

# A Review Paper on Experimental Study of Demolished Concrete use in Rigid Pavement Construction

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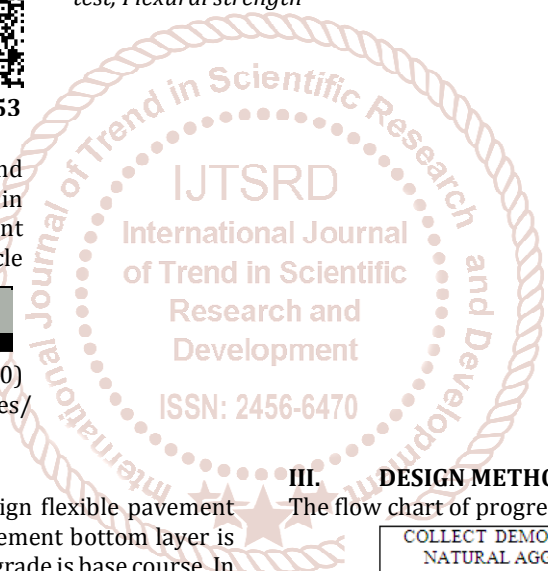
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## ABSTRACT

Today construction is increasing very fast rate and due to increase in construction concrete waste is produced in large amount. So for dispose of this waste large amount of land fill is required and also it impacts the environment condition. In this study we use this demolished waste concrete by replacing normal fresh aggregate. Demolished aggregate are used in the mixture of concrete in the different proportions.

**Keywords:** Demolished concrete, Normal aggregate, R.C.C., compressive strength test, Flexural strength

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## I. INTRODUCTION

In the highway construction we design flexible pavement and rigid pavement. In the rigid pavement bottom layer is soil subgrade. And upper the soil subgrade is base course. In the base course large amount of aggregates are required so if use used the demolished waste aggregates than dumping problem of waste aggregate are avoided. We also know India is developing country, in any developing country large construction is required so large amount of aggregates needed, so after using demolished aggregates we save large economy and also it good for environments.

## II. Review of literature

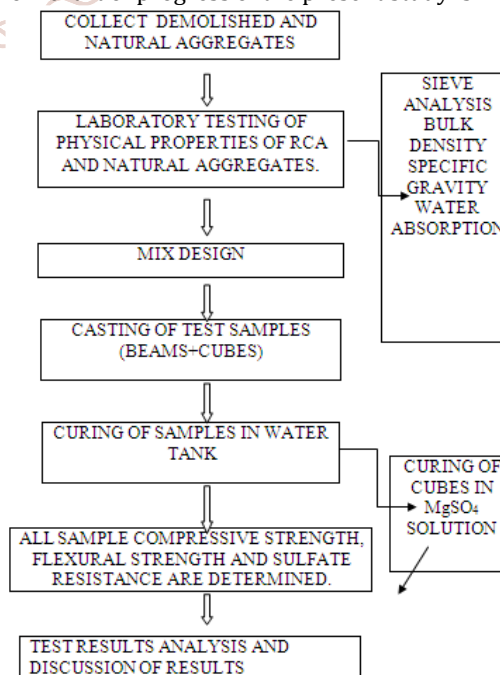
Many studies are carried out for the soil stabilization. RCA Poon 2015 et al- In this study recycled coarse aggregates are taken and workability of the concrete are checked and also bleeding effect also considered.

Shyama 2016 et al- in this study natural aggregates replace by recycled coarse aggregates and compressive strength and flexural strength are calculated at different days.

Rao Aakash 2017 et al - In this study recycled coarse aggregate are used in experiment and find that recycled coarse aggregate give normally same strength as that give fresh aggregates after adding some admixture.

## III. DESIGN METHODOLOGY

The flow chart of progress of the present study is



Flowing test are carried out for the study:-

1. Compressive strength test
2. Flexural strength test

#### IV. Objectives of the Study

The study on use of demolished aggregate in the pavement construction

1. To utilize the waste concrete produced by broken the structure.
2. Waste concrete used in construction after demolished it does not bad effect on environment
3. We used demolished aggregates as a alternate source of fresh aggregates
4. In highway construction lot of aggregates are used so we can used demolished aggregates in pavement construction

#### V. REFERENCES

- [1] Mk Gopal ' Demolished concrete effect on compressive strength of concrete' 2008 U.S. Department of Transportation.

- [2] GTAA " Reducing effect of waste concrete for environmental adverse' Highway federation system
- [3] V Kumar Sah and Sunmara "Determination of compressive and flexural strength of demolished concrete " volume 5 JAN FEB Page 172-175
- [4] Buntial , F., "Demolished aggregate used in tall structure after modified the property of demolished aggregate , Vol. no. 33, September-October 2005,pp204-217.
- [5] Doon S jha and P janim 2003. "freezing effect of demolished concrete on structure," concrete research , Volume, No.3, pp. 122-130.
- [6] Tangle S Kumar "recycled aggregate used in the bridge construction" international journal of sciene online volume 2 page no 412-416.
- [7] Morth specification
- [8] S. poom kumar "recycled aggregates used in construction after adding admixture" international journal volume 7 pp 322-328.

