DELHI DEVELOPMENT AUTHORITY
UNIFIED TRAFFIC & TRANSPORTATION INFRASTRUCTURE (PLG. & ENGG.) CENTRE
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MINUTES OF THE 15th MANAGEMENT ACTION GROUP (MAG) OF TRANSPORT MEETING HELD ON 2.07.2013 at 10.00 A.M. UNDER THE CHAIRMANSHIP OF THE SECRETARY -CUM-COMMISSIONER (TRANSPORT), GNCTD

The 15th meeting of the Management Action Group (MAG) on Delhi Unified Metropolitan Transport was held on **2.07.2013 at 10.00 A.M**. at Conference Hall, Department Of Transport, Under Hill Road under the Chairmanship of the **Secretary-cum-Commissioner (Transport) GNCTD**. The following members/special invitees attended the meeting:-

Transport Deptt.

1. Sh. Puneet Kumar Goel, Secy-cum-Commr (Transport Deptt.) GNCTD
2. Sh. K.R. Naidu, Dy. Commr.
3. Ms. Ranjana Deswal

DDA

1. Sh. S.P. Pathak, A.C. (Plg.) AP&MPR
2. Sh. P. M. Parate, Addl. Commr. (Plg.) TB&C
3. Sh. Ashok Bhattacharjee, Director(Plg.) UTTIPEC
4. Ms. Paromita Roy, Sr. Consultant-I, UTTIPEC
5. Ms. Mriganka, Saxena, Sr. Consultant-II, UTTIPEC
6. Sh. Adarsha Kapoor, Consultant, UTTIPEC

Delhi Police (Traffic)

1. Sh. Prem Nath, DCP /SR

DMRC

1. Sh. Ashok Kumar Gupta, C.E.(Plg.)

DTC

1. Sh. R.S. Minhas, SM (T)

Northern Railways

1. Ms. Vandana Bhattnagar, CTPM
2. Sh. P.K. Aggarwal, CE/MRTS

PRESENTATION:

Further to incorporation of the recommendations of the 12th, 13th and 14th MAG Meeting, the Final Draft Chapter 12 of MPD 2021: Transportation which was circulated to all members and special invitees of the MAG. Sr. Consultant, UTTIPEC requested all members and experts present to submit their feedback and comments for the final review of the Chapter.

The following table summarises the suggestions received and recommendations of the MAG.

Modification in MPD 2021 suggested by MAG			
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
BACKGROUND			
1	~~**The period between 1981 and 2001 has seen a phenomenal increase in the growth of vehicles and traffic in Delhi. There has been a rise in per capita trip rate (excluding walk trips) from 0.72 in 1981 to 0.87 in 2001. Keeping in view the population growth, this translates into an increase from 45 lakh trips to around 118 lakh trips. The population of motor vehicles has increased from 5.13 lakh in 1981 to 32.38 lakh in 2001, and the number of buses has increased from 8,600 to 41,483 during this period.**~~ ~~**Besides the above, Delhi has developed as a borderless city and an urban continuum comprising of a number of rapidly growing towns in Haryana and UP. This has added to the flow and movement of traffic within Delhi.**~~ ~~**Despite measures by way of increasing the length of the road network and road surface space through widening, construction of a number of flyovers / grade separators and, launching of the Metro, the traffic congestion has continued to increase unabated. This**~~	***The daily travel trips in Delhi expected to explode from 15 million now to 25.3 million in 2020. The travel practices of the city's population will determine the liveability of Delhi.*** ***EXPONENTIAL GROWTH IN VEHICLES NUMBERS AND PERSONAL VEHICLE TRIPS*** ***The period between 1981 and 2001 - saw a phenomenal increase in the growth of vehicles and traffic in Delhi. The problem has only compounded since then with Delhi accommodating more cars than Kolkata, Mumbai and Chennai put together. Today, 1400 vehicles are registered in Delhi daily1. If projected on a 'business as usual' basis, the number of vehicles registered in Delhi will rise to 97 Lakh by 2017 (as compared to 68.9 Lakhs upto 31st March 2011)2. In addition, if there is no improvement in public transport ridership, the number of personal vehicle trips will peak. CSE estimation based on RITES data shows that by 2021, car ridership will increase the maximum -- by 106 per cent. In contrast bus ridership will only increase by 28 per cent.*** ***LACK OF SYNERGY BETWEEN TRANSPORT AND LANDUSE*** ***Due to a lack of integration between Transport and Landuse Planning, there has been a distortion between infrastructure, transport and land use, leading to disparate single-use zones that are insufficient in themselves to meet the range of essential needs – occupational, recreational, social or otherwise, thereby determining adversely the***	**APPROVED**

[1] Based on the total number of vehicle registered in Delhi between 2011 – 2012 as per vehicle registration data, Department of Transport, GNCTD

[2] Department of Environment & Forestry, GNCTD

~~has its inevitable consequences in terms of accidents, pollution, commuting time, and wasteful energy / fuel consumption.~~

~~Based on the rate of increase in the number of trips between 1981 and 2001, it is estimated that the total trips would rise to 280 lakh by the year 2021, including 257 lakh motorized trips and 23 lakh non-motorized trips. In this context, it needs to be noted that roads already occupy 21 percent of the total area of the city, which clearly limits the potential for increase in road length.~~

~~Apart from the problems and requirements of transportation at the macro level, there are special problems in specific areas, particularly the old city, which deserve special attention. Special requirements will also arise from the mega events such as the Commonwealth Games.~~

~~The plan and strategy for transportation will have to be worked out in this background.The broad aim of this would be to ensure safe and economical commuting between placeof origin and destination, convenient and quick access to all areas for all sections of thesociety, reduction of pollution and congestion, energy efficiency and conservation, safety forall sections of the road and transport users and, towards meeting these objectives, providinga~~

travel patterns of the city.

Increasing impact of regional travel patterns

As the National Capital, Delhi has developed as a borderless city and an urban continuum comprising of a number of rapidly growing towns in Haryana and UP. Delhi is directly connected by road to the cities of Gurgaon, Faridabad, Panipat and Rohtak in Haryana and Noida and Ghaziabad in Uttar Pradesh.This has added to the flow and movement of traffic with about 11,11,000 vehicles and 25 lack passengers entering or leaving Delhi on an average day3. Maximum Traffic to Delhi comes from Gurgaon, followed by Ghaziabad, Noida and Faridabad. A whopping 48% of total passenger trips are by cars.

A POSITIVE MODAL SHARE

The modal share for the NCT of Delhi is shown in the adjacent table. However, if we consider all trips, the total number of daily walking and cycling trips together is 8 million – 2.5 times more than the total number car trips in Delhi which is at about 3 million. Total daily cycling trips at 2.8 million are almost equal to car trips as shown in a 2008 study supported by the Union Urban Development Ministry. Though the modal share of walking and cycling are high in smaller cities, in

MODE	*% OF PERSON TRIPS without walk trips (2007-08)*
Cycle	*6.82*
Cycle Rickshaw	*7.9*
Auto rickshaw	*3.61*
Bus	*41.5*
Metro	*4.07*
Rail	*0.65*
Car / Taxis	*13.92*
2 Wheeler	*21.54*
TOTAL	*100*

Source: Transport Demand Forecast Study and Development of an Integrated Road cum Multi-modal Public Transport Network for NCT of Delhi (2008)

absolute numbers Delhi tops in daily cycling trips and is second to Mumbai in absolute

[3] Transport Demand Forecast Study and Development of an Integrated Road cum Multi-modal Public Transport Network for NCT of Delhi (2008)

	~~significant increase in efficient rapid public transport systems and facilities with acorresponding reduction in individual private transport usage. This is in addition topedestrianisation and properly planned use of non-motorised transport systems in specificareas.~~ ~~The following strategy is proposed in order to meet these objectives: -~~ ~~i. Preparation and operationalization of an integrated and mutually complementarymulti-modal transportation and traffic plan comprising the Road, Rail andMetro-rail network, so that work centers / residences are within a walkabledistance.~~ ~~ii. The multimodal system will be integrated with safe facilities for pedestrians,bicyclists, disabled persons and Intelligent Transport System (ITS) enabled taxis andthree-wheeled scooter rickshaws (TSR).~~ ~~iii. Optimal use and utilisation of the existing road network and full development ofROW by removing all impediments. All arterial roads will be restructured to~~	***number of walking trips. Even in car dominated roads like the Outer Ring Road – with very hostile traffic conditions – share of cycles is quite close to that of autos – 7 per cent and 9 per cent, respectively. It is astounding that in certain stretches in Delhi, the numbers of cycle and cycle rickshaw outnumber cars4. Therefore it is critical that we protect Delhi's overwhelming numbers of zero emissions modes – walking and cycling.*** ***HIGH ENVIRONMENTAL AND HEALTH IMPACTS*** ***In spite of such a large proportion of trips being attributed to non motorised modes, 70% of the air pollution in Delhi is caused by vehicular emissions, 85% of which is caused by Cars and two-wheelers5. The current concentration of nitrogen oxide (NOx) is 50-55 µg/ m3 - far above the permissible upper limit of 40µg/ m3. NO2 levels have increased in the city between 2000 and 2011 by 57 per cent6. In 2010, 7,525 people (or 21 persons per day) died of complications from respiratory diseases, 41% more than that in 20097. These numbers call for immediate action towards improving air quality.*** ***LACK OF CONNECTIVITY*** ***Delhi has the most extensive road network. As much as 21 per cent of its geographical area is under road network. Delhi has massively invested in building roads and flyovers over the past years – the city has 66 flyovers. However, this road infrastructure does not provide the optimum level of connectivity desired within the city. Very large block sizes and limited permeability, particularly at the tertiary level, have, in turn, resulted in poor last mile connectivity to public transport and an over-dependence on the arterials and sub-arterials of the city for all mobility needs, both local and otherwise.*** ***DECREASING ROAD AVAILABILITY*** ***Despite continuous augmentation of the road infrastructure, road availability per 1000 vehicles is steadily declining. In 2001 the***	

[4] along Subhash Nagar on Shivaji Margh, there are 18,000 non-motorised transport vs 4,000 cars

5 MPD 2021, Chapter 9: Environment, Section 9.1.2 AIR.

6 TATA Energy Research Institutre

7 Delhi Statistical Handbook, 2011.

	~~allowfor smooth and safe flow of buses and non-motorised transport to minimizepollution and congestion.~~ iv. ~~Expansion and restructuring of the existing network through expressways, arterialroads, elevated distributors and relief roads with a view to creating alternate accessways and reducing congestion on the existing roads to the extent possible. UrbanRelief Roads should also be identified as additional or alternative link roads,wherever possible, to reduce congestion.~~ v. ~~Planning of new road network in such a manner as to prevent possibilities of futurecongestion by modifying road sections to promote use of public transport, whichwould reduce use of private transport modes.~~ vi. ~~Planned and targeted expansion of the Metro-rail network.~~ vii. ~~Expansion and strengthening / restructuring of the Ring Rail System and sub-urbanrail system.~~ viii. ~~viii. Developing an integrated~~	***road availability was about 8.24 km/1000 vehicles. This declined to 5.51 km/1000 vehicles in 2008 and further estimated to have declined to 4 km/1000 vehicles now. Between 2002 and 2008 road availability has been declining at seven per cent annually. Any amount of road space can get quickly saturated. In addition, it is essential to recognise that car centric infrastructure including flyovers and signal free roads can sever neighbourhoods and destroy walking and cycling network and public transport usage. Urban planning and design need to prioritise the infrastructure for walking, cycling and bus transport in addition restraint measures on personal vehicles.*** ***INEQUITABLE DISTRIBUTION OF ROAD SPACE AND LOW PEOPLE-CARRYING CAPACITY*** ***In some of the prominent arterial roads cars constitute close to 70 per cent of the total traffic, but they carry only 17-20 per cent of the travel trips8. Even during peak hours, a car carries only 1.5 persons as opposed to a bus carrying 60-70 people. Two cars occupy same space as one bus, but carry 20 times less people. If this trend continues the capacity of roads to carry more people will reduce drastically. On a city-wide basis, even after occupying the maximum road space, cars carry only 14 per cent of all trips as per the RITES survey of 2008. This is extremely worrying when Delhi will have to move more than 25 million trips a day by 2020. The planning challenge is to reverse this trend.*** ***Inequity in modal options*** ***In addition, Delhi needs affordable modes of transport. It is unacceptable that bus, walk and cycle are threatened in a city where 63 per cent of the urban population can spend less than Rs 2,654 per month or Rs 88 per day (as per NSSO data). Expensive transport system is unaffordable and harsh for many.*** ***UNPLANNED AND UNMANAGED PARKING*** ***Cars are aggressively encroaching upon the scarce and limited urban space that can have other and more important uses. It is possible***	

8 In Swarn Jayanti Marg in Dhaula Kuan, the share of cars is as much 68 per cent. Share of cars in motorized traffic is high in other key roads as well -- Rao Tula Ram Marg, Gurgaon Road, Nelson Mandela Marg, Outer Ring Road, Aruna Asaf Ali Marg, Swarn Jayanti Marg, Olfo Palame Marg, Vandematram Marg, Ring Road, Mahatama Gandhi Road, Anuvrat Marg etc.

		~~relationship between the bus, rail and metro-system toprovide for seamless multi-modal transport, through provision of additionalstations, park and ride facilities, introduction of single multi-modal ticketing, etc.The choice of technology for the multimodal public transport system (Bus RapidTransit System, Metro, Mono-Rail, Light Rail) be based on comparative costeffectivenessanalysis studies to ensure rapid development of public transport andto ensure judicious use of public funds.~~ ix. ~~Development of a comprehensive parking policy in line with the broad aims ofthe Plan for transportation mentioned earlier, including measures for linking newvehicle registration with owner parking facilities.~~ x. ~~Establishment of a quick and efficient transport network between the NCR andthe NCT of Delhi.~~ xi. ~~Provision of directional Goods and Passenger Terminals with adequate infrastructure.~~ xii. ~~Review of the licensing policy and systems, and effective~~	***to influence and reduce parking demand with parking pricing, stringent enforcement, parking controls etc. Parking is offered for a minimal parking fee, perpetrating a hidden subsidy to car owners as the cost of using up scarce and valuable urban space for parking is not recovered through proper pricing and taxes. There are other opportunity costs of parking spaces. The subsidy to the car will work out to be even higher if the rental or the land cost of the parking space is considered.*** ***A GROWING PUBLIC TRANSPORT SYSTEM*** ***In the above context, with 193.1Km of inter-city rail, 189.63Km of Metro, 5.8 Km of BRT currently in the city and an additional 140 Km of Metro planned over the next three years and 310 Km of BRT (26 corridors) by 2020, Delhi is moving towards a far more robust public transport system. Rail-based Regional Rapid Transit System (RRTS) is also planned connecting Delhi to Alwar, Meerut and Panipat potentially reducing the entry of an estimated 11,07,043 vehicles into the NCR on a daily basis.*** ***LOW BUS RIDERSHIP*** ***However, bus ridership – transport of the majority – continues to slide dropping from 60 % in 2000 to 40 % currently. With each bus trip lost to cars and two-wheelers, pollution and health costs will worsen. RITES forecasts that even after the full completion of the Metro rail project, the Metro ridership will still be at 20 per cent of the vehicular trips including non-motorised transport in 2021. The bulk of the public transport services will have to be bus-based.*** ***LACK OF INTEGRATION*** ***The public transport system of the city, however, needs multi-modal integration. While multi modal options may be available in the near vicinity, the physical infrastructure does not cater to seamless transfers by way of design of the systems or that if the public space of the transport node. Lack of integrated ticketing facilities and public information regarding routes, timings, ticket pricing etc, all adversely affect public transport use.***	

	~~arrangements for trainingof drivers / transport operators.It is proposed that unrestricted movement of buses, taxis and auto rickshaws bepermitted within the National Capital Region by developing a consensus amongst theconstituents of the NCR.~~	***LACK OF SAFETY & SECURITY*** ***The National Crime records Bureau has exposed that Delhi records the highest pedestrian fatalities in road accidents in the country. In 2012, 6937 road accidents and 1822 deaths were recorded. 40% of all accidents and 45% of deaths recorded were of pedestrians9. The second most vulnerable group was that of two-wheelers with 33% of all accidents and 30% of deaths attributed to this group of road users. Planning and design are responsible for such high accident rates. Apart from road accidents, innumerable cases of crime against women on public roads as well as in public transport were recorded in 2011. It is of utmost importance to make Delhi unconditionally safe, secure and gender inclusive. And, the city should not be asked to make a choice between safety of pedestrians and convenience of motors.***	
THE VISION			
2	No Provision in MPD-2021.	***NATIONAL URBAN TRANSPORT POLICY*** ***The vision of the National Urban Transport Policy is:*** ***i. To recognize that people occupy center-stage in our cities and all plans would be for their common benefit and well being*** ***ii. To make our cities the most livable in the world and enable them to become the "engines of economic growth" that power India's development in the 21st century*** ***iii. To allow our cities to evolve into an urban form that is best suited for the unique geography of their locations and is best placed to support the main social and economic activities that take place in the city.*** ***The objective of the NUTP is to ensure safe, affordable, quick, comfortable, reliable and sustainable access for the growing number of city residents to jobs, education, recreation and such other needs within our cities. The Transport Policy for Delhi maybe termed as a subset of the National Urban Transport Policy and aims to de liver its objectives through its Vision, Mission, Policies and Standards.*** ***The Vision for Delhi is to have a mobility transition which will deliver a sustainable***	***APPROVED***

9 As per the data made available by the Delhi Traffic Police in May 2013.

		urban transport system for the city that is equitable, safe, comfortable, affordable, energy efficient and environment-friendly; a system that satisfies the mobility needs of all sections of the population and enhances their quality of life. ***MISSION*** ***The Mission is to ensure safe and economical commuting between origin and destination, convenient and quick access to all areas for all sections of the society, reduction of pollution and congestion, energy efficiency and conservation, safety for all sections of road and transport users and, towards meeting these objectives, providing a significant increase in efficient rapid public transport systems and infrastructure with a corresponding reduction in individual personalised mode usage. This is in addition to pedestrian priority and properly planned use of non-motorised transport systems in all areas.*** ***The seven primary objectives of the Transport Policy are as follows:*** ***1. 80:20 modal share[10], favouring Public Transport excluding walk trips by 2021.*** ***2. Reduction in vehicular emissions to meet the national ambient air quality standard*** ***3. Achieving Zero fatality through an uncompromising approach to reduction of fatalities of all road and transport users.*** ***4. Safety and accessibility for all through safe, convenient, comfortable and barrier-free movement for all users,*** ***5. Equity through equitable distribution of road space for all modes*** ***6. Affordability by providing range of mobility options for all users*** ***7. Efficiency in movement of people and goods*** ***STRATEGY FOR ACHIEVING THE VISION*** ***The aim of the Transport Policy is to ensure that the Vision and Mission are accomplished through*** ***i. Establishing the overarching principles of the Sectoral Policies*** ***ii. Defining a series of integrated planning, development and management strategies*** ***iii. Identifying policies, projects and programmes to be implemented in a***	

[10] The transport network is based on the modal split for Delhi to move 280 lakh trips by the year 2021as given below

		time bound manner. ***iv. Setting of standard quality benchmarks for all sectors through norms in a manner that is easy to coordinate, control and monitor.*** ***v. Creation of a framework wherein the planning, design, approval and adoption of policies, programmes and projects by the city authorities includes effective periodic stakeholder consultations and public outreach programmes.*** ***vi. Creation of an institutional framework for effective coordination and monitoring of programmes and projects at all stages - planning, implementation and post implementation management / operations - to ensure adherence to the norms.*** ***vii. Stipulation of time-bound Action Plans identifying priority projects and initiatives with clearly defined role-setting, to ensure effective implementation.*** ***The following sections set out policy and norms for different transport sectors.***	
12.1 INTEGRATED MULTI-MODAL TRANSPORT SYSTEM			
3	Keeping in view the diverse built up physical forms within the city, it is logical to statethat a single mode of transport cannot practically and effectively, serve the needs ofthe city. Accordingly, an Integrated Multi-Modal Transport System suitable for theoverall structure of the city and at the same time interlinking the various sub-structuresis necessary. It is envisaged that the future transport system shall consist of a mix ofrail and road based systems which may include Metro Rail, ring rail, dedicated railcorridors for daily commuters, (IRBT / RRTS corridors as identified in NCR Plan 2021),Bus Rapid Transit System (BRTS), other mass transit modes as technologies becomeavailable and Intermediate Passenger Transport (IPT) and private modes ~~on selectedcorridors to be~~	***Keeping in view the diverse built up physical forms within the city, it is logical to state that a single mode of transport cannot practically and effectively, serve the needs of the city. Accordingly, an Integrated Multi-Modal Transport System suitable for the overall structure of the city and at the same time interlinking the various sub-structures is necessary. It is envisaged that the future transport system shall consist of a mix of rail and road based systems which may include Metro Rail, ring rail, dedicated rail corridors for daily commuters, (LRT / IRBT / RRTS corridors as identified in NCR Plan 2021), Integrated Transit Corridors (ITC), Bus (both State run and private), other mass transit modes as technologies become available and Intermediate Passenger Transport (IPT) including Feeder Services, Taxis, Auto-rickshaws and Cycle-rickshaws and private modes. In addition, all roads should be made pedestrian, disabled and bicycle friendly.*** ***Therefore, it is necessary that:*** ***i. Public transport integration is facilitated for the National Capital Region as a whole based on the Common Reciprocal Agreement. In particular, permit unrestricted movement of buses, taxis and auto***	***APPROVED***

