ANALISIS DINDING PENAHAN TANAH PADA PEMBANGUNAN *FRONTAGE* PROYEK JALAN TOL JORR II PAKET I KUNCIRAN-PARIGI

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INTISARI

Salah satu dinding penahan tanah pada pembangunan *frontage* akses Graha proyek jalan Toll JORR II paket I Kunciran-Parigi telah didesain sedemikian rupa sehingga dianggap mampu menahan beban yang ada, selain mampu menahan beban dinding penahan tanah juga harus efisien dan ekonomis. Desain dinding penahan tanah yang ada dianggap bahwa dinding penahan tanah tersebut masih bisa didesain ulang yang lebih efisien dan ekonomis tetapi masih aman dalam menahan beban.

Tujuan dari laporan Tugas Akhir ini adalah untuk mengetahui desain dinding penahan tanah yang aman, efisien dan ekonomis yang digunakan dalam pembuatan *frontage* akses Graha. Untuk mendapatkan desain yang diinginkan, beberapa bagian diubah dari desain dinding penahan tanah yang ada seperti menghilangkan balok skur dan memisahkan kedua dinding penahan tanah. Perencanaan dan analisis dinding penahan tanah didasari dengan landasan teori pada bab 2 dan menggunakan data asli di lapangan.

Berdasarkan hasil analisis dinding penahan tanah tanpa perkuatan (balok skur dan plat menyambung), angka aman terhadap bahaya guling sebesar 3,405, angka aman terhadap bahaya geser sebesar 2,077 dan angka aman terhadap daya dukung tanah yang terlampaui sebesar 4,539. Angka faktor aman tersebut menunjukkkan bahwa desain dinding penahan tanah tanpa perkuatan aman digunakan, sehingga bisa lebih efektif dan ekonomis dalam biaya pengerjaannya.

Kata kunci : analisis, dinding penahan tanah, perkuatan.

THE ANALYSIS OF RETAINING WALL ON THE FRONTAGE TOLL ROAD PROJECT JORR II PACKAGE I KUNCIRAN-PARIGI

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ABSTRACT

One of the retaining wall on the frontage construction of the access of Graha in Toll Road Project JORR II package I Kunciran-Parigi has been designed so that it is considered able to withstand the existing load, besides being able to withstand the burden, retaining walls must also efficient and economical. With the design the author assumes that the retaining walls can still be redesigned more efficient and economical but still safe in holding the load.

The purpose of this final task report is to know the design of a safe, efficient and economical retaining wall that is used in the making frontage of Graha access. To obtain the desired design, the author revamp some parts of the existing retaining wall design such as removing the screws and separating both ground retaining walls. The planning and analysis of retaining walls is based on the foundations of the theory in Chapter 2 and using the original data in the field.

Based on the results of the ground retaining wall analysis without adhesion (the beam and plate to match), the safety number against the danger of the rolling 3,405, the safe number against the danger of sliding by 2.077, and a safe number of the land carrying capacity exceeded by 4,539. The safe factor number indicates that the design of the retaining wall without safety is used, so that it can be more effective and economical in the cost of the operation.

Keywords: *analysis, ground retaining walls, refortion.*