

## **5.1 Background**

Sambalpur-Burla-Hirakud (SBH) Complex is situated on the western belt of Orissa at a distance of about 320 kilometers from the state capital Bhubaneswar. As per 2001 census the population of each of the development area of Sambalpur, Burla and Hirakud was 1,80,948; 42,822 and 33,707 respectively. The population of 67 villages proposed to be included within the SBH Complex, along Sambalpur – Jharsuguda village corridor immediately on north of Sambalpur Master Plan area limit along the State High Way No 10, was 92,437 in 2001. Accordingly, the total population of SDA in 2001 was 3,49,914. As discussed in Chapter 2, the projected population of the SDA by 2030 is estimated to be 5,75,000. Thus, the Comprehensive Development Plan will have to take care of the total population of 5,75,000 by 2030. The Urban Complex is well connected by rail and road net work with various cities in India which facilitates easy movement of people to Sambalpur Complex. The SDA area is well connected with roads and rail with the major towns of Orissa and neighboring state of Chattisgarh. Two national highways and one state highway passes through this area.

Rapid increase in population and economic activities coupled with diversified functions has brought in increasing demand on the transportation system of the SDA area. There is a sudden explosion of vehicular traffic in recent times and as such, various techniques and methods are to be found out to make the movement of vehicles smoother and easier. Widening of road and providing new roads are one of the methods to ease the traffic problem. A well planned town is faced with minimum traffic problems.

The urbanization process in the SDA area has led to the growth of urban areas at a faster rate. The improving income levels, desire to own a personalized vehicle, easy access to affordable automobile finance and lack of efficient public transportation system have all together enabled a tremendous increase of vehicles in the urban areas. This has resulted in the enhanced need of the parking space in the urban areas. The increasing rate of vehicle ownership in the urban area of SDA in general and the stationary level of available parking space for a considerable time in the CBD area of Sambalpur town, has resulted in an acute shortage of parking space and has led to haphazard parking of vehicles, in all open spaces, both on and off street areas. This has in turn negatively affected the available road-width for movement of vehicles.

Traffic conditions are nothing short of chaos especially on roads around the Khetrajpur (railway station), Golbazar, Laxmi Talkies chowk, Remed Chowk to Jharsuguda chowk. Existing roads are also extensively used for non-street parking. Due to excessive demand from the entire town as well as from the SDA area, the central area of Sambalpur town has been inefficient to function as a town – centre for the whole City. Traffic congestion is now order of the day.

## **5.2 Existing Scenario**

Following National / State Highways and Railways pass through the SDA area.

- (1) National High Way No 8 connecting the cities of Mumbai and Kolkata (running close to the SBH complex).
- (2) National High Way No 6 / 53 connecting the cities of Nagpur and Kolkata.

- (3) National High Way No 42 / 55 connecting Sambalpur and Cuttack.
- (4) State High Way No 10 connecting Sambalpur and Jharsuguda - Rourkela.
- (5) Railway connecting Sambalpur with Hatia, Howrah, Bhubaneswar, Mumbai, Amritsar, Delhi, Ahmedabad, Puri, Raipur, Tatanagar, Dhanbad, Koraput, Raigadh, Jodhpur, Vizagapatnam, Varanasi etc.

Burla and Hirakud are linked with Sambalpur through National High Way No 6 / 53 and the existing Railway net work.

In view of the above high ways and railways passing through the urban area, the connectivity of Sambalpur Complex with the major cities in India, is well established.

National High Way No 6 / 53 which serves the purpose of a ring road helps vehicular traffic to avoid passing through the heart of the city and allows bypassing the busy city road net work. This Road also allows the easy accessibility to Burla and Hirakud. The direct connection of National High Way No 6 / 53 to the State High Way No 10 allows easy movement of vehicular traffic from Jharsuguda to south - eastern and south – western sectors of Sambalpur – Burla – Hirakud complex. State High Way No 10 linking Sambalpur with Jharsuguda will provide an opportunity to develop a linear township providing a strong linkage to the Twin Cities of Sambalpur – Jharsuguda.

The Air strip at Sangulpali north of Lamdungri Reserve Forest is directly accessible from SH-10 is partially functional for small planes. There is no Helicopter service to Jharsuguda or Sambalpur. Since there is no air connectivity with major cities of India, it is important that for increasing the economic activities of the SDA, air connectivity in this region of the State should be developed. Thus, airport is proposed in the SDA area for which the SDA should approach the Airport Authority of India through the State Government.

