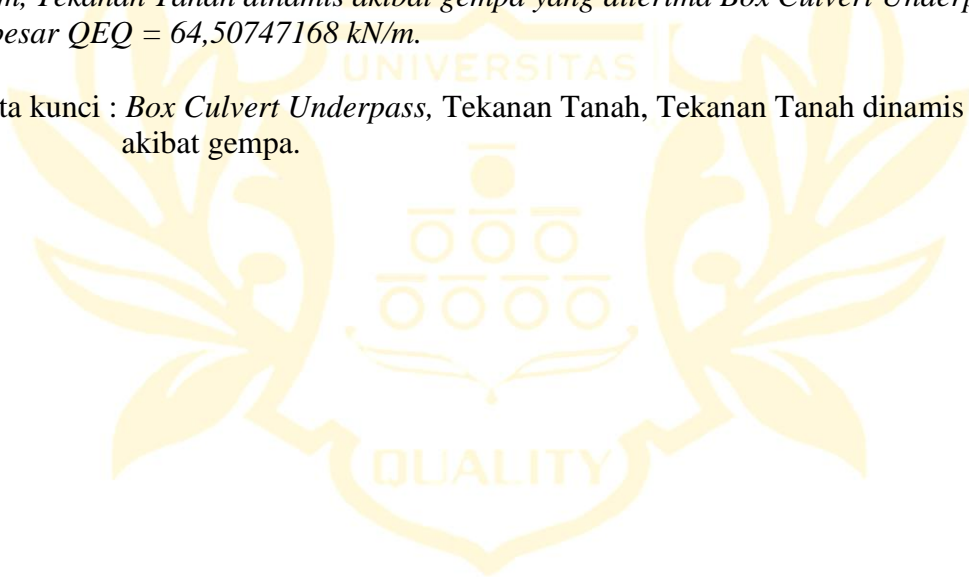


ABSTRAK

Seiring meningkatnya pertumbuhan perekonomian dan pertumbuhan penduduk akan berpengaruh pada masalah transportasi. Daerah Rantau prapat – Kota Pinang, merupakan kawasan berkembang dan salah satu akses menuju kota adalah jalan Kereta Api. Untuk itu, pemilik proyek Direktorat Jendral Perkertaapian melalui kontraktor PT. Tiga Putra Mandiri Jaya dan konsultan PT. Daya Cipta Dianrancana membangun sebuah jalur Kereta Api yang dimulai dari daerah Rantau prapat dan berakhir di Kota Pinang. Pada dasarnya adalah untuk mengetahui berat total Box Culvert Underpass, tekanan tanah yang diterima Box Culvert Underpass, dan mengetahui besarnya beban yang diterima Box Culvert Underpass akibat beban yang terjadi diatas Box Culvert Underpass. Sehingga didapat Berat total Box Culvert Underpass sebesar 377,52 Kn, Tekanan Tanah yang diterima pada Box Culvert Underpass sebesar $QTA1 = 3,4596 \text{ kN/m}$ dan yang diterima $QTA2 = 38,0565 \text{ Kn/m}$, Besarnya Beban yang diterima Box Culvert Underpass akibat beban yang terjadi diatas Box Culvert Underpass sebesar 113,75 kNm, Tekanan Tanah dinamis akibat gempa yang diterima Box Culvert Underpass sebesar $QEQ = 64,50747168 \text{ kN/m}$.

Kata kunci : Box Culvert Underpass, Tekanan Tanah, Tekanan Tanah dinamis akibat gempa.



ABSTRACT

As economic growth and population growth increase, it will affect transportation problems. Rantau Prapat area - Pinang City, is a developing area and one of the accesses to the city is the Railroad. For this reason, the project owner of the Directorate General of Railways through the contractor PT. Tiga Putra Mandiri Jaya and PT. Daya Cipta Dianrancana built a railroad that started from the Rantau Prapat area and ended in Pinang City. The basis was to find out the total weight of Box Culvert Underpass, the ground pressure received by Box Culvert Underpass, and to know the amount of load received by Box Culvert Underpass due to the burden which occurred above the Box Culvert Underpass So that the total weight of the Box Culvert Underpass is 377.52 Kn, the Soil Pressure received on the Box Culvert Underpass is $QTA1 = 3.4596 \text{ kN / m}$ and the received $QTA2 = 38.0565 \text{ Kn / m}$, The Amount of Load received Box Culvert Underpass due to the load that occurs above the Box Culvert Underpass of 113.75 kNm, dynamic Earth Pressure due to earthquake received Box Culvert Underpass of $QEQ = 64.50747168 \text{ kN / m}$.

Keywords: Box Culvert Underpass, Earth Pressure, Dynamic Earth Pressure due to earthquake.

