ABSTRACT

Optimization of Wide and Volume
to Design The Track Underground at The Limited Area

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The need for land as one of supporting human life is increase. One way to overcome that problem is building track underground to optimize limited area and the volume of track underground.

The design of track underground is created with a circular cross section (cylinder tunnel) and a square cross section (cube tunnel). Two models are drawn for each design. Mathematical model for each model is created to get the length, the wide and the volume of track underground. Each model of the design has a different length, wide and volume. The result from optimization of the wide of limited area is the design with maximum length. The design of track underground with a square cross section has length, wide and volume more maximum than the design of track underground with a circular cross section although the diameter of circular cross section is longer than the width of square cross section.

Key words : Mathematics Model, Track Underground, Volume, Wide.