

عنوان مقاله:

APPLICATION OF TIRE MATERIAL AS PAVEMENT EMBANKMENT

محل انتشار:

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خلاصه مقاله:

Recently, the tendency to use recycled and waste materials in the construction industry has significantly increased. The use of tire derived aggregates (TDA) could be an economical, sustainable, and environmentally friendly solution instead of using raw granular aggregates. This paper investigates and compares the seasonal performance of a road pavement comprised of tire embankment material to a conventional pavement on a test road in Edmonton, Alberta, Canada. The test road included three different sections constructed using TDA materials. The first section was comprised of passenger and light-truck tires (PLTT); the second section included off-the-road (OTR) tire particles; and the third section was made of embankment layers with a mix of PLTT and local subgrade soil. A conventional pavement section was constructed adjacent to these sections as a control section. To investigate the performance of the pavement at different sections, falling weight deflectometer (FWD) tests were conducted on both tire sections and the control section in different seasons. The back-calculation results of FWD tests revealed that the subgrade of the TDA sections showed higher deflection and a lower resilient modulus compared to the control section; however, maximum pavement deformation was higher in the control section.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

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