

## **ABSTRACT**

*Fiber Optic (FO) cable installation initially used an aerial cable system, but with government regulations, the aerial cable system became an underground system with the creation of an underground channel (duct) which was useful for creating an aesthetic space free of cables and making cables more organized and maintained. This is what is currently being done by PT. XYZ as a contractor in the FO ducting construction project in the Summarecon Bandung Area, Emily Cluster Phase II. In its implementation, the project was undertaken by PT. XYZ has the potential to experience failure in terms of settlement completion. One of the reasons is that the planning has not been fully defined, so that in project implementation there is no clear project management plan, especially in terms of scope, time, resource and cost. To avoid this failure, PT. XYZ requires a master plan project management that can be an optimal long-term plan, then the results of each plan will produce a project management plan that is used as a basis for project execution. The resulting project management plan includes, first, the scope management plan which includes the project scope statement, the Work Breakdown Structure (WBS), and the WBS dictionary. Second, is the schedule management plan which includes gantt charts, milestone lists, network diagrams, and results based on calculations using Critical Path Method (CPM) which show the existence of 9 critical activities, and 2 critical paths with a longest duration for 42 days. Third, is the resource management plan, which includes a resources plan and estimates the amount of labors needed every week for 9 weeks, where the minimum number of workers needed is 4 people in the 9th week and the maximum is 41 people in the 7th week. The last is the cost management plan that includes an estimated cost of IDR 771.072.945, project PV S-curves, and funding limit reconciliation.*

**Keywords: Critical Path Method (CPM), Ducting, Fiber Optic (FO), Master Plan Project Management**