ABSTRAK

Tanah menduduki peran yang sangat penting dalam suatu konstruksi bangunan. Fungsi tanah sebagai pondasi bangunan harus memiliki kondisi tanah yang stabil, apabila ada sifat tanah yang masih kurang mampu untuk mendukung suatu bangunan maka harus diperbaiki terlebih dahulu agar mencapai daya dukung yang lebih optimal. Tanah lempung merupakan tanah yang meiliki sifat plastis yang apabila dalam kondisi kering menjadi keras dan menjadi plastis serta lengket dalam keadaan basah. Tanah lempung dapat diperbaiki dengan salah satu cara yaitu di stabilisasikan dengan cara penambahan kimia seperti kapur dolomit. Stabilisasi menggunakan kapur dolomit dapat mengurangi kelekatan dan kelunakan pada tanah. Adapun Pengujian yang telah dilakukan adalah uji water content, berat spesifik tanah, analisa saringan, pengujian atterberg, pengujian pemadatan dan pengujian CBR. Kadar campuran yang digunakan adalah 5%,10%,15% dan 20%. Dari pengujian pemadatan diperoleh hasil kadar air optimum tanah asli sebesar 27%, kadar 5% sebesar 23%, kadar 10% sebesar 17% dan kadar 20% sebesar 16%. Dari pengujian CBR diperoleh hasil pada tanah asli sebesar 13.55%, kadar 5% sebesar 14.03%, kadar 10% sebesar 15.75%, kadar 15% sebesar 18.52% dan kadar 20% sebesar 25.30%. Hasil CBR dengan penambahan kapur dolomit mengalami peningkatan pada campuran kadar 20% dan kapur dolomit dapat digunakan untuk stabilisasi tanah lempung.

Kata kunci : Tanah lempung , kapur dolomit,CBR.

ABSTRACK

Land occupies a very important role in a building construction. The function of the soil as a building foundation must have a stable soil condition. if there are soil properties that are still not able to support a building, it must be repaired first in order to achieve a more optimal carrying capacity. Clay soil is a soil that has plastic properties which when dry becomes hard and becomes plastic and sticky when wet. Clay soil can be improved in one way, namely stabilization by adding chemicals such as dolomite lime. Stabilization using dolomite lime can reduce the stickiness and softness of the soil. The tests that have been carried out are water content test, soil specific weight, sieve analysis, atterberg test, compaction test and CBR test. The levels of the mixture used were 5%, 10%, 15% and 20%. From the compaction test, the optimum moisture content of the original soil was 27%, 5% content was 23%, 10% content was 17% and 20% content was 16%. From the CBR test, the results on the original soil are 13.55%, 5% grade is 14.03%, 10% grade is 15.75%, 15% grade is 18.52% and 20% grade is 25.30%. The results of CBR with the addition of dolomite lime have increased in a mixture of 20% concentration and dolomite lime can be used for clay stabilization.

Keywords: Clay, dolomite lime,CBR.