

## **ABSTRACT:**

### **SUSTAINABLE CONSTRUCTION IN URBAN TRANSPORTATION STRUCTURES – ABSTRACT**

**By**

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Multilevel traffic interchanges and major flyovers are an integral part of a city's growth. The challenge that exists today is how to retain the essential cultural and social characteristics of the urban environment and still give the city an efficient transportation network.

Transportation structures are inherently large and almost always have to cater to mixed traffic including trucks, buses, cars, scooters, cycles and, ofcourse, pedestrians.

The impact of a "green" transportation structure may be judged less by statistics and more by whether it blends into the environment satisfactorily. Structures must have a high aesthetic value to be acceptable. They must provide for signal-free movements to ensure that the air quality does not deteriorate by emissions from stationary vehicles. Its environs must include appropriate landscaping.

Transportation structures to be sustainable must not only fit into the community but also encourage mass transit, cycles and pedestrians instead of automobiles. The safety of all the users is a matter of paramount concern during construction and during the service life of the structure.

In most cases existing important buildings and other major landmarks have to be incorporated both physically and visually as part of the overall scheme in the conception of the transportation structures.

Delhi is a city with a large population and issues of mixed traffic and is also blessed with a large number of heritage buildings and historical monuments. The physical and visual preservation of these buildings and monuments present a huge challenge in the design and construction of transportation structures in the city. The city also has a large number of water bodies and streams, apart from a large river.

How these multifarious problems were tackled in some of the recent transportation structures, in Delhi, is the subject of the paper.