

FINITE ELEMENT MODELING OF GROUND MOVEMENT ON THE ROAD CW16 SÉRAIDI -CHÉTAIBI (ANNABA, ALGERIA)

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Abstract: Grounds movements are considered a natural hazard, some of which have, over time, significant slow movements. Significance of these dynamic effects involves a risk which generates human and material damage. Policymakers must take this issue into account in their permanent security organization program. Some landslides exhibit a function of time, significant slow movements. They are assigned to a behavior of clay materials mechanism caused by the variation of geotechnical properties. The effects of water seepage in wet periods generally linked to the viscous nature of clay materials are causes primarily. They can also be related to the variation modeling parameters. The land slip site is located at the road CW16 Seraidi -Chétaibi, (Annaba, Algeria) area with an annual rainfall of more than 700mm. Analysis of the slope stability is carried out using several methods of deformation calculation of the natural ground state. In our case we use a plastic Mohr Coulomb from supported models. The project proposes to examine the different causes using the example of Cam Clay. The project will examine the different causes using the example of Cam Clay; elastic visco plastic model with time (SSCM: Soft Soil Creep Model) set in a finite element program Plaxis. This technique can show us how different behavioral assumptions can describe the slow movements of a slope. A comparison will be made with the Mohr Coulomb (MC).

Keywords : Mohr Coulomb, slip, numerical modeling, plaxis, cam clay, elastic visco plastic model