



Inspection of land at McEwans Road, Rosevears

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Land proposed for subdivision in McEwans Road, Rosevears, was examined.

The land is in a Class 3 zone on the landslip zone map of the Tamar Valley and slopes at an angle of 8–10°. The nearby land on the river side slopes at much greater angles. The general area is underlain by Tertiary age sediments made up of clay and sandy clay. A few basalt boulders occur in the topsoil but these are derived from areas of basalt upslope from the property.

If a house is built on the new lot it should be sited in a similar location to the one already on the land, i.e. at a point about the middle of the flatter land and not near the much steeper slopes to the river. Drainage around the house should be maintained in excellent condition as there will almost certainly be stormwater flowing from the slopes above. Excavations should be kept low or if this is not possible deeper excavations should be retained with a drained supporting structure.

Inspection of two pits on the land to a depth of about one metre shows the lower 0.6 m of this depth to be brown plastic clay. A sample of this material was collected and Atterberg Limits and composition were determined.

These tests show that the clayey material is quite plastic and the linear shrinkage is high. The composition of the clay fraction shows a high percentage of the expansive clay montmorillonite. These results suggest that the clay will probably have a low shear strength when wet and therefore good drainage should be encouraged. The clay will also have expansive properties, and foundations should be designed to take this into account.

In summary, the proposed new lot should be reasonably safe to develop with careful siting, development procedures and foundation design.

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LL	PL	LS	Clay Fraction XRD			
			Kaol.	Mont.	Goeth.	Lepidoc.
121	25	26	55	30	10	5

LL – liquid limit, PL – plastic limit, LS – linear shrinkage,
Kaol – kaolinite, Mont – Montmorillonite, Goeth – goethite, Lepidoc – lepidocrocite
(Determinations by R. N. Woolley)