The heart of Sambalpur where Golbazaar, Collector office, Government – Semi Government - Private Offices and Circuit House are located is the main activity area attracting pedestrian and vehicular traffic. Commercial corridor connecting Khetrajpur and Laxmi talkies Chowk and Ashoka Talkies road corridor are the two Business corridors connecting the heart of the city raising the concentration of pedestrian and vehicular traffic. The full fledge river bank roads on either sides of the river Mahanadi are not built which deprives the citizens of recreational facility having pollution free clean air and environment.

Sambalpur has tar roads of various sizes without sidewalks along most of the roads. Similarly Burla and Hirakud have concrete roads and few tar roads of various sizes without the facility of sidewalks for pedestrians. There is complete absence of under passes and over passes for the pedestrians to cross the road points having heavy vehicular traffic. The meeting points of roads do not have scientific geometry with efficient rotaries and required curvature of roads. With heavy traffic on roads, there is complete absence of one way roads and pedestrian streets. Free vehicular parking and / or parking on payment facilities are not available. So, haphazardly parked vehicles on roads are a common scene.

In Sambalpur town, there is heavy rush of vehicles and pedestrians during peak hours of the day and it results into overcrowding of road.

The bus services within towns of Sambalpur, Burla and Hirakud are not available and so people have to depend on auto three wheelers and personal vehicles including bicycles. Though Hirakud Notified Area Council owns two buses but efficient service is not

available to the passengers.

Existing transportation facilities in the SDA area have been depicted in the respective landuse and zonal maps and are shown as transportation use zone.

### **5.3 Emerging Issues**

Prima facie following are the traffic and transportation related problems in the town of Sambalpur in particular and SDA area in general.

1. Congestion on town roads especially in the CBD and old areas.
2. Faulty intersections, narrowness of roads and poor conditions of vehicles.
3. Haphazard parking of vehicles and physical encroachments on the road
4. Encroachments on either sides of the main roads
5. Movements of the vehicles in the conflicting directions
6. No strict enforcement of traffic rules
7. Roads are used simultaneously by slow and fast moving vehicles, cyclists, animals cart and pedestrians.
8. Absence of pedestrian facilities

To workout the intersection improvement plan, a detailed inventory of each intersection has to be made. This may include land use activity near the intersections, type of intersection, major obstruction causing hindrance to smooth flow of traffic flow and type of facilities etc. Moreover, the reasons for traffic hazard on road intersections can be analyzed and improvement plan can be prepared by studying the traffic volume of both vehicles and pedestrians besides traffic turning pattern, delays and road geometry. The appropriate traffic engineering principles are to be applied to suit the local conditions for the safe, efficient and smooth flow of traffic at the road intersections. For this comprehensive traffic and transportation plan has to be prepared which SDA can take separately from the transportation experts.

### **5.4 Traffic survey**

As a part of the Comprehensive Development Plan of the Sambalpur Development Authority area, certain road intersections were identified for preparing their improvement plan. In fact, traffic characteristic of eight intersections were studied as part of this report.

It is important to collect the necessary data in connection with the traffic to be carried by the road system of the town. To assess the magnitude and nature of the problem and the extent of utilization of existing traffic facilities, the following surveys have been carried out.

1. Traffic Volume survey
2. Street inventory
3. Parking Survey

#### **a. Traffic Volume Count Survey**

The traffic volume count survey at 8 intersections / locations were carried out on normal working days for the time interval between morning 9-00 a.m. to 1.00 p.m. and evening

3-00 p.m. to 7-00 p.m. for one day as shown in the **Table 5A** below. Care in deciding the day of count was taken to avoid abnormal conditions of traffic like fair or exhibition.

