

Stability evaluation and engineering management of laojiaolin landslide in wanzhou district

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As a geological disaster common to the economic construction and people's lives and bring great loss of property, landslide has been growing attention[1]. The research on landslide has been paid more and more attention, and its research methods are becoming more and more perfect and rapid development. This paper takes Laojiaolin Landslide in Wanzhou district as the research object and gives the stability evaluation as well as the design of engineering management measures.

Through the analysis and evaluation of the regional geological conditions and the landslide engineering geological conditions, the deformation mechanism of the landslide is analyzed. According to the principle of the two dimensional rigid body limit equilibrium, the stability of the landslide is evaluated by the transfer coefficient method. According to the design principles of safety, rationality and economy, the anti slide pile and drainage measures are adopted and the design of anti slide pile is emphasized. Finally, the finite element analysis software is used to compare the stress and strain before and after the landslide treatment[2].

References

- 1) Clague, J.J. and Stead, D., 2012. Landslides: types, mechanisms and modeling. Cambridge University Press.
- 2) Griffiths DV, Lane PA. "Slope stability analysis by finite elements." Géotechnique, 1999, Vol. 49, No. 3, pp. 387-403.