SHEPHERD
asset management solutions

Notice to Tenders

Etheridge Shire Council DRFA

“Addendum A”

Gravel Push

Grading Specifications

7.3.4 Particle size distribution (grading)
The grading enveloped for Type 3 materials are specified in Table 7.3.4.
Table 7.3.4 – Grading envelopes – Type 3

Subtypes	3.1 and 3.2	3.3 and 3.4	3.5
Test Sieve Size (mm)	**Percent Passing by Mass**		
75.0	100	100	100
37.5	100	90 – 100	85 – 100
19.0	87 – 100	80 – 100	–
9.5	67 – 87	60 – 90	55 – 95
4.75	50 – 70	42 – 76	–
2.36	36 – 52	30 – 60	30 – 80
0.425	14 – 24	14 – 28	14 – 60
0.075	7 – 16	7 – 16	8 – 30

In addition to the requirements of Table 7.3.4, the grading curve for the material shall be smooth. For Subtype 3.5, the grading between adjacent sieves, shall not vary from one outer third of the grading limits of one sieve to the opposite outer third of the grading limits of the next sieve.

The specified gradings reflect the typical applications that each material subtype will be used in as per the Transport and Main Roads *Pavement Design Supplement*. For example:
• 3.1 and 3.2 materials are typically used in base courses
• 3.3 and 3.4 materials are typically used in subbase courses, and
• 3.5 materials are typically used in lower subbases or subgrade.

7.3.5 California bearing ratio
The California Bearing Ratio requirements for Type 3 material are specified in Table 7.3.5.
Table 7.3.5 – California bearing ratio requirements – Type 3

Property	Subtype						
	3.1		3.2		3.3	3.4	3.5
Compaction standard (Refer Clause 8.4.3)	Modified	Standard	Modified	Standard	Standard	Standard	Standard
CBR (unsoaked)	Not specified	≥ 80	Not specified	≥ 60	≥ 45	≥ 35	≥ 15

Where specified, the strength of Type 3 material is principally assessed by the soaked CBR test. To consistently comply with all of the relevant Technical Specification requirements, it may be necessary for the Contractor to develop a set of secondary requirements which comply with the list of primary requirements specified in Clause 7.3.3 and 7.3.4 but, where necessary, are more stringent so that the specified CBR is achieved.
Where unbound materials conform with the coarse and fine material requirements of this Technical Specification and are compacted to 100% modified compaction or greater, experience has shown that the necessary CBR limit is readily achievable. As a result, the specification does not require CBR testing for materials where 100% modified compaction is both specified and achieved during construction and all other material properties are conforming.