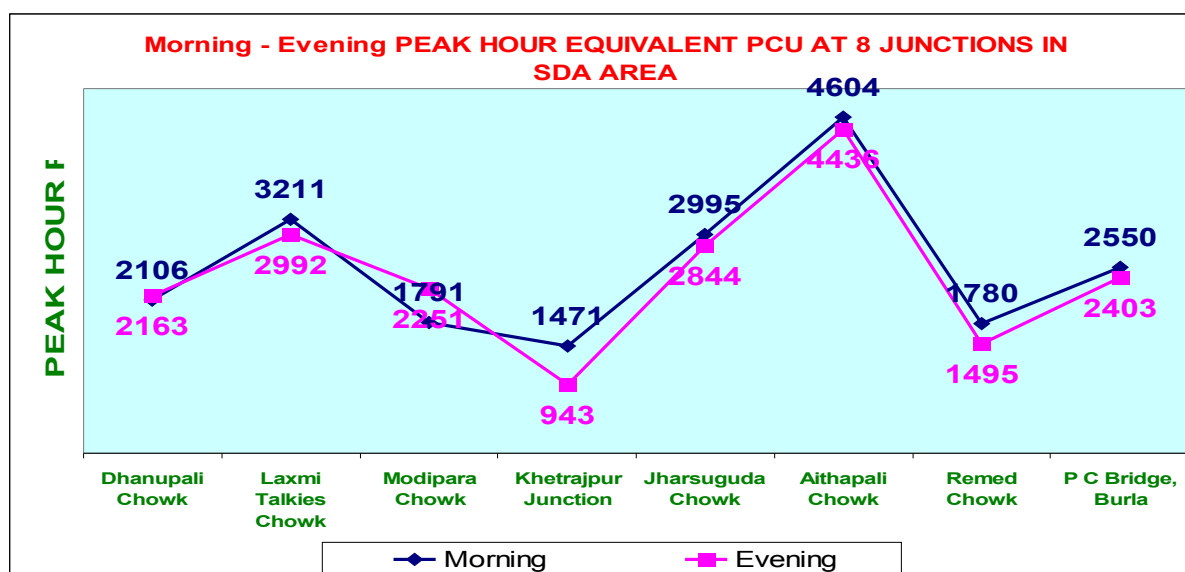
**Table 5A**

**Location of Traffic Survey**

	<b>Location Name</b>	<b>Date &amp; Day of Survey</b>	
1	Dhanupali Chowk	31.12.2009	Thursday
2	Laxmi Talkies Chowk	30.12.2009	Wednesday
3	Modipara Chowk	29.12.2009	Tuesday
4	Khetrajpur	01.01.2010	Friday
5	Jharsuguda Chowk	02.01.2010	Saturday
6	Aithapali Chowk	04.01.2010	Monday
7	Remed Chowk	04.01.2010	Tuesday
8	P C Bridge Junction, Burla	06.01.2010	Wednesday

The total volume count of the traffic both mechanized and non-mechanized in the morning and evening peak hour at each of the 8 intersections of the SDA area are depicted in the **Chart 5(a)** below. It is observed that the daily peak hour is observed in the morning itself at all the intersections except at Modipara Chowk where the peak hour is observed during the evening hour. At Dhanupali Chowk the morning and evening peak has almost the same value of PCU.

**Chart 5(a)**



Note : PCU= Passenger Car Unit

Though the above traffic survey for volume count was done almost two years back but the peak hour volume status reflects the same picture when this data was reviewed again in December 2011. Rapid appraisal was done at all the eight junctions in the SDA area and the situation has remained roughly the same at all the junctions. Aithapali chowk is still one of the busiest traffic junctions with lot of fast moving vehicles. All the junctions have heavier peak hour traffic in the morning compared to peak traffic in the evening.

Sambaleswari temple junction has lot of slow moving non-mechanized traffic causing chaotic situation. Because of slow moving vehicles, peak hour volume count is a misnomer at this junction as volume count at the junction is going to give a low value though there is a lot of traffic. Instead of improving the traffic engineering of the junction and road near Sambaleswari temple, the need is to strengthen the traffic management. During religious ceremony, the road may be made one-way or fast moving traffic may be diverted from Modipara chowk. Similar other measures may be taken in consultation with the traffic police department. Occasional traffic jam issue may be taken care by the proper management of traffic rather than spending huge amount on the civil works.

#### b. Parking Survey

The parking survey conducted at different locations on the above two stretches are shown in the **Table 5B**.

