MUKERBA CHOWK TRAFFIC INTERCHANGE

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GRADE SEPARATOR AT MUKARBA CHOWK

Built by the Public Works Department of Delhi, the interchange-cum flyover is located at Mukerba Chowk, at the outskirts of Delhi. This complex junction facilitates signal free movements in all directions at the intersection of the historic Grand Trunk Road (National Highway No: 1) and the Outer Ring Road, often called the peripheral spine of the city of Delhi.

Traffic studies done in the year 2000, when the necessity of the project was first conceived revealed the following mixed traffic volumes (measured in terms of passenger can units or PCUs):

Total	:	3,30,000 PCUs/day	The northern states of Uttar Pradesh, Haryana, Punjab, Himachal Pradesh and Jammu & Kashmir are connected to the state of Delhi at this junction.
Peak-hour -	:	18,857 PCUs/hour	
Peak-hour - evening	:	20,343 PCUs/hour	

The facilities provided by the project can be summarized as follows:

Total Length of all roads (3&4 lanes)	:	6828 m
Bridge portion	:	1793 m
Concrete bridging	:	1357 m
Composite steel-concrete bridging	:	436 m
Cycle track (4.0 m wide)	:	2500 m
Footpath (1.2 m wide)	:	1774 m

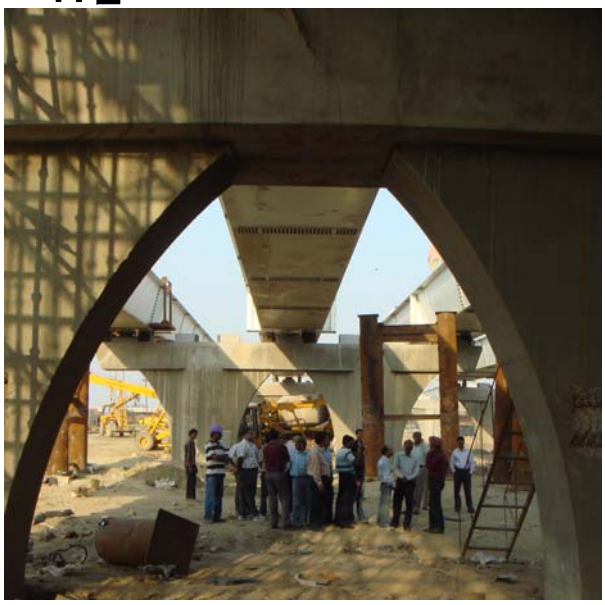
The quantities of major materials consumed in the project are:-

Concrete	:	74968 cum
Steel (Structural + Rebars)	:	12960 t
Earth Work:		
Excavation	:	3,00,000 cum
Embankment	:	2,40,000 cum

Model of Mukerba Chowk Traffic Interchange

To create a good example of an environment friendly public project, the following main issues were specifically kept in mind:

- Utilising the space occupied by the city's landfill and garbage dump for socially relevant purposes
- Minimising structures and maximising ground level roads and embankments Use of fly ash, a waste material of thermal power plants, in all types of embankments of the project.
- Use of blast furnace slag (byproduct of steel manufacture) cement in foundations resulting in more durable concrete.
- Utilising nallahs (drains) as an asset and making them part of the overall landscaping
- Encouraging pedestrians, cyclists and public transportation in preference to personal motorized vehicles
- Signal – free junction for movements of traffic in all directions thereby reducing pollution from stationary vehicles
- Integrating existing structures and facilities (archeological monument, burial ground, sub-station, city garbage dump) as part of the overall design concept).
- Evolving structural shapes that would be aesthetic and enhance the quality of the environment
- Developing concepts that would result in a reduce period of construction.



Aesthetic Form of Sub-Structure

View from Busbay of Main Flyover