



## **CHAPTER 7.0**

# **ISSUES, CONSTRAINTS AND POTENTIAL**

## **7.1 General**

The indepth analysis of the data collected in the present study has enabled to assess the existing transport system, traffic and travel characteristics of the study area based on which certain issues have been identified. These issues are briefly presented in the following sections.

## **7.2 Issues**

### **7.2.1 Road Network**

The study area has been experiencing accute traffic congestion and associated problems. Some of the outstanding problems relating to the road n etwork are:

- i) Absence of functional hierarchy of road network as a result of which there is an inter-mixing up of local traffic and long distance traffic.
- ii) Narrow road network with restricted capacity particularly in the central area resulting in congestion and loss of productivity.
- iii) Absence of development controls along the major arterial routes resulting in proliferation of commercial activities which are affecting the level of service of the corridor
- iv) Lack of access control particularly along arterial ro ads.
- v) Absence of control on encroachment of activities along roads, particularly in the central area, resulting in loss of capacity for traffic and pedestrian movement
- vi) Poor road surface quality and absence of provision of essential street furniture elements
- vii) Intersections with poor geometrics and control systems along all major corridors.
- viii) Lack of pedestrian facilities.
- ix) Movement of non-destined traffic through functional areas.



### **7.2.2 Parking**

Parking is a serious issue in the study area and its management needs priority. Some of the significant problems associated with parking are:

- i) Parking demand is high in central area primarily due to concentrated commercial activities
- ii) There is an absence of adequate off -street parking facilities as a result of which parkers are forced to park their vehicles on the streets
- iii) On-street parking phenomena reduces the effective road width available for movement of traffic
- iv) There is an absence of a comprehensive parking policy for the study area, involving components such as organisation of circulation system and on -street parking, identification of possible off -street parking sites, intensive utilisation of existing parking areas including air rights exploitation, levy of parking fee, municipalisation of parking spaces, parking norms and standards and travel demand management measures.

### **7.2.3 Public Transport System**

The major issues relating to the public transport system in the study area are:

- i) Absence of a proper public transport system with well planned routes and schedules has led to mushrooming of para transit modes. These modes with their obsolete technology and operating environment are skimming public transport traffic and revenues.
- ii) Public transport infrastructure in terms of stops, depots, terminals/stands, vehicles etc. are inadequate.
- iii) There is an absence of well-coordinated public transport development policy which can check the inequities in provision of public transport and which can guide the future development pattern of the city.

While IPT's are sharing a reasonable share of travel demand in Vijayawada, there is very little understanding of their role, potential and constraints. Some of the issues are:

- i) There is little effort to plan for their rational development & growth
- ii) There is an inherent bias against them
- iii) They are highly unorganised, poorly equipped and ill -informed
- iv) There is poor understanding of their characteristics, contributions and problems
- v) They suffer from technological obsolescence

In the context of growing travel demand in Vijayawada, the multi -dimensions of trips performed and the constraints on public resources, it is important to recognise the role of para transit and incorporate them in the planning and development process.



## **7.2.4 Terminals**

### ***Bus Terminals***

Some of the major problems associated with the Bus Terminals are:

#### *Pandit Nehru bus terminal*

- Pandit Nehru bus terminal abuts directly on NH -9 road, which comes through traffic
- Lack of traffic management and enforcement facilities in front of terminal exit door.
- Encroachment and parked vehicles in front of terminal exit door
- Dis-organised parking of auto rickshaws and cycle rickshaws in front of bus terminal

#### *Auto Nagar bus terminal*

- Bus terminal entry and exit directly on to NH -9 road, which affects smooth traffic movement
- Lack of traffic management and enforcement facilities in front of the terminal
- Dis-organised parking of auto rickshaws and cycle rickshaws in front of bus terminal
- Inadequate facilities within the Bus Terminals in terms of bays, idle parking administrative area, boarding and alighting platforms and circulation
- Lack of terminal planning principles and design criteria in the development and operation of terminal complexes

#### *City bus terminal*

- Bus terminal entry and exit directly from police control room junction road approach, results in congestion on this road

### ***Railway Station***

The present Railway Station is located near to Kaleswar Rao market area. All the roads approaching the railway station are encroached by shopkeepers, hawkers and parked vehicles. Some of the major problems are:

- Intense traffic related problems during train arrival/departure timings
- Traffic circulation on connecting roads of railway station need to be regulated for smooth traffic movement
- Unorganised Auto parking in front of station area
- Encroachments on approach roads

### ***Freight Terminals***

There is no goods terminal (Truck Terminal) within the city limits. However, the VGTM is developing the truck terminal near Ibrahimpatnam. This truck terminal is expected to solve the truck parking problems in the city. Presently it is highly under utilized.