**Table 5B**

#### Location of Parking Survey

	Aithapali Bus Stand to Court Chowk area	Khetraj Petrol Pump to Dhanupali
	<i><b>Not-Designated</b></i>	
1	Aithapali Bus-stand	Khetraj Whole-sale Market Area
2	Aithapali Chowk	Farm Road [Telephone Bhavan]
3	AN Guha / Laxmi Narayan Mishra Chowk	Modipara Chowk
4	Petrol Pump (Laxmi Talkies)	Laxmi Talkies
5	Gole Bazar Chowk [1]	Bhuta Pada Chowk
6	Gole Bazar Chowk [2]	Dhanupali Chowk
7	Court Chowk Area [1]	
8	Court Chowk Area [2]	
	<i><b>Designated</b></i>	
1	Town Thana	Railway Station [Sambalpur] Area [1]
2	Court Chowk Area [1]	Railway Station [Sambalpur] Area [2]
3	Court Chowk Area [2]	Railway Station [Sambalpur] Area [3]
4		Railway Station [Sambalpur] Area [4]
5		Railway Station [Sambalpur] Area [5]
6		Railway Station [Sambalpur] Area [6]
7		Jail-khana Chowk

## **1. Parking : from Aithapali Bus Stand to Court Chowk area**

Highest peak hour parking demand has been observed at the Aithapali bus stand where there is no designated parking for any vehicle. 132 equivalent car space (ECS) is required at this parking point during the evening peak hour of 4 to 5 p.m. Maximum requirement is for the buses. Next in order of parking requirement is at the Aithapali Chowk where the ECS requirement is 91 mostly for trucks and good transport. In the designated parking space, Court Area has the peak hour requirement of 71 ECS. Requirement of parking space for scooters have been observed in the Gole bazar area and the Court Chowk area. Auto rickshaws are haphazardly parked in the not-designated areas mostly on the roads at Aithapali bus stand and Aithapali Chowk.

## **2. From Khetraj Petrol Pump to Dhanupali**

Highest peak hour parking demand has been observed at the railway station where there is no designated parking for any vehicle. 92 equivalent car space (ECS) is required at this parking point during the morning peak hour of 12 to 1 p.m. Maximum requirement is for the cars, light motor vehicles and the cycle rickshaws. Next in order of parking requirement is at the Khetraj whole sale market area where the ECS requirement is 82 mostly for trucks and good transport. Tractor and trailer were found to be parked during peak hour of 9 – 10am at Khetraj Wholesale Market area and between 10 to 11am at Dhanupali chowk. In the four different designated parking spaces at Railway station, mostly scooters and cycles were parked. There is no designated parking space either for auto rickshaws, cycle rickshaws or for that matter cars/taxi in the railway station area, which needs immediate planning intervention. Auto rickshaws and cycle rickshaws are haphazardly parked in the not-designated areas mostly on the roads near Railway station & Khetraj wholesale market area. There is a designated parking space near Jail-khana chowk where trucks, auto rickshaws etc. are parked having the ECS of 26.

## **5.5 Inference from Traffic and Transportation Survey**

Following inference is drawn from the analysis of the traffic survey carried out in the SDA area.

1. At **Dhanupali Chowk** road arms leading to NH-6/53 and Dhama village may be upgraded to 4-Lanes carriageway.
2. At **Laxmi talkies Chowk** road arm leading to Dhanupali Chowk may be upgraded to 4-Lanes Two Way (Divided) carriageway.
3. At **Modipara Chowk** road arms leading to Flyover bridge may be upgraded to 4-Lanes carriageway.
4. At **Khetrajpur Junction** road arm leading to Modipara may be upgraded to 4-Lanes carriageway.
5. At **Jharsuguda Chowk** road arm leading to Remed may be upgraded to 6-Lanes (Divided) carriageway and road arm leading to SH-10 may be upgraded to 4-Lanes (Divided) carriageway.
6. At **Aithapali Chowk** road arm (NH-6) leading to Remed may be upgraded to 6-Lanes (Divided) carriageway and road arm (NH-6) leading to Jharsuguda Chowk may also be upgraded to 6-Lanes (Divided) carriageway. Road arm leading to Sambalpur town

may also be upgraded to 4-Lane (divided) carriageway to take care of the future traffic need.

7. At **Remed Chowk**, though the present carriageway is sufficient for the existing traffic volume but it is recommended that road arm (NH-6) leading to Burla Town may be upgraded to 6-Lanes (Divided) carriageway and road arm (NH-6) leading to Aithapali Chowk and to Jharsuguda Chowk may also be upgraded to 6-Lanes (Divided) carriageway so as to have a contiguous road width along the NH-6 in the SDA area to take care of the future traffic need.
8. At **PC Bridge Junction** in Burla, road arm (NH-6/53) leading to Baragarh and to Raipur and beyond may be upgraded to 6-Lanes (Divided) carriageway and road arm (NH-6/53) leading to Sambalpur Town via Aithapali Chowk and to Jharsuguda Chowk may also be upgraded to 6-Lanes (Divided) carriageway so as to have a contiguous road width along the NH-6/53 in the SDA area to take care of the future traffic need.
9. **Gol bazar area and Court Chowk** area does not have parking requirement for slow moving vehicles like cycle and cycle rickshaws. A N Guha Chowk popularly known as Laxmi Narayan Mishra Chowk has the high requirement of parking space for the slow moving vehicles (non-mechanized).
10. **Dhanupali chowk area and the Khetraraj Petrol Pump area** have the heavy requirement of parking space for the fast moving vehicles. At Farm road near telephone exchange, cycle rickshaws were found to be parked haphazardly on the road capturing parking space equivalent to almost 8 cars. More than 60 percent vehicles parked were slow moving vehicles.

