Matric suction conditions in the soil profile were obtained through steady state unsaturated seepage analyses. The initial matric suction profile is the same as suction varied from 409 kPa at tree root to 49 kPa at lower boundary of the soil domain. The contours of changes in matric suction are presented in Fig. 12. The closer to the tree, the more change in suction is observed. Figure 12 also showed a similar pattern of moisture deficit near trees presented in Biddle (1983). The results of stress-deformation analysis are shown in Figs 13 and 14 as contours of horizontal displacement and contours of vertical displacement. A maximum foundation settlement of 80 mm and minimum settlement of 25 mm was observed. A maximum settlement in the soil profile took place at tree location and decrease with horizontal distance and depth.
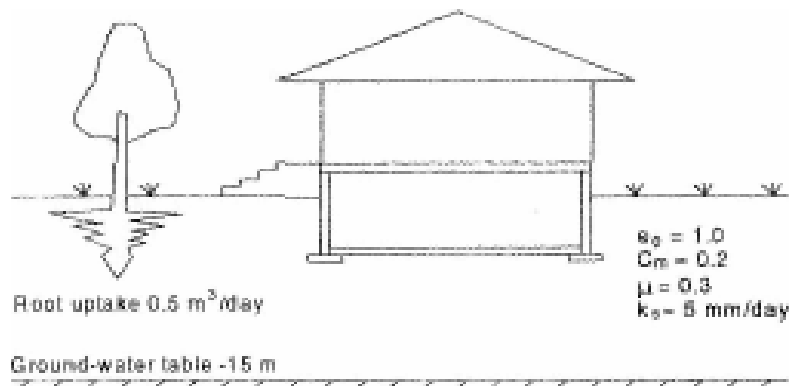

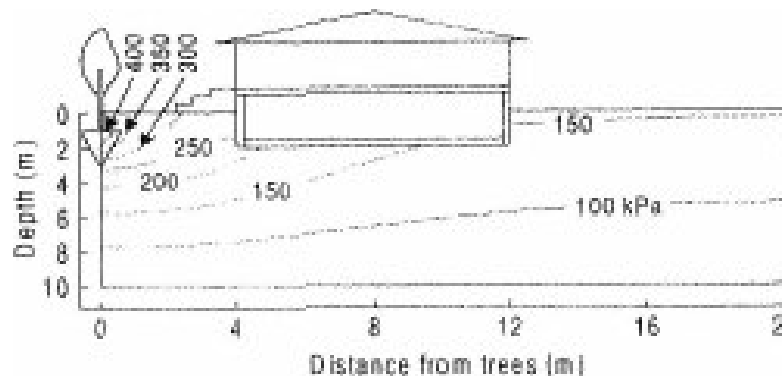**Figure 10.** Illustration of Example 2

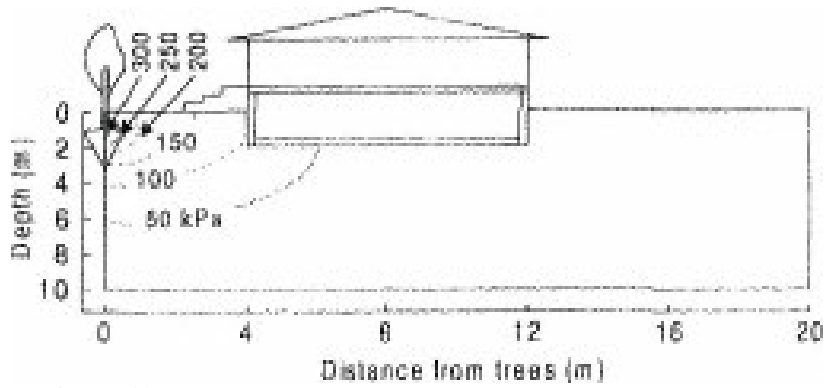**Figure 11.** Contours of final matric suction (kPa), Example 2

Figure 12. Contours of changes in matric suction (kPa), Example 2
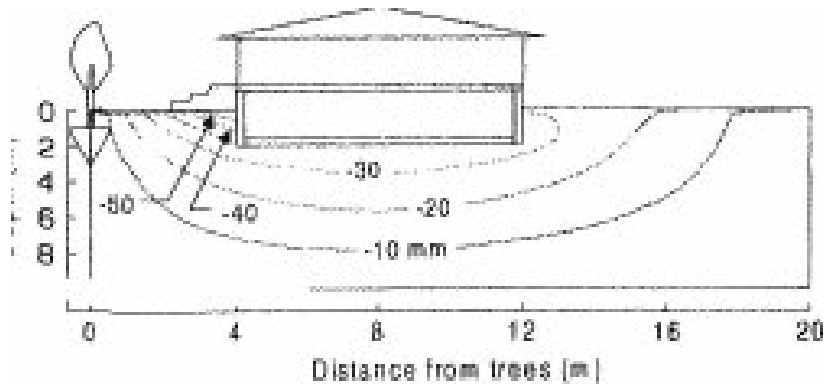
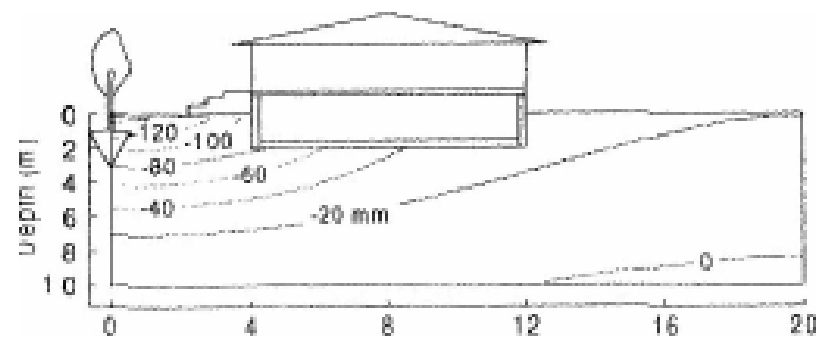**Figure 13**. Contours of horizontal displacement (mm), Example 2

Figure - 14. Contours of vertical displacement (mm), Example 2