Due to absence of truck terminal in the city, trucks are parked at the lorry stand located in Bhavanipuram. Loading & unloading operations are being done during night times.

### **7.2.5 Socio-Economic**

- The income levels of the people of Vijayawada are low to moderate. This affects their affordability to pay for improved transport service.
- The people of Vijayawada are young in age. This impacts on higher travel demand in the days to come.
- The mobility of the people is moderate to high. With improvements in socio-economic condition and increase in income levels the mobility is expected to increase resulting in steep increase in travel demand.
- The share of trips by cars is low. However with increased availability of cars at lower costs the potential of car ownership and usage in the city is high. This would result in higher traffic volumes straining the road system. But the real threat is in the escalating parking demand. This will be a major problem both in residential and activity areas. Effective and comprehensive Parking Policy is urgently required

### **7.2.6 Other Issues**

Some of the other important issues associated with the city are:

- i) Over Concentration of trade activities within the central area coupled with limited network capacity results in acute congestion on some of the busy roads. Some of the areas are Besant road area, Lenin center, K R Market area.
- ii) There is a need to develop Transport System Management (TSM) plans.
- iii) There is an absence of appropriate institutional framework for the planning, development and maintenance of the city transport systems.
- iv) The annual budgetary allocations towards city transport system development and maintenance is very low and needs to be supplemented through other innovative methods of generating resources
- v) The existing institutional setup for enforcement and management of traffic is severely handicapped in terms of sufficient manpower and adequate logistics facilities
- vi) There is a lack of help line systems to provide emergency relief to road traffic accident victims

## **7.3 Constraints**

Transport system planning (road network, bus routing) and transport service operations in Vijayawada are highly constrained by the physical barriers within the city in terms of hills, 4 canals, 3 rail lines and the wide Krishna river. The rail lines and



canals run radically in all directions within the city and form bottlenecks for easy and continuous movement of traffic. Rail movements add delays to traffic due to closure of gates. The need to provide bridges across rail lines and canals add to the high cost of system development. Entry and exit points of the bridges cause problems due to want of adequate space. The high cost of construction of bridges across river Krishna and availability of only two bridges results in difficulties of dispersal of inter-city heavy commercial traffic.

## 7.4 Potential

The potentials of the transport infrastructure to alleviate some of the problems of the city are:

- i) Bandar Road, Eluru Road are an important corridors for future travel needs of the city. They have the potential to align the medium capacity Bus Rapid Transit System.
- ii) The off-street parking sites at NTR complex and car parking on Besant road offer potential for their more intensive utilisation
- iii) The city has a number of bus terminal/stands sites which through intensive and multi use could be commercially exploited to finance their redevelopment and expansion programmes
- iv) The city offers opportunity to exploit the air rights over water canals and railway line for commercial gains and funding transport development
- v) There are a number of vacant areas within or outside the existing Government buildings or public places, which could be advantageously used for meeting parking needs.
- vi) There is a potential for turning constraints into opportunities. Canals could be used to operate water based transport services. Rail lines could be availed to run intra-city and sub-urban services. The air rights over canals and rail lines could be advantageously exploited to provide space for city needs and uses. Tunnels could be driven through the hills to reduce travel distances. Development in bridge technology helps to cross river Krishna at lower costs.

## 7.5 General

The transport situation is complex because of moderate levels of income and accelerating demands. City transport needs to play a critical and enabling role in the process of growth and change. The system would also face a crisis in the potential event of travel demand exploding. Planning, development, operation and management of an integrated, multi-modal transport system is a critical need calling for comprehensive policies, integrated strategies and sustained actions. The City Transport Development Plan would endeavor to address these issues in a satisfactory manner.