

## ABSTRAK

*Judul: ANALISIS PENGENDALIAN VOLUME BESI BETON PADA KONTRUKSI BAGUNAN GEDUNG UNTUK MINIMALISIR MATERIAL SISA (STUDI KASUS PROYEK MMP-WAREHOUSE#13), Nama: Dwi Prasetyo, NIM: 41116120211, Dosen Pembimbing: Ernanda Dharmapribadi, Ir., MM. 2021.*

*Bar Bending Schedule (BBS) Merupakan devisi yang merencanakan dan mengendalikan besi beton pada suatu proyek konstruksi dan bertanggung jawab terhadap waste besi yang terjadi, Tujuan utama dari tim BBS adalah menekan waste besi agar tidak melebihi batas yang sudah di berikan dari tim pemberi tugas, mengoptimalkan penggunaan besi supaya sesuai dengan yang di rencanakan, pemotongan harus di awasi agar sesuai dengan tabel bar bending schedule yang telah di tetapkan supaya lebih mudah untuk pemanfaatan sisa potong dan penglompokan sisa potong besi. Penelitian ini dilakukan dengan metode analisis berdasarkan tabel Bar Bending Schedule. Hasil penelitian mengungkapkan bahwa waste material dapat di optimasi dengan melakukan alokasi sisa material besi tersebut. Sebelum di lakukan optimasi waste total untuk pekerjaan pile cap sebesar 20,19 % atau setara 152,29 Ton. Optimasi di fokuskan pada diameter 32 karna memiliki sisa potong yang cukup banyak yaitu 28%. Dalam 1 pile cap membutuhkan 44 btg besi dengan panjang 12m dan ada sisa potongan 3m sebanyak 44 btg. Kebutuhan total pile cap 126 titik setara dengan 5.544 btg dengan Panjang 12m (437.132 ton). Dilakukan penyambungan dengan menggunakan coupler sepanjang 9m sebanyak 1.364 btg yang bisa mencakup sebanyak 31 titik pile cap.*

*Kata kunci : Bar Bending Schedule (BBS), Optimasi waste besi, Pemanfaatan sisa potong, Pengelompokan sisa potong, Tabel BBS.*

## **ABSTRACT**

*Title: ANALYSIS OF CONTROLLING THE VOLUME OF IRON-CONCRETE IN THE BUILDING CONSTRUCTION TO MINIMIZE RESIDUAL MATERIAL (MMP-WAREHOUSE PROJECT CASE STUDY#13), Name: Dwi Prasetyo, NIM: 41116120211, Supervisor: Ernanda Dharma Pribadi,Ir.,MM. 2021.*

*Bar Bending Schedule (BBS) Is a division that plans and controls iron-concrete in a construction project and is responsible for the iron-concrete waste that occurs, the main goal of the BBS team is to suppress iron waste so that it does not exceed the limit that has been given from the task-giver team, optimizing the use of iron so that it is in accordance with what is planned, the cutting must be monitored so that it is in accordance with the bar bending schedule table that has been set so that it is easier to utilize the remaining pieces and grouping the remaining pieces of iron. This research was carried out using an analytical method based on the Bar Bending Schedule table. The results of the study reveal that waste material can be optimized by allocating the remaining iron material. Prior to the optimization of the total waste for pile cap work, it was 20.19% or the equivalent of 152.29 tons. Optimization is focused on diameter 32 because it has quite a lot of remaining pieces, which is 28%. One pile cap requires 44 bars of iron with a length of 12m and there are 44 pieces of 3m remaining. The total need for a pile cap of 126 points is equivalent to 5,544 stems with a length of 12m (437,132 tons). Connections were made using a 9m long coupler of 1,364 btg which could cover 31 points of pile cap.*

*Key words : Bar Bending Schedule (BBS), Optimization of iron waste, Utilization of cutting residue, Grouping of remaining pieces, BBS table.*