

ABSTRACT

PT. Telkom Access is a subsidiary of PT. Telekomunikasi Indonesia which is engaged in information and communication that has created a Fiber Optic network and serves to work on projects from PT. Indonesian Telecommunications. One of the projects that will be carried out is the FTTH installation project located in Taman Holis Indah II, Bandung. As is known, in a construction project there are several risks that are often faced, one of which is the delay in the completion of the project which causes the project costs to increase. Delay in project completion is a problem that often occurs and has an impact on the overall project work. To anticipate the delay, a design control schedule and project costs are carried out so as to avoid delays and enlarged costs due to project risks. The completion target of the FTTH Taman Holis Indah project began in April 2019 and was completed on September 2, 2019. In this problem, the Critical Path Method (CPM) and Unit Price Analysis methods were used by considering risk analysis as a contingency reserving time and project costs to become a optimal planning and avoiding the failure of a project. The calculation results using the CPM method and Unit Price Analysis show that the completion time of the FTTH Taman Holis Indah II project is 83 days with 17 critical activities and project costs of Rp. 1,320,711,136.

Keywords: *Scheduling, Critical Path Method, Unit Price Analysis, Risk Analysis, Contingency Reserve, Schedule and Cost Baseline.*