	~~identified as per the needs from time to time.~~ All roads should be madepedestrian, disabled and bicycle friendly ~~as far as possible.~~	***rickshaws within the National Capital Region.*** ***ii. All road infrastructure, Stations and Terminals as well as Trip Attracting is designed / retrofitted to enable efficient, convenient and safe multi-modal integration as per Section 12.15*** ***iii. Integrated ticketing and comprehensive information dispersal regarding route planning, tickets, etc through user friendly technologies and media is implemented.***	
12.2 METROPOLITAN TRANSPORT AUTHORITY			
4	Establishment of a single authority is the need of the hour for planning/developmentof an integrated system, implementation and enforcement of the policies, which maybe framed in that context. Inter alia, this would help to avoid wasteful expenditureand other problems that could arise from duplication, overlap and even mutuallyexclusive / and contradictory facilities. Therefore, a single unified Metropolitan Transport Authority, on the lines recommended by the National Transport PolicyCommittee, needs to be established on priority.	Establishment of a single authority is the need of the hour for planning/development of an integrated system, implementation and enforcement of the policies, which may be framed in that context. Inter alia, this would help to avoid wasteful expenditure and other problems that could arise from duplication, overlap and even mutually exclusive / and contradictory facilities. Therefore, a single unified Metropolitan Transport Authority, on the lines recommended by the National Transport Policy Committee, needs to be established on priority. ***UNIFIED TRAFFIC AND TRANSPORTATION INFRASTRUCTURE (ENGINEERING AND PLANNING) CENTRE (UTTIPEC)*** ***In the above context, the Unified Traffic and Transportation Infrastructure (Engineering and Planning) Centre (UTTIPEC) was set up by the Delhi Development Authority in exercise of powers conferred by the act notified in the Gazette of India Extraordinary in 2008 to enhance mobility, reduce congestion and to promote traffic safety by adopting standard transport planning practices, capacity building, enforcement measures, road safety audits, traffic engineering practices and better organizational co-ordination for improved traffic management in the National Capital Territory of Delhi.*** ***DEPARTMENT OF TRANSPORTATION*** ~~***While UTTIPEC is fulfilling an essential role of the MTA with the mandate to work towards the implementation of the NUTP, there still exists the need for a Department of Transportation which would be responsible for:***~~ ~~***i. Planning comprehensively the integrated public transport system for NCT including road networks for all Local Areas / Wards of the city as per section 12.3.3***~~ ~~***ii. Identifying priorities and projects to ensure maximum benefit to maximum***~~	**APPROVED WITH THE FOLLOWING MODIFICATION**

		~~***people and coordinating the implementation of the same.***~~ ***Department of Transport should be re-designated as the Department of Transportation for:*** ***i. Planning comprehensively the integrated public transport system including Intermediate Public Transport for NCT including road networks for all Local Areas / Wards of the city as per section 12.3.3*** ***ii. Identifying priorities and projects to ensure maximum benefit to maximum people and coordinating the implementation of the same.***	
12.3 ROADS			
5	**12.3 ROADS** Delhi is planned on a ring - radial pattern with a hierarchical road network. Broadly,the road network is designed for regional, intra - city and local traffic. ~~**The proposedroads are classified taking into account the land use pattern and road system hierarchywith recommended right of ways as follows:**~~ ~~**1. National Highways**~~ ~~**The recommended minimum right of way (ROW) is 90 meters, wherever possible. However, within the city it shall not be less than 60meters. All the National Highwayswithin the NCTD shall be access controlled upto the Delhi Border.**~~ ~~**2. Arterial Roads**~~ ~~**These include primary roads with access control and other primary roads.**~~ ~~**i) Primary Roads: Vehicular routes carrying heavy volumes of traffic will generallyhave free / stable flow conditions with controlled access. The recommended ROWin existing urban area is 60-80 m. and minimum 80 m. in the proposed**~~	**12.3 ROADS** Delhi is planned on a ring-radial pattern with a hierarchical road network. Broadly, the road network is designed for regional, intra-city and local traffic. ***12.3.1 REGIONAL NETWORK*** ***The primary function of the Regional Road Network is to provide strategic regional linkages for safe and efficient movement of both passengers and goods between the NCT and other Regional Centres. While this is essential, it is equally critical to ensure the mobility and safety needs of local communities and neighborhoods are not compromised. The following is essential:*** ***i. Identify regional routes for Passenger & Goods movement in close coordination with NCRPB to integrate strategies of the Function Plan for Transport for the National Capital Region 2032 into the movement structure of the city holistically.*** ***ii. On priority, prepare a strategy to dis-incentivise trips external to Delhi to go through the NCT. Provide turn around facilities at all toll collection centres along the NCT border so that non-destined goods vehicles can bypass the city.*** ***iii. Balance the need for road based infrastructure with low carbon Mass Transit options such as the RRTS in order to prioritise sustainable travel options for regional connectivity,*** ***iv. Design and retrofit all proposed and existing regional roads (Expressways, National Highways and State Highways) within the urban areas of***	**APPROVED**

	~~urbanextension. While designing roads with 30m. ROW and above, provision shouldalso be made for public mass rapid transport system, which may include BRT. Present ring road and outer ring road to be converted to access controlled arterialroads. Cycle tracks should also be constructed along all arterial roads whereverpossible. ii) Other Primary roads: Vehicular routes carrying heavy volumes of traffic, BRT routemay also be allowed on these roads. The recommended ROW in existing urbanarea is 45-60 m. and minimum 60 m. in the proposed urban extension. Cycletracks should also be constructed along all other primary roads wherever possible.~~ ~~3. Sub Arterial Roads These include primary and secondary collector streets. (i) Primary Collector: These roads will connect major arterial roads and interresidential district collectors. The recommended ROW in existing urban area is30-40 m. and minimum 45 m. in the proposed urban extension. In addition tothis, a separate cycle track should be provided wherever possible. (ii) Secondary Collector: These roads are intended to collect traffic from local streetswithin one residential district. The recommended R/W in existing urban area is18-24 m. and minimum 30 m. in the proposed urban extension.~~ ~~4. Local Streets These are intended for neighbourhood (or local)~~	*the NCT as arterial roads as per the Norms in Section 12.15.4.* *v. Additionally, plan all new road alignments within the NCT as per ground realities to ensure disruption and dislocation of existing communities and settlements is minimized* *vi. For all regional road proposals, undertake an Environmental Impact Assessment for the section of the road within the NCT as per recommendations of the committee set up to review the provisions of EIA Notification 2006 relating to Building, Roads and SEZ projects and OM issued by this Ministry on High Rise Building (F. No. 21-270/2008-IA-UI / Government of India / Ministry of Environment and Forests / LA. Division)* *vii. Along all the proposed and existing Expressways, National Highways and other major regional corridors within the NCT:* *a. Segregate passenger and goods movement based on size and speed of the mode to improve safety and efficiency* *b. Provide Integrated Transit Corridors (Section 12.4.3) to provide priority for movement of road based bus system and other high occupancy private modes* *c. Install speed cameras & CCTV cameras to improve monitoring systems* *12.3.2 ROAD NETWORK & CONNECTIVITY* *In order to improve mobility on existing roads for all, it is proposed to identify additional / alternative links and access options to augment the current network. The function of the enhanced network is to provide a choice of safe, efficient, and convenient routes for all users and modes through a fine network of roads and streets that allow for smooth and efficient movement for all – from the pedestrian to a Mass Rapid Transit System. To ensure this, the following is essential:* *i. Expedite the implementation of all Zonal Development Plan (ZDP) Roads including Urban Extension Roads (UER 1, 2 and 3). Alignment and right-of-ways of all roads should be based on ground realities to minimise disruption*	**APPROVED**

	~~use on which through traffic is to bediscouraged. The suggested ROW is 12 to 20 m. in the existing and proposed urbanarea. These roads should be made pedestrian and bicycle friendly by using moderntraffic calming designs to keep the speeds within limits as per design. A special cellshould be set up within Transport Deptt. for developing standards and guidelines for Traffic calming designs and for their implementation in the whole city in a phasedmanner. In existing areas like Rohini project, having plot sizes below 90 sq.m.,minimum ROW of 9 m. may continue.~~ ~~As a matter of general policy, it is proposed that for all categories of roads, the full crosssection should be developed in future and no encroachments will be permitted on theexisting road network. Further, the development of roads should start from the extremesof the designated ROW.~~ ~~12.3.1 URBAN RELIEF ROADS~~ ~~In order to reduce congestion on the existing roads, it is proposed to identify additional/ alternative links and access corridors. Such links termed as Urban Relief Roads, maybe proposed subject to feasibility, along drains (including their covering), identificationof new alignment, or up gradation / strengthening of an existing road / alignment orin the form of elevated roads/grade separators etc. All the options should be exercisedfor restoration~~	***of existing settlements. The right-of-ways of the ZDP Roads may be reduced as required, if network augmentation is achieved through a greater number of roads with smaller ROWs. (see v below)*** ***ii. All UERs to be designed and implemented with a Mass Transit System such as a Metro, LRT, BRT etc.*** ***iii. Augment the road network to distribute high traffic volumes over multiple roads, particularly secondary and tertiary. While this implies increasing road infrastructure, there is a clear shift in policy towards enhancement of the network instead of stand-alone corridor / junction improvement strategies. Damage to natural features or drains (by way of covering or reducing the water holding capacity thereof) will not be permitted for the provision of new links / road infrastructure.*** ***iv. Prepare Network Plans for each Local Area / Ward on priority to identify road infrastructure projects to achieve a finer network. In Urban Extensions, all new development areas and/or projects to deliver a vehicular route network of approximately 300M and a NMT network not greater than 100M.*** ***v. Incentivise retrofitting of existing developed areas to achieve a vehicular route network of 300M and a NMT network not greater than 100M as far as possible by providing additional 100 FAR per unit of land surrendered for new road networks as per the approved Network Plan. The Technical Committee of DDA may relax setbacks, ground coverage and height restrictions based on specific site requirements.*** ***vi. During the Network Plan preparation process:*** ***a. Review the alignment and ROWs of proposed Masterplan and Zonal Plan Roads based on ground realities to ensure minimal disruption to existing communities and settlements.*** ***b. Reduce ROWs of MPD and ZDP Roads, as maybe required, if network augmentation is achieved through a greater number of roads with smaller ROWs.*** ***c. Undertake a Traffic Impact Assessment (TIA) for the entire Network.***	

	~~of full ROW, including relaying of services etc., if affecting ROW.~~ ~~The following priority stretches for provision of Urban Relief Roads have been identified.~~ ~~i. Shankar Road - alternative elevated road may be explored.~~ ~~ii. VikasMarg~~ ~~iii. Extension of NH-24 to join Mathura Road (near Humayun's Tomb).~~ ~~iv. Prem Bari Pul (Pitampura) to Outer Ring Road along disused Western YamunaCanal.~~ ~~v. Road between Nehru Place and Hotel Park Royal to be extended up to LotusTemple and towards East of Kailash, if feasible.~~ ~~vi. Badarpur Border entry point.~~ ~~vii. Karol Bagh (new Rohtak Road) - alternative alignment by extending AryaSamajRoad through Anand Parbat to connect existing roads leading to Patel Road andShivajiMarg on ROB or RUB.~~ ~~viii. More bridges on river Yamuna (at Geeta Colony, MayurVihar, etc. alignmentsof Platoon Bridges can be considered.)~~ ~~ix. Along drains passing through Lajpat Nagar, Defence Colony, Sarai Kale Khan,Lodhi Road, etc.~~ ~~x. SaritaVihar (Junction of Mathura Road and Road No. 13-A) to Okhla IndustrialAreas (road between Ph I and Ph. II to be~~	*d. Identify potential Parking benefit Districts (See Section 12.13.2.2)* *e. Identify priorities to ensure maximum benefit to maximum number if people.* *f. To streamline and quicken the planning and approvals process, the Network Plan and TIA for the same may be approved by the Competent Authority in one go.* *vii. Use GIS database to monitor the road length and road space so that there can be optimization and there is a cap on future expansion of road space as a percentage of the landuse* *viii. In addition, prepare a dynamic city wide integrated Transport – Land use Model to aid the planning process and assess the network needs at the city level.* ***12.3.3 HIERARCHY OF ROADS & DESIGN*** Broadly, the road network is designed for regional, intra-city and local traffic ***and consists of Arterial, Sub-arterial and Collector Roads, Local Streets and Eco-mobility and Pedestrian / NMT only streets. The following must implemented to ensure safety, comfort and efficient mobility for all modes:*** *i. Design roads as per Norms in Section 12.15.4 to ensure the appropriate transit function of each road type within the network and hierarchy is delivered. In addition, ensure edge conditions are designed to create active streets.* *ii. All National Highways within urban limits of the NCT will function as arterials and be designed accordingly. Speeds will have to be regulated with security cameras and heavy penalty and punishment for flouting rules* *iii. For corridors where Mass Transit Systems have been planned, design and build roads with the flexibility to accommodate the proposal in the future with minimal disruption.* *iv. Once implemented / retrofitted as per norms in Section 12.15.4 no impediments such as illegal parking, street infrastructure within clear walking zones etc. will be permitted.* ***12.3.4 INTERSECTIONS*** ***Intersections must be designed to reduce delays and increase safety for all road users, with a priority to non-motorized and public transport modes. The design should be***	**APPROVED** **APPROVED**

~~connected by ROB or RUB).~~

~~xi. Elevated road corridor between Connaught Place and East Delhi (Marginal BundhRoad).~~

~~xii. Missing link and Outer Ring Road from NH-8 to Najafgarh Road.~~

~~Additional stretches of missing links could be identified from time to time by theconcerned agencies. Their project may be implemented after carrying out detailedstudies.~~

~~12.3.2 UNDERGROUND ROADS~~

~~Vehicular traffic is a major contributor to the air pollution in Delhi. In order to reduceroad congestion and the level of pollution, the possibility of having Underground Roadsor Tube roads in critical areas needs to be considered. Such measures, together withprovision of Metro Services, will also help to make historically important areas likeConnaught Place, ChandniChowk and Karol Bagh etc. pedestrian friendly. With advancement in technology, and a better climate for private participation and investmentin infrastructure development, such proposals could be explored.~~

~~12.3.3 GRADE SEPARATORS~~

~~The Master Plan studies indicate the need for provision of intersections with gradeseparators. In case of existing grade separators the possibility of providing cloverleavesand direct interchanges, wherever necessary and feasible, may be examined in orderto make the junctions~~

based on the lower design speed of the two intersecting roads. In the context of the maximum speed permitted on roads in the city (50Km/hr), intersection solutions that encourage higher peak speeds, such as grade separated or other signal free solutions (contributing to long signal free corridors) will not be permitted unless deemed necessary as per the TIA of the Network Plan. Additionally, in order to facilitate easy access to passengers and also to ensure minimized delays in interchanges, stops and stations must be located as close to the junction as possible. Passive speed control measures such as traffic calming should be also included at all critical intersections including those on arterial roads to ensure safety during both peak and off-peak hours. Table 12.2 below provides Junction Solutions for Roads of different hierarchies.

Table 12.2: Junction Solutions for Roads of different hierarchies

ROAD TYPE	***Arterial roads***	***Collector roads***	***Local streets***
Arterial Roads	***Signalized Crossings***	***Signalized Crossing or Traffic calmed 3 arm crossing (Collector road opening on to an arterial road with no right turns)***	***Signalized Crossing or Traffic calmed 3 arm crossing (Local Street opening on to an arterial road with no right turns)***
Collector Roads		***Signalized crossing***	***Signalized crossing***
Local Streets			***Un-signaliz***

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	~~signal free. To provide uninterrupted traffic movement various other options such as elevated roads with supporting infrastructure etc. will also needto be explored.~~ ~~In the proposed urban extension, space reservation is to be kept for provision of gradeseparators, cloverleaves and Left Slip roads at intersections of all roads of 30 m. andabove ROW. However, grade separated junctions shall be considered if there is no otherpossibility of including traffic flow. Further it should also be ensured that pedestriansand bicyclists continue to have safe and convenient access to the junction.~~ ~~12.3.4 FREEWAYS~~ ~~Freeways are defined as divided arterial highways for vehicular traffic with full accesscontrol and provided generally with grade separation at intersections. A freewaynetwork in the NCR should be developed so that the criss-cross movement through Delhiis lessened.~~ ~~With such a network of Freeways, Highways, MRTS and Electric Multiple Units (EMUs)a 2 to 3 hour movement network can be generated which will cover entire NCR. Thiswill encourage interaction between Delhi and NCR towns.~~	<table><tr><td></td><td></td><td></td><td>***ed/ Traffic Calmed Crossing (3, 4 arm)***</td></tr></table> ***12.3.5 ROAD MAINTENANCE AND MANAGEMENT*** ***Coordinated maintenance and upgradation of all roads and road infrastructure (including surface and underground services) must be undertaken effectively by road owning agencies in consultation with all concerned departments and stakeholders. Construction and / or placement of any structure (other than essential road infrastructure) and or encroachments / impediments within the ROW will be prohibited and persons responsible penalised in the interest and safety of all road users; and NMT in particular. In case of injury, accident or criminal activity caused due to or partly due to failure to maintain and manage the road infrastructure, strict legal action may be taken against agencies / authorities responsible for the construction / maintenance of the related road infrastructure.***	

12.4 MASS RAPID TRANSIT SYSTEM (MRTS)			
6	The Metro Rail System the most important, component, of a Mass Rapid TransportSystem (MRTS) in the City. The Metro Rail network for the entire city has been identifiedin various phases, which comprises of a network of underground, elevated and surfacecorridors aggregating to approximately 250 Kms., and is expected to carry 108 lakhdaily passengers with an average trip length of 15 Km. by 2021. ~~**Phase I of the network is already implemented and operational.**~~ ~~**Phase-II of the network covering a length of 56.76 km is likely to be completed by 2010 for the following stretches.**~~ ~~**a. Vishwavidyalaya - Jahangir Puri.**~~ ~~**b. Central Secretariat - QutabMinar.**~~ ~~**c. IndraPrastha - Yamuna Depot - New Ashok Nagar.**~~ ~~**d. Yamuna Depot - AnandVihar ISBT.**~~ ~~**e. Shahdra - Seemapuri.**~~ ~~**f. Kirti Nagar - Nangloi along Rohtak Road.**~~ ~~**Subsequent phases shall be worked out in conjunction with the overall circulation planfor the city.**~~ ~~**Rohini and Narela sub-city projects with population of more than 10 lakh each needto be connected to the MRTS. Following extensions of routes are proposed:**~~ ~~**i. From existing Rithala Station uptoBarwala (RohiniPh.IV-V).**~~ ~~**ii. From Sanjay Gandhi Transport Terminal to Narela.**~~	***12.4 MASS TRANSIT*** ***Mass Transit may be defined as a shared public transport system designed to move large numbers of people. Currently in Delhi, four options of Mass Transit are available – Buses, BRT, Metro and the Ring / Suburban Rail. These are covered in Sections 12.4.2 to 12.4.4.*** ***12.4.1 SYNERGY BETWEEN TRANSPORT AND LAND USE*** ***The concept of the Master Plan for Delhi 1962 was based on a poly-nodal, polycentric, distribution of work centres, largely based on road transport nodes. A major fall-out of this has been distortion between infrastructure, transport and land use. To achieve spatial balance, development is envisaged along new corridors of mass movement, particularly the Metro Corridors. While this would not only help to solve, to some extent, the enormous problems of mass transportation, but would also generate a dynamic potential for growth and employment. The Policy on Transit Oriented Development (TOD) (Chapter 20) is targeted to encourage, guide and manage this change*** **12.4.2 METRO** The Metro Rail System the most important, component, of a Mass Rapid Transport System (MRTS) in the City. The Metro Rail network for the entire city has been planned and implemented in various phases, which comprises of a network of underground, elevated and surface corridors aggregating to approximately ***176 Kms within the NCT (and 190 kms including the NCR), carrying 20 lakh passengers daily with an average trip length of 16.00 Km. By 2016, after completion of Phase – III, the length of MRTS network would be 294 km in Delhi and 329 Km including the NCR. The daily ridership of NCT is expected to rise to 41.85 lakh in 2016 (Phase I ridership = 5.89 lakh, Phase II = 15.05 lakh, and Phase III = 20.91 lakh) and 51.48 lakh in the year 2021. It is expected that about 18.4 % of the NCT will be within a 10-minute walking distance and a total of 44% will be within a 10-minute cycling distance from the proposed MRTS stations after the development of Phase III.*** ***Phases I and II of the network are already implemented and operational. Phase-III of the network covering a length of 117.58 Km with 79 new stations in NCT (139.20 km with 91 new stations including NCR) is likely to***	***APPROVED***

	~~Considering the future needs of the city additional links of MRTS may be identified bythe DMRC.~~ ~~It is expected that about 60% of the urban area will be within 15-minute walkingdistance from the proposed MRTS stations, after full development of the system.Additional areas could come within easy access and connectivity with the Metro Railthrough inter-linkages with other transport modes. About 15% of urban area of Delhiis likely to be directly affected, and may undergo a dramatic impact and change. Further,due to development of economic activities along the Metro Corridors and optimizationof connectivity provided by it, the rider ship on the Metro is expected to growsubstantially over time. Correspondingly, it is expected that vehicular trips may alsoprogressively shift from road-based transport to MRTS, particularly, with reference tothe longer trip lengths (greater than 10 Kms) within the city.~~ ~~To achieve the above potential impact of the Metro Rail System a number of measureswill be necessary. These will include the following:~~ ~~i. Preparation of detailed plans to facilitate and encourage direct pedestrian accessto the Metro Rail System / Station.~~ ~~ii. Preparation of detailed multi-modal transport plans with reference to each majorMetro Station, with particular reference to bus~~	***be completed by 2016 for the following stretches:*** • ***Jahangirpuri – Badli (Line 2 extension)*** • ***Central Secretariat – Kashmere Gate (Line 6 extension)*** • ***Mukundpur – Yamuna Vihar to Shiv Vihar (Line 7)*** • ***Janakpuri West – Kalindikunj (Line 8)*** • ***Dwarka – Najafgarh corridor*** • ***Mundka – Tikri Border (Delhi portion of Mundka – Bahadurgarh corridor)*** ***The Delhi Metro network is also being extended to following towns out of Delhi in NCR:*** • ***Badarpur – Faridabad*** • ***Tikri Border to City Park (Haryana Portion of Mundka – Bahadurgarh corridor)*** ***The following corridors currently have the requisite traffic and are being considered for implementation as part of Phase – IV*** • ***Shiv Vihar – Mukundpur (2.717 kms)*** • ***Janakpuri (West) – Mukundpur – R.K. Ashram (28.92 kms)*** • ***Tughlakabad to Aerocity (21 kms)*** • ***Lajpat Nagar to Madangir (7.3 kms)*** • ***Inderlok – Indraprastha (12.5 kms)*** • ***Rithala – Bawana (11.865 kms)*** • ***Bawana – Narela (10 kms)*** • ***Monorail between Trilokpuri – Loni Border (20 kms)*** ***To achieve the above potential impact of the Metro Rail System a number of measures will be necessary. These will include the following:*** ***i. Planned and targeted expansion of the Metro-rail network in conjunction with the future needs and the overall circulation plan of the city for delivery in a time bound manner.*** ***ii. Selection of station locations as close to large trip attracting uses such as Stadia, Exposition Centres, Malls etc, Passenger Terminals and / or other places of interest to maximise ridership and achieve seamless integration.*** ***iii. Preparation of detailed multi-modal integration plans as per Section 12.15 for all existing and proposed Metro Station Areas to facilitate safe, convenient and comfortable access for all users and visitors, particularly women, the elderly***	

