Recommendation:** To accept the founding criteria for large diameter bored pile on (i) Meta-sedimentary rock or Meta-sedimentary Rock interbedded with Sedimentary Rock or (ii) Sedimentary Rock, which has a RMR value of not less than 45, minimum UCS value of 25MPa or minimum  $PLI_{50}$  value of 1MPa and minimum 85% of TCR

**Decision:** Having noted the background information, members endorsed the recommendations on a case-by-case basis subject to the following conditions:

- (i) The founding rock materials should satisfy the acceptance criteria as below:

		Value
<b>Design Parameters</b>	Allowable Bearing Capacity	4,000kPa
	Allowable Bond or Friction between (i) Meta-sedimentary Rock or Meta-sedimentary Rock interbedded with Sedimentary Rock or (ii) Sedimentary Rock and Concrete	300kPa (compression or transient tension) 150kPa (permanent tension)
<b>Acceptance Criteria</b>	Uniaxial Compressive Strength (UCS)	Min. 25MPa (UCS)
	Or Point Load Index Strength ( $PLI_{50}$ )	Min. 1MPa ( $PLI_{50}$ )
	Total Core Recovery (TCR)	Min. 85%
	Weighted-Average of Rock Mass Rating (RMR) from the top of the effective rock socket to 3m below pile base	Not less than 45

- (ii) Proof core-drilling, UCS or  $PLI_{50}$  test, evaluated RMR from individual predrill holes, sufficient quality supervision and pile load test should be provided. The result of proof test on trial piles should be found satisfactory.