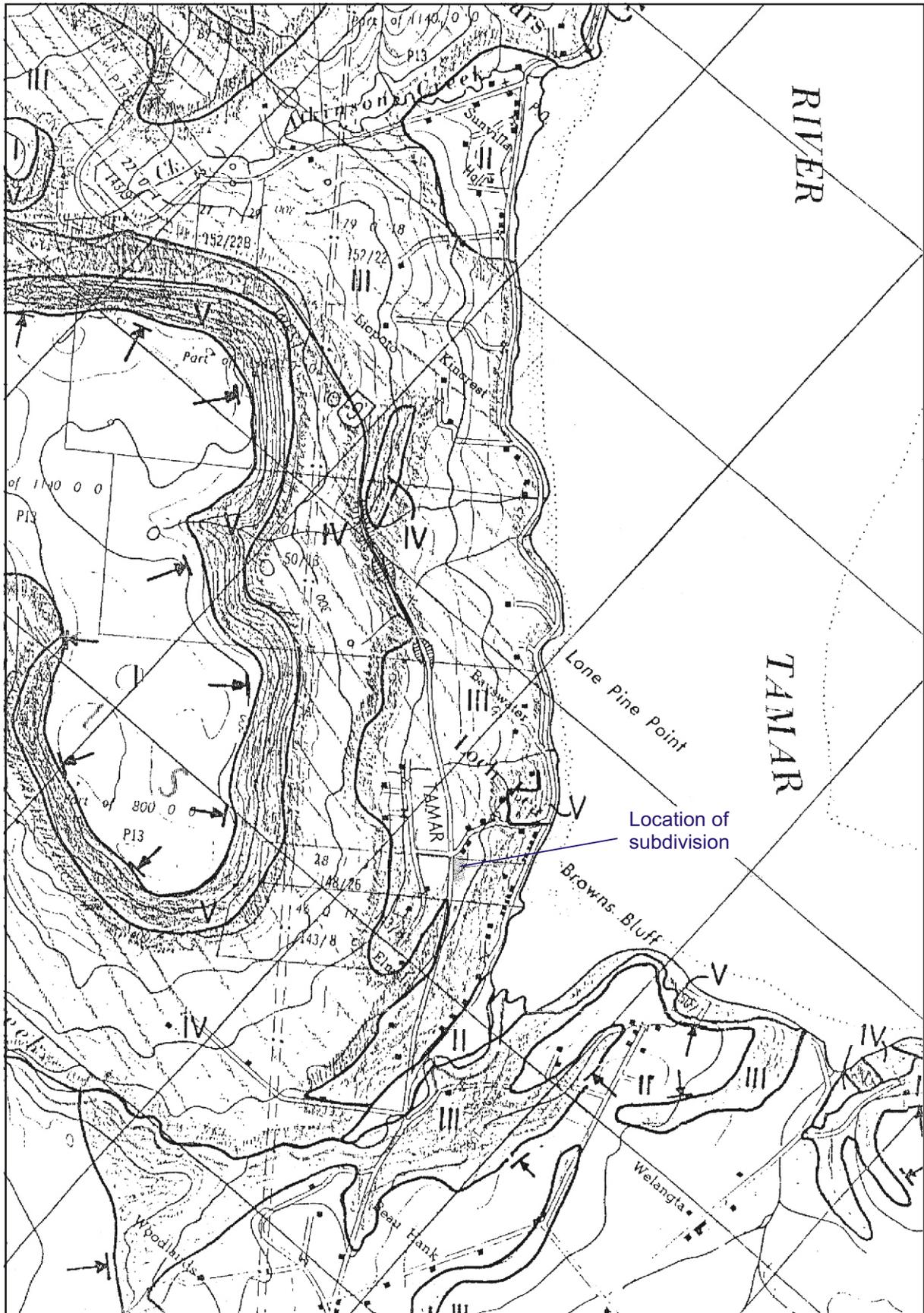


Figure 1

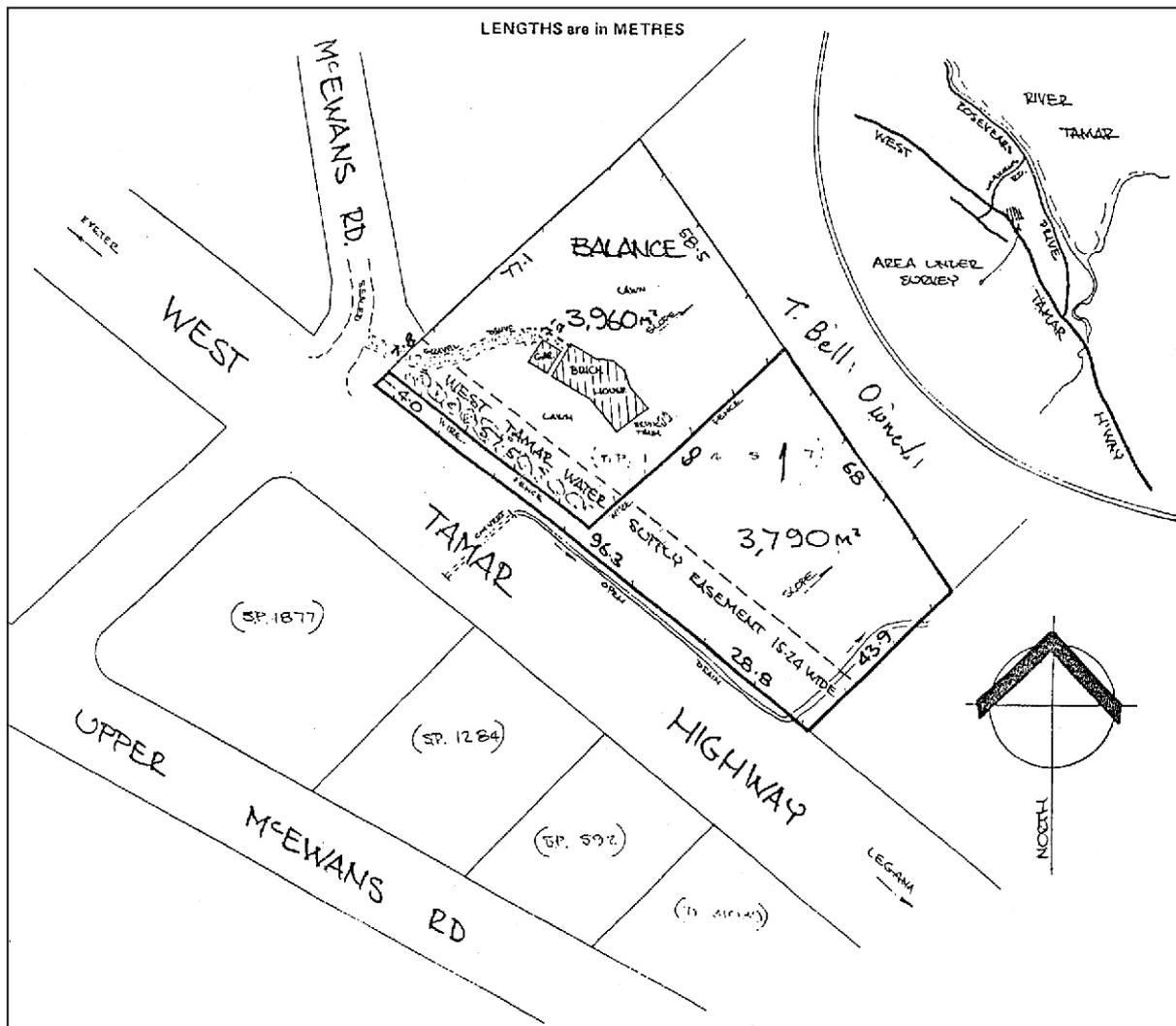


Figure 2