	~~transport routes, which couldprovide inter-linkages and feeder arrangements.~~ ~~iii. Parking arrangements at Metro Stations, both for short and medium period viz.for those who would travel for local level requirements such as shopping, etc.and those who would need parking by way of a Park and Ride facility.~~ ~~iv. Provision of Park and Ride facilities at identified points from where feeder busservices would be available, or convenient direct pedestrian access would befeasible.~~ **12.4.1 SYNERGY BETWEEN TRANSPORT AND LAND USE** The concept of the Master Plan for Delhi 1962 was based on a poly-nodal, polycentric,distribution of work centres, largely based on road transport nodes. A major fall-outof this has been distortion between infrastructure, transport and land use. To achieve spatial balance, development should take place according to new corridors of mass movement. This has implications in terms of land use planning along major transport corridors and the Mass Rapid Transport / Transit System. This would not only help to solve, to some extent, the enormous problems of mass transportation, but would also generate a dynamic potential for growth and employment. This is particularly true for the Metro Rail System. In this context the Metro corridors upto a certain depth would require selective re-development and re-densification / intensification of existing landuses based	***and the differently abled.*** ***12.4.2 COMMUTER RAIL / RING RAIL*** *[BROUGHT FORWARD FROM 12.8 RAIL]* In the National Capital Territory of Delhi both intercity and intra-city passenger movements are being catered to by the existing rail network comprising the Regional and Ring Rail Systems respectively. ***Delhi Ring Railway, a 35Km circular rail network, runs parallel to the Ring Road. While the system is currently very affordable, its occupancy is critically low due to the landuses of the surrounding areas and lack of proper connectivity and access to the stations. The following is essential to ensure better services and higher ridership:*** ***i. Reinforce the Ring Rail as an important Mass Transit System for Delhi, one that is affordable and provides the critical 'circular' connectivity across major business / employment districts and residential quarters of the city.*** ***ii. Expand, strengthen/ restructure and upgrade the Ring Rail System and sub-urban rail system as an affordable complement to the Metro.*** ***iii. Planned expansion and upgradation of the system should include safe, active, convenient and comfortable connectivity to the Stations for all. Therefore, retrofit station areas to achieve the above as per Norms in Section 12.15 and UTTIPEC Street Design Guidelines.*** ***12.4.3 LIGHT RAIL TRANSIT (LRT)*** ***Light Rail Transit (LRT) operates within an exclusive right of way usually defined by a steel-tracked fixed guideway and can be accommodated within the carriageway of roads. LRT may be planned in Urban Extensions within the Arterial roads, particularly along Urban Extension Roads 1, 2 and 3. In addition, LRT may be planned in Special Areas.*** ***12.4.4 INTEGRATED TRANSIT CORRIDOR (ITC)*** ***Integrated Transit Corridors (ITC) allocates space equitably to all modes to ensure safe and comfortable access. In particular, it gives priority and dedicated space to road based public transport systems, particularly to***	***APPROVED*** ***APPROVED*** ***APPROVED***

	on site conditions. It is proposed that comprehensive redevelopment schemes of the influence area of MRTS stations be prepared. ~~12.8 RAIL~~ In the National Capital Territory of Delhi both intercity and intra-city passengermovements are being catered to by the existing rail network comprising the Regionaland Ring Rail Systems respectively~~.~~ ~~In order to improve the rider-ship on Ring Rail, the following is proposed:~~ ~~a) Intensive land use around the following:~~ ~~i. Anand Parbat~~ ~~ii. INA Colony~~ ~~iii. Pusa Institute~~ ~~iv. Kirti Nagar~~ ~~b) Accessibility improvement and augmentation of infrastructure on ring rail stations:~~ ~~i. Shivaji Bridge~~ ~~ii. BhaironMarg~~ ~~iii. Kasturba Nagar (Sewa Nagar)~~ ~~iv. Lajpat Nagar~~ ~~v. Kirti Nagar~~ ~~vi. Shakur Basti~~ ~~c) Provision of Halt Stations on ring rail at the following locations:~~ ~~i. MotiBagh~~ ~~ii. Bhairon Road~~ ~~iii. Hans Bhawan (ITO)~~ ~~iv. Ganesh Nagar~~ ~~v. PreetVihar~~ ~~vi. Shyamlal College.~~ ~~The interchange points of Regional Road, MRTS, Ring Rail and any other future railnetwork should be developed as interchange stations / convergence zone. The changeover facilities should include approach roads, pedestrian walkways, shuttle services,wherever feasible parking, areas for~~	***make bus based systems efficient and reliable. For Delhi, an 'open' ITC system is envisaged, wherein all buses can enter / exit the dedicated segregated lanes as per availability of infrastructure. This ensures that efficiency of not only a few identified routes is enhanced but instead all routes benefit from the ITC corridor. A total of 7 corridors have been approved in Phase I, covering 115.5 Km. When fully implemented and operationalised the ITC, through its 26 routes covering a total length of 310 km will carry 104.09lakh passengers daily, 59.7 % of all passenger trips by the year 2021. The following is required to ensure an effective network of ITC in the city.*** ***i. Plan and retrofit all roads with ROW greater than 30m as ITCs with exclusive bus lanes in a phased manner to cover the whole city. The provision of dedicated/segregated bus infrastructure may not just be limited to roads with ROW greater than 30m, but may also be extended on smaller streets carrying heavy bus traffic coupled with traffic management schemes.*** ***ii. Provide safe at-grade crossing facilities for pedestrians, cyclists and other NMT at a maximum distance of 300M with appropriate signage and road markings.*** ***iii. Design all infrastructure including the corridor, bus stops, amenities and facilities as per UTTIPEC Street Design Guidelines*** ***12.4.5BUS [BROUGHT FORWARD FROM 12.5]*** Apart from the Metro Rail System, buses will continue to be other major public transport in the city as a form of comfortable and convenient public movement within the city. ***Today, 800 cluster buses, a fleet of 5800 DTC buses and, contract carriage operated buses serve the city. To improve reliability and accountability, adherence to a Unified Time Table prepared for each cluster is monitored by the Operations and Command Control (OCC) Centre. While systemic improvements have been initiated, it is necessary to take steps for rationalization of Bus Transport. This would entail action on the following fronts:*** ***i. Increase the bus fleet to meet a per***	***APPROVED***

	~~various modes including feeder buses, and adequate public conveniences, etc.~~ ~~12.5 BUS [BROUGHT FORWARD]~~ ~~Apart from the Metro Rail System, buses will continue to be other major public transport in the city. The Bus Transport system is presently estimated to carry around 23.40 lakh passengers per day (2002). Even after the introduction / expansion of the Metro, major dependence will continue to be on Bus Transport as a form of comfortable and convenient public movement within the city. However, keeping in view the extension of road network in Delhi on one hand and the existing/likely congestion on the roads on the other, it is necessary to take steps for rationalization of Bus Transport. This would entail action on the following fronts:~~ ~~i. Bus connectivity would need to be planned to a considerable extent in the formof feeder services to the Metro Rail Stations and the Ring Rail System.~~ ~~ii. Park and ride facilities will have to be developed at important bus terminals.~~ ~~iii. The quality and design of buses would have to be~~	***capita target of 12 buses per 10,000 people[11] i.e. have a total fleet of 26,400 - 27,600 buses in the city by 2021.*** ***ii. Provide land for Bus Depot and Terminals on priority for 11,000 buses at 200 sqm per bus equating to approximately 220 Ha including current provision. Depot / terminal provision for the remaining buses will be based on optimisation of land.*** ***iii. Substantially augment the current provision of 25 bus terminals by providing an additional 75 Terminals by 2021 to enable efficient operations of the bus system.*** ***iv. Selection and allocation of depot lands should be planned in response to bus routes and clustering as far as possible to minimise losses due to dead mileage.*** ***v. Plan bus connectivity to a considerable extent in the form of feeder services to the Metro Rail Stations and the Ring Rail System.*** ***vi. Explore options such as provision of double decker buses to improve efficiencies***	

[11] The number of buses required per 1,000 population will depend on the public transport mode share, the presence or otherwise of rail or other public transport modes, the capacity of the buses, the extent to which they may be utilized in terms of daily kilometers per bus, and the daily number and average length of bus journeys undertaken by each inhabitant of the city. With so many variables the minimum requirement varies considerably from city to city, but will typically lie between 0.5 and 1.2 per 1,000 population.

Source : Urban Bus Toolkit PPIF/WB

	~~significantly upgraded with a view to providing comfort to the riders and thereby make bus travel a part of an efficient mass public transport system which could also help to reduce individualized / private vehicle usage.~~ ~~iv. On all roads with ROW greater than 30 m exclusive bus lanes will be planned to implement the Bus Rapid Transit System (BRTS) in a phased manner to cover the whole city.~~ ~~v. New bus terminals need to be planned and developed in strategic locations to make the use of BRTS and Metro Stations convenient for all commuters.~~		
12.5 ~~BUS~~ INTERMEDIATE PUBLIC TRANSPORT			
7	No Provision in MPD-2021.	***12.5 INTERMEDIATE PUBLIC TRANSPORT*** ***Intermediate Public Transport including Cycle-rickshaws, Auto-rickshaws, Taxis and Feeder Services have become an integral part of the public transport system, helping to meet diverse mobility needs.*** ***12.5.1 FEEDER SERVICES*** ***Feeder services in the form of smaller buses, vans and other Heavy Occupancy vehicles (HOVs) including shared auto-rickshaws currently play an important role in the transportation system of the city, albeit mostly informally, connecting commuters to not only the Metro or the Bus for the first and last mile but also for the entire journey. Currently a fleet of 120 Metro Buses and 6,153 Grameen Seva ply in the city. There is a***	**APPROVED** **APPROVED WITH THE FOLLOWING ADDITION**

		need to regularise this sector to ensure safety, reliability, efficiency and comfort. For this, the following must be undertaken: ***i. Plan regular city bus connectivity to a considerable extent in the form of feeder services to the Metro Rail Stations and the Ring Rail System. This is best facilitated by allowing bus routes and even ITC along Metro corridors.*** ***ii. Recognise the role of informal feeder services currently serving the commuters in the city and regularise / organise them to ensure provision of a safer, more convenient and reliable service.*** ***iii. Plan, design and implement infrastructure to enable feeder services to become a meaningful and legal mobility option by providing dedicates stops and stands a Terminals / Stations etc as well as within employment and residential zones as per Section 12.15.1 - 12.15.3.*** ***iv. Make use of non-polluting fuel mandatory for all feeder services, incentivised through grants to assist the transition.*** ***v. <u>Explore plying of shared autos on fixed route as a feeder service</u>*** ***vi. Programmes such as driver training, certification etc maybe explored to ensure safety on street for both the passenger and other co-roadspace user.*** ***12.5.2 TAXI*** ***Taxis play an important role in providing an integrated transport service for people who choose not to use a car and combine taxi with public transport for certain trips. Currently 47,342 private operators are registered in the city. Improved facilities for taxis can help to reduce car-dependency. Taxis and autorickshaws complement each other in that the user groups of the two modes may differ. The following must be implemented to ensure improved services:*** ***i. To maximise the above opportunity, plan, design and implement infrastructure in the form of stands, pick-up / drop-off locations etc. within Terminals (stations and stops) and around demand areas (residential areas / employment centres and***	***APPROVED***

		recreational / entertainment hubs) as per 12.15.1 – 12.15.3 to improve Taxi services in the city. ***ii. Also plan taxi stands as part of all developments at the Local Area level*** ***iii. In addition, explore options for introducing 'hail-a-cab' services to provide a wider and more efficient service. This could be done through area based Pilot Projects.*** ***iv. Programmes such as driver training, certification etc maybe explored to ensure safety on street for both the passenger and other co-roadspace user.*** ***12.5.3 AUTO-RICKSHAW*** ***Auto rickshaws are an essential and one of the more affordable options of non-shared public transport in the city and also the only mode, other than cycke-rickshaws, that one can hail in the city. The policy encourages the use of safe auto-rickshaws and does not impose a restriction on numbers. In order to improve their efficiency and reliability, the following is essential:*** ***i. Plan Auto rickshaw stands in all Terminals (stations & stops) as well as Trip Attracting Uses as per 12.15.1 – 12.15.3*** ***ii. Undertake assessment of provision CNG filling stations to ensure adequate supply at multiple locations of choice.*** ***iii. Initiate services such as 'dial an auto-rickshaw' to provide a wider and more efficient service. This could be done through area based Pilot Projects.*** ***12.5.4 CYCLE-RICKSHAW*** ***It is estimated, that currently as high as 700,000 rickshaws are plying on Delhi Roads, of which only 89,429 have licenses[12]. The role of the cycle-rickshaw as an important non-polluting, low energy consuming mode for goods and passenger movement within the city; particularly with reference to short and medium trips and one that provides employment to a large segment of the city's population must be recognised and reinforced. However, with a mixed type of fast moving traffic on the roads, travel by rickshaws is currently very unsafe. In view of***	***APPROVED*** ***APPROVED WITH THE FOLLOWING MODIFICATIONS***

[12] Concept paper -Green Cab, Dial-a-Cycle Rickshaw Service, (Integration of BRT with an emission free Non-Motorized Public Transport Feeder Network), DIMTS, pp-2

		the above, the following actions are necessary: ***i. <u>Alternatives to the manual passenger rickshaw should be explored through Pilot Projects in the city</u>*** ***ii. <u>Till such time rickshaws continue, the following shall be applicable:</u>*** ***iii. Through Network Plans (section 12.3.2) create a fine network of tracks to ensure choice of direct, safe and comfortable routes with a target street grid of 80 – 100M. Recognise that the network addresses goods movement also and design accordingly.*** ***iv. Provide fully segregated <u>NMV/ cycle</u> tracks ~~for shared use with cycles~~ on roads as per Norms in Section 12.15.4 with provision for safe NMT parking facilities and at-grade crossing as per UTTIPEC Street Design Guidelines. In addition, retrofit existing signal free corridors to ensure direct at-grade routes for cycle-rickshaws to enable easy movement*** ***v. Provide cycle rickshaw stands (for both passenger & goods) in new and retrofitted streets. For goods carrying rickshaws, parking spaces (both short and long term such as regular service bays and night parking shelters) at both ends – commercial / distribution centres as well as within neighbourhoods - may be planned at the Local Area level.*** ***vi. In specific areas, like the Walled City / Chandni Chowk / Sadar Bazar / Karol Bagh / Lajpat Nagar and Trans Yamuna Area, the use of cycles/rickshaw as a non-motorised mode of transport should be ~~consciously~~ <u>well</u> planned along with pedestrianisation.*** ***~~vii. Alternatives to the manual passenger rickshaw may be explored through Pilot Projects in the city without forcefully removing, or rehabilitating the existing rickshaw puller population.~~***	
12.6 ~~BICYCLE / CYCLE RICKSHAW~~ NON-MOTORISED TRANSPORT			
8	***~~12.6 BICYCLE / CYCLE RICKSHAW~~***	***12.6 NON-MOTORISED TRANSPORT*** ***12.6.1 CYCLE***	***APPROVED***

	Bicycle~~/ Cycle-Rickshaw could be an~~ important mode of travel, particularly withreference to short and medium trip lengths. ~~To the extent that it meets individual orpublic transport requirements, it is a non-energy consuming and non-polluting modeof transport. However, there are several issues, which have to be kept in view while planning in respect of these modes.~~ ~~With a mixed type of fast moving traffic on the roads, travel by bicycle and rickshawsis very unsafe.~~ ~~In so far as rickshaws are concerned, apart from issues pertaining to the aspect ofmixed traffic, this mode also provided employment to a very large number of unskilledworkers residing in the city.~~ ~~In view of the above, the following actions should be considered / taken: –~~ ~~i. On all arterial roads fully segregated cycle tracks should be provided withprovision for safe parking in park and ride lots.~~ ~~ii. In urban extension, cycle tracks should be provided at the sub-arterial and localllevel roads and streets.~~ ~~iii. In specific areas, like the Walled City / ChandniChowk / Sadar Bazar / Karol Bagh /Lajpat Nagar and Trans Yamuna Area, the use of cycles/rickshaw as a nonmotorisedmode of transport should be consciously planned along withpedestrianisation~~ ~~.~~	Bicycle ***is an*** important mode of travel, particularly with reference to short and medium trip lengths. ***It is important to re-affirm the importance of cycling as a meaningful, non-motorized choice of transportation and support cycling as a year-round mode of transportation. Therefore, the following is essential:*** ***i. Prepare a Cycling Masterplan for the city that creates a network of routes integrating Eco-mobility corridors along existing Nallahas, heritage routes as well as other recreational routes. Include Safe routes to school.*** ***ii. Create of a finer NMT network and provide of fully segregated tracks for shared use with cycle-rickshaws with safe NMT parking facilities and at-grade crossings on all roads (see Section 12.6.4). To facilitate the primary user group (i,e those making their primary journey on cycle), routes linking employment centers with residential areas must be implemented on priority.*** ***iii. Provide cycle parking facilities at all terminals / trip attracting uses etc as per Section 12.15 as well as all developments for residents, employees, visitors etc. All Parking ECS norms to include cycling as per Section 12.13*** ***iv. Plan and implement a city wide, affordable and accessible bike sharing / rental schemes.*** ***12.6.2 PEDESTRIANS*** ***The right to walk safely is a non–negotiable condition. The transport infrastructure will need to re-affirm the importance of walking as a meaningful, non-motorized choice of transportation, particularly to enhance the pro-poor mobility systems and support walking as a year-round mode of transportation that is connected, convenient and obstruction-free, and accessible regardless of age, gender, income, culture or ability. The following is necessary:*** ***i. Create a fine network of streets to ensure choice of direct, safe and comfortable routes that encourage walkability, in particular build missing links at a grid of 80 – 100M. All redevelopment/development plans must avoid gated designs that impede***	***APPROVED***

		permeability of the street network and walkability. ***ii. Design for pedestrian safety, comfort and convenience on all streets as per UTTIPEC Street Design Guidelines. Develop new and retrofit existing street infrastructure for the same.*** ***iii. Create street-level activity and well-watched streets through mixed-use areas to ensure a safe environment for pedestrians. This could be done by retrofitting boundary walls to allow for greater transparency, locating Hawker Zones along inactive frontages etc.*** ***iv. Prioritise planning, design, implementation and maintenance of pedestrian routes and facilities. Strict action must be taken against encroachments of any kind on footpaths including extension of private gardens of the adjacent houses.***	
12.7 TRANSPORTATION FOR SPECIAL AREAS			
9	~~Central congested~~ areas of the Walled City, Sadar Bazar, Karol Bagh and other similarareas like certain Trans Yamuna areas are characterized by heavy traffic congestion~~. Inorder to address this problem a medium capacity Mass Transit system comprising ofBRTS, Light Rail Transit System (LRT) and battery operated bus system may beconsidered on selected routes based on feasibility.~~ ~~For proper functioning of above said systems a restraint on the use of private modesand provision of parking would be required. This would be necessary in order torevitalize the area and to improve its environment quality. This will also increaseaccessibility to such areas considerably.~~ In order to manage the additional traffic of Metro stations at Old Delhi, ChandniChowkand Chawri Bazar,~~ the following management measures are required to be taken:~~ ~~i. Need based Traffic~~	***Delhi comprises of a number of historic areas that are significant for their distinctive urban form and setting. In most cases, these areas also have special transportation needs due to the dense street patterns and limited ROWs. Therefore special areas and other congested areas including*** ~~*areas such as*~~ the Walled City, Sadar Bazar, Karol Bagh and other similar areas like certain Trans Yamuna areas are usually characterized by heavy traffic congestion ***mostly due to inadequate allocation of space to the various modes in conditions of mixed traffic.*** ***To ensure comprehensive improvements, integrated mobility and traffic management plans must be prepared for these Special Areas and will include:*** ***i. Retrofitting proposals for streets to ensure distribution of road space is as per the existing local modal share and activity patterns and identification of Pedestrian / NMT only streets as necessary.*** ***ii. Identification of the need and location of unbundled and shared multi-level car parking facilities for use by both residents and visitors on a shared basis during different times of day as part of a Parking Benefit District as per 12.13.3.1*** ***iii. Schemes including One-way systems (if appropriate), Park & Ride facilities for visitors, entry to vehicles with permits etc could be explored. Park & Ride facilities may be clubbed with the unbundled parking facilities***	***APPROVED WITH THE FOLLOWING MODIFICATION:***