## 5.6 Proposals

Alignment of two 80 meters wide National Highway, 45 meters wide State Highway, 30 and 24 meters wide primary roads, 18 meters wide secondary roads, 12 meters wide tertiary roads, 6.0 meters wide existing dyke driveway, new city bus station, bridge on river, fly over bridge, vehicular parking space, railway stations, railway line etc. in Sambalpur, Burla and Hirakud are shown in the **Figure 5.1**. Existing and proposed road network has been depicted in this figure. The road network has been proposed in such a manner as to maintain the hierarchy in road width, maximum frontage to the employment generating public purpose activities, maximum connectivity by the loop to ease the traffic problem atleast upto 2030.

### National highway and State Highway

The SDA area has the advantage of two National Highways No 6 / 53 and 42/55 passing through it almost from the urbanized area. Moreover, State Highway No.10 also passes through the SDA area. Though the national highways has the right of way (ROW) of 80 meters and State Highway having ROW of 45 meters but still the whole ROW is not under utilization at any place within the SDA. It is proposed to widen these carriageways at strategic locations only so as to fully utilize the potential of these roads and ease the traffic woes atleast within the SDA area. The NH-6/53 and SH-10 passing through the SDA area is proposed to develop as a model highway with proper parking space, well defined medians, footpaths, service roads, street furniture, public conveniences, etc. Presently lot of chaos is seen on these roads because of lack of these facilities.

**A3 size fig. 5.1 to be inserted  
separately**



The cross section of 80 meters (250") wide ROW National Highways and 45 meters (150") wide ROW State Highway is suggested respectively in **Figure 5.2** and **Figure 5.3**.

It is suggested to have in the NH, 20 feet wide central divider, 4 lane road in each direction, 6 feet of shoulder and 25 feet service road on both sides to be separated by 20 feet of parking space. 20 feet space at the end of both the sides has been proposed for vehicular parking in the linear fashion. Once the whole ROW is developed it is expected to smoothen the traffic movement and chaotic parking problem shall be solved.

Similarly, it is suggested to have in the SH at strategic locations only, 10 feet wide central divider, 3 lane road in each direction, 20 feet service road on both sides and 17 feet space at the end of both the sides for vehicular parking in the linear fashion. Once the whole ROW is developed it is expected to smoothen the traffic movement and chaotic parking problem shall be solved.

SDA with the help of NHA and R & B department of the state Govt. shall implement the development of roads as suggested above.

#### **a. Other Urban Roads**

The heart of Sambalpur where Golbazaar, Collector office, Government – Semi Government - Private Offices and Circuit House are located is the main activity area attracting pedestrian and vehicular traffic. Budha Raja linear development and the road linking railway station and business area stretching up to Jail (Ashoka talkies road) through the major city road are the two Business Corridors connecting the heart of the city raising the concentration of pedestrian and vehicular traffic. The full fledge river bank road on the river Mahanadi is not built which deprives the citizens of recreational facility having pollution free clean air and environment (**Figure 5.1**). Following proposals are required to be implemented by Sambalpur Development Authority or with the help of the concerned authority.

Golbazaar road, Patnaikpara, Nandpara, San sandak and Bada sadak are required to be pedestrianized with hard surface pavement on the streets. The main Bazaar Street in Gangtok is fully pedestrianized with flower beds and seating arrangements. The vehicles to supply the area with commodities will be allowed between 10 PM to 8 AM only in Golbazaar. The vehicles of the residents will only be allowed to ply on the streets. The auto and man pulled Rickshaws for the movement of residents will also be permitted within the street areas.

At least 5 feet to 7 feet wide foot paths shall be provided on either sides of the roads in the above mentioned two Business Corridors.

