PARKING POLICY IN KOLKATA METROPOLITAN AREA
PRESENT SITUATION:

- KOLKATA METROPOLITAN AREA (KMA), THE LARGEST METROPOLIS IN THE EASTERN INDIA, COVERS AN AREA OF 1851 Sq.Km.
- IT COMPRISSES OF 3 MUNICIPAL CORPORATIONS, 38 No. MUNICIPALITIES, 77 CENSUS TOWNS & THE RURAL AREAS CONTAINED 24 PANCHAYET SAMITIES.
- THE ESTIMATED POPULATION IN 2025 IS 21.07 Millions.
- THE GROWTH RATE OF POPULATION IN THE ADJACENT MUNICIPALITIES OF KOLKATA MUNICIPAL CORPORATION (KMC) AREA & HOWRAH MUNICIPAL CORPORATION (HMC) AREA IS MORE THAN THE COMBINED ESTIMATED POPLN. OF KMC & HMC.
TRAFFIC & TRAVEL CHARACTERISTICS IN KMA:

GROWTH OF REGISTERED FAST MOVING VEHICLES:
- The total no. of registered fast moving vehicles in KMC area in 2006 was recorded as 11.64 Lakhs.
- The estimated total no. of motorised vehicles in KMA would exceed 3.5 Millions by 2025.

SLOW MOVING VEHICLES:
- More than 30,000 slow moving vehicles ply within KMA to carry passengers.
- Bicycles are very popular mode of transport in the core areas as well as in the municipal towns within KMA. During the year 1996-'97 about 31.45% (i.e. 6.31 lakh) of the total households within KMA were having bicycles.

ROAD SPACE:
- The municipal areas within KMA have about 8% road space on an average.
- Out of the total 700 km. (approx.) road length of highways & arterial roads within KMA, the metropolitan centre is having about 500 km. road length.
JOURNEY SPEED:
- THE JOURNEY SPEED SURVEY (January - ’08) ON MAJOR ARTERIAL ROADS WITHIN KMA INDICATES THAT, THE VEHICULAR SPEED IN -
  a) 73% OF THE TOTAL ROAD LENGTH IS ABOUT 20 kmph.
  b) 21.5% OF THE TOTAL ROAD LENGTH IS ABOUT 20 - 30 kmph. &
  c) 5.5% OF THE TOTAL ROAD LENGTH IS MORE THAN 50 kmph.

MOVEMENT OF PASSENGERS:
- THE TRAFFIC & TRANSPORTATION MASTERPLAN FOR KMA INDICATES THAT, TOTAL 18.7 million PASSENGER TRIPS GENERATED DAILY IN KMA IN 2001, OUT OF WHICH -
  a) 11.7 million TRIPS WERE SERVED BY SURFACE TRANSIT MODES (bus, tram, minibus, ferry, chartered bus etc.)
  b) 3.4 million TRIPS WERE SERVED BY RAIL TRANSPORT (suburban rail, metro rail & circular rail).
  c) 3.5 million TRIPS WERE SERVED BY PARATRANSIT MODES (taxi, auto, cycle rickshaw, rickshaw, cycle van etc.)
- THE FUTURE ESTIMATED MOVEMENT OF TRANSIT PASSENGERS IN KMA INDICATES THAT, WITH A GROWTH OF 42.24%, THE DAILY PASSENGER TRIPS WILL INCREASE TO 26.6 million.

MOVEMENT OF GOODS VEHICLES:
- WITH AN EXISTING VOLUME OF 50,000 PER DAY, THE ESTIMATED VOLUME OF MOVEMENT OF THE TRUCKS, VANS & TEMPOS WILL EXCEED 64000 DAILY, IN 2015.
THE ON-STREET PARKING SURVEY CONDUCTED IN KOLKATA DURING 1997-'98 IN AND AROUND B.B.D.BAG-ESPLANADE AREA, PARK STREET, GARIOHAT & OTHER ADJOINING COMMERCIAL AREAS INDICATED THAT -

- ON AN AVERAGE DAY 4998 NO. OF VEHICLES WERE PARKED ON THE MAJOR ARTERIAL ROADS CONSUMING ABOUT 24 - 38% OF THE TOTAL CARRIAGEWAY.