	~~circulation schemes integrating various modes.~~ ~~ii~~. Improvement of major road stretches and intersections like Ajmeri Gate, FountainChowk. FatehpuriChowk, KaudiaPul, KhariBaoli, etc. ~~iii. Removal of encroachments from footpaths to facilitate smooth movement.~~ ~~iv.~~ The movement of heavy vehicles will continue to be banned in the Walled City.However, for the services of this area Light Commercial goods vehicles may beallowed during the night.	***iv. Testing the feasibility of medium capacity Mass Transit system comprising of ITC, Light Rail Transit System (LRT) and battery operated bus system on selected routes.*** ***v. Management strategies for movement of goods vehicles through restricted entry along certain roads for Heavy and Light Motor Vehicles. To include adequate parking and stopping bays along streets to enable loading / unloading.*** vi. The movement of heavy vehicles will continue to be banned in the Walled City. However, for the services of this area Light Commercial goods vehicles may be allowed during the night vii. In order to manage the additional traffic at Old Delhi, Chandni Chowk and Chawri Bazar***,*** improvement of major road stretches and intersections should be carried out at Ajmeri Gate, Fountain Chowk. Fatehpuri Chowk, Kaudia Pul, Khari Baoli, etc.	
12.8 PRIVATE VEHICLES - VEHICLE OWNERSHIP & USE RESTRAINT			
10	No Provision in MPD-2021.	***While restraining vehicle ownership is a larger policy matter for the State as well as at the National level, limiting usage of private vehicle for the city is one of the primary concerns and objectives of the Transport policy. Thus, controls on car use can be justified as means of achieving three key objectives: enhanced efficiency of the public transport system; enhancements to the environment, safety and sustainability; and, for fiscal controls only, generation of a revenue stream to enable other elements of an integrated strategy to be financed.*** ***There are many ways to discourage use of private vehicles, but it is important to offer people viable alternatives through other transport modes that are attractive and realistic. Therefore, a comprehensive private vehicles use restraint strategy must be prepared and implemented in tandem with improvement and augmentation of the public transport system. While physical measures have been referred to in Section 12.3.3 and Parking as a Travel Demand Management tool in Section 12.13, other use restraint measures could include:*** ***i. Fiscal measures such as Road Pricing or Congestion charging for Special areas. Road pricing provides a more directed means of imposing charges on car use in congested areas.*** ***ii. Taxation policies including annual car***	***APPROVED***

		tax ***iii. Incentive based strategies for employee travel by public transport. These could include flexible working options, benefits or rewards for using a car, company pool cars etc.***	
12.9 INTERCITY PASSENGER MOVEMENT			
11	~~**12.10.1 RAIL**~~ At present there are 43 railway stations in Delhi. The total passengers catered to at these stations in 2001 are 12.08 lakh / day including about 9.06 lakh commuters. Out of these stations, major stations catering more than 1.0 lakh passengers per day are: Delhi Junction 2.72 lakh New Delhi 3.19 lakh Nizamuddin 1.28 lakh Sadar Bazar 1.00 lakh Five directional Metropolitan Passenger Terminals (MPT) have been proposed to decongest the central area. These are: i. Anand Vihar, East Delhi ii. Bhartal in Dwarka, South-West Delhi iii. Holumbi Kalan in Narela, North Delhi iv. Tikri Kalan, West Delhi v. Hazrat Nizammudin, South West Delhi It is proposed to integrate the	***12.9 INTERCITY PASSENGER MOVEMENT*** *[BROUGHT FORWARD FROM 12.10]* ***In 2001, on a normal weekday 56.46% of the commuters visited Delhi by Road, 42.67% by Rail and 0.87% by Air.*** ***Table 12.2: Passenger Trips at Outer Cordons per Day*** ***Medium*** | ***Total Passengers*** | ***Commuters (lakh)*** ***Numbers (lakh)*** | ***%*** ***Road*** | ***15.98*** | ***56.46*** | ***9.59*** ***Rail*** | ***12.08*** | ***42.67*** | ***9.06*** ***Air*** | ***0.22*** | ***0.87*** | ***N.A.*** ***12.9.1 RAIL*** At present there are 43 railway stations in Delhi. The total passengers catered to at these stations in 2001 are 12.08 lakh / day including about 9.06 lakh commuters. Out of these stations, major stations catering more than 1.0 lakh passengers per day are: Delhi Junction 2.72 lakh New Delhi 3.19 lakh Nizamuddin 1.28 lakh Sadar Bazar 1.00 lakh Five directional Metropolitan Passenger Terminals (MPT) have been proposed to decongest the central area. These are: • AnandVihar, East Delhi • ~~Bhartal in~~ **Dwarka 21 (Bhartal),** South-West Delhi • ~~HolambiKalan in~~ **Narela (Holambi Kalan),** North Delhi	***APPROVED*** ***APPROVED WITH THE FOLLOWING MODIFICATIONS***

	Inter State Bus Terminus with Delhi main railway station and the land should be made available by the shifting the IP University to the new campus. Since about 75% of the total passengers are commuters, therefore in order to facilitate improvement in their movement between Delhi and surrounding towns either of the following is proposed based on the feasibility by the concerned authorities: i. ~~Extension of MRTS.~~ ~~ii. Provision of dedicated railway corridor with supplementary feeder bus services~~ ~~for linking with other modes of transport (IRBT Corridors).~~	• Tikri Kalan, West Delhi • Hazrat Nizammudin, South West Delhi • **Shakur Basti** It is proposed to integrate the Inter State Bus Terminus with Delhi main railway station and the land should be made available by the shifting the IP University to the new campus. Since about 75% of the total passengers are commuters, therefore in order to facilitate improvement in their movement between Delhi and surrounding towns either of the following is proposed based on ***the techno economic*** feasibility by the concerned authorities***:*** ***i. Extension of MRTS or the Provision of dedicated railway corridor*** ***ii. Supplementary feeder bus services for linking with other modes of transport (IRBT Corridors).*** ***In addition, planned augmentation of IPT services is necessary at all Railway Stations through provision of better infrastructure as per Section 12. 6*** ***12.9.2 REGIONAL RAPID TRANSIT SYSTEM (RRTS)*** ***An 'Integrated Transportation Plan for NCR – 2032' was prepared and approved by the NCR Planning Board in 2009. As part of its mandate of providing regional transport linkages, the Board is proposing a Regional Rapid Transit System (RRTS) integrated with the Delhi Metro to connect NCR towns to Delhi with fast commuter trains. Regional Rapid Transit Systems can spur economic growth along its route creating new and expanding existing business-life districts i.e. it incentivising growth of sub-cities. A dense and well-connected network also ensures higher ridership delivering the desired modal shift (from both air & private car). In addition, with travel times halved in most cases, live-work patterns change reducing immigration to major cities as people can travel to work centres in different cities quickly. With a smaller carbon footprint & higher energy efficiency RRTS is also environmentally friendly. The Integrated Transport Plan proposes the following eight corridors:*** • ***Delhi- Sonipat - Panipat*** • ***Delhi- Gurgaon - Rewari- Alwar***	***APPROVED***

	12.10.2 BUS [brought forward] The total passenger trips per day catered by road-based transport are 15.97 lakh, out of which about 9.54 lakh (60%) are commuters. Majority of such trips are by bus. Out of four new Interstate Bus Terminals (ISBT) as proposed in MPD-2001, only one at Anand Vihar in East Delhi has been developed as a part of Metropolitan Rail Terminal. The terminal at Dwarka (Bhartal) has also been included in Dwarka Project. The remaining two terminals at Okhla (Madanpur Khadar) and Narela (Holumbi Kalan) have not been developed. In order to cater to the additional passenger requirements, it is proposed to develop the following ISBTs (10 Ha each) along the Metropolitan Passenger Terminals: i. Bhartal, Dwarka ii. HolambiKalan, NarelaSubcity iii. Sarai Kale Khan. The existing bus terminal should be upgraded and linked to HazratNizammudin Railway Station. iv. TikriKalan Identify exclusive bus terminal sites at the intersection points of NH and outer ring road / ring road to cater to the passenger movement. These could be at the following locations: i. DhaulaKuan. ii. IFC MadanpurKhadar to relieve Intercity Passenger congestion at Ashram Chowk. iii. TikriKalan to relieve Intercity Passenger congestion at PeeragarhiChowk. iv. Narela to relieve	• ***Delhi- Ghaziabad plus Ghaziabad-Meerut*** • ***Delhi- Rohtak*** • ***Delhi- Palwal*** • ***Ghaziabad- Khurja*** • ***Delhi – Shamli*** • ***Ghaziabad-Hapur*** ***Implement the three Phase 1 RRTS corridors– Delhi-Alwar, Delhi – Panipat and Delhi – Meerut up to terminal Stations planned in Kashmere Gate and Sarai Kale Khan. Terminal RRTS Stations within Delhi must be integrated with existing and proposed Metropolitan Passenger Terminals (MPT). Non-terminal RRTS stations within the NCT must be integrated with Metro and / or Ring Rail stations and / or ISBTs to ensure effective multi-modal integration. In particular, seamless transfers between the MRTS and RRTS is critical.*** ***12.9.3 BUS*** The total passengers trips per day catered by road-based transport are 15.97 lakh, out of which about 9.54 lakh (60%) are commuters. Majority of such trips are by bus. Outof four new Interstate Bus Terminals (ISBT) as proposed in MPD-2001, only one at AnandVihar in East Delhi has been developed as a part of Metropolitan Rail Terminal. The terminal at Dwarka (Bhartal) has also been included in Dwarka Project. The remaining two terminals at Okhla (MadanpurKhadar) and Narela (HolumbiKalan) have not been developed. The following action is necessary: v. Develop ISBTs (10 Ha each) along the following Metropolitan Passenger Terminals in order to cater to the additional passenger requirements: • ~~Bhartal~~, **Dwarka Sector 21 (Bhartal)** • **Narela Subcity (Holambi Kalan),** • Sarai Kale Khan. The existing bus terminal should be upgraded and linked to HazratNizammudin Railway Station. • Tikri Kalan vi. Identify exclusive bus terminal sites at the intersection points of NH and outer ring road / ring road to cater to the passenger movement. These could be at the following locations: • DhaulaKuan. • IFC MadanpurKhadar to relieve Intercity Passenger congestion at Ashram Chowk. • ~~TikriKalan~~ **Intersection of UER2**	***APPROVED WITH FOLLOWING MODIFICATIONS***

	Intercity Passenger congestion at Outer Ring Road and G.T. Karnal Road Junction-JahangirpuriByepass. A smaller Terminal at Narela Railway Station and ISBT along G.T. Road may be considered. This concept can be applied wherever possible to intercept Intercity Passenger Traffic at Arterial roads **12.10.3 AIR [brought forward]** The International and Domestic air passenger movement in Delhi is catered by Indira Gandhi International Airport and Palam Airport respectively. Both the Airports have been linked to other parts of the city and urban extension through the transport network to facilitate fast movement. ~~The passenger movement by air in Delhi on an average day in 2001, was as under:~~ Table 12.3: Distribution of Daily Air Passengers Airport Number of Number of Visitors, Total Nos., Travelers (%) Staff (%) (%) Domestic Airport 12450 2650 15100 (82.0) (18.0) (100.0) International Airport 10120 3000 13120 (77.0) (23.0) (100.0) Total 22570 5650 28220 (80.0) (20.0) (100.0) A strong and vibrant economy of Delhi Metropolitan Area provides a backdrop to a healthy demand for air travel. IGI Airport, Delhi has witnessed a phenomenal growth of traffic during the last few years both on account of business travel and leisure trips. Total passenger traffic through Delhi Airport grew by 27.4% in 2005 -06 over the	**and NH10 at Mundka** to relieve Intercity Passenger congestion at PeeragarhiChowk. • Narela to relieve Intercity Passenger congestion at Outer Ring Road and G.T. Karnal Road Junction-JahangirpuriByepass. • **Rohini, near UER2** vii. A smaller Terminal at Narela Railway Station and ISBT along G.T. Road may be considered. This concept can be applied wherever possible to intercept Intercity Passenger Traffic at Arterial roads ***12.9.4 AIR*** The International and Domestic air passenger movement in Delhi is catered by Indira Gandhi International (IGI) Airport and Palam Airport respectively. Both the Airports have been linked to other parts of the city and urban extension through a transport network to facilitate fast movement. ***See Table 12.3 for passenger movement by air in Delhi in an average day in 2001.*** A strong and vibrant economy of Delhi Metropolitan Area provides a backdrop to a healthy demand for air travel. IGI Airport, Delhi has witnessed a phenomenal growth of traffic during the last few years both on account of business travel and leisure trips. Total passenger traffic through Delhi Airport grew by 27.4% in 2005-06 over the previous year and reached an annual figure of 162 lakh. Long-term forecasts indicate that Delhi Airport would be handling over 1000 lakh passengers and 3.6 million tons of cargo in the year 2036. In order to meet the requirements of growing traffic and to upgrade the facilities to world-class standards, phased development of the airport has been initiated according to a Master Plan. ***The first phase of development was completed in early 2010, for the Commonwealth Games. The airport has been connected by an expanded NH-8, as well as the MRTS by providing a rail station close to the passenger terminal to shorten the journey time. The development of the airport will also require augmentation of utilities serving the airport, particularly*** ***Table 12.3: Distribution of Daily Air Passengers (2001)***	***APPROVED***

Airport	*Number of Travellers, (%)*		*Number of Visitors, Staff (%)*	
Domestic Airport	*12450*	*(82.0)*	*2650*	*(18.0)*

previous year and reached an annual figure of 162 lakh. ~~According to the current forecasts, the passenger traffic through Delhi Airport is expected to increase to 290 lakh in 2010 and 370 lakh in 2012. In terms of air cargo traffic, Delhi airport handled 383,000 tons of cargo during 2005-06, and this is estimated to grow to 540,000 tons in 2010 and 638,000 tons during 2012.~~ Longterm forecasts indicate that Delhi Airport would be handling over 1000 lakh passengers and 3.6 million tons of cargo in the year 2036. In order to meet the requirements of growing traffic and to upgrade the facilities to world-class standards, phased development of the airport has been initiated according to a Master Plan. ~~The first phase of development is scheduled to be completed in early 2010, in line with the Commonwealth Games being hosted in Delhi. The airport may be connected by an expanded NH-8, as well as the MRTS by providing a rail station close to the passenger terminal to shorten the journey time. The development of the airport will also require augmentation of utilities serving the airport, particularly power supply, water supply and drainage facilities.~~

International Airport	***10120***	***(77.0)***	***3000***	***(23.0)***
Total	***22570***	***(80.0)***	***5650***	***(20.0)***

<table>
<tr><th colspan="4">Modification in MPD 2021 suggested by MAG</th></tr>
<tr><td>S. No.</td><td>Existing Provision in MPD 2021</td><td>Proposed Amendment</td><td>Recommendations</td></tr>
<tr><td colspan="4">12.10 INTERCITY GOODS MOVEMENT</td></tr>
<tr><td>12</td><td><s>12.10 INTERCITY PASSENGER MOVEMENT</s>
<s>In 2001, on a normal weekday 56.46% of the commuters visited Delhi by Road, 42.67%</s>
<s>by Rail and 0.87% by Air.</s>
<s>Table 12.2: Passenger Trips at Outer Cordons per Day</s>
<s>Medium Total Passengers</s>
<s>Commuters</s>
<s>Road 15.98 lakh (56.46%)</s>
<s>9.59 lakh</s>
<s>Rail 12.08 lakh (42.67%)</s>
<s>9.06 lakh</s>
<s>Air 0.22 lakh (0.87%)</s>
<s>N.A.</s>

<s>With the expansion of commercial and industrial activities in Delhi Metropolitan Area, the goods movement within urban area and outside has grown considerably, leading to environmental deterioration in the city.</s>
In 2001, on an average day, the goods movement by various modes at outer cordons in Delhi was as under:
Table 12.4: Goods Traffic at Outer Cordons
<table><tr><td>Road</td><td>68808 vehicles / day</td></tr><tr><td>Rail</td><td>1463 wagons / day</td></tr><tr><td>Air</td><td>644 tonnes / day</td></tr></table>
1. Goods movement by Rail
Presently the goods are terminating as below:
Iron and Steel – Tuglaqabad (Bahadurgarh) thereafter by road to Naraina
Food Grains – Delhi Cantt., Narela, Ghevra
Coal – Badarpur Border, Rajghat, I.P.Thermal Power Station.
Fruits and Vegetables – NayaAzadpur
Fuel – Shakur Basti
Cement – Shakur Basti, NayaAzadpur,</td><td>The movement of goods within urban areas is vital since cities are the centre of economic and social life. However, freight movement in the cities often puts considerable strain on urban transport infrastructure and imposes high social costs. Efficient movement of goods traffic is, therefore, essential for reducing costs while increasing economic productivity. With intense increase in the commercial and industrial activities in Delhi over the last decade, large volumes of goods traffic moves within, into, out of and through Delhi enabling the city’s production and consumption patterns. The goods movement by various modes at outer cordons in Delhi on an average day in 2001 was as shown in Table 12.4.

Table 12.4: Goods Traffic at Outer Cordons
<table><tr><td>Road</td><td>68808 vehicles / day</td></tr><tr><td>Rail</td><td>1463 wagons / day</td></tr><tr><td>Air</td><td>644 tonnes / day</td></tr></table>
It is important that needs of goods traffic are given attention at the planning stage and adequate land resources are allocated accordingly. Planning for goods movement in an urban area includes three components. They are:
• Planning for goods generating activities like wholesale markets, major industries, warehousing and storage areas, terminals etc.
• Planning for movement of goods modes and</td><td>APPROVED</td></tr>
</table>

Safdarjung Rail siding.

2. Goods movement by Road
Out of the total Goods traffic volume, major share is handled by the points at NH 8, NH-1, NH-24 and KalindiKunj. On an average day in 2001, about 68,808 goods vehicles were entering and/or leaving Delhi.
Movement of incoming / outgoing goods traffic in 2001, on different highways and other major roads on average weekday, is given as under:

Table 12.5: Directional Distribution of Daily Goods Traffic in Delhi - 2001

Name of Location	No. of Goods Vehicles	Modal Share (%)
South and South East		
KalindiKunj	9948	14.46
Badarpur Border (NH-2)	5993	8.71
North and North East		
Singhu Border (NH-1)	8542	12.41
Loni Border	4881	7.10
West		
Tikri Border (NH-10)	4460	6.48
South West		
Sirhole Border (NH-8)	9139	13.28
Dundahera Border	4933	7.17
East		
Ghaziabad Border (NH-24)	7914	11.51
Chilla Check Post	2101	3.05
Jhundupura	1376	2.01
Gazipur	2220	3.22

- **Planning for parking and servicing of goods vehicles**

12.10.1 GOODS MOVEMENT BY RAIL

Presently the goods are terminating as below:

Iron and Steel	Tughlaqabad (Bahadurgarh) thereafter by ro to Naraina
Food Grains	Delhi Cantt., Nare Ghevra
Coal	Badarpur Borde Rajghat, I.P.Therm Power Station
uits and egetables	NayaAzadpur
uel	Shakur Basti
Cement	Shakur Bas NayaAzadpur, Safdarjung Rail sidin

12.10.2 GOODS MOVEMENT BY ROAD

On an average day in 2001, about 68,808 goods vehicles were entering and/or leaving Delhi (movement of incoming / outgoing goods traffic in 2001, on different highways and other major roads on average weekday, is given in Table 12.5). Out of the total Goods traffic volume, major share is handled by the points at NH-8, NH-1, NH-24 and KalindiKunj. The following is proposed to ensure safe and efficient movement of goods by road.

i. **Prohibit all the non-destined heavy goods traffic within the city through the use of regional level by passes. In addition, provide turn around facilities at border locations so that non-destined goods vehicles can bypass the city network. Access to proposed Integrated Freight Complexes, industrial areas**

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		and other destinations on the periphery of the city may have to be facilitated. **ii. For facilitating destined movement within the city, restrict goods movement along identified arterial corridors linking their destinations in conjunction with traffic management practices to ensure that its movement does not impede the movement of passenger traffic. Passenger and goods movement may be segregated along these corridors based on size and speed of the mode to improve safety and efficiency** **iii. Plan, design and implement parking / stopping zones for goods vehicles along these corridors on the periphery with adequate provision of amenities & facilities (eating, resting, toilets, petrol filling, repair & maintenance, small shops etc.) For stopping / parking zones for mini-tempos, auto-rickshaws, cycle pulled carts etc. See Section 12.11.3** **In the addition, the hierarchy goods movement on the city road network needs to be rationalized. The modes involved in movement and distribution may be grouped as follows:** **i. Non - motorised modes** **The cycle rickshaws play a very useful role in urban freight distribution within a radius of five to six km of a market. Besides providing door to door service**	

		particularly for household goods, they are also environment friendly with low carbon footprints. Their movement needs to be facilitated by identifying secondary and tertiary network for its safe operation and provision of parking facilities in markets amenable for its demand **ii. Small sized vehicles** **Small size vehicles such as 'Pick ups' in the form of auto-rickshaws and mini-tempos perform an essential distribution function. Their movement on all road sections, at all times of day may be permitted. As part of traffic management plans, separate parking areas for these 'Pick ups' may be identified** **iii. Medium sized vehicles** **Medium size vehicles such LCVs are important to move goods to and from industries, warehouses and other major activities. Their movements need to be restricted in the central areas of the city through traffic management strategies.** **iv. Large size vehicles** **Large sized goods vehicles such as 2/3 Axle Trucks, Truck Trailer & MAVs consume high proportion of road capacity, impede traffic flows, cause accidents, adversely affect environment and consume large extent of land for parking. As these vehicles bring in/take out goods from/to other parts of the country they need to be received at the urban periphery at terminals located within the proposed Integrated Freight Complexes or others at peripheral locations.** In order to evolve the policy on to	

urban freight movement and its infrastructure, data base related to wholesale markets, major industries, warehousing and storage areas, terminals etc in addition to freight traffic - both inter-city and intra city – must be collected periodically

Table 12.5: Directional Distribution of Daily Goods Traffic in Delhi - 2001

Name of Location	No. of Goods Vehicles	Modal Share (%)
South and South East		
KalindiKunj	9948	14.46
Badarpur Border (NH-2)	5993	8.71
North and North East		
Singhu Border (NH-1)	8542	12.41
Loni Border	4881	7.10
West		
Tikri Border (NH-10)	4460	6.48
South West		
Sirhole Border (NH-8)	9139	13.28
Dundahera Border	4933	7.17
East		
Ghaziabad Border (NH-24)	7914	11.51
Chilla Check Post	2101	3.05
Jhundupura	1376	2.01
Gazipur	2220	3.22

12.11 GOODS TERMINALS

13		It is proposed that a hierarchy of freight terminals be proposed to cater to movement of freight traffic in the city to reinforce the network of goods transfer across scales.	**APPROVED WITH THE FOLLOWING AMENDMENTS**

<table>
<tr><td></td><td></td><td><u>Inland Container Corporation Depots should be shifted in phases to the Delhi NCR with reference to the new DMIDC corridor and dedeicated freight corridors</u>.</td><td></td></tr>
<tr><td colspan="4">12.11.1 INTEGRATED FREIGHT COMPLEXES</td></tr>
<tr><td>14</td><td>Integrated Freight Complexes have been recommended for the integration of goods movement by road and rail. These would consist of wholesale market, warehousing, road for trucks and rail transport terminals so as to curtail the movement of heavy vehicles within the complex. The freight complexes are to be located in the places where they intercept the maximum possible regional goods traffic entering Delhi.
Based on the pattern of goods traffic movement in Delhi, following four sites for Integrated Freight Complexes (IFC), are presently at various stages of planning and / or development and one more new site is proposed in Urban Extension area. These freight complexes shall be dedicated to meet the demand of Delhi's needs and not cater to the distributive requirements of regional goods.

i. MadanpurKhadar (NH-2)
ii. Gazipur (NH-24)
iii. Narela (NH-1)
iv. Dwarka (NH-8)
New site in Urban Extension (Rohtak Road) TikriKalan</td><td>Integrated Freight Complexes have been recommended for the integration of goods movement by road and rail. These would consist of wholesale market, warehousing, road for trucks and rail transport terminals so as to curtail the movement of heavy vehicles within the complex. The freight complexes are to be located in the places where they intercept the maximum possible regional goods traffic entering Delhi.

