

UR1973-92

Stability of land at Dilston, East Tamar.

C.J. Knights

An investigation was made of the stability of a block of land at Dilston owned by C. Salmon.

The block [EQ064233] is situated about 600 m south-east of the Lady Nelson Creek bridge on the East Tamar Highway.

Test pits (fig. 1) were dug to enable the investigation of subsurface conditions.

LOGS OF TEST PITS

HOLE 1. (Block 4) Depth 3 m; elevation c.10.5 m. Dry hole.

Depth (m)

0-0.6 Topsoil and ironstone boulders.
0.6-1.4 Crumbly clay, yellow-brown in colour with blue and grey patches. Grades into paler grey clay. Digging stopped by ironstone boulder.

HOLE 2. (Block 3) Depth 3 m; elevation c.10.5m. Dry hole.

Depth (m)

0-0.9 Dry brown topsoil.
0.9-1.5 Crumbly clay. Mostly red to brown in colour.
1.5-2.0 Gradation into yellow clay.
2.0-3.0 Damp, grey-yellow clay.

HOLE 3. (Block 2) Depth 2-8 m; elevation c.21 m. Dry hole.

Depth (m)

0-0.5 Topsoil and ironstone pebbles.
0.5-2.0 Orange, brown damp clay, ironstone boulders.
2.0-2.8 White-grey clay.

A Pilcon hand vane tester was used as a guide to the strength of the clay. In all cases it registered a peak strength of over 120 kPa, and residual strengths from 20-30 kPa.

Grey plastic clay is seen below ironstone on the shore line below the block.

RECOMMENDATIONS

At present the block shows no sign of shallow seated instability. However this area is not on main drainage and the drainage from three more houses could cause instability on such a steep slope.

Only two houses should be permitted on this block. They should be situated so that the drainage from one is not above the other.

No swimming pools should be built; the sides of cuttings over one metre in depth must be supported; deep rooting trees should be encouraged.

[10 December 1973]

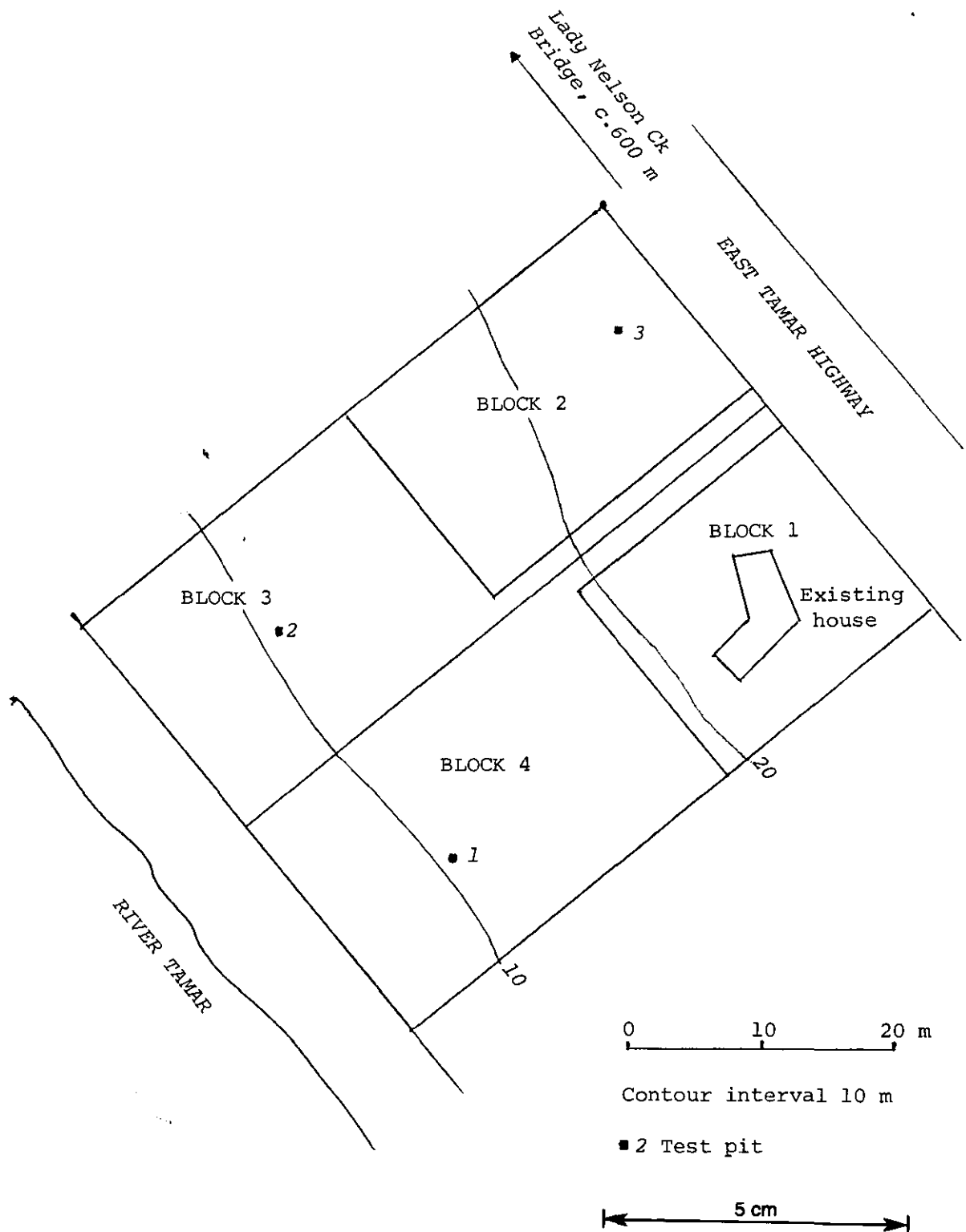


Figure 1. Position of test pits, Dilston.

City/Town of	Owner Charles Salmon		
Section			
Street East Tamar Highway	Solicitor Clarke & Gee		
Land District Dorset	Parish Wareham	C.T. P.G. Vol.	Fol.
Grantee Part of 2153 acres granted to William Neilly		Conveyance No. 24/378	
		Datum	
Corporation Lilydale Municipal Council		Date	

Scale : 60 feet = 1 inch

ALL DIMENSIONS AND AREAS SUBJECT TO SURVEY

5 cm

