

# **PENGARUH PENAMBAHAN ABU TEMPURUNG KELAPA TERHADAP NILAI CBR TANAH GAMBUT PADA LAPISAN SUBGRADE JALAN**

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## **Abstrak**

Roads are an element of land transportation that is intended to facilitate the movement of people and/or goods. The provision and management of roads is fully carried out by the government, as one of its obligations in providing public services (Oglesby, 1954). The use of a mixture of coconut shell ash as an additional material for road subgrade was carried out to determine how much the soil's bearing capacity is after being mixed with coconut shell ash. The use of coconut shell ash is applied to road subgrade with the addition of other mixed materials in specified sizes in order to determine the CBR value according to requirements (CBR min subgrade=6%). Laboratory CBR testing method (SNI 03-1744-1989) to determine the properties and effects of stabilized peat soil. Results of the maximum  $\gamma_d$  value of Standard Proctor test S (100% Original Peat Soil) = 0.582 gr/cm<sup>3</sup>, OMC = 56.73%. Max  $\gamma_d$  value S-2(Original Soil 95% + 5%CAS)=0.569 gr/cm<sup>3</sup>, OMC=57.52%, Max  $\gamma_d$  value S-3(Original Soil 90% + 10%CAS)=0.717gr/cm<sup>3</sup>, OMC=47.83%, Max  $\gamma_d$  value S-4(Original Soil 85% + 15%CAS)= 0.514gr/cm<sup>3</sup>, OMC=50.43. CBR test results on 100% original soil that was soaked, 0 days = 2.84, 1 day = 2.63, 2 days = 2.27, 7 days = 0.92, 14 days = 0.84, CBR test results on 95% original soil and a mixture of coconut shell ash as much as 5% of the weight of the original soil sample that was soaked, 0 day = 2.27, 1 day = 3.38, 2 days = 3.34, 7 days = 1.99, 14 days = 3.19, CBR test results on 90% original soil and a mixture of coconut shell ash as much as 10% of the weight of the original soil sample that was soaked, 0 day = 2.91, 1 day = 3.9, 2 days = 2.9, 7 days = 1.92, 14 days = 2.27, CBR test results on 90% original soil and a mixture of coconut shell ash as much as 10% of the weight of the original soil sample that was soaked, 0 days = 4.54, 1 days = 3.55, 2 days = 3.41, 7 days = 2.13, 14 days = 2.48. The CBR value is below the standard CBR value of <6% (does not meet the requirements as a subgrade material).

**Keywords:** Peat Soil, Soil Compaction, Coconut Shell Ash, Laboratory CBR