<s>Table 12.6: Norms for Integrated Freight Complexes</s>
<table><tr><th colspan="2"><s>LANDUSE BREAK-UP FOR IFC (Source : UDPFI Guidelines)</s></th><th><s>RECOMMENDED ACTIVITIES IN AN IFC</s></th></tr><tr><td><s>Use Type</s></td><td><s>Percentage of Site Area</s></td><td rowspan="10"><s>1. Wholesale Trade: auction areas, wholesale shops and subsidiary storage capacity, packaging facilities, wholesale godowns, cold storage etc.</s></td></tr><tr><td><s>Wholesale Market</s></td><td><s>35.0</s></td></tr><tr><td><s>Warehousing</s></td><td><s>8.0</s></td></tr><tr><td><s>Booking Agencies</s></td><td><s>2.0</s></td></tr><tr><td><s>Commercial & Public/Semi-public</s></td><td><s>5.0</s></td></tr><tr><td><s>Utilities and Services</s></td><td><s>3.0</s></td></tr><tr><td><s>Service Industry</s></td><td><s>4.0</s></td></tr><tr><td><s>Parking</s></td><td><s>12.0</s></td></tr><tr><td><s>Circulation</s></td><td><s>25.0</s></td></tr></table></td><td>APPROVED WITH THE FOLLOWING AMENDMENTS</td></tr>
</table>

		~~Others~~	~~6.0~~	~~2. Parking and related activities: Service / Repair stations, resting and recreational areas for drivers, tuck weighing facilities~~ ~~3. Office and Storage for operations: Office space, Storage, Loading and unloading~~ ~~4. Other associated / ancillary facilities:~~ ~~a. Provision for goods movement within the complex in terms of truck~~	
		~~TOTAL~~	~~100.0~~		

				~~movement and loading /unloading/ stacking of goods.~~ ~~b. Building and amenities for administration and security measures necessary for complex.~~ ~~c. Facilities like banking, postal facilities, etc. required for business transactions~~ ~~d. Amenities for wholesalers, truckers and their employees~~ ~~e. Areas for shops, eating houses and other service~~	

			~~establishment~~ ~~f. Provision of lighting, water supply, sewerage disposal and solid waste management~~ Based on the pattern of goods traffic movement in Delhi, following four sites for Integrated Freight Complexes (IFC), are presently at various stages of planning and / or development and one more new site is proposed in Urban Extension area. These freight complexes shall be dedicated to meet the demand of Delhi's needs and not cater to the distributive requirements of regional goods. i. MadanpurKhadar (NH-2) ii. Gazipur (NH-24) iii. Narela (NH-1) iv. Dwarka (NH-8) v. New site in Urban Extension (Rohtak Road) TikriKalan	
12.11.2 TRANSPORT NAGAR and TRUCK TERMINAL **(New Section added)**			
15	***A truck terminal is a highly specialised facility, designed for a specific function and operating plan in terms of the service standards it must meet, the area it serves and the volumes to be handled. It provides interface between intercity and local transportation facilities and which handle the distribution and collection of goods within the city.*** ***The major objectives of a truck terminal are to reorganise office and godown space and facilitate expansion of transport companies, reduce parking, loading/unloading instances in CBD, provide facilities for vehicle repairs, servicing, rest places, shops, etc., cater to intercity movements destined to operator's godowns and provide for idle parking for trucks waiting for return load and to function as a rest and halting places for through traffic.***		***APPROVED WITH THE FOLLOWING AMENDMENTS***

Truck Terminals and Transport Nagars should be located along a main corridor of goods movement, usually the on fringe of developed lands with proper linkage to other freight generating activities as well as developed areas. Consideration for intra-city goods movement pattern in terms of desire of movement, modes used and distances over which movement is made should also be kept in view.

~~Table 12.7: Norms for Truck Terminals / Transport Nagars~~

~~**LANDUSE BREAK-UP FOR TRUCK TERMINAL / TRANSPORT NAGAR**~~ ~~(Source UDPFI Guidelines)~~		~~**RECOMMENDED ACTIVITI TERMINAL / TRANSPORT NA**~~
Use Type	~~**Percentage of Site Area**~~	~~a. Transport Operators~~ ~~b. Circulation~~ ~~c. Parking~~ ~~d. Open Space~~ ~~e. Petrol Pump~~ ~~f. Service Centre~~ ~~g. Toilets~~ ~~h. Police Station~~ ~~i. Restaurant~~ ~~j. Shops~~ ~~k. Godowns~~ ~~l. Weigh Bridge~~ ~~m. Stalls/ eateries~~ ~~n. Administrative Office~~ ~~o. Fire Station, Post Office,~~ ~~p. Bank, Bus Station, Electr~~ ~~q. Cold Storage~~ ~~r. Spare Parts Shops~~ ~~s. Cinema~~
~~Transport Operators: Office, godown, loading/ unloading areas~~	~~30.0~~	
~~Services: Petrol pump, service area, weigh bridge, etc~~	~~6.0~~	
~~Public/Semi-public: Police post, post office, telephone, first aid etc~~	~~3.0~~	
~~Commercial~~	~~3.0~~	
~~Parking: idle, transit, other vehicles~~	~~18.0~~	
~~Open Space~~	~~10.0~~	
~~Circulation~~	~~28.0~~	
~~Others~~	~~2.0~~	
~~**TOTAL**~~	~~**100.0**~~	

12.11.3 STOPPING / PARKING ZONES FOR SMALLER GOODS VEHICLES **(New Section added)**

	No Provision in MPD-2021.	***Stopping and parking zones for smaller goods vehicles such as Mini-tempos and cycled pulled carts must be provided in close proximity to major retail and wholesale districts within the ROWs in MUZs. In residential areas provision for stopping / parking zones for smaller goods vehicles may be clubbed with local***	***APPROVED***

		community centres / shopping areas. Till such time a standard for provision is not established, the provision should be based on local demand.	
12.12 SUPPORTING TRANSPORT INFRASTRUCTURE			
	No Provision in MPD-2021.	***Fuel stations, High Capacity Vehicle Inspection Centres, Local Transit Hubs, as well as Hawker and Vending zones have been categorised as supporting transport infrastructure***	
12.12.1 FUEL STATIONS			
18	~~**12.12**~~ FUEL STATIONS The environmental concerns have been constantly advocating identification of clean and environment friendly fuels. Presently, the main fuel types being used include: Petrol, Diesel and CNG. These fuels are being made available from Petrol Pumps and CNG stations. With the advancement of technology some new types of clean fuels may also be used in future. CNG stations may be permitted in all use zones except in Regional park / Ridge, developed District Parks. Petrol pumps are permissible in all use zones except in Recreational use zone.	**12.12.1** FUEL STATIONS The environmental concerns have been constantly advocating identification of clean and environment friendly fuels. Presently, the main fuel types being used include: Petrol, Diesel and CNG. These fuels are being made available from Petrol Pumps and CNG stations. With the advancement of technology some new types of clean fuels may also be used in future. CNG stations may be permitted in all use zones except in Regional park / Ridge, developed District Parks. Petrol pumps are permissible in all use zones except in Recreational use zone.	***APPROVED***
12.12.1.1 FUEL STATIONS IN URBAN AREAS.			
19	~~**12.12.1**~~ FUEL STATIONS IN URBAN AREAS. Fuel Stations are permissible on Master Plan / Zonal Plan roads and shall not be permitted in absence of an approved Zonal Plan of the area. At the time of preparation of layout plans of various use zones namely, residential commercial, industrial, PSP facilities and other areas the location of Fuel Stations should be provided as per the norms given in Table 12.6.	**12.12.1.1** FUEL STATIONS IN URBAN AREAS. Fuel Stations are permissible on Master Plan / Zonal Plan roads and shall not be permitted in absence of an approved Zonal Plan of the area. At the time of preparation of layout plans of various use zones namely, residential commercial, industrial, PSP facilities and other areas the location of Fuel Stations should be provided as per the norms given in Table 12.8. ***All liquid fuel stations must also install both stage I and stage II***	***APPROVED***

		vapour recovery systems to prevent evaporative losses of fuel that add to extreme toxic emissions and have high public health risk. In addition, norms for LPG Stations will have to be prepared taking into consideration additional area and siting criteria associated with these due to high flammability.	
12.12.1.2 DEVELOPMENT CONTROL NORMS AND PERMISSIBILITY.			
20	12.12.2 DEVELOPMENT CONTROL NORMS AND PERMISSIBILITY The regulations for locating the fuel stations -cum-service stations, the development control and permissibility shall be governed by the policy / decision by competent Authority / Government Notifications issued from time to time. New fuel stations shall be regulated by the following controls: i. Fuel stations shall be located on roads of minimum 30m ROW. ii. The plot size for fuel stations shall be minimum of 30m X 36m and maximum of 33m X 45m (75m X 40m for CNG mother station as per requirement). iii. The minimum distance of plot from the road intersections shall be as follows: a. For minor roads having less than 30m ROW- 50m b. For roads of ROW 30m or more- 100m c. Frontage of plots should not be less than 30m. d. Maximum Ground Coverage: 20%, Maximum FAR: 40 e. Maximum Height: 6m f. Canopy: equivalent to ground coverage within set back. iv. Maximum 10 FAR permissible for non-inflammable, non-hazardous commercial activities subject to payment of conversion charges /	**12.12.1.2 DEVELOPMENT CONTROL NORMS AND PERMISSIBILITY** The regulations for locating the fuel stations -cum-service stations, the development control and permissibility shall be governed by the policy / decision by competent Authority / Government Notifications issued from time to time. New fuel stations shall be regulated by the following controls: i. Fuel stations shall be located on roads of minimum 30m ROW. ii. The plot size for fuel stations shall be minimum of 30m X 36m and maximum of 33m X 45m (75m X 40m for CNG mother station as per requirement). iii. The minimum distance of plot from the road intersections shall be as follows: a. For minor roads having less than 30m ROW- 50m b. For roads of ROW 30m or more- 100m c. Frontage of plots should not be less than 30m. iv. Maximum Ground Coverage: 20%, Maximum FAR: 40 v. Maximum Height: 6m vi. Canopy: equivalent to ground	***APPROVED***

levies, as prescribed by the Government from time to time.]

Table 12.6: Norms for Fuel Stations

S. No.	Land Use/Use Premises	Norms
1.	Residential Use Zone	Two Fuel Stations (One Petrol Pump + One CNG station) per 150 ha. Of gross residential area
2.	Industrial Use Zone	Two Fuel Stations (One Petrol Pump + One CNG station) per 40 ha of gross industrial area
3.	Freight Complexes	Four Fuel Stations (Two Petrol Pumps + Two CNG stations) in each
4.	District Centres	Four Fuel Stations (Two Petrol Pumps + Two CNG stations) in each district centre
5.	Community Centre	Two Fuel Stations (One Petrol Pump + One CNG station) in each
6.	Public & Semi Public use zone	Two Fuel Stations (One Petrol Pump + One CNG station) in each PSP area.
7.	Security Forces Campus / Police / Hospitals / Govt.	For captive use / as per requirement.

coverage within set back.

vii. Maximum10 FAR permissible for non-inflammable, non-hazardous commercial activities subject to payment of conversion charges / levies, as prescribed by the Government from time to time.]

Table 12.8: Norms for Fuel Stations

S.No	Land Use/Use Premises	Norms
1.	Residential Use Zone	Two Fuel Stations (One Petrol Pump + One CNG station) per 150 ha. of gross residential area
2.	Industrial Use Zone	Two Fuel Stations (One Petrol Pump + One CNG station) per 40 ha of gross industrial area
3.	FreightComplexes	Four Fuel Stations (Two Petrol Pumps + Two CNGstations) in each
4.	DistrictCentres	Four Fuel Stations (Two Petrol Pumps + Two CNGstations) in each district centre
5.	Community Centre	Two Fuel Stations (One Petrol Pump + One CNG station) in each

		<table><tr><td>6.</td><td>Public & SemiPublic use zone</td><td>Two Fuel Stations (One Petrol Pump + One CNG station)in each PSP area.</td></tr><tr><td>7.</td><td colspan="2">Security Forces Campus / For captive use / as per requirement. Police / Hospitals / Govt</td></tr></table>	
12.12.2 CNG SERVICE STATIONS			
21	~~**12.12.3.**~~ CNG SERVICE STATIONS: Already existing authorized CNG service stations for public transport vehicles may continue for this purpose alone, till regulations in this regard are notified or the Zonal Plans for such areas are finalized, whichever is earlier. While finalizing Zonal plans, efforts may be made to integrate such service stations in the Plan.	**12.12.2** CNG SERVICE STATIONS: Already existing authorized CNG service stations for public transport vehicles may continue for this purpose alone, till regulations in this regard are notified or the Zonal Plans for such areas are finalized, whichever is earlier. While finalizing Zonal plans, efforts may be made to integrate such service stations in the Plan. **Hybrid stations with the provision for both CNG and Petrol dispensers should be explored.**	***APPROVED WITH THE FOLLOWING MODIFICATIONS***
12.12.3 HIGH CAPACITY CENTRALISED VEHICLE INSPECTION CENTRES			
22	No Provision in MPD-2021.	***12.12.3 HIGH CAPACITY CENTRALISED VEHICLE INSPECTION CENTRES*** ***To meet our objectives of reduced vehicles emissions to meet the national ambient air quality standard, high capacity centralised vehicle inspection centres must be established. These will need to be clubbed with a rigorous (and expanded) vehicle inspection programme for private and commercial vehicles.***	***APPROVED***
12.12.4 NEW PROVISIONS			
23	No Provision in MPD-2021.	***12.12.4 NEW PROVISIONS*** ***Transport infrastructure must also respond to the needs of the new genre of vehicle technology (such as designated charging stations***	***APPROVED***

		and battery disposal systems for electric vehicles) that will expand in the future. Provisions must be made for them	
12.12.5 LOCAL TRANSIT HUB			
24	No Provision in MPD-2021.	***12.12.5 LOCAL TRANSIT HUB*** ***Local Transit Hubs are designed to provide multiple mode options for last mile connectivity in a safe and comfortable environment.*** ***i. A local Transit Hub will include the following:*** • ***Bus Stop (where applicable)*** • ***Parking for IPT and NMT (See section 12.13.3.3) including Cycle / Cycle Rental Stand*** • ***Amenities such as Public toilets, Enhanced Lighting, Signage/ Way-finding information, Maps*** • ***Hawkers and Vending zones as per 12.12.6 below*** ***ii. Provide Local Transit Hubs at regular intervals in the city. They should be prioritized near street intersections, MRTS station entry / exit points, community / shopping centers of residential neighborhoods, near commercial areas and Mixed Land Use streets and located within the MUZ within the road ROW. Refer Section 12.15 for guidelines on distance and locational criteria with respect to transit stations and stops and other trip attracting uses.***	***APPROVED***
12.12.5 HAWKERS AND VENDING ZONES			
25	No Provision in MPD-2021	***12.12.5 HAWKERS AND VENDING ZONES*** ***Hawkers keep our streets busy, vibrant and safe, a requisite for improved mobility. Thus, they have been included transport***	***APPROVED***

		infrastructure. It is essential that we designate well designed and safe zones for them within our streets and spaces. ***i. Provide designated hawking and vending zones at regular intervals in the city as per Planning Norms for Informal Trade in Section 5.10.5. They should be prioritized near street intersections, bus stops, MRTS station entry / exit points, public toilets, etc. and located within the MUZ within the road ROW. Refer Section 12.15 for guidelines on distance and locational criteria with respect to transit stations and stops and other trip attracting uses.*** ***ii. Number of vendor spaces shall be provided as per Table 5.3 (Chapter 5).***	

Modification in MPD 2021 suggested by MAG			
S. No.	Provision in MPD 2021	**Proposed Amendment**	**Recommendation**
	12.13 PARKING	**12.13 PARKING**	
25.	The experience has shown that: - (a) The provisions relating to parking within the plot area are normally not adhered resulting in vehicles spilling over on to the roads and adding to congestion; and (b) ~~**The norms themselves appear to be considerably on the lower side keeping in view the actual vehicle use, both in terms of the multiple vehicle ownership in the same family and the pattern of individual private vehicle use.**~~ In the above background, the whole subject of parking has become a matter of serious public concern and requires a carefully considered policy and planned measures to alleviate the problem to the maximum feasible extent in existing areas and for adequate provisioning with reference to future developments. As recommended by the Environment Pollution (Prevention & Control) Authority for the National Capital Region, the approach should be focused more on demand management (restricting vehicle numbers) through enforcement and pricing policy rather than only on increasing supply of parking.	The experience has shown that: - (a) The provisions relating to parking within the plot area are normally not adhered resulting in vehicles spilling over on to the roads and adding to congestion; and ***(b) Parking in public spaces is permitted - almost for "free", with negligible enforcement, leading to failure of all structured parking facilities and incentivized use of public spaces and streets for private parking. This is undemocratic since a narrow section of society is allowed highly subsidized use of public land for a private use.*** In the above background, the whole subject of parking has become a matter of serious public concern and requires a carefully considered policy and planned measures to alleviate the problem to the maximum feasible extent in existing areas and for adequate provisioning with reference to future developments. As recommended by the Environment Pollution (Prevention & Control) Authority for the National Capital Region, the approach should be focused more on demand management (restricting vehicle numbers) through enforcement and pricing policy rather than only on increasing supply of parking. ***KEY OBJECTIVES[1] :*** ***i. Parking management must be effectively used as a tool to reduce overall demand for parking space, dis-incentivize the use of private vehicles and induce/encourage the use of public transport, IPT, NMT and pick and ride systems.*** ***ii. Private Parking is a consumer commodity, not a legal right. Private Vehicle must be parked on 'a fully-paid rented or owned' space, based on the 'user pays' principle outlined by EPCA. No subsidized***	**APPROVED**

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		parking is to be provided in public spaces. User/ private entity must pay full cost of parking facility based on land opportunity cost, capital cost, O&M costs and temporal demand. *iii. To ensure accessibility to maximum number of people, parking for IPT/ feeder modes/ NMT is to be prioritized and subsidized. In areas designated for private parking, short term parkers must be prioritized over long-term parkers, in order to maximize turnover and enable economic vibrancy.* *iv. Variable Pricing based on location and temporal demand, along with strict enforcement will be key drivers to eliminate/ reduce the demand for on-street long term parking which adds to congestion in the city, and to incentivize use of off-street facilities.* *v. No-tolerance policy to be enforced for parking on footpaths, walkways and cycle tracks, through enactment of the Motor Vehicle and Municipal Acts.* *vi. Areas already designated for parking must be utilized to highest efficiency and financial viability. New parking facilities may be developed as multi-use shared public amenities, to increase efficiency in use of space, time and finances.* *vii. As per 14.4, blockage of natural depressions and drainage channels shall be prohibited. Therefore, these as well as existing and proposed areas under green / recreational use shall not be converted and used for parking of any kind. Wherever possible, parking projects that have been developed within natural drainage channels or in green / recreational use should be restored to its original function.* *viii. All Government agencies including all Municipalities and planning/ development authorities as well as*	

		DMRC at Metro stations shall follow a uniform city level parking management policy. In this background, the following measures are proposed: ***[1]Recommendation by EPCA.***	
	12.13.2 PRICING STRATEGY		
	No provision in MPD 2021	***12.13.2 PRICING STRATEGY*** ***Availability of free or inexpensive parking at the final destination is a key consideration for people to drive, rather than taking alternative public transport modes or even walking. The following pricing strategies should be employed to manage and reduce the demand for public parking[1]*** ***i. Levy the True Price of Parking as per 12.13B.*** ***ii. Levy Conversion charges based on the cost of building and operating the infrastructure for private parking facilities.*** ***iii. Replace the one time parking charge levied during vehicle registration by an annual charge linked to instruments such as vehicle insurance, fitness checks etc.*** ***iv. Implement localized variable parking fees based on local demand with regards to time, location and use and congestion levels. As a thumb rule – higher the congestion, higher the fee to be levied in the area to reduce parking demand.*** ***a. Parking fee may be increased exponentially with greater proximity to MRTS stations and major public destinations.*** ***b. Higher rates may be charged during peak hour, with exponential increase in rates per hour, based on local peak/ off-peak***	***APPROVED***

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[1] EPCA Recommendations submitted to Supreme Court, 2006.

