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Stability of a proposed subdivision, Kings Meadows, Launceston.

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A geological examination with the view of assessing the potential stability of a proposed subdivision situated above Ernest Street, Kings Meadows, Launceston, was undertaken at the request of L.H.S. Constructions Pty Ltd.

PHYSIOGRAPHY

The block is situated on the eastern flank of a NE-trending ridge on the western boundary of the suburb of Kings Meadows. The slope of the greater portion of the block is steep (16-17½°). A break in the slope to one of 11° occurs at the foot of the ridge close to eastern boundary of the subdivision, 3-6 m from the rear fences of the existing homesteads along the western side of Ernest Street.

The change in slope is thought to mark the boundary between the Jurassic dolerite and Tertiary sediments as shown on the Launceston 1:63,360 geological map (Longman *et al.*, 1964) and separates two subdivisions on the Department of Mines Tamar Valley landslip zone map. The dolerite and its talus slope is shown as stable ground on hard rock and the footslope as a potential landslip area.

GEOLOGY

Large blocks of dolerite cover much of the subdivision area. Near the top of the subdivision towards the west of the ridge these dolerite blocks are *in situ* forming low bench-like outcrops. Some of these outcrops show strong jointing with a dip to the west. No attempt was made to locate a boundary between these dolerite outcrops and the dolerite talus which forms much of the lower areas of the steep face of the subdivision.

No outcrops of Tertiary sediments were found on the subdivision, although nearby on the adjoining block 29 of Ernest Street a good exposure of Tertiary clay was found in a bank excavated for a new house. Some very poor exposures of Tertiary clay are also seen in a drain paralleling the rear fence line of the houses along the west side of Ernest Street. The Tertiary clay appears to form the lower 11° slope on which the existing homesteads on Ernest Street are located and extends into the subdivision area beyond their rear fences for approximately 3-6 m. The extent of these clays beneath the dolerite talus is unknown.

CONCLUSIONS

The area of Tertiary clay in this subdivision is confined to a narrow strip on the eastern margin of the subdivision, and is unlikely to cause any stability problems in this housing development project. However, as their area is so small it would appear prudent not to locate any of the houses directly on the clay.

REFERENCE

LONGMAN, M.J.; MATTHEWS, W.L.; ROWE, S.M. 1964. Geological atlas 1 mile series. Zone 7 sheet 39 (8315S) Launceston. *Department of Mines, Tasmania*.

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