

EXPERIMENTAL INVESTIGATION FOR RECYCLED COARSE AGGREGATE REPLACED FOR NATURAL COARSE AGGREGATE IN CONCRETE

RAVI PATEL¹, CHETNA M VYAS² & DARSHANA R BHATT³

¹Student of Final Year M.E. C E & M, B.V.M. Engineering College, Vallabh Vidyanagar, Gujarat, India

²Civil Engg. Department, A.D.I.T Engineering College, New Vallabh Vidhyanagar, Gujarat, India

³Structural Engg. Department., B.V.M Engineering College, Vallabh Vidhyanagar, Gujarat, India

ABSTRACT

Due to the critical shortage of natural aggregate, the availability of demolished concrete for use as recycled concrete aggregate (RCA) is increasing. Using the waste concrete as RCA conserves natural aggregate, reduces the impact on landfills, decreases energy consumption and can provide cost savings. Recycled aggregates are the materials for the future. The application of recycled aggregate has been started in many countries for construction projects. This Research Paper reports the basic properties of recycled coarse aggregate. It also compares these properties with natural aggregates. Basic changes in all aggregate properties were determined. Basic concrete properties like compressive strength, workability etc. are explained here for different combinations of recycled coarse aggregate with natural aggregate. In general, present status & utilization of recycled coarse aggregate in India with their future need is discussed.

KEYWORDS: Recycled Coarse Aggregate, Recycled Coarse Aggregate Concrete, Compressive Strength, Workability