Anthiapali Bus Terminus has been functioning over an area of about 1.28 hectares only after obtaining possession from Orissa State Road Transport Corporation. The area of the Terminus is inadequate to accommodate various facilities for the efficient functioning of the intra and inter bus plying management. There is total absence of well planned bus bays, vehicle parking space, public telephone and ATM service, office and waiting facilities, toilets, small necessity shopping center etc. too. Thus to develop a modern bus terminus, additional land of 4.53 Hectares is proposed so that the total area available for bus station increase to 5.81 hectares. The location of the present Bus Terminus near the cross junction of two high ways namely NH6 and SH 20 demands further modernization of the Bus Terminus at the same spot. Orissa State Road Transport Corporation will be moved by the Sambalpur Development Authority to do the needful for the purpose (**Figure 5.1**).

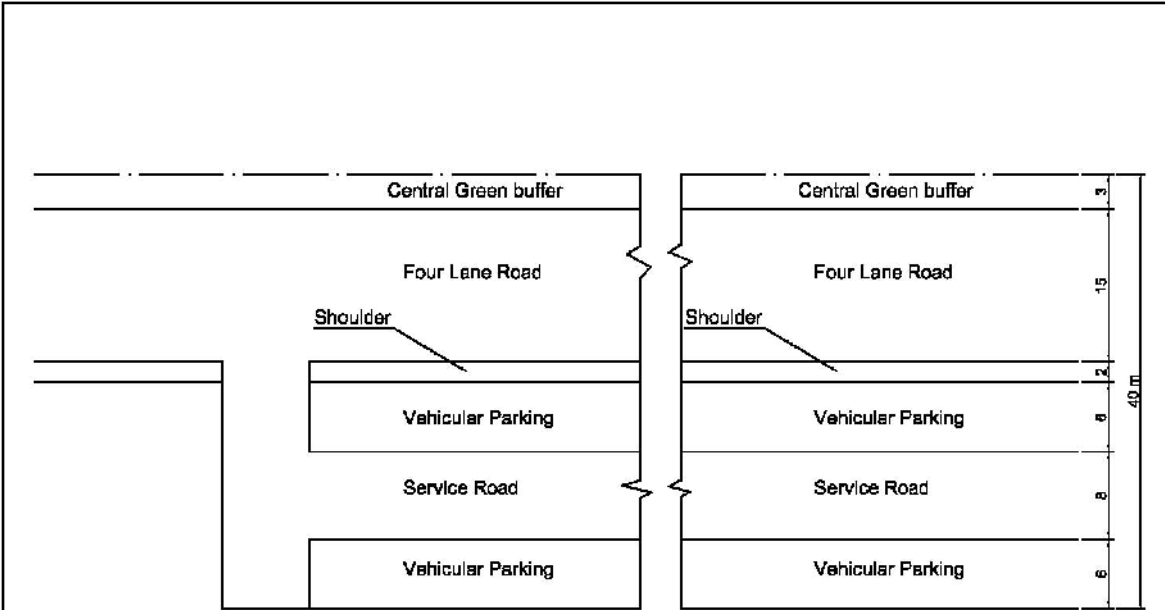


Fig. 5.2 80m wide National Highway - Line Diagram

All dimensions in meter

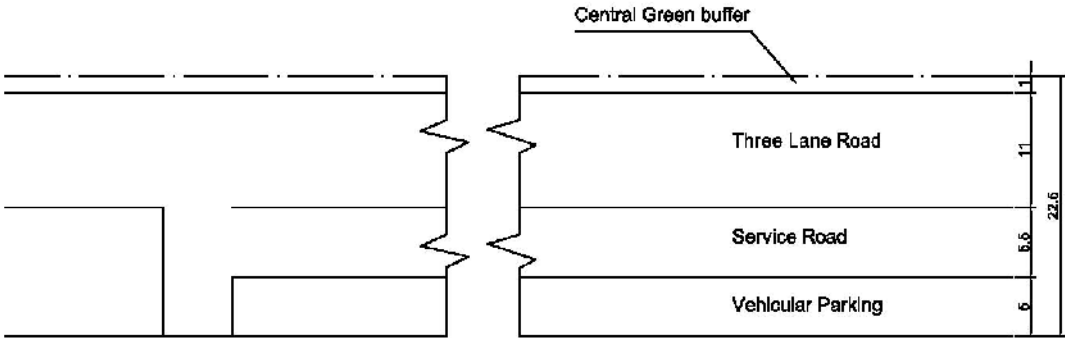


Fig. 5.3 45m wide State Highway - Line Diagram

A vehicular flyover bridge at the junction of SH 10 and NH 6 will have to be provided on NH 6 by the NHAI for the smooth flow of traffic (**Figure 5.1**). The issue will be taken up by the Sambalpur Development Authority and P.W.D. with the National High Way Authority.