- THE PEAK PARKING DEMAND IN THE OFFICE & BUSINESS AREAS LIES BETWEEN 12 am. TO 4 pm. AND THE SAME IN THE COMMERCIAL & CULTURAL AREAS LIES BETWEEN 4 pm. TO 8 pm.

THE PARKING SURVEY OF TRUCKS CONDUCTED IN 1995 IN BURRABAZAR AND OTHER ADJOINING WHOLESALE TRADING AREAS INDICATED THAT -

- 14 no. OF TRUCKS WERE PARKED ON THE SELECTED MAJOR ROADS IN THESE AREAS ON AN AVERAGE WEEKDAY DURING 12 noon TO 4 pm. CONSUMING EFFECTIVE CARRIAGEWAY WIDTH BETWEEN 41% TO 88%.

THE PARKING SURVEY OF TRUCKS IN THE KOLKATA DOCK AREA CONDUCTED IN 1999 INDICATED THAT -

- ON AN AVERAGE DAY 375 no. OF TRUCKS WERE PARKED IN AND AROUND THE KOLKATA DOCK AREA BETWEEN 12 noon TO 4 pm.
SITUATION IN HMC AREA & OTHER MUNICIPAL AREAS:

- In the Howrah Municipal Corporation area, acute scarcity of off-street parking facility generates lot of traffic congestion in the Howrah Railway Terminal area, office areas adjoining the district magistrate’s office, the Shalimar Railway Goods Terminal area & around the industrial areas in the Salkia, Shalimar, Lilua, Bally areas.

- In the remaining municipalities within KMA, acute scarcity of parking facility for different types of vehicles generates traffic congestion in specific locations like, railway station areas, goods sidings & adjoining areas, the district & sub-divisional head quarters, court complexes, major market centres, commercial areas, cultural areas, hospitals, regional bus terminals etc.

- In most of the areas outside KMC and HMC area the major facility centres are located on regional roads i.e. on state highways / district highways disrupts the movement of regional traffic.

- To go along with the state policy of decentralisation of population & activities serious thoughts action is very much needed for making the provision of parking facilities for different categories of vehicles in the municipalities within KMA and other municipal areas outside KMA.
FINDINGS OF THE STUDY CONDUCTED BY THE MINISTRY OF URBAN DEVELOPMENT, GOVT. OF INDIA:

- ON THE BASIS OF DETAILED STUDIES OF EXISTING TRAFFIC & TRANSPORTATION SITUATIONS IN 30 MAJOR CITIES IN INDIA, MINISTRY OF URBAN DEVELOPMENT, GOVT. OF INDIA PUBLISHED A REPORT ON THE "TRAFFIC AND TRANSPORTATION STRATEGIES AND POLICIES IN URBAN AREAS OF INDIA’ IN THE YEAR 2008.

- THE TRAFFIC STUDY EVOLVED SOME INDICES TO EVALUATE THE PERFORMANCE OF THE TRANSPORTATION SYSTEM OF THE CITIES IN A COMPARATIVE MANNER.

- THE STUDY OF ON-STREET PARKING INDICATES THAT, THE MAGNITUDE OF INTERFERENCES CREATED BY THE ON-STREET PARKING OF VEHICLES IN KOLKATA IS THE HIGHEST AMONG ALL THE CITIES AND FOR THIS THE ACTION IN TERMS OF REDUCTION OF ON-STREET PARKING OF VEHICLES IN KOLKATA IS VERY MUCH NEEDED.
NEED FOR A PARKING POLICY:

- Parking facilities are an integrated component of the road transportation system. Inadequate parking facilities act as deterrent to the movement of vehicular trips & act as hindrances to the proper functioning of urban activities.