		demand trends. *c. On-street private parking (upto 3 hours) shall be exponentially priced compared to off-street parking (more than 2 hours), in order to maximize turnover and incentivize use of off-street facilities for long term parking.* *d. Market based instruments may be used to reduce the impact of high parking rates on the end user. For example, malls or shop owners could pay the full rate of the parking space and transfer the benefit to their customers etc.* *e. Minimum parking rates may be fixed but maximum rates shall be variable based on market forces, similar to all real estate prices in the city. On-street parking price caps to be abolished. Under no circumstances should the price of private vehicle parking be subsidized by the Government.* *f. On-street and off-street parking areas are to be designated on ground through design and signage, to aid enforcement.* *v. Only private parking for cycles is to be fully subsidized.*	
12.13.2 PARKING STANDARD (brought forward from section 12.13.6)			
	(Existing provision in 12.13.6) Parking is one of the utilities permitted in all use zones except in regional park / ridge, developed recreational areas and parks as per the	Parking is one of the utilities permitted in all use zones except in regional park / ridge, developed recreational areas and parks as per the approved layout plan. Parking standards have been prescribed in development control norms for each use premise. ***In addition, Table 12.13.1***	**The following provision to be discussed:** **1. "Where parking standards exceed 2 ECS / 100 square meter of built-up-area (BuA),**

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	approved layout plan. Parking standard have been prescribed in each use premises. ~~However, where not prescribed, these will be followed as per standards given in Development Code section of the Master Plan~~. The standards given are in Equivalent Car Space (ECS) which include parking for all types of vehicles i.e. cars, scooters, cycles, light and heavy commercial vehicles, buses etc. Parking adequacy statement/study for large projects like Stadia, Shopping Malls, Multiplexes will be desirable**.**	***provides a comprehensive summary of parking standards for all use premises.*** The standards given are in Equivalent Car Space (ECS) which include parking for all types of vehicles i.e. cars, scooters, cycles, light and heavy commercial vehicles, buses etc. ***as per Table 12.13.2. Where parking standards exceed 2 ECS / 100 square meter of built-up-area (BuA), parking provision beyond the 2ECS will be counted in FAR.*** Parking adequacy statement/study for large projects like Stadia, Shopping Malls, and Multiplexes will be desirable. ***Table 12.13.1 Parking standards for on-site provision (as per Use Category)***	**parking provision beyond the 2ECS will be counted in FAR."** **2. In addition, parking standards for Motels and Hotels to be included** **3. Super Speciality Hospitals to be included as a separate category with a parking standard of 3 ECS/100 sqm.**

NO.	USE TYPE	PARKING NORMS (ECS / 100 SQM of BuA)
A	SHELTER / RESIDENTIAL	
A.1.1	Redevelopment Scheme	
A.1.1	Shahjahanabad, Walled City Extension, Karol Bagh	2
A.2	Residential Parking Norms	
A.2.1	Plots of 250-300 sqm	2
A.2.2	For every 100 sqm BuA on Plots > 300 sqm	1

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A.2.3	*Group Housing*	*2*
A.2.4	*Cluster Court Housing*	*2*
A.2.5	*Hostel / Guest House (not under MLU) / Lodging & Boarding House / Dharamshala*	*2*
B	*TRADE & COMMERCE*	
B.1	*Metropolitan City Centre (CBD)*	*3*
B.1	*District Centre*	*3*
B.3	*Community Centre*	*3*
B.4	*Local Shopping Centre*	*2*
B.5	*Convenienece Shopping Centre*	*2*
B.6	*Local Level commercial Areas*	*2*
B.7	*Service Markets/ Informal Bazaar*	
B.7.1	*Repair/ Services*	*2*

B.7.2	*Organised Informal Bazaar*	*0*
B.7.3	*Non-Heirarchical Commercial Centre (already identified markets)*	*3*
B.7.4	*Commercial component alongwith Railway/MRTS Stations/ISBT*	*As per Chapter 20*
B.7.5	*Commercial Component at Metro Station*	*As per Chapter 20*
C	*WHOLESALE TRADE*	
C.1	*Integrated Freight Complex*	*3*
D	*INDUSTRY*	
D.1	*Industrial Plots*	*2*
E	*GOVERNMENT OFFICES*	
E.1	*Integrated Office Complex*	*1.8*
E.2	*District Court*	

F	***Recreational***	
F.1	***Amusement Park (as part of District Park)***	***3***
G	***SOCIAL INFRASTRUCTURE / PSP***	
G.1	***HEALTH***	
G.1.1	***Hospitals/ Dispensary/ Nursing Homes Super speciality hospitals (3ECS)***	***2***
G.1.2	***Vet. Hospitals/ Dispensary for pets***	***1.33***
G.1.3	***Nursing and paramedic institute***	***2***
G.2	***EDUCATION***	
G.2.1	***Play School, Coaching Centre, Computer-Training Instt., Physical Edu. Centre, etc.***	***1.33***
G.2.2	***Primary School/ Middle School***	***1.33***
G.2.3	***Sr. Sc. School***	***2***
G.2.4	***Vocational Training Centres, College, Universities***	***1.33***

G.3	*SPORTS*	*2*	
G.3.1	*Sports and Cultural Activities*		
G.4	*SAFETY*		
G.4.1	*Disaster Management Centre*	*1.0 Ha along with suitable open area (2 Ha) for soft parking, temporary shelter, parade ground etc.*	
G.5	*SOCIO-CULTURAL FACILITIES*		
G.5.1	*Multi-purpose Community hall*	*3*	
G.5.2	*Banquet Hall, Community Recreation Club, Auditorium, Meditation Centre, Exhibition Centre, Science Centre, Convention Centre*	*2*	

G.6	*COMMUNITY FACILITIES*	
G.6.1	*Old Age Home, PH care Instt., Working men/women hostels*	*1.8*
G.7	*COMMUNICATION FACILITIES*	*1.33*
G.7.1	*Head Post Office*	
G.8	*MRTS INFLUENCE ZONE (WHITE ZONE)*	*1.2*

Table 12.13.2: On-site Parking (ECS) Requirements.

Mode	*Ratio of spaces by Mode as part of total spaces (+ 10% variance)*	
	Beyond 800m Influence Zone of MRTS stations.	*Within 800m Influence Zone of MRTS stations.*
Cars	*60.0%*	*60.0%*
Two wheelers	*25.0%*	*20.0%*
Cycles	*10.0%*	*15.0%*
Commercial Vehicles	*0.5%*	*0.5%*
Flexible	*4.5%*	*4.5%*
	100%	*100%*

i. *Wherever feasible, space on roofs, under stilts and basements should be exploited to the optimum for parking so as to maximise ground space for landscape development, creation of public open spaces, pedestrian movement etc.*
ii. *The use of basement wherever provided for parking, must be strictly adhered to.*
iii. *No parking shall be permitted on,*

within or under any category of green / recreational use of neighbourhood level or above.

iv. *Shared Parking: At least 50% and preferably 100% of the total parking facilities (based on ECS) provided for any new/ redevelopment/ retrofit project greater than 2000 sq.m. plot area, shall be provided as a Shared Parking facility. Such facilities can be shared between different neighbouring uses which have different peak hours of demand. For example, an office facility that is empty at night may be used by cinemas, restaurants or neighbouring residences in the evening as a paid shared parking facility. This allows for efficient utilization of scarce land, resources and finances.*

v. *In new projects, shared parking provisions would require that parking spaces are provided and leased/ sold separately ("unbundled") from the rent or sale price of a property, giving a financial incentive to individuals to drive less or own fewer cars, and encourage companies to increase public transport use among their employees.*

12.13.2.2 Parking Standards for Parking Benefit Districts (PBD)
These standards shall apply to parking provision within a Parking Benefit District (See 12.13.X) excluding on-site provision of individual projects (as per Tables 12.13.1 and 12.13.2) that may be part of the PBD.

Table 12.13.3 Proportion of parking spaces to be provided in a Parking Benefit District.

Mode	*Approx. % of total number of spaces* beyond*	*Approx. % of total number of spaces** within 300m Influence*

		300m influence zone of MRTS stations		***Zone of MRTS Stations***	
		Cars/ Taxis	***10***	***40%***	***5%***	***25%***
		2 Wheelers	***20***		***10%***	
		Cycles	***10***		***10%***	
		Auto Rickshaws	***25***	***60%***	***25%***	***75%***
		Cycle Rickshaws	***25***		***40%***	
		Vans/ RTVs / any Metro Feeder services, etc.	***10***		***10%***	
			100 %		***100 %***	
		****Percentages are allocated as per the current city level Modal Share as per RITES Transport Demand Forecast Study 2011.*** *****Percentages are allocated as per the projected Modal Share for 2021 as per RITES Transport Demand Forecast Study 2011***				
	12.13.3 PUBLIC PARKING					
	~~All existing areas of concentration of business / commercial activity, where absence of adequate parking and congestion is visible, should be identified and listed, and based on studies of vehicle volumes specific projects for multi level parking, using the latest available technologies should be formulated and implemented in a time bound manner.~~	***Major efforts will have to come through for the creation of public parking facilities in designated commercial / work centres and other areas and corridors where significant commercial activity has developed by way of mixed use. In the above context following steps would be necessary: -***			***APPROVED***	

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	~~ii. Major corridors along which commercial activity has grown over the years by way of mixed land use with / without authorisation should be identified and taken up for redevelopment with a major objective being the identification and development of **open areas** for parking, green development and pedestrianisation.~~ ~~iv. The development of multi level parking facilities may be taken up, wherever, feasible in a public private partnership framework, with private sector investment and involvement, **for which incentives may be provided by way of land use and FAR etc.**~~ ~~vii. A graded parking fees structure should be evolved as of measure of parking demand management, and encouraging use of public transport.~~		
	12.13.3.1 PARKING BENEFIT DISTRICTS		
	No provision in MPD 2021	***A Parking Benefit District (PBD) provides comprehensive facilities for all modes including pedestrians, NMT, cycle tracks, NMT and IPT parking, vending zones, bus stops, public amenities, etc. in addition to on-street and/or off-street parking for private vehicles. PBDs are to be planned to improve availability of on-street and off-street parking and promote greater walking, cycling and public transport use. A PBD provides more net available parking space in an area by increasing parking turnover through good design, management and pricing of spaces. A portion of the revenue generated is to be***	**APPROVED**

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		used for local improvement of footpaths, cycle-tracks, and maintenance of facilities in a transparent way with involvement of the local communities. ***A comprehensive Parking Benefit District Plan must be prepared by local bodies in consultation with planning bodies, local stakeholders and with a team of competent designers, such that facilities are well planned, located as per need & convenience, and functionally integrated with the location/ provision of all essential street activities as per Standards, PBD Plans shall be approved by UTTIPEC, DDA before implementation.*** ***PBDs must be implemented in the following areas on priority:*** ***i. All new shopping centres including Metropolitan City Centre, District Centre, Community Centre, Local Shopping Centre, Convenience Shopping Centre as well as Commercial and Mixed Use streets. These will be notified only after the declaration and implementation of Parking Benefit District. In the event that a PBD is not created, the notification of these centres as stated will not be permitted.*** ii. ***All existing notified / authorised shopping centres including Metropolitan City Centre, District Centre, Community Centre, Local Shopping Centre as well as Commercial and Mixed Use streets must be developed as PBDs with a major objective being the identification and development of shared facilities for parking, creation of public open spaces and pedestrianisation. In addition,*** major corridors along which commercial activity has grown over the years by way of mixed land use without authorisation	

		should also be identified and taken up for redevelopment. iii. ***Congested roads, zones/areas and networks on priority where parking supply appears to be deficient and/or high levels of encroachment of roads/ footpaths/public spaces, etc. by private vehicles persists.*** iv. ***All existing and proposed public parking facilities in areas around the city should be incorporated into an overall PBD plan in a phased manner and shall include all modes, and a clear-cut community-benefit strategy.*** v. ***See Section 12.13.4 for creation of PBDs for Schools and nearby areas.*** ***The creation of PBDs shall include:*** vi. ***Parking provision with physical design and demarcation of spaces on ground to enable efficient enforcement*** vii. ***Stringent provisions by way of fine and other penal actions for violation of parking rules.*** viii. ***Removal of all encroachments on land earmarked for public parking. However, Public Parking Areas may be used for Second Hand Car Bazaar on payment basis, only during holidays subject to meeting requirement / conditions of the concerned authorities.***	
	12.13.3.2 PARKING FACILITIES IN ~~DTC~~ DEPOTS		
	~~The use of DTC terminals and depots for development of public parking alongwith parking of DTC buses, private buses and Chartered buses, should be explored and specific projects developed~~	***There is an acute shortage of parking facilities for buses in the city. Therefore, the bus Depot and Terminals capacity and future requirement planning needs to be done comprehensively, using the GIS database for Delhi.*** i. ***As per 12.4.4, land will be provided to DTC for depots to park 11,000 buses. The selection and allocation of depot lands needs to be planned in sync with the routing of both***	***APPROVED***

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		DTC and cluster buses, so that dead mileage and other losses to the transport agency may be minimized and the projects are well integrated into the needs and context of the city *ii. For parking provision for the remaining buses of the 2021 target as per 12.4.4, optimum utilization of the land is required due to scarcity of available land in the city. To ensure this, multi-level parking for buses is to be prioritized. Norms for multilevel bus parking shall be as per 12.13.3.2a below. Remunerative cross-subsidy models should be used to generate funds for both provisions of the multilevel facility as well as generating non-farebox revenue for bus transport* *iii. Within MRTS influence zones, all bus depots must function as Terminals as well, and be developed as multi-level bus-parking facilities as per Influence Zone planning norms as per Chapter 20.* *iv. Multi-use of large public parking facilities should be permitted for use in off-peak hours for parking of private buses and commercial vehicles, chargeable at appropriate rates.* *v. Large arterial roads, underside of flyovers and overpasses, and other underused areas around the city can be temporarily rented or leased out at appropriate parking rates, to private buses and commercial vehicles, also used by public buses if required.* *Multilevel Bus Parking facilities:* *vi. Minimum Plot Size – No restriction.* *vii. Maximum FAR permissible shall be 200 (excluding parking area) or as per the comprehensive scheme.* *viii. Maximum Ground Coverage shall be 66.6%. In case of provision of podium for bus parking, ground*	

		coverage may be extended to 100% to optimize use of land. *ix. The maximum height shall be as per local constraints like flight paths, heritage zones, etc.* *x. In order to compensate the cost of Multi-level parking and also to fulfill the growing need of bus parking spaces within urban area, a maximum of 70% of gross FAR may be utilized as commercial/ office space, with the remaining accommodating residential uses like hostels, service apartments, budget hotels, and bus facility requirements. This is also to ensure that premises remain active round the clock, thus providing safety, especially for women. Operational areas and parking area for buses within the site shall be exempt from FAR. The uses on the site should be as per local market demand and may help generate non-farebox cross subsidy for the bus parking facility. However the site must accommodate required number of buses on site per the standard of minimum 1 bus per 200 sq.m.* *xi. In case of comprehensive schemes, development controls including height shall be as per approved scheme.* *xii. Number of basements - No Limit, subject to adequate safety measures.* *xiii. Within MRTS influence zones, all Bus depots must function as Terminals as well, and be developed as multi-level bus-parking facilities as per Influence Zone planning norms. Norms as per Chapter 20 shall be applicable.* *xiv. For development of Multilevel Bus Parking, models should be worked out to encourage the private sector initiative such that revenue generated may be used for non-farebox subsidy to public transport in Delhi.*	

		xv. Specific proposals requiring relaxation in above-mentioned norms would be referred to the Authority.	
	12.13.4 PARKING FOR NMT AND IPT MODES		
	No provision in MPD 2021	**Fully subsidized parking facilities for IPT and NMT are mandatory at:** ***a) All Terminals, Stations and Stops as per Sections 12.15.1 and 12.1.5.3*** ***b) On all roads of 18m and above (and not prohibited on any road);*** ***c) Near all major public buildings and destinations as per 12.15.2 and 12.1.5.3*** ***d) Parking for IPT and NMT modes shall be prioritized at-grade and/or on-street, as per UTTIPEC street design standards.*** ***i. In areas where provision of adequate IPT/ NMT parking is not possible within R/W, setbacks of buildings may be acquired (with appropriate incentives such as FAR, TDR, etc.) to provide IPT/ NMT parking facilities, as per requirement, e.g. near Metro/ BRT Stations/major markets or destinations.*** ***ii. Parking spaces for differently-abled to be provided as per IRC 103:2012.*** ***iii. Mandatory component of parking for cycles shall be part of ECS requirements for all private and public new/ redevelopment projects as per Tables 12.13.2 and 12.13.3*** ***iv. Park and ride facilities for bicycle users are mandatory at all entry points of MRTS stations to promote this sustainable mode of transport.*** ***v. Within MRTS influence zones, policies and norms as per Chapter 20 shall also apply.*** ***vi. IPT and NMT stands must be provided as paid facilities at a minimum of 1 stand per 10,000 population. Each stand should***	**APPROVED**

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		accommodate at least ten IPT or NMT vehicles and must include all basic facilities including night shelters (rain baseras), shared public toilets, canteen or vending facilities, repair shops and maintenance facilities, etc. as per requirement.	
	12.13.1 PARK AND RIDE		
	Apart from providing Park and Ride facilities with reference to integration between the Road and Metro Rail / Rail Transport systems, such facilities would also need to be provided to reduce the problem of parking on main arterial roads in the context of identified work and activity centres which may not be directly connected by the MRTS and to encourage use of public transport.	Apart from providing Park and Ride facilities with reference to integration between the Road and Metro Rail / Rail Transport systems, such facilities would also need to be provided to reduce the problem of parking on main arterial roads in the context of identified work and activity centres which may not be directly connected by the MRTS and to encourage use of public transport. ***i. Park-and-Ride Facilities for private modes are to be provided only at Terminal MRTS Stations or major Multimodal Interchanges, not at other stations.*** ***ii. Park and ride facilities for bicycle users with convenient interchange at all MRTS stations are a mandatory requirement at all Stations.*** ***iii. Park & Ride facilities should be provided at border locations abutting Highways and Terminal MRTS/BRTS/RRTS Stations, coupled with excellent public transport linkages to the city centre and various work centres. Subsequently, highway entry/exit Tolls for private transport should be increased substantially to discourage private vehicle commutes and cross-subsidize public transport.*** ***iv. Norms for parking provision for various modes at Terminals and Stations shall be as per 12.15.1 and 12.15.3***	**APPROVED**
	12.13.3.5 PARKING FOR MANAGEMENT FOR SPECIAL CITY LEVEL EVENTS		
	No provision in MPD 2021	Mandate “park-n-ride” based parking management strategy. Allocate	**APPROVED**

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		decentralized parking locations for the event and mandate event-organizer to arrange for shuttle services from the nearest off-street parking facilities and Metro Stations. Discourage overflow parking within 1500m of the venue through strict enforcement.	
	12.13.~~5~~ PARKING IN RESIDENTIAL AREAS		
	Over the years a large number of the residential areas have been experiencing severe problems of vehicular congestion and shortage of parking space. Most of the parking is, in fact, being done on the road, which significantly reduces the carriageway width. The problem has been exacerbated by the traffic congestion generated by schools in gross residential use areas. Some measures required to alleviate the problem, to some extent, will be as under: - i. All the encroachments on residential streets in the form of kitchen gardens / roadside private greens, large projections / ramps, etc. need to be removed. ii. Road cross sections may be redesigned wherever possible to accommodate planned car parking along the residential streets, and also creating more surface movement space. iii. ~~Other options, in selected areas, such as creation of underground parking below parks and open spaces will also have to be considered.~~ iv. Resident Welfare Associations will have to	**12.13.4 PARKING IN RESIDENTIAL AREAS** Over the years a large number of the residential areas have been experiencing severe problems of vehicular congestion and shortage of parking space. Most of the parking is, in fact, being done on the road, which significantly reduces the carriageway width. The problem has been exacerbated by the traffic congestion generated by schools in gross residential use areas. Some measures required to alleviate the problem, to some extent, will be as under: - ***i. Serious consideration should be given to evolve a policy linking registration of new vehicles to availability of owner parking facilities.*** ii. All the encroachments on residential streets in the form of kitchen gardens / roadside private greens, large projections / ramps, etc. need to be removed. iii. Road cross sections may be redesigned wherever possible to accommodate planned car parking along the residential streets, and also creating more surface movement space. iv. ***No parking shall be permitted on, within or under any category of green / recreational use of neighbourhood level or above***. ***v.*** Resident Welfare Associations will have to be called upon to participate in this process by raising contributions from the residents on the basis of objective criteria such as number of cars owned, etc. ***It is clear that city residential areas, with increased affluence and***	**APPROVED**

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	be called upon to participate in this process by raising contributions from the residents on the basis of objective criteria such as number of cars owned, etc. ~~Problem of congestion arising on account of the traffic generated by schools have to be specifically addressed, and the main responsibility for putting up the required additional facilities has to be borne by the schools themselves. Policy guidelines will have to be evolved for this purpose.~~	***densification, have a severe and growing parking problem. This problem will also grow, as the city works to increase tariffs for authorised parking and enforcing strict measures against illegal parking. There will be efforts to move the parking into residential streets as is evident today.*** ***vi. Therefore, it is critical that a carefully designed policy for residential areas is adopted. This will require that parking areas on streets should be priced and that a system of monthly permits should be adopted for each vehicle. Currently, many resident welfare associations issue parking tickets for entry into colonies. These should be priced and the money collected through meters or RWAs should be shared between the municipal corporation and RWA. The permits for second or third cars should be proportionately higher in price. The monthly parking rates applicable in the city for different areas should apply to the residential colonies as well.*** ***vii. Parking Standards as per 12.13.2 shall apply to all new/ redevelopment residential projects.*** ***viii. The building norms for parking in residential areas will be strictly enforced and controlled through pricing and strict enforcement of on-street parking.*** ***ix. Street parking on existing residential streets should be demarcated, so that they may be priced appropriately on a monthly or daily pass/token basis. Marking would also facilitate enforcement and help prevent illegal encroachment of the R/W by parked cars, and prevent blocking of R/W access to emergency vehicles like ambulances, fire tenders etc. to colonies.***	