Two fly over bridges over the existing railway tracks on the west of Sambalpur main railway station in Khetrajpur are proposed to be built (**Figure 5.1**) by the P.W.D., Government of Orissa.

Designated vehicular parking spaces have been suggested as shown on **Figure 5.1**. Underground vehicular parking space on Police Station plot near Laxmi Talkies Chowk has also been suggested to save the urban land. Front yard of the police station can be used for parking of rickshaws.

On the bank of river Mahanadi an elevated (5 feet from the ground level) pedestrian walk way 20 feet in width is proposed to be created.

Traffic signals, zebra crossing, street lights, improved rotary and traffic islands at Laxmi Talkies junction is proposed for installation through Police department / Municipality. The geometrics of the road alignments are also required to be corrected.

#### **b. Truck Terminus**

By the road sides of National High Way No 6, heavy trucks are parked from Ainthapali to Remed Chowk. Other vehicles also get haphazardly parked alongside these trucks. In addition to these unruly parking of vehicles and trucks, temporary sheds selling beverages, fast food items and providing emergency truck and vehicle repair facilities invite pedestrians. Thus a complete chaos results along this part of the National High Way No 6. To get rid of the problem, Sambalpur Development Authority has rightly considered the idea to develop a Truck Terminus having Truck parking Bays, small vehicle parking area, public toilet block, refreshment centers, dormitory facility, truck repair workshops, petrol / diesel pumps, small offices etc. It is proposed in the CDP to have a truck terminus on 10.22 hectares of land near Remed chowk on the north side of National Highway no. 6/ 53 besides the proposed industrial zone. Having a designated space for truck parking, the haphazard parking on the roadside will be avoided and more space shall be available for the movement of traffic thereby reducing the pollution also and improving the environment within the SDA area. Truck terminal is also proposed on the south of the proposed zoo in the Sambalpur area and in the south east Hirakud(**Figure 5.1**)

### **5.7 Transportation Proposals in Sambalpur**

The road network is proposed in the CDP in such a manner that hierarchy and interconnectivity is properly organized and all the traffic generating activities gets the proper access from the required width of road. The widening of various roads has been proposed on the basis of traffic volume survey analysis. In terms of hierarchy, National Highway is having 80m right of way. State Highway is having 45 m right of way. Primary road within the town has been proposed to widen upto 30m and 24 m according to the availability of land. Secondary roads providing access to the important buildings and commercial activities and land reserved for various public purposes have been proposed as 18 m wide road. Tertiary road of 12m wide have been proposed to connect the various localities in the town as well as various surrounding rural settlements. All other internal roads existing in the town are 9.0 metr wide or less. The popularly known ring road parallel to the river embankment is also 9.0m wide road.

A 9.0m road passing through Lamdungri reserved forest connects Sigpali where Satellite Township is connected with the NH-6 /53 near Sambalpur bus station. Within Sambalpur, this road proposed is of 30m.

Walkway has been proposed along the river Mahanadi where only pedestrian movement will be allowed.

An existing 9.0 meter wide flyover on the railway track on the east of the Sambalpur Road railway station connect freely the State Highway No. 10 coming from Jharsuguda to the core area of the town where lot of economic activities are happening and government buildings, police line, educational institutions, civil hospital are situated. This flyover will boost the development along the SH which is witnessing pace of growth mainly because of development of Jharsuguda.

Two new flyovers have been proposed in the CDP. One is proposed at Durgapali for traffic inlet from Hirakud side to Sambalpur town through ring road. While another one is proposed from bus station on NH towards Sambalpur town to ensure that smooth traffic is merged to approach the city bus stand.

Two new flyovers have been proposed on the railway track on the west of the Sambalpur Junction railway station so as to connect freely the Khetrajpur with the proposed Environment Complex and the various localities on the north of the town. This will decrease the distance for the people coming from Hirakud and Burla to the Sambalpur town for trade, business and shopping, recreation etc. The proposed flyover will have width of 9m.