- Provision of parking facilities impose financial costs, environmental costs, contradicts community development objectives for more livable & walkable communities.

- Abundant unpriced parking tends to increase driving and discourage the use of alternative modes.

- With the growth of population, activities and trip generations of various categories of vehicular traffic in the metropolitan area, a policy for generation of parking facilities need to be adopted to ensure the uninterrupted vehicular traffic movement along the major arterial roads & highways and also the dispersal of vehicular and pedestrian traffic in and around the areas of major trip generations.
PARKING POLICY SHOULD ENSURE THE PREPARATION OF COMPREHENSIVE PARKING PLANS BY THE URBAN LOCAL BODIES (ULBs) & THE ACTIONS TO BE UNDERTAKEN BY OTHER CONCERNED AUTHORITIES IN KMA FOR -

i) Provision of adequate off-street parking facilities within the individual premises as well as in the off-street parking lots to meet the increasing demand of various categories of vehicular traffic.

ii) Adoption of appropriate development control measures with incentives in F.A.R. to ensure & encourage the generation of off-street parking facilities.

iii) Formulation of rules and regulations for pricing, management and enforcement of parking facilities.

iv) Involvement of private sector in generation, management and enforcement of parking facilities along with the public sector.

v) Minimisation of parking demand for personalised vehicles by extension & augmentation of mass transit facilities and minimisation of parking demand for goods vehicles within the congested urban areas by relocation of wholesale trading centers from the core areas to the periphery with the construction of truck terminals alongside.
OBJECTIVES:

TO ACHIEVE IMPROVED TRAVEL CHARACTERISTICS BY MINIMISING THE DISRUPTIONS DUE TO ON-STREET PARKING OF VEHICULAR TRAFFIC & TO ENSURE THE PROPER FUNCTIONING OF URBAN ACTIVITIES, THE PARKING POLICY SHOULD AIM TO -

- Ensure the preparation of the Comprehensive Parking Plans by respective ULBs, in consideration of their Development Plans & Future Travel Characteristics in order to meet the short term as well as long term deficiencies in provision of off-street parking facilities for all categories of vehicular traffic.

- Involve other concerned Govt. Agencies in the creation of adequate off-street parking spaces as well as minimising the existing on-street parking in phased manner.

- Formulate uniform Rules & Regulations towards development, pricing, management and enforcement of parking facilities.

- Ensure the participation of private sector in developing public parking facilities.

- Initiate advance actions for minimisation of parking demand of personalised vehicles with the intensification of mass transit facilities & minimisation of the parking of goods vehicles in congested central areas.

- Provide technical & financial support to the ULBs for preparation of Comprehensive Parking Plans.
ACTIONS NEEDED TO ACHIEVE THESE OBJECTIVES:

GENERATION OF OFF-STREET CAR PARKING FACILITIES FOR ALL CATEGORIES OF NEW DEVELOPMENTS.

- Provision of appropriate number of car parking facilities for visitor’s cars / vehicles depending upon the use categories in a particular building / buildings.
- Introduction of incentive to encourage the generation of additional car parking facilities to be used as public car parking facility.
- Provision of parking facilities for transit & paratransit vehicles on a land owned by govt./local authority should be planned by the local authority at nodal locations.
- To ensure the generation of parking facility for paratransit vehicles and also widening of adjoining roads at specified nodal locations introduction of incentive in a particular plot in the form of additional floor space with the provision of minimum 10-15 No. of parking space and subject to the condition of free gifting the parking space to the ULBs/Civic Authorities.
- Encourage the provision of parking facilities for long duration in commercial, business & assembly buildings with the introduction of incentive in the form of additional floor space and it is to be adopted with the concurrence of the ULBs.
- Development control regulations should be adopted to avoid traffic disruption in the areas of commercial, business & assembly building uses.
ACTIONS NEEDED:

GENERATION OF OFF-STREET PARKING FACILITIES IN ALREADY BUILT-UP AREAS AT LOCATIONS OF MAJOR VEHICULAR AND PEDESTRIAN CONCENTRATIONS WITH -

