



Division of Mines and Mineral Resources — Report 1991/35

# Investigation of a proposed subdivision at Atkinsons Road, Legana

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A proposed subdivision at Atkinsons Road, west of Legana, was inspected. The land is near the boundary of classes 3 and 4 on the Landslip Zone Map of the Tamar Valley. The property concerned has a relatively smooth slope with a generally low slope angle. The surrounding land is steeper and tends to be hummocky, indicating the presence of old landslides.

The proposed new lot comprises a flat piece of land in the southwest part of the block (fig. 1) from where the lot slopes at 3–4° east for a distance of some 150 m where the slope steepens (on the neighbouring property). The land also steepens across Atkinsons Road to the south.

Shallow test pits have been dug in the southwest corner of lot 1. These exposed basalt boulders and red-brown soil derived from the weathering of basalt. This material has probably been derived from the weathering of basalt areas to the north and Tertiary-age sediments (clay and sandy clay) are likely to underlie the basaltic material at depth. A sample taken from an active landslide in a road cutting a little

below Boyd's property was tested some ten years ago. The results showed a liquid limit of 126, plastic limit of 28 and linear shrinkage of 22. Clay mineral percentages were montmorillonite 55%, kaolinite 45–50% with quartz 5–10%. These percentages are only approximate. This sample was a grey plastic clay and was part of the Tertiary sedimentary sequence and can be expected to have low strength when wet.

It should be possible to build a house with reasonable safety on the southwest corner of the lot (near where the test pits have been dug) because it is on a small ridge structure and is relatively well drained, with a fairly extensive flat area extending for some distance to the east. Landslides are known to have occurred in other locations nearby and other sites on the property have a slightly greater risk of being affected. Good drainage conditions should be established around any house built on the site. Any other proposals to develop other parts of the property (i.e. the balance) would require close examination.

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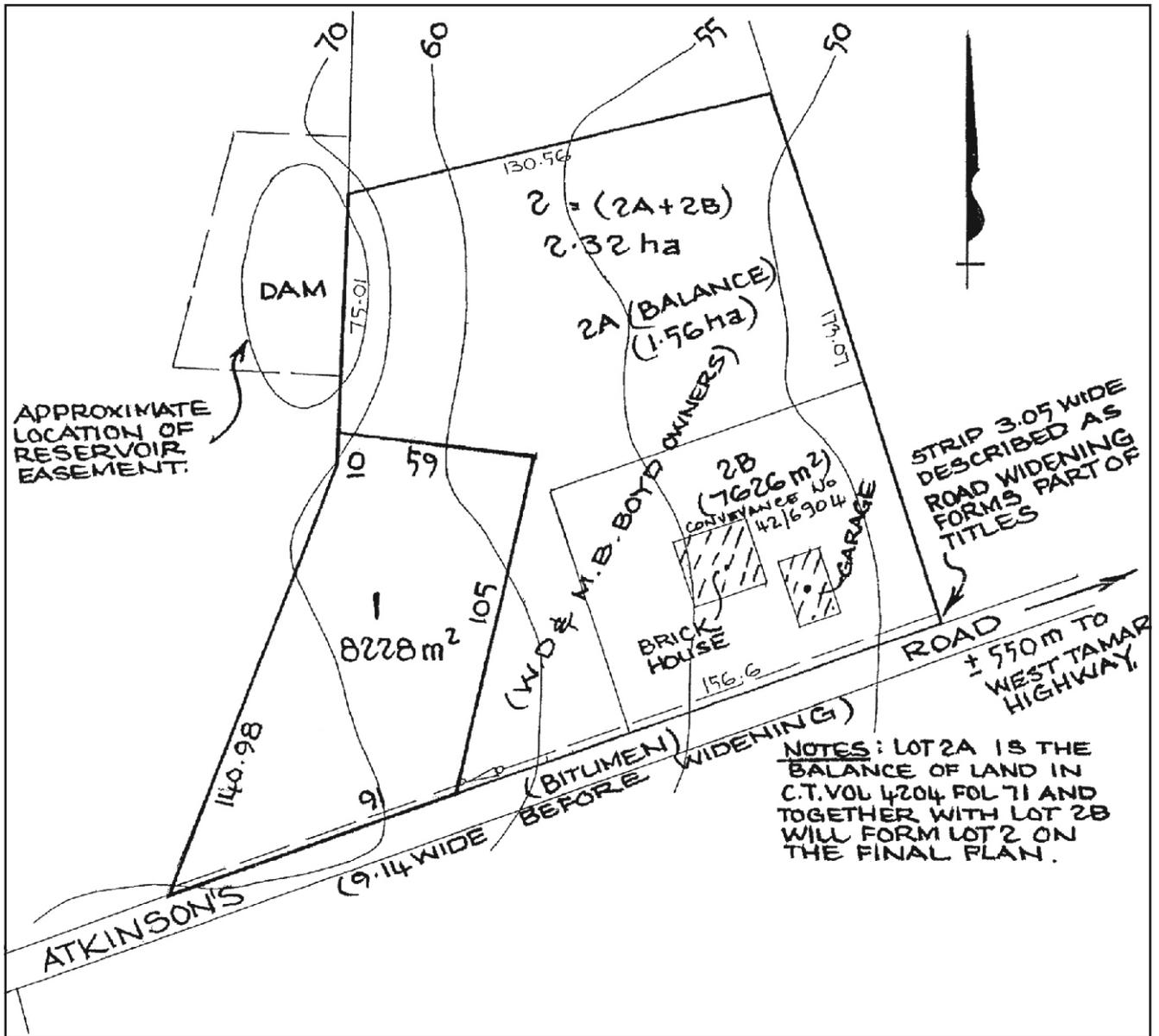


Figure 1

Proposed subdivision, Atkinsons Road, Legana