ABSTRACT

Recycled Asphalt Pavement (RAP) is that the largest recycled good within the U. S. and eighty million tons are recycled yearly, saving taxpayers concerning $1.5 billion greenbacks. This
paper explores the chance of utilizing one hundred pc RAP materials in asphalt pavement. Asphalt mixtures square measure created at 135°C in a very typical asphalt plant. However, at
135°C not all binder from RAP materials might not become effective for coating aggregates. The most objective of the study is to envision the quantity of effective binder available from RAP within the asphalt plant. The 100% RAP mixes have aged binder which will alter combine
designs and interaction with virgin binder. during this study, to determine temperature cracking resistance and fatigue performance, samples were ready exploitation a one hundred percent RAP combine with no virgin binder and a %|one hundred pc 100%RAP combine with virgin asphalt binder to know the optimum binder content of the combination. Second, to see
the effectiveness of binder from RAP materials, compaction tests were performed by heating RAP materials at numerous temperatures. it had been found that 100% RAP mixes can not be gettable for field use if any virgin binder is else to achieve the optimum asphalt content.
Based on restricted take a look at results, the low temperature grade weren't at intervals correct limits however the beam fatigue testing results were acceptable. Based on compaction take a look at results, further heating is needed to increase the effectiveness of asphalt binder from
RAP materials.