

ABSTRACT

Seturan signalized intersection which is part of Ringroad Utara is one of the National road Yogyakarta which became one of the main acces to serve the traffic of the city that resulting heavy traffic and many of heavy vehicles crossing the road triggers the occurrence of damage result of congestion and discomfort drive.

Re-design flexible pavement to rigid pavement an alternative damage has occurred. The method used for rigid pavement design is 1993 AASHTO and 2017 Bina Marga methods. Data were collected based on secondary data from related institutions that is the average daily traffic data along with soil data from Planning and supervision of the national road (P2JN) Province of Yogyakarta and rainy day data from Station Climatology Class IV Mlati Yogyakarta. The data were then analyzed using the AASHTO 1993 method and Bina Marga 2017 method.

The result of the research on the intersection of Seturan using 1993 AASHTO method was thickness concrete slab of 31 cm using 38 mm diameter dowel bar and tie-bar diameter 13 mm while the Bina Marga method for 2017 obtained concrete plate thickness of 30.5 cm using dowel diameter 36 mm and tie-bar diameter 16. The different plate thickness analysis results were due to the different input parameters used by each method. The differences of input parameters of realibility, serviceability, normal deviation standard, modulus elasticity of concrete, drainage coefficient, load transfer coefficient factors.

Keywords: *1993 AASHTO, 2017 Bina Marga, Rigid Pavement*