- Provision of underground parking in nearest parks/public open spaces by construction of underground parking and retaining the park.
- Construction of multistoried parking structures having commercial activities over the existing bus terminals / depots.
- Mandatory provision of public parking facilities in the development control regulations in cases of redevelopment of existing structures and should be supplemented with the introduction of incentives in F.A.R.
- Reconstruction of buildings on public land in the CBD areas of Kolkata, Howrah and in any of the congested towns/locations within KMA.
- Construction of additional building on existing plots.
- Redevelopment of markets, sub-urban station areas etc.
- Immediate provision of car parking facilities in the CBD areas of Kolkata & Howrah.
- Provision of public parking facilities by the side of the highways/expressways at an interval of 3-4 km. If possible should be integrated with the petrol pumps.
- Provision of parking facilities in Kolkata port area & NSCB airport area.
RATIONAL USE OF EXISTING PARKING SPACES BY PRICING MECHANISM:

TO ENSURE MAXIMUM RETURN FROM THE PUBLIC PARKING SPACES THERE SHOULD BE DIFFERENTIAL RATES -

- FOR DIFFERENT CATEGORIES OF VEHICLES;
- ACCORDING TO THE DURATION OF PARKING;
- FOR CBD AND OUTER AREAS;
- FOR PEAK HOUR AND OFF-PEAK HOUR;

PARKING FEE SCHEDULE SHOULD BE PREPARED BY THE ULBs IN CONSULTATION WITH POLICE AUTHORITY.

PARKING FEE SHOULD BE REVISED AFTER EVERY THREE YEARS.
REGULATIONS FOR ON-STREET PARKING:

IN ORDER TO MINIMISE DISRUPTIONS & CONGESTIONS CAUSED BY THE ON-STREET PARKING SPECIAL ATTENTION IS NEEDED TO –

- MAXIMISE THE EFFECTIVE WIDTH OF CARRIAGEWAY;
- SELECT THE LOCATION OF ON-STREET PARKING SPACE;
- SELECT THE LOCATION OF ON-STREET PARKING LOTS ON MAJOR ARTERIAL ROADS & TRANSIT CORRIDORS;
- DELINATE THE ON-STREET PARKING LOTS WITH PROPER TRAFFIC SIGNS & ROAD MARKINGS;
- PROVIDE THE PARKING FACILITIES FOR DIFFERENT CATEGORIES OF VEHICLES;

IN COMMERCIAL AREAS & MARKET CENTRES PROVIDE MINIMUM AMOUNT OF PARKING FACILITIES FOR GOODS VEHICLES.
MANAGEMENT OF PARKING FACILITIES:

IN ORDER TO IMPROVE THE MANAGEMENT SYSTEM OF THE OFF-STREET & ON-STREET PARKING ATTENTION IS NEEDED TO PROVIDE -

- DIFFERENT PARKING ZONES FOR DIFFERENT CATEGORIES OF VEHICLES;
- PROPER PARKING GUIDENCE & INFORMATION (PGI)SYSTEM;
- APPROPRIATE SYSTEM FOR CHARGING AND COLLECTION OF PARKING FEES;
- PROPER CONTROLLING OF TRAFFIC MOVEMENTS TO AND FROM THE PARKING LOTS.
- EFFICIENT MONITORING & ENFORCEMENT OF REGULATION SYSTEM;
MINIMISATION OF PARKING DEMAND:

THE DEMAND FOR PARKING OF PERSONALISED MOTOR VEHICLES CAN BE REDUCED WITH THE PROVISION OF:

- EFFICIENT, ECONOMIC & CONVENIENT MASS TRANSIT FACILITY;
- HIGH CAPACITY RAPID TRANSIT SYSTEM WITH ELECTRIC TRACTION;
- RELOCATION OF THE WHOLESALE TRADING AREAS TO ENSURE BETTER FUNCTIONING OF THE CENTRAL AREA AS WELL AS THE TRADING AREA;