	12.13.5 PARKING FOR SCHOOLS		
	(MOVED FROM 12.13.5) Problem of congestion arising on account of the traffic generated by schools have to be specifically addressed, and the main responsibility for putting up the required additional facilities has to be borne by the schools themselves. Policy guidelines will have to be evolved for this purpose.	Problem of congestion arising on account of the traffic generated by schools have to be specifically addressed. Policy guidelines will have to be evolved for this purpose. ***Provision of adequate parking as per the parking standards prescribed in the Development Control Norms must be enforced.*** ***Schools and the areas around should also be considered for the creation of Parking Benefit Districts with a specific focus on provision and management of parking for buses as well as pick-up / drop-off facilities required by the school in conjunction with the needs of the local neighbourhood in close coordination with Resident Welfare Associations, School Authorities and Municipalities.*** The main responsibility for required additional facilities must be borne by the schools themselves.	***APPROVED WITH THE FOLLOWING ADDITION***
	12.13.6PARKING FACILITIES		
	No provision in MPD 2021	***A number of solutions and technologies such as stack-parking, jigsaw parking etc. exist today to maximise the efficiency of a parking facility. These may be explored as per local requirements in conjunction with the following:***	***APPROVED***
	12.13.~~7~~ MULTI LEVEL PARKING		
	~~Multi level parking facility should preferably be developed in the designated parking spaces or in the residential, public-semi-public facilities, commercial, transport node, DTC depot, etc. with the following Development Controls:~~ ~~i.~~ Minimum Plot Size - ~~1000 sqm.~~ ii. In order to compensate the cost of Multi-level parking and also to fulfill the	***12.13.6.1 MULTI LEVEL PARKING (for modes other than buses)*** ***The development of multi level parking facilities may be taken up, wherever, feasible in a public private partnership framework, with private sector investment and involvement. These should preferably be developed in designated parking areas within, residential, public-semi-public facilities, commercial uses, in transport nodes etc. For multi-level parking provision for buses, see Section 12.13.2.2.1 .All public multilevel parking projects (other than for buses) shall be planned and developed as***	***APPROVED***

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	growing need of parking spaces within urban area, a maximum of 25 % of gross floor area may be utilized as commercial / office space. iii. In addition to the permissible parking spaces on max. FAR, 3 times additional space for parking component shall be provided. iv. Maximum FAR permissible shall be ~~100~~ (excluding parking area) or as per the comprehensive scheme. However, no FAR shall be permissible in plots / existing buildings where 5% addl. ground coverage is permissible (Refer para 8 (4) i) Parking Standards, Chapter 17.0 Development Code). v. Maximum ground coverage shall be ~~66.6%. The maximum height shall be restricted to permissible height of the land use in which the plot falls. There will be no restriction on the number of levels of basement subject to structural safety.~~ vi. In case of comprehensive schemes, development controls including height shall be as per	***part of a Parking Benefit District (see 12.13.2.2). In the event that a PBD is not created, use and operationalisation of the facility shall not be permitted. The following norms shall apply:*** ***i.*** Minimum Plot Size ***– No restriction*** ii. In order to compensate the cost of Multi-level parking and also to fulfill the growing need of parking spaces within urban area,A maximum of 25 (increase) % of gross floor area may be utilized as commercial / office space to compensate the cost of Multi-level parking iii. Maximum FAR permissible shall be ***200*** (excluding parking area) or as per the comprehensive scheme. However, no FAR shall be permissible in plots / existing buildings where 5% addl. ground coverage is permissible (Refer para 8 (4) Parking Standards, Chapter 17.0 Development Code). iv. Maximum ground coverage shall be ***100%. with no setbacks. Retail use to be provided along frontage of building on ground floor.*** ***v. There shall be no restriction on height other than local constraints such as flight paths, heritage zones, etc which shall be adhered to. In case of comprehensive schemes, development controls including height shall be as per approved scheme.*** ***vi. There will be no restriction on the number of levels of basement subject to structural safety.*** vii. Specific proposals requiring relaxation in above-mentioned norms would be referred to the Authority. ***In conjunction, the following allied conditions shall apply and will be implemented as part of a PBD:*** ***i. Street improvements must be implemented within 10-minute walking catchment of such facilities to make it comfortable and conducive for commuters/***	

	approved scheme. ~~vii. Number of basements – No Limit, subject to adequate safety measures.~~ ~~viii. For development of Multilevel Parking, models should be worked out to encourage the private sector initiative with restricted commercial component, not exceeding 10% limited to FAR 40 on the plot.~~ ix. Specific proposals requiring relaxation in above-mentioned norms would be referred to the Authority. ~~A number of multilevel parking sites have been identified by the local bodies / agencies. **(List given in the Annexure I).**~~	***shoppers to 'park and walk' to their destinations. Feeder modes like vans, circulators or NMT services can be provided from these facilities to nearby destinations.*** ***ii. 500 m (5-minute walking) zone around the multi-level facility shall preferably be designated a strict 'no-parking' zone for all streets. Road space within this zone should now be reclaimed for IPT/NMT parking, pedestrians, vendors & public transport users.*** ***iii. In case essential on-street parking has to be provided within the 500 m zone, it should be priced exponentially (as per 12.13.2b, customized to local conditions) so that the multi-level facility has more demand, thus making it viable for the parking provider to cross-subsidise the facility.*** ***iv. The cost of multilevel parking is too high for the public money to be recovered by simple user pays principle. Therefore to recover the land opportunity cost, capital cost and O&M costs cost of the facility and to generate revenue for the service provider, the 500m catchment area around the facility should be managed by the same agency. Returns on parking generated from the steeply priced short-term on-street parking may cross-subsidize the cost for the multi-level facility.*** ***v. Note: Before provision of multi-level public parking structures in any area, steep pricing measures for on-street parking should be implemented, to minimize demand. Provision of multi-level parking should be resorted to as the final option.*** ***vi. Within MRTS influence zones, mulitlevel parking projects must be developed as part of mixed-use projects, adhering to all norms for transit oriented development as***	

		per Chapter 20	
	12.13.4 UNDERGROUND PARKING		
	~~Based on the site feasibility, parking facilities can be created under the open spaces without disturbing the green areas on the surface and surrounding environment. The approvals from the concerned agencies are mandatory before taking up such works.~~	*12.13.6.2 UNDERGROUND PARKING* *i. For plots greater than 2000 sq.m underground parking may occupy a maximum 60% of the total site area.* *ii. No parking shall be permitted on, within or under any category of green or recreational use of Neighbourhood level or above to facilitate water infiltration and groundwater recharge.* *iii. Underground parking shall only be permitted under buildings or plazas.*	
	ANNEXURE - I	*Deleted.*	*APPROVED*

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Modification in MPD 2021 suggested by MAG			
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendations***
12.14 REGISTRATION AND LICENSING			
42	The aspects of registration and training of transport operators / drivers needs to be viewed as an important element of the overall transport plan and policy. Licensing system should be made strict to create awareness about traffic rules and regulations among road users.	The aspects of registration and training of transport operators / drivers needs to be viewed as an important element of the overall transport policy. Licensing system should be made strict to create awareness about traffic rules and regulations**. In addition, data management protocol for vehicle registration needs upgradation with further categorization based on fuel type (CNG, diesel, petrol, electric etc), engine size/weight, two stroke vs four stroke etc. to enable better enforcement of new regulations such as fuel economy etc.**	**APPROVED**
12.15 BARRIER FREE ENVIRONMENT			
43	A major consideration in the planning and design of outdoor and indoor movement should be that people with disability, older persons and people in wheel chairs could move about without help from others. This requires that: i. Paths and pavements shall be flat, uniform, slip-free and free from unnecessary obstacles. ii. Orientation points and guide routes may be provided for visually disabled people; iii. Information and warning signs must be understandable, clear and well lit.		**APPROVED**

	Modification in MPD 2021 suggested by MAG	
S. No.	**Existing Provision in MPD 2021**	***Proposed Amendment***
12.15 NORMS AND GUIDELINES		
No provision in MPD 2021		
12.15.1 GUIDELINES FOR MULTI-MODAL INTEGRATION AT PASSENGER TERMINALS, STATIONS, STOPS AND STANDS		
No provision in MPD 2021		
44		

PASSENGER TERMINALS, STATIONS, STOPS & STANDS	MAXIMUM DISTANCE OF LEVEL WALK FROM TERMINAL / STATION EXIT (Maximum distance in M, unless specified otherwise with + for Minimum distance) Refer 12.12.3 for Locational Criteria															
	NON-MOTORISED TRANSPORT			INTERMEDIATE PUBLIC TRANSPORT				MASS TRANSIT			EMER-GENCY ACCESS	PVT. VEH-ICLE	AMENITIES			
	Pedestrian	Cycle-Rental stand	Cycle-Stand	Cycle-rickshaw stand	Auto stand	Taxi /car drop off area	Heavy Occupancy	Ring/ Commuter Rail	Metro Station	BRT and / or Bus Stop	Dedicated Bay for Fire Hydrant, Ambulance		Public Toilets	Hawkers and Vending zones	Enhanced Lighting	Signage/ Way-finding , Information
AIRPORT	0				150	100	150		0	50	100	300+	150+	150+	500+	500+
RING / COMMUTER RAIL STATION	0	50	50	50	150	150	100		-	50	100	300+	150+	150+	500+	500+
INTER-STATE BUS TERMINAL	0	50	50	50	150	150	100		0	50	100	300+	150+	150+	500+	500+
METRO STATION	0	50	50	50	150	150	100			50	50	300+	150+	150+	300+	300+

BRT / BUS STOP	0	50	50	50	100								50	50	150+	150+
FEEDER SERVICE STANDS	0	50	50	100									50	50	150+	150+
TAXI STANDS	0												25	25	100+	100+
AUTO RICKSHAW STAND	0													25	100+	100+
CYCLE RICKSHAW STANDS	0													25	50+	50+
CYCLE RENTAL/ PARKING STAND	0													25	50+	50+

Recommendation: APPROVED

	Modification in MPD 2021 suggested by MAG	
S. No.	**Existing Provision in MPD 2021**	***Proposed Amendment***
12.15.2 GUIDELINES FOR MULTI-MODAL INTEGRATION AT TRIP ATTRACTING USES		
No provision in MPD 2021		
45	**OTHER TRIP ATTRACTING USES**	**MAXIMUM DISTANCE OF LEVEL WALK FROM PRIMARY EXITS (Maximum distance in M, unless specified otherwise with + for Minimum distance) Refer 12.12.3 for Locational Criteria**

	NON-MOTORISED TRANSPORT			INTERMEDIATE PUBLIC TRANSPORT				MASS TRANSIT			EMER-GENCY ACCESS	PVT. VEHICLE	AMENITIES			
	Pedestrian	Cycle-Rental stand	Cycle-Stand	Cycle-rickshaw stand	Auto stand	Taxi /car drop off area	Heavy Occupancy Feeder Stop	Ring/ Commuter Rail Station	Metro Station	BRT and / or Bus Stop	Dedicated Bay for Fire Hydrant, Ambulance and Police		Public Toilets	Hawkers and Vending zones	Enhanced Lighting	Signage/ Way-finding , Information maps
RETAIL CENTRES / MARKETS	0	50	50	50	150	100	150		0	50	100	300+	150	150	500+	500+
EXPO CENTRES	0	50	50	50	150	100	150		0	50	100	300+	150	150	500+	500+
STADIA	0	50	50	50	150	100	150		0	50	100	500+	150	150	500+	500+
CATEGORY A HOSPITALS (> 500 beds)	0	50	50	50	150	100	150		0	50	100	300+	150	150	300+	300+
MALLS	0	50	50	50	150	100	150		0	50	100	300+	150	150	300+	300+
MULTI SCREEN THEATRES	0	50	50	50	150	100	150			50	100	300+	150	150	300+	300+
CULTURAL / ENTERTAINMENT DESTINATIONS	0	50	50	50	150	100	150			50	100	300+	150	150	300+	300+

Recommendation: APPROVED

Modification in MPD 2021 suggested by MAG		
	Existing Provision in MPD 2021	***Proposed Amendment***
12.15.3 GUIDELINES FOR LOCATIONAL CRITERIA FOR MULTIMODAL INTEGRATION		
No provision in MPD 2021		

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PROVISION		**PREFERRED LOCATION (For distance criteria refer 12.5.1 & 12.15.2)**
NON-MOTORISED TRANSPORT	**Pedestrian**	• Universal access up to exit / entry of terminal / stop and within the building / structure
	Cycle-Rental Stands, Cycle-Parking Stands	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guidelines. • Provide cycle rental stands also at nearby important destinations, like schools, civic buildings, large offices, Malls, etc. and provide informational Signage at both end locations
INTERMEDIATE PUBLIC TRANSPORT	**Cycle-rickshaw Stands, Auto Stands**	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guidelines.
	Taxi Stands and 'drop off' location	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design • Guidelines.
	Heavy Occupancy Feeder Stop	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guidelines.
MASS TRANSIT	**Ring/ Commuter Rail**	• In the case of existing and proposed Metro Stations within 800 M (10-minute walk distance) of a Ring Rail Station, retrofit the latter to provide efficient, safe and convenient interchange / transfers.
	Metro station	• Locate within Air / Rail Terminals to ensure seamless intermodal transfer as far as possible. Locate within buildings of Trip Generating Uses for maximum integration • If integration at the building level is not possible, connections to and from the Metro Station located should be designed to provide efficient, safe and convenient interchange / transfers.
	Stops for BRT / Bus	• Locate within Terminal / Trip Generating Use premises and/or Multi-Functional Zone (MFZ) within Road R/Ws, as per UTTIPEC Street Design Guidelines.
EMERGEN-CY ACCESS	**Dedicated Stopping bays for Fire, Police and Ambulance access**	• Locate dedicated bays for parking of emergency vehicles – fire, ambulance and police – within premises of Stations and Trip Generating Uses
PRIVATE VEHICLE	**Drop off**	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guidelines.
	Parking	• Private car parking facility may be provided only at Terminal Stations and major interchange stations as per design norms specified in Section 12.3.9

AMENITIES	**Public toilets**	• Within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guidelines.
	Hawkers and Vending zones	• Locate along desire lines of movement within Multi-Functional Zone (MFZ) within Road RoWs, as per UTTIPEC Street Design Guideline.
	Enhanced Lighting	• Lighting of Bus stops, underside of Metro Stations and elevated walkways = 10 Lux. • Lighting of commercial streets, busy public spaces and important street crossings = 20 Lux. • Lighting of all other streets and public areas = 30 Lux. • For footpaths, yellow light is recommended to allow visibility of tactile pavers.
	Signage/ Way-finding information, Maps.	• At Exits, display map of 500m zone around stations showing road network with names, major landmarks and destinations and location of all the above facilities within and outside terminal / use premises. • Roads within 500m influence zone to have Street name signage as per UTTIPEC guidelines. • All bus stops must display the route numbers and route description with list of major stops

Recommendation: APPROVED

	Modification in MPD 2021 suggested by MAG	
S. No.	**Existing Provision in MPD 2021**	***Proposed Amendment***
12.15.4 DESIGN NORMS FOR ROADS		
No provision in MPD 2021		
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ROAD TYPE	**Arterial**	**Sub Arterial**	**Collector**	**Local Streets**	**Eco-mobility corridors and Pedestrian / NMT only Streets**
FUNCTION	To carry heavy volumes of traffic	To connect major arterial roads and inter residential district collectors	To collect traffic from local streets within one residential district	For neighbor-hood (or local) use on which through traffic may be discouraged	For pedestrian / NMT use only with access for Emergency vehicles.
RIGHT OF WAY (M)	40– 60M along a continuous length of min. 10Km.	24 – <40M along a continuous length of min. 8Km.	18 <24M along continuous length of min. 8Km.	<18M: In existing areas like Rohini project, having plot sizes below 90 sq.m., minimum ROW of 9 m. may continue.	Varies
DESIGN SPEED AND SPEED LIMIT	50 kmph	30 kmph	20kmp		

TRAFFIC CALMING MEASURES		Traffic Calming should be provided in zones on these streets where the road passes through critical areas raising safety concerns for vulnerable road users. These include properties, schools, hospitals and other institutions opening directly on to the main carriageway, or the road passing through narrower high activity zones such as market zones, etc.	Smaller turning radii, Tree planting, Chicanes, Table tops and other Surface treatments, Parking areas for different modes, Hawker zones??	Smaller turning radii, Tree planting, Chicanes, Table tops and other Surface treatments, Parking areas for different modes, Hawker zones		N/A Access controlled for motor vehicles
FOOTPATH (as per adjoining land use)	**Residential**	Min. 2.0 M	Min. 2.0 M	Min. 2.0 M		Min. 2.0 M
	Commercial / Mixed use	Min. 2.5	Min. 2.5 M	Min. 2.5 M		Min. 2.5 M
	Commercial Node	Min. 4.0 M	Min. 4.0 M	Min. 4.0 M		Min. 4.0 M
CYCLE / NMT TRACKS		Min. 2.5 M path with an elevation +75 to 100mm from the carriagewayto ensure physical separation from MV Lanes.	Min. 2.5 M path with an elevation +75 to 100mm from the carriagewayto ensure physical separation from MV Lanes, especially near intersections with arterial roads. OR min. 1.5 to 2.2m painted cycle lane on traffic calmed maximum 4 lane collector roads.	Road to be traffic calmed for cyclist safety even during off-peak hours. If functioning as an Arterial Road, Min. 2.5 M path made in Cement Concrete and physically separated from	No segregated track required. Road to be traffic calmed for cyclist safety even during off-peak hours.	No segregated track required. Road to be traffic calmed for cyclist safety even during off-peak hours

			MV		
MUZ	Min. 2.5 M	Min. 2.5 M	Min. 2.5 M		
BUSWAYS FOR BRT	Segregated busways where BRT proposed Min. 3.3M (excluding lane markings)	Segregated busways where BRT proposed. At-grade segregation possible in ROWs> 36M	No segregation required. Road may be designed for Bus / NMV only		N/A
MOTORISED LANES FOR MV (Lane widths determined by desired speed of Road)	2 – 3 motorised lanes per direction. 3.3M	2 motorised lanes per direction. 3.1M	No minimum lane width specification		N/A
DEDICATED LANE FOR GOODS MOVEMENT (HMV)	Recommended along key corridors for dedicated use during specific hours. Min. 3.5M	Not required	Not required		N/A
SERVICE LANES	Service Lanes required only for low density residential frontages and not for commercial / mixed uses	Not required	Not required		N/A
SAFE CROSSINGS FOR PEDESTRIANS, CYCLES AND OTHER NMT	At grade crossings at intervals of 250M **Note: Foot over bridges and subways are not recommended. These may be provided if no solutions for safe at-grade crossings are possible due to specific site constraints.**				N/A
MEDIANS	Continuous median. Openings and intersections with signals and traffic calming.	Intermittent or no median. Openings and intersections with signals and traffic calming.	No median. Intersections with signals and traffic calming.	No median. Traffic calmed streets and crossings	No median. Traffic calmed streets and crossings

Recommendation: APPROVED

	Modification in MPD 2021 suggested by MAG	
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***

12.15.5 DEVELOPMENT CONTROL NORMS FOR PASSENGER TERMINALS, DEPOTS & ANCILLARY INFRASTRUCTURE

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Table 12.7: Development Controls for Transportation

S. No.	Use Premises	Activities Permitted	Development Controls (4)			
			Area under Operation (%)	Area under building (%)	FAR *	Floor area that can be utilised for passenger accommo-dation
1.	Airport	All facilities related to Airport / Aviation Passengers as decided by Airport authority of India including watch & ward		-NA		
2.	Rail Terminal / Integrated Passenger Terminal Metropolitan Passenger Terminal	All facilities related to Railway, Passengers, operations, goods handling, passengers change over facilities, including watch & ward, Hotel.	70	30	100	15%
3.	Rail Circulation	All facilities related to Railway Tracks, operational areas including watch & ward.		-NA		
4.	Bus Terminal/ Bus Depot	All facilities related to Bus & Passengers, parking including watch & ward, Soft Drink & Snack Stall, Administrative Office, Other Offices, and Hotel.	~~50~~	~~50~~	~~100~~	~~25%~~
5.	ISBT	All facilities related to Bus & Passengers, parking including watch & ward, Bus Terminal, Soft Drink & Snack Stall, Administrative Office, hotel.	a. Ground coverage: 25% b. FAR: 100, subject to the following: (i) FAR shall be available on a maximum area of 10 ha. or area of site whichever is less. (ii) ISBT, including operational structures Maximum FAR 70 (iii) Hotel / passenger accommodation and facilities Maximum FAR 30. c. Parking: In addition to the requirement of parking for ISBT / buses, parking for Hotel/ passenger accommodation and facilities shall be at the rate of 2 ECS per 100 sq.m. of floor area. d. The development shall be undertaken in a composite manner.			
6.	Toll Plaza	Toll collection booth, utilities,		-NA		

		facilities and required infrastructure.				
7.	Road Circulation	All types of road, street furniture, bus shelters, under ground& over ground services utilities, signals, metro tracks as part of r/w, sub-ways, under-passes, ROB & RUB including watch & ward.		-NA		
8.	Metro Yards	~~**Idle parking of coaches, washing and cleaning facilities, maintenance related facilities, watch & ward and staff related facilities.**~~	~~**80%**~~	~~**20%**~~	~~**100**~~	~~**15%**~~

12.15.5 DEVELOPMENT CONTROL NORMS FOR PASSENGER TERMINALS, DEPOTS & ANCILLARY INFRASTRUCTURE

Use Premises	**Activities Permitted**	**Development Controls (4)**			
		Area under Operation (%)	**Area under building (%)**	**FAR ***	**Floor area that can be utilised for passenger accommo-dation**
Airport	All facilities related to Airport / Aviation Passengers as decided by Airport authority of India including watch & ward		-NA		
Rail Terminal / Integrated Passenger Terminal Metropolitan Passenger Terminal	For all facilities related to Railway, Passengers, operations, goods handling, passengers change over facilities, including watch & ward, **the norms will be as per the TOD norms in Chapter 19.**	70	30	100	15%
Rail Circulation	All facilities related to Railway Tracks, operational areas including watch & ward.		-NA		

	Bus Terminal/ Bus Depot	All facilities and infrastructure related to Bus & Passengers, needed for a convenient and efficient bus service. **Bus depots within Influence zones must function as Terminals as well, and be developed as multi-level bus-parking facilities as per TOD Influence Zone planning norms.**	**The site must accommodate required number of buses on site per the standard of minimum 1 bus per 200 sqm**	**As per Design (up to 100%)**	**200 (Greater FAR may be permissible in MRTS Influence Zones with norms as per Chapter 20)**	**Flexible**
	ISBT	All facilities related to Bus & Passengers, parking including watch & ward, Bus Terminal, Soft Drink & Snack Stall, Administrative Office, hotel. **All ISBTs within Influence zones must be developed as multi-level bus-parking facilities as per Influence Zone planning norms. Underutilization of FAR below 300 shall not be permitted**	a. Ground coverage: 25% b. FAR: 100, subject to the following: (i) FAR shall be available on a maximum area of 10 ha. or area of site whichever is less. (ii) ISBT, including operational structures Maximum FAR 70 (iii) Hotel / passenger accommodation and facilities Maximum FAR 30. c. Parking: In addition to the requirement of parking for ISBT / buses, parking for Hotel/ passenger accommodation and facilities shall be at the rate of 2 ECS per 100 sq.m. of floor area. d. The development shall be undertaken in a composite manner.			
	Toll Plaza	Toll collection booth, utilities, facilities and required infrastructure.		-NA		
	Road Circulation	All types of road, street furniture, bus shelters, under ground& over ground services utilities, signals, metro tracks as part of r/w, sub-ways, under-passes, ROB & RUB including watch & ward.		-NA		

	Metro Yards	Idle parking of coaches, washing and cleaning facilities, maintenance related facilities, watch & ward and staff related facilities. **For all such faciliyoes falling within the TOD Imfluence Zone, the norms will be as per the TOD norms in Chapter 19.**	80%	20%	100	15%
	Metro Stations	**Norms**				
		Norms as per Chapter 20: Transit Oriented Development shall apply to all Metro/ MRTS Station areas. The following structures shall be treated as operational structures: i) All Metro Stations and tracks supporting at grade, elevated and underground including entry structures, ancillary buildings to house DG sets, chilling plants and electric sub station, supply exhaust and tunnel ventilation shafts etc. ii) Depots and maintenance workshops. iii) Traction sub-stations.				

