STRUCTURE REPLANNING OF BRIDGE WITH T-GIRDER REIFORCED CONCRETE STRUCTURE USING SNI 1725:2016

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ABSTRACT

Bridges are an important part of a road network, bridges are one of the infrastructure needed for the sustainability of economic and social activities in a region or region. Economic and social activities can run well if the existing infrastructure is also in good condition. So infrastructure affects the quality of social economic activities. In this plan, a load analysis is carried out referring to the loading standards for the SNI 1725: 2016 bridge.

After planning, it is obtained the main slab reinforcement D16-250 mm and shrinkage reinforcement D13-300 mm. The main curb reinforcement is D16-250 mm and shrinkage reinforcement D13-400 mm. The railing walls are obtained with reinforcement for bending reinforcement 2 Ø 13 mm, and reinforcement for or shrinkage in the longitudinal direction of Ø 10-200 mm. The main reinforcement of the diaphragm beam using 3D16 mm and the shear reinforcement obtained by reinforcing Ø13-200 mm. For the beam girder for bending reinforcement obtained tensile reinforcement 16D32 mm and compression reinforcement 5D32, while shear reinforcement Ø13-200 mm and body reinforcement obtained 6 Ø 13 mm. Reinforcement in the longitudinal and transverse directions of the stepping plate obtained reinforcement D16-250 mm. Calculation of reinforcement with the Barbending Schedule in the planning uses screw iron of 22123.16 kg and the remaining 3597,38 kg, while plain iron is 1048,07 kg and the remainder is 262,40 kg. The budget plan is obtained at Rp. 1.370.940.000.

Key words: Reinforced Concrete Structure, Barbending Schedule (BBS), Cost, Bridge