

## ABSTRACT

*In fulfillment high internet needs, the network is increasingly being expanded. Fiber To The Tower (FTTT) is a fast and wide connection solution. In practice, the construction of a fiber optic installation requires a careful plan, therefore before carrying out the installation the technician will make a fiber optic network design using AutoCAD which will later be referred to as Design As Plan Drawing (APD). The As Plan Drawing design is made by mapping a road and fiber optic components in which the mapping must be made in as much detail as possible to clarify the needs and field conditions, in this case the construction of Fiber to The Tower (FTTT) using underground fiber optic cables, the As Plan design The Drawing (APD) will contain a fiber optic cable with a length of 35 Km, 5 handhole points with 5 closure cores 24, departing from the Silimawali Metro Ethernet power point and will transmit data to 3 towers in south Nias. This design is used as an initial estimate before the execution of a project, therefore the As Plan Drawing (APD) design is important because later with the design, the tools and components needed can be estimated. A fatal thing will happen when the design is not carried out, or is made from scratch. In practice, apart from being used as a design reference in the field, As Plan Drawing (APD) is also carried out as a negotiation between project workers and the client, if the design is done from scratch, the workers in the field will be confused about the project. absenteeism and costs continue to rise, and if the client does not like the project can be canceled.*

*Keyword : Fiber Optik, As Plan Drawing, AutoCAD, Fiber To The Tower.*