

Date:

Consent Holder:

Resource Consent Number:

Development Name and Stage:

Site Address:

Design Engineer and Qualification(s):

Earth Filling (Compliance with NZS 4431 to be achieved)

Measures of compaction shall be achieved by one of the following:

No	Test Required	Undertaken by	Quantity	Requirements	Checked
1	Earth Filling				
(a)	Compacting Curve to determine maximum dry density & optimum moisture content	IANZ	1 curve/soil type	During earthworks	
	Soils shall be tested with a nuclear densometer	IANZ	Max 10% air voids for 10 tests compliance required but for more than 10 tests the average of 10 consecutive tests shall exceed the minimum 1 test/1000m ³	Min 95% MDD Average 10 tests	
(b)	For cohesive soils testing can be as per (a) above, or as follows: Undrained Shear Strength (Shear vane)	IANZ	<10,000m ³ 1/750mm lift 1/800m ³ fill or <50,000 1/1.5m lift 1/4000m ³ Deep Fill	Av. 10 tests = 150 KPa min Min value of 140 KPa Min 2 tests	
(c)	Maximum Air Voids	IANZ	Max 10% air voids for 10 tests compliance required but for more than 10 tests the average of 10 consecutive tests shall exceed the minimum 1 test/1000m ³		
(d)	Existing Ground	IANZ	1 test/lot	750 KPa	
(e)	Cut Area	IANZ	1 test/lot	100 KPa	
(f)	Certification of Geotech Report	IANZ			
No	Test Required	Undertaken by	Quantity	Requirements	Checked
2	Subgrade				
(a)	Design CBR	IANZ			
	- large projects, including heavy commercial,	IANZ	Design by CIRCLY	In situ CBR	

	Principles, Collector Arterial Roads				
	- medium projects - Road Lengths >100m	IANZ	CBR Method	Soaked CBR with calibrated Penetrometer	
	- small projects - Road Lengths <100m	IANZ	CBR Method	Scala Penetrometer	
(b)	CBR Testing Width				
	<4.0m	IANZ	15 metre centres	Wheel tracks	
	4.1 - 8.5m	IANZ	15 metre centres	Wheel tracks	
	>8.5m	IANZ	20-30 staggered for each line	Centreline and Wheel Tracks	
(c)	Tolerance	Contractor/ Surveyor string results	Every 20m	-30mm + 0mm at edge of formation and centreline 20mm for 3m straight edge, perpendicular or parallel to centreline	