

## **ABSTRACT**

### **SETTLEMENT RELATED OF ORGANIC SOIL SUBSTITUTION OF GRADATION MATERIALS (SAND) CONCERN LOAD INCREMENT RATIO**

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In civil constructions building, soil have important things. Function of soil is load restrain for load construction upper soil. At different location, soil have different characteristic. With the result that need to test for soil. For mechanic characteristic of organic soil have compression and low bearing capacity. Construction building upper soil will getting some geotecnic problems. It's will influence for significant soil settlement and bearing capacity to restrain construction building upper soil.

In this researcher have done chemical soil examiner and physical soil test, consolidation test for organic soil substitution of gradation materials with compare load Increment Ratio related for LIR = 0,5 and LIR = 1. Procedure of consolidation examiner have done with loading to look consolidation coefficient ( $C_v$ ), indeks compression ( $C_c$ ) and recompression indeks ( $C_r$ ) of three samples A, B, and C sand substitution as big as 5%, 10%, and 15%.

At examiner procedure to three sampels have getting result that loading for LIR = 0,5 and LIR = 1 have difference for consolidation coefficient ( $C_v$ ), compression indeks ( $C_c$ ) and recompression indeks ( $C_r$ ). From result of test with LIR methode is very influence for consolidation process. At examiner consolidation with LIR = 0,5 have getting result that soil settlement is lower than LIR =1. And from examiner ,  $C_v$ ,  $C_c$ , and can be interprestated.

Keywords : Organic Soil, Load Increment Ratio, Soil Settlement.