Recommendation: APPROVED

Modification in MPD 2021 suggested by MAG		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***
12.16 FINANCING PUBLIC TRANSPORT		
No Provision in MPD-2021		
49	While it is essential to reduce costs and improve overall economic efficiency of public transport operations, improve the fare box collection and plug leakages, it is even more critical to ensure affordability of the public transport for the urban majority to achieve the desired modal share in the city. Therefore, public transport will need to be subsidized. In addition, financial models that will help to reduce dependence on fare box collection, diversify revenue sources and help to create a dedicated public transport fund will also have to be initiated.	
12.16.1DEDICATED PUBLIC TRANSPORT FUND		
No Provision in MPD-2021		
50	**12.16.1DEDICATED PUBLIC TRANSPORT FUND** A dedicated unified fund for Public Transport and Road infrastructure must be created to meet the cost of transport reforms from a variety of revenue streams to ensure a steady annual flow of funds. This can be based on the following three principles: i. Rationalization of the budgetary allocation to augment available funding for public transport including cross subsidy and public subsidy wherein all public agencies contribute towards Public Transport ii. Tapping different revenue streams related to transport and vehicles, transport demand management methods including parking, vehicle taxation, fuel taxes, advertising etc. iii. Increase in the efficiency of current assets including land based development Some of the following strategies may be adopted to create the dedicated public transport fund. **12.16.1.1. Tap revenue streams under the control of transport corporations** i. **Advertising:** Depots, terminals, Stations, stops and spaces in their infrastructure including buses/ coaches etc. may be used for advertisement. This policy may be rationalised and rates be reformed to enhance the potential of this revenue source with a target 100% revenue share. ii. **Property development**: Commercial development in Metro Stations, bus terminals, depots, and ISBTs, other appurtenant land may be undertaken without deviating from / compromising on the core function of providing adequate space for operational areas, parking, maintenance infrastructure, and space for integration with other modes at the terminals and interchange points. **12.16.1.2 Tap other revenue sources** i. **Reform the rates of parking and vehicle taxation** on the basis of travel demand management measures and tap a part of the earnings towards the public transport fund. ii. **In addition, identify other revenue streams**. A wide variety of sources can be created to augment the public transport fund. For example these include tax on wage bill, station naming, fuel surcharge, congestion tax, tax on cigarettes / liquor etc. These can generate revenue as well as ensure increase in public transport ridership. **iii. Maximise Land Value Capture**. Generate revenue from land-use densification, through	

	enhanced property taxes, betterment levies or purchase of land development rights etc along the transit corridors. This will require a clear policy to channelise revenue from land monetization, betterment levy, land value tax, enhanced property tax etc to the public transport fund. **12.16.1.3 Improve economic efficiency of public transport operations** Economic efficiency of the public transport operations needs to be improved and losses cut. This will include lessening of tax burden on agencies as well as a range of cost cutting measures. But this will have to be achieved along with mandatory service level guarantee. i. **Rationalise budgetary allocation** in the transport sector. A lot of money tied specific types of road infrastructure such as grade separators that impede bus routes and usage can be ploughed into bus transport. This will also help to improve ridership by design. ii. **Reduce tax burden**: Public Transport operations are treated as a commercial enterprise in the city and are made to pay heavy taxes, much more than that for private transport. This trend will have to be reversed iii. **Tax exemptions:** Buses, in particular, today pay a wide range of taxes. If such tax obligations are reduced and waived off, it will certainly help to improve the overall economic efficiency of the operations. In addition, this will create financial incentives to invest more into the sector. Also, all Public Transport must be made exempt from Toll Tax.
Recommendation: APPROVED	
12.17 TRAFFIC IMPACT ASSESSMENT (TIA)	
No Provision in MPD-2021	
51	**12.17 TRAFFIC IMPACT ASSESSMENT (TIA)** The goal of a traffic impact assessment is to determine potential impacts of traffic changes caused by proposed development on roads and transit systems and to identify any infrastructure and transit improvements or mitigation measures needed to ensure that transport network will operate acceptably and safely upon completion of the proposed development. The benefits of Traffic Impact Assessment are: i. Providing decision makers with a consistent basis on which to assess transportation implications of proposed development applications. ii. Providing a rational basis on which to evaluate if the type and scale of the development is appropriate for a specific site and what improvements may be necessary to provide safe and efficient traffic, pedestrian, cycling and transit flow. iii. Providing a basis for determining existing or future transportation system deficiencies that should be addressed. iv. Addressing transportation related issues associated with development proposals that may be of concern to neighbouring residents, businesses and other stakeholders. v. Providing a basis for negotiations for improvements and funding in conjunction with planning applications. vi. A traffic impact Assessment may vary in scope and complexity depending on the type and size of the proposed development. A traffic impact assessment would consider all modes of travel including cars, trucks, transit, cyclists and pedestrians. It should be consistent with the City's goals as expressed in this Chapter and other planning documents. UTTIPEC will be the approving authority for all TIAs and will prepare a TIA Manual with the following provisions within six months of notification of the Policy:

	• Standards for when a project becomes eligible for a TIA • Application requirements of a TIA • Scope and Content of a TIA • Definition of Study Area for a TIA • Analyses period for a TIA • Eligibility criteria for conducting a TIA • Conditions of approval of a TIA • Conditions of approval of a TIA
Recommendation: APPROVED	

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
Introduction			
	MAJOR HIGHLIGHTS OF THE PLAN		
1.	20. (m) Transportation ~~The proposals include the following:~~ • ~~Unified Metro Transport Authority~~ • ~~Synergy between landuse and transport~~ • ~~A new parking policy including private sector development of parking facilities, increase in norms for parking space, multi level parking and under ground parking.~~ • ~~Integrated multimodal public transport system to reduce dependence on personalised vehicles.~~ • ~~Road and rail based mass transport system to be a major mode of public transport, use of existing road network and development of missing links.~~ • ~~Restructuring of existing network through expressways, elevated roads, arterial roads, distributor roads and relief roads.~~ • ~~Provision for introducing cycle tracks, pedestrian~~	20. (m) Transportation ***The proposals include the following:*** • ***A Vision linked to seven essential policy objectives that inform all policies, strategies and Action Plans of the Transportation Policy*** • ***Unified Metropolitan Transport Authority*** • ***A new policy on Roads including regional networks, city road network & connectivity, road hierarchy and design, maintenance and management, that prioritises enhancement of the network and delivery of high quality road infrastructure to provide better access and connectivity for all modes equitably*** • ***Integrated multimodal public transport system to reduce dependence on personalised vehicles.*** • ***Road and rail based mass transit systems for the city including the Metro, Ring / Commuter Rail, Light Rail Transit (LRT) Integrated Transit Corridors and Bus*** • ***Rapid Rail Transit systems (RRTS) in addition to Rail, Bus and Air for major inter-city transport*** • ***A new policy for Intermediate Public Transport (IPT) – Feeder services, Taxis, Auto-rickshaws and Cycle-rickshaws – that recognises and reaffirms the importance of these modes in addressing the mobility needs of the city*** • ***A new policy on Non-Motorised Transit***	**APPROVED**

	~~and disabled friendly features in arterial and sub-arterial roads.~~	***(NMT) that ensures the right to walk safely and re-affirms the importance of cycling as a meaningful, non-motorized choice of transportation*** • ***A new policy on Private Vehicles aimed at use restraint.*** • ***A new parking policy for Travel Demand Management*** • ***An augmented policy on Goods Movement and Terminals*** • ***A new policy on Supporting Transport Infrastructure to address the changing needs of the sector*** • ***A strategy for financing Public Transport*** • ***A mechanism for Monitoring and Evaluation through Traffic Impact Assessments*** • ***Time bound Action Plans to ensure the above is achieved within the Plan Period***	
	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	
Chapter – 2: POPULATION AND EMPLOYMENT			
	NO CHANGE/ MODIFICTION REQUIRED		

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	
Chapter – 3: DELHI URBAN AREA 2021 !			
	Table 3.3: Hierarchy of Urban development		

<table>
<tr>
<td>1.</td>
<td>
<table>
<tr><th rowspan="2">Level</th><th rowspan="2">Facilities</th><th colspan="3">Area in Sq.M.</th></tr>
<tr><th>No.</th><th>Per Unit</th><th>Total</th></tr>
<tr><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr>
<tr><td>3. Community Population-1,00,000</td><td>19. Bus Terminal</td><td>1</td><td>1,000</td><td>1,000</td></tr>
<tr><td>4. District Population-5,00,000</td><td>19. Bus Terminal</td><td>1</td><td>2,000</td><td>2,000</td></tr>
<tr><td>5. Zonal/ Sub City-10,00,000</td><td>6. Bus Depot</td><td colspan="3">As per requirement</td></tr>
</table>
</td>
<td>
<table>
<tr><th rowspan="2">Level</th><th rowspan="2">Facilities</th><th colspan="3">Area in Sq.M.</th></tr>
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<tr><td>5. Zonal/ Sub City-10,00,000</td><td>6. Bus Depot</td><td colspan="3">As per requirement</td></tr>
</table>
<u>In case of provision of Terminals within right-of-way in Developed Areas, unit area norms may be relaxed as per on-site requirements</u>
</td>
<td>APPROVED WITH THE FOLLOWING ADDITIONS</td>
</tr>
</table>

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
All sections will have to be modified as per proposed addition in Section 12.13.2 Parking Standards as follows: **<u>"Parking standards for each use premise to be replaced with *Parking Standards as per 12.13.2 shall apply"*</u>**			**To be discussed**

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
5.2 HIERARCHY OF COMMERCIAL AREAS			
	The following five-tier system of Commercial Areas is envisaged to accommodate required shopping, commercial office and other service activities like cinema, hotel and restaurant and various community services and facilities in an integrated manner. In addition, some components of commercial use are also provided under mixed use, non-		

	hierarchical commercial centres, and informal sector in the selected areas along the MRTS corridor.	
	The following five-tier system of Commercial Areas is envisaged to accommodate required shopping, commercial office and other service activities like cinema, hotel and restaurant and various community services and facilities in an integrated manner. In addition, some components of commercial use are also provided under mixed use, non-hierarchical commercial centres, and informal sector in the selected areas along the MRTS corridor. ***All Commercial Areas shall planned and implemented as Parking Benefit Districts (PBD) as per 12.13.3.1***	**APPROVED**

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
Chapter – 15: MIXED USE REGULATIONS !			
	15.3.3 Notification of Mixed Use Streets in Urban Areas		
1.	[Note-1 The local body shall carry out a survey in those streets / roads in urban villages and regularized-unauthorized colonies not surveyed pursuant to the provisions of MPD-2021 notified on 7.2.2007, within a period of three months of this Notification.] i) The field survey shall assess the extent of existing non-residential use on the streets, the stretch of the street to be notified, the additional requirement of civic amenities and the provision for traffic circulation and	[Note-1 The local body shall carry out a survey in those streets / roads in urban villages and regularized-unauthorized colonies not surveyed pursuant to the provisions of MPD-2021 notified on 7.2.2007, within a period of three months of this Notification.] v) The field survey shall assess the extent of existing non-residential use on the streets, the stretch of the street to be notified, the additional requirement of civic amenities and the provision for traffic circulation and parking. vi) ***A Parking Benefit District (PBD) shall be The declared and implemented as per 12.13.3.1*** vii) The notification shall be issued by the Urban Development Department, GNCTD after the field survey is completed and a PBD is notified and implemented. ***In the event that a PBD is not created, the notification of these centres as stated will not be permitted.***	**APPROVED**

	parking. ii) The notification shall be issued by the Urban Development Department, GNCTD ~~immediately~~ after the field survey is completed.		
	15.3.4 NOTIFICATION OF MIXED USE STREETS IN URBANISABLE AREAS IN FUTURE		**APPROVED WITH THE FOLLOWING MODIFICATIONS**
	In new urbanisable areas, mixed use shall be permissible in the following areas: i) In newly developed residential areas, mixed use as specified above shall be permitted only on residential plots abutting 18m. ROW roads. ii) The layout plan in newly developed urban extension shall earmark such stretches / plots and notify them under the mixed use policy at the time of grant of permission for layout plan in the case of private development and at the time of disposal by allotment or auction in the case of areas developed by DDA. iii) In the Abadi area of villages in urbanisable area, mixed use shall be permissible as per the provisions of urban villages and for this purpose, local bodies shall be required to	In new urbanisable areas, mixed use shall be permissible in the following areas: i) In newly developed residential areas, mixed use as specified above shall be permitted only on residential plots abutting 18m. ROW roads. ii) The layout plan in newly developed urban extension shall earmark such stretches / plots and notify them under the mixed use policy at the time of grant of permission for layout plan in the case of private development and at the time of disposal by allotment or auction in the case of areas developed by DDA. iii) In the Abadi area of villages in urbanisable area, mixed use shall be permissible as per the provisions of urban villages and for this purpose, local bodies shall be required to carry out within a reasonable time of the notification coming into force, and with due expedition, and not later than 90 days, a survey of all streets of the above-mentioned width, if not already done, with a view to identifying stretches of such streets as mixed use streets ***All new ~~Commercial~~ Mixed Use streets will be notified only after the declaration and implementation of Parking Benefit District (PBD) as per 12.13.3.1 In the event that a PBD is not created, the notification of these centres as stated will not be permitted.*** ***In addition, All existing notified / authorized Mixed Use streets must be developed as PBDs with a major***	

	carry out within a reasonable time of the notification coming into force, and with due expedition, and not later than 90 days, a survey of all streets of the above-mentioned width, if not already done, with a view to identifying stretches of such streets as mixed use streets	***objective being the identification and development of shared facilities for parking, creation of public open spaces and pedestrianisation.***	
	15.4 General Terms and Conditions Governing Mixed Use		
4.	Other terms and conditions (v) ~~Parking @ 2.0 ECS per 100 sqm built up area shall be provided within the premises. Where this is not available, cost of development of parking, shall be payable by the plot allottee / owner to the local body concerned.~~ This condition shall apply even if residential premises are used only for professional activity. (vi) ~~Common parking areas would be earmarked on notified mixed use streets taking into account the additional load on traffic and parking consequent upon notification of the street under Mixed Use Policy.~~ If no parking space is available, land/ plot on the said street	Other terms and conditions (v)***Parking standards as per 12.13.2 shall apply.*** ***(vi) Residents/ traders' organizations/ private parties shall be responsible for providing for their own private parking facilities. This condition shall apply even if residential premises are used only for professional activity.*** ***(vii) As mentioned above in 15.3.3, all existing notified / authorized as well proposed new Mixed Use streets must be developed as Parking Benefit Districts (PBD) with a major objective being the identification and development of shared facilities for parking, creation of public open spaces and pedestrianisation.*** If no parking space is available, land/ plot on the said street may be made available by Traders association, wherever possible, or acquired for construction of parking facilities, ~~preferably, multi level parking~~ as per requirements of the PBD. Development of such parking facilities shall be done by either the traders Association or by local bodies and may include public-private partnership as model for implementation.	**APPROVED**

	may be made available by Traders association, wherever possible, or acquired for construction of parking facilities, ~~preferably, multi level parking~~. Development of such parking facilities shall be done by either the traders Association or by local bodies and may include public-private partnership as model for implementation.		
	15.12 Commercial Streets and Areas		
5.	15.12.3. After identification is done, notification of commercial stretches / streets by the Urban Development Department, GNCTD would necessitate compliance to the following terms and conditions: ~~**iii. Common parking areas would be earmarked taking into account the additional load on traffic and parking consequent upon notification of the street as commercial area / street. If no parking space is available,**~~ land / plot on the said street / area may be made available by traders association, wherever possible, or acquired for construction of parking facilities, preferably, multi-level parking. Development of such parking	15.12.3. After identification is done, notification of commercial stretches / streets by the Urban Development Department, GNCTD would necessitate compliance to the following terms and conditions: i. ~~***All new Commercial stretches / streets will be notified only after the declaration and implementation of Parking Benefit District (PBD) as per 12.13.3.1 In the event that a PBD is not created, the notification of these centres as stated will not be permitted.***~~ ii. ***All existing notified / authorized commercial streets must be developed as PBDs with a major objective being the identification and development of shared facilities for parking, creation of public open spaces and pedestrianisation. Parking standards as per 12.13.2 shall apply.*** Land / plot on the said street / area may be made available by traders association, wherever possible, or acquired for construction of parking facilities, preferably, multi-level parking. Development of such parking facilities may be done by either the traders association or by local.	**APPROVED WITH THE FOLLOWING MODIFICATIONS**

	facilities may be done by either the traders association or by local.		

	Modification in MPD 2021 as per TOD norms		
S. No.	Existing Provision in MPD 2021	***Proposed Amendment***	***Recommendation***
Chapter – 17: DEVELOPMENT CODE			
	Clause 8(4) Parking Standards		
1.	Parking Standards have been prescribed in ~~each use premises however, where it is not prescribed, it will be followed as given in the Table 17.2.~~ i. In existing buildings having plot area of more than 2000 sqm., an extra ground coverage of 5% shall be permissible for construction of automated multi-level parking to provide dedicated parking structures for additional needs. ii. For the provision of car parking spaces, the space standards shall be as given in Table ~~17.3~~. iii. In the use premises, parking on the above standards shall be provided within the plot. **TABLE 17.2 (DELETED).** **Accordingly, amend Table 17.3 to 17.2**	Parking Standards for all use premises have been prescribed in ***12.13.2.*** i. In existing buildings having plot area of more than 2000 sqm., an extra ground coverage of 5% shall be permissible for construction of automated multi-level parking to provide dedicated parking structures for additional needs. ii. For the provision of car parking spaces, the space standards shall be as given in ***Table 17.2.*** iii. In the use premises, parking on the above standards shall be provided within the plot.	**APPROVED**
Chapter – 18: PLAN REVIEW AND MONITORING !			
	Table 18.1 Monitoring Framework for Development		
1.	<table><tr><td>Components</td><td>Units</td><td>Period of Monitoring</td><td>Phase I Upto 2011</td><td>Phase II 2011-2016</td><td>Phase III 2016-2021</td><td>Target Upto 2021</td></tr><tr><td colspan="7">I. POPULATION</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="7">II. NEW HOUSING</td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td colspan="7">III. PHYSICAL INFRASTRUCTURE</td></tr></table>	***Point VI: Transport shall be referred as per***	***APPROVED***

IV. SOCIAL INFRASTRUCTURE	*Annexure A.*	
V. TRADE AND COMMERCE		
~~VI. TRANSPORT~~		
~~VII. RESTRUCTURING ALONG MRTS NETWORK~~		
VIII. INDUSTRIES		

Meeting ended with vote of thanks to the chair.

(ASHOK BHATTACHARJEE)
Director (Plg.) UTTIPEC
Convener- MAG (Transport)

Copy to:

Chairman
1. Secy-cum-Commr.(Transport)GNCTD

MOUD
1. Addl. Secretary (UD)

DDA
1. Commr.(Plg.)
2. Addl. Commr.(Plg.)TC&B
3. Addl. Commr., MPPR
4. Ms. Romi Roy, Dy. Dir. HUPW/UTTIPEC
5. Ms. Mriganka Saxena, Sr. Consultant, UTTIPEC

Traffic Police
1. Jt. C.P.(Traffic)

PWD
1. Engr.-in-Chief

DTC
1. Chairman

DMRC
1. Director(Projects)
2. Chief Engineer (Plg.), DMRC
3. Chief Architect

Northern Railway
1. General Manager (NR)

DIMTS
1. Chief Architect

North MCD

1. Commissioner

East MCD

1. Commissioner

Experts

1. Ms. Bina Balakrishnan, Transport Consultant, Delhi
2. Prof. Sanjay Gupta, Deptt. of Transport, SPA
3. Ms. Anvita Arora, ICE, Delhi

Spl. Invitee

1. Sh. S.P. Pathak, A.C.(Plg.) AP & MPR
2. Ms. Sunita Narain, CSE
3. Director (Plg), MPPR
4. Dy. Director-I & II, UTTIPEC