

## PERNYATAAN KEASLIAN

Saya yang bertanda -tangan dibawah ini :

NAMA :

NIM :

JUDUL SKRIPSI :

dengan ini menyatakan bahwa Tugas Akhir yang berjudul : **PERBANDINGAN STABILITAS DAN BIAYA DINDING PENAHAN TANAH KANTILEVER DENGAN TURAP PADA PROYEK BENDUNG DI JL. PRAMUKA PUDAK PAYUNG SEMARANG**

benar bebas dari plagiat, dan apabila pernyataan ini terbukti tidak benar maka saya bersedia menerima sanksi sesuai ketentuan yang berlaku.

Demikian surat pernyataan ini saya buat untuk dipergunakan sebagaimana mestinya.

Semarang, \_\_ / \_\_ / 2020

Yang membuat pernyataan,

Adi Sutyo Agung

# **Study On Comparison of Stability and Budget Between Cantilever Wall and Sheetpile in Weir Project in Pudak Payung Semarang**

Oleh :

Ardian Gestaradianto <sup>1)</sup>, Adi Sutyo Agung <sup>1)</sup>, Abdul Rochim <sup>2)</sup>, Lisa Fitriyana <sup>2)</sup>

## **ABSTRACT**

Soil strengthening is often carried out especially in Indonesia with the intention of strengthening soil so that it does not collapse, for that the construction of Retaining Walls is often used, this wall serves to hold the ground forces so landslide can be avoided. Stability and redesign analysis of these two different types of retainong wall uses cantilever and Sheetpile

Calculation of stability and cost analysis by comparing type of cantilever and concrete sheetpile aims to determine the stability of of cantilever and concrete sheetpile, as well as comparing the cost plan required for each.

Based on the analysis and calculation, the following results are obtained. The value of bolster stability safety factor from cantilever wall is 1.76 and sliding is 1.51 with a budget of Rp. 15,461,025,934. and the type of Sheetpile with a safety factor value of 1.8 with a budget of Rp. 7,396,990,283. Based on the results of analyze from the Plaxis 8.6 program and the results of manual calculations using Microsoft Excel, it is known that the cantilever wall results from the redesign meet the value of rolling stability, shear and carrying capacity of the soil which mens its safe and for the use of sheetpile meet the safety factor value with a sheetpile length into the soil of 3.8 m.

**Keywords : Retaining Walls, Landslide, Stability, Plaster, Budget**

1) Civil Engineering Student Faculty of Engineering Sultan Agung Islamic University

2) Lecturer in Civil Engineering, Faculty of Teknik, Sultan Agung Islamic University