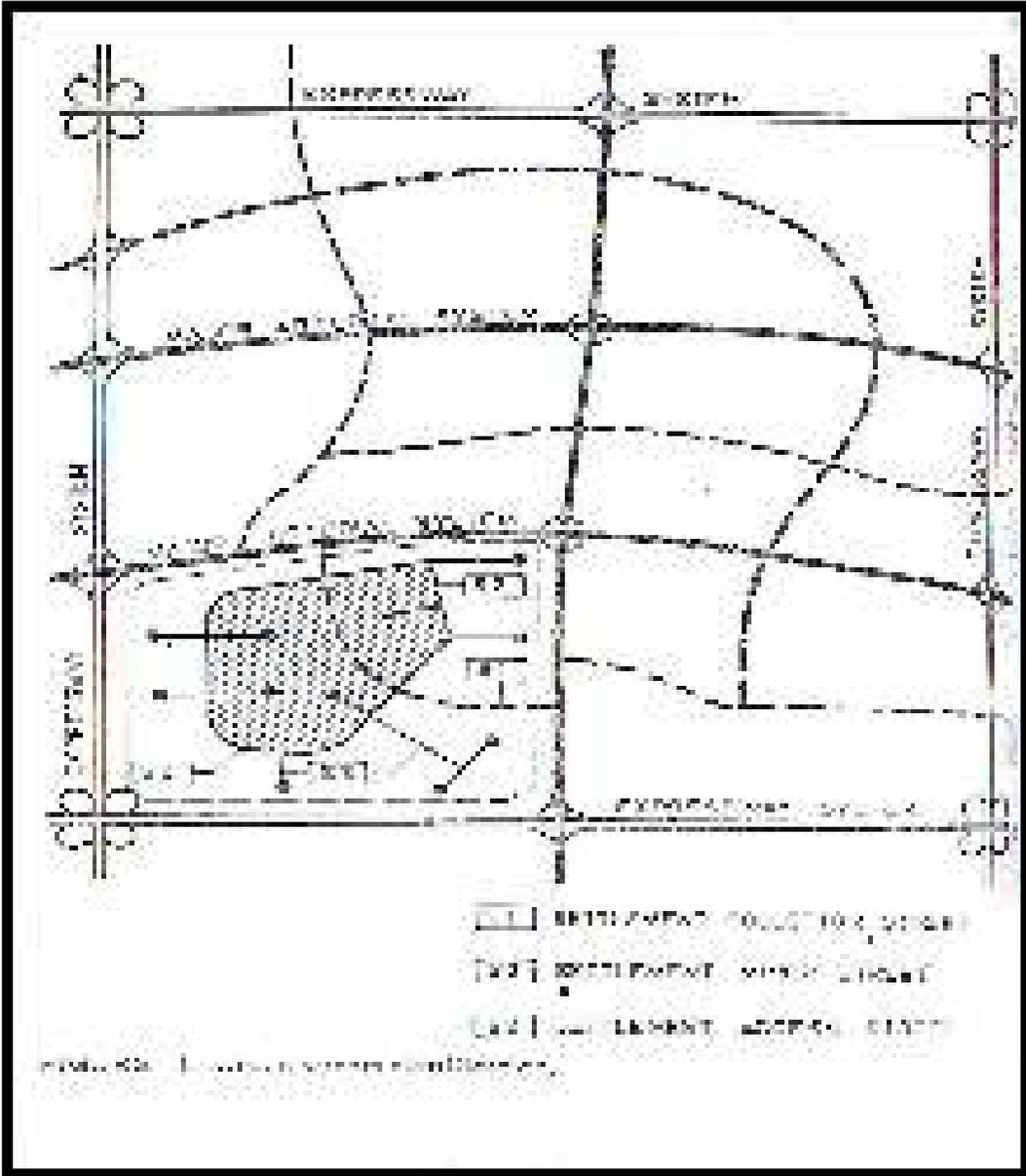


Transportation & Road System



Transportation & Road System

Roads should be designed to cater for a defined function. This reflects the distance of travel, level of traffic flow and desired speed of travel. Road networks in most countries will therefore reflect the development of a hierarchy of roads, with motorways at the highest level and local access roads at the lowest. In practice a basic hierarchy will occur naturally through the more heavily trafficked roads being engineered to higher standards. But it is important that the hierarchy is established to clear guidelines linking design to function, throughout the network. This is particularly necessary where different functional levels or different geographical areas are managed by different road authorities.

SO, Road can be classed according to the function to the following:

1- Flow function

Roads with a flow function allow efficient throughput of (long distance) motorized traffic. All motorways and express roads as well as some urban ring roads have a flow function. The number of access and exit points is limited.

2- Area distributor function

Roads with an area distributor function allow entering and leaving residential areas, recreational areas, industrial zones, and rural settlements with scattered destinations. Junctions are for traffic exchange (allowing changes in direction etc.); road sections between junctions should facilitate traffic in flowing.

3- Access function

Roads with an access function allow actual access to properties alongside a road or street. Both junctions and the road sections between them are for traffic exchange.

The match between **driver behavior** and **road design** will be optimized where the road design gives a clear message to road user of the function of the road.

- A road classification system designates streets into different groups or classes according to the type of service each group is intended to provide. This is a fundamental tool for urban development and road management. Grouping roads with **similar functions** can improve transportation planning, road infrastructure design and maintenance, and traffic and road operations.
- The goal of *residential street* designed should be to provide for reasonable vehicular and pedestrian uses. The street design should also provide access to buildings and residence in a manner that enhance the appearance ,security, safety, and enjoyment of the area.
- Every street has been given one of the following four classifications:

ROAD SYSTEMS

1- LOCAL ROADS

2- COLLECTOR ROADS

3- ARTERIAL ROADS

4- EXPRESSWAYS OR FREEWAYS

1- Local Roads

- Local roads are the most common roads by far, but are also the slowest for travel. They are designed specifically to have high accessibility and to connect to collector and arterial roads, and are typically not used for through traffic.
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- **Characteristics**
- Right of way = **9 - 16 m**
- Road way = **5.5 – 10m.(parking on one side)**
- Roadway = **8.5- 12m.(parking on two sides)**
- Speed limits 30 to 40 km/hr.
- No bus routes.
- Sidewalks on at least one side of road.
- The local street is a space for which automobiles and pedestrians directly compete. This type must serve both pedestrian and vehicles.