Lot of vehicular parking spaces at strategic locations has been proposed in the CDP to take care of off-street parking. Such parking spaces have been proposed at Sambalpur Junction, adjacent to NH near Ainthapali chowk, in the proposed Environment complex, near government buildings etc. Within the core area of the town where not enough space for parking is available, underground parking space has also been proposed near the Laxmi talkies chowk.

Sambalpur is an important junction on Raipur-Puri broad-gauge railway track. Landuse under railway has not been increased as there was no such demand from the railway authorities.

A bridge over Mahanadi River is proposed to provide the connectivity of Sambalpur town from Bhatra to Basantpur village. This will also reduce the distance for the traffic coming from the Cuttack, Deogargh and Dhama side and going towards Bargargh. The bridge can be accessed through 24 mts wide road which connects the NH 6 / 53 and NH 42 / 55 with the proposed bridge. Though construction of this bridge may not be taken on a priority as it is a capital intensive project but as and when finance is available it should be constructed to boost the development of the town.

The nearby Airports are at Bhubaneshwar (325 kms) and Raipur (300 kms). The Air strip at Jharsuguda which is about 70 kilometers away from Sambalpur by road is partially functional for small planes. An airport is being proposed in the Sangulpali area adjacent to Sambalpur and Hirakud.

## **5.8 Transportation Proposals in Burla**

The road network is proposed in the CDP in such a manner that hierarchy and interconnectivity is properly organized and all the traffic generating activities gets the

proper access from the required width of road. The widening of various roads has been proposed on the basis of traffic volume survey analysis. In terms of hierarchy, National Highway is having 80m right of way. Primary road within the town has been proposed to widen upto 30m and 24 m according to the availability of land. Secondary roads providing access to the important buildings and commercial activities and land reserved for various public purposes have been proposed as 18 m wide road. Tertiary road of 12m wide have been proposed to connect the various localities in the town as well as various surrounding rural settlements. All other internal roads in the Burla are 9m or less wide road for inter connectivity and providing access to all the concerned.

A new road over bridge has been proposed on the river Mahanadi on the north of the town so as to connect freely the Burla and Hirakud without taking the detour and using the NH. This bridge will boost the development along the region and shall attract lot of tourist.

Vehicular parking spaces at strategic locations have been proposed in the CDP to take care of off-street parking. Such parking spaces have been proposed adjacent to Hospital, bus stand near government/institutional buildings etc.

### **5.9 Transportation Proposals in Hirakud**

The road network is proposed in the CDP in such a manner that hierarchy and interconnectivity is properly organized and all the traffic generating activities gets the proper access from the required width of road. In terms of hierarchy, National Highway is with 80m right of way. Primary road within the town has been proposed to widen upto 30m and 24 m according to the availability of land. Secondary roads providing access to the important buildings and commercial activities and land reserved for various public purposes have been proposed as 18 m wide road. Tertiary road of 12m wide have been proposed to connect the various localities in the town as well as various surrounding rural settlements. All other internal roads in the Hirakud are 9m or less wide road for inter connectivity and providing access to all the concerned.

A new road over bridge has been proposed on the river Mahanadi on the south west of the town so as to connect freely the Burla and Hirakud by 24 m road without taking the detour and using the NH. This bridge will boost the development along the region and shall attract lot of tourist.

### **5.10 Transportation Proposals in 67 Villages**

To strengthen the existing rural links, upgradation of existing village roads to MDR is proposed. These are the roads which primarily link the first order and second order rural settlements. The road network is proposed in the CDP in such a manner that hierarchy and interconnectivity is properly organized and all the traffic generating activities gets the proper access from the required width of road. In terms of hierarchy, National Highway is having 80m right of way, State Highway is having 45m right of way. Primary road having 30m and 24 m width have been proposed for providing access to the important commercial and industrial activities and land reserved for various public purposes. Secondary roads have been proposed as 18 m wide road in the proposed Community Satellite Town. Tertiary road of 12m wide have been proposed to connect the various central villages in the rural areas as well as various surrounding rural settlements so as to complete the inter connectivity and providing access to all the concerned. Refer **Figure 5.4** for the alignment of various roads, location of bus stations and airport and other transport facilities in the newly added 67 Villages which area now part of SDA.

Airport has been proposed (by upgrading the existing Air Strip) at Sangulpali which has direct access from Sambalpur via SH-10 and then from the 12 meter upgraded proposed road.

**A3 size fig. 5.4 to be inserted  
separately**