Project Bragang reservoir of Bangkalan Regency is a project where working to solve difficulty of finding clean water in the dry season. This project was built on an area ±2.5 ha with axis length reservoir ± 140 m with height 10 m with volume of excavation ± 22,000 m³ and heap ± 12,000 m³. The implementation time of this project takes about 3 months for earth works. In the arranging of final project is focused to planning of equipment selection at earth works particularly work of excavation and heap embankment so that the project can be completed on time and got the lowest cost.

The calculation steps of this research are were divided into two phases, First determines the combination of heavy equipment and second the calculation of equipment costs. To the find combination of heavy equipment steps taken are calculate the volume of work, capacity and productivity of the tools used. In
determining the cost of the equipment that counts is the cost of rent, equipment costs and operating costs which includes fuel, and operators. So obtained time and cost of each composition heavy equipment for each work.

Results of analysis obtained from calculations cost and time at the Project Bragang Reservoir is combination of heavy equipment for excavation work used alternative 4 : 2 Excavator PC 390 and 5 Dumptruck with long time 50 days and cost Rp 868,170,000,-. For heap embankment used alternative 2 : 1 Compactor SD25D and 1 Bulldozer D31 with long time 22 days and cost Rp 180,326,694,-.

Keyword : Heavy Equipment, Cost and Time, Combination.