FOR PREPARATION OF THE COMPREHENSIVE PARKING PLAN PROPER TECHNICAL & FINANCIAL SUPPORT SHOULD BE EXTENDED TO THE ULBs BY THE STATE GOVT.
PRIORITY AREAS:
THE AREAS WHICH SHOULD GET PRIORITY FOR PROVISION OF OFF-STREET PARKING ARE:

- CENTRAL BUSINESS DISTRICTS OF KOLKATA & HOWRAH
- DISTRICT AND SUB-DIVISIONAL HEAD QUARTER TOWNS, COURT AREA & OFFICE COMPLEXES
- COMMERCIAL AREA AND SHOPPING ACTIVITY ZONES, FERRY GHATS
- CULTURAL AND RECREATIONAL CENTRES viz. CINEMA HALLS, THEATRES, ENTERTAINMENT COMPLEX, STADIUM, RELIGIOUS PLACES, FAIR GROUND etc.
- RAILWAY STATIONS, AIRPORT TERMINALS & MAJOR BUS TERMINALS
- WHOLESALE TRADING AREAS AND GOODS HANDLING ZONES, INCLUDING PORTS, DOCKS, FREIGHT HANDLING ZONES
- HOSPITALS SCHOOLS AND COLLAGES
- INTERMITTANT OFF-STREET PARKING FACILITIES FOR COMMERCIAL AND PASSENGER VEHICLES AT AN INTERVAL OF 3 - 4 km. ON EXPRESSWAY & HIGHWAYS WITH ANCILLIARY FACILITIES
ROLE OF CONCERNED AUTHORITIES:

FOLLOWING AUTHORITIES ARE RESPONSIBLE FOR MAKING OF GOOD AND EFFICIENT PARKING POLICY -

- URBAN LOCAL BODIES i.e. Municipalities, Municipal Corporation etc.
- DEVELOPMENT AUTHORITIES i.e. KMDA, HDA etc.
- PUBLIC VEHICLE DEPARTMENTS & ROAD TRANSPORT AUTHORITIES
- POLICE DEPARTMENT
- TRANSPORT DEPARTMENT
- PUBLIC WORKS DEPARTMENT
- URBAN DEVELOPMENT DEPARTMENT
- MUNICIPAL AFFAIRS DEPARTMENT
- RAILWAYS DEPARTMENT
- NATIONAL HIGHWAY AUTHORITY OF INDIA.
GUIDELINES FOR PROVISION OF PARKING FACILITIES IN BUILDINGS OF DIFFERENT OCCUPANCY: (a)

<table>
<thead>
<tr>
<th>OCCUPANCY TYPE</th>
<th>PROPOSED REGULATIONS FOR 1 CAR PARKING SPACE</th>
</tr>
</thead>
</table>
| Residential    | 1 Two-wheeler Parking Space for units of covered area < 75 Sqm.  
                 | 1 Car Parking Space for units of 75 sqm. covered area (C. A.) |
| Residential Complex of > 200 Tenements / 1500 sqm. covered area | 1 Car Parking Space (C.P.S.) for every 75 sqm. covered area +  
                 | 5% of the Plot area to be free gifted to U.L.B. for Public Parking Space |
| Business       | 1 Car Parking Space for every 75 sqm. of covered area |
| Business Bldg. of covered area > 5000 sqm. | 1 Car Parking Space for every 75 sqm. covered area +  
                 | 5% of the Plot area to be free gifted to U.L.B. for Public Parking Space |
| Mercantile (Retail) - Mercantile Bldg. of Covered area > 5000 sqm. | 1 Car Parking Space for every 50 sqm. of covered area +  
                 | Plot area equivalent to 10% of the covered area to be free gifted to the U.L.B. for Public Parking Space |
| Assembly (Eating House, Restaurants, Bars, Clubs etc.) - Hotel, Boarding House (General Category) | For Covered Area of > 100 sqm. 1 car parking space for every 50 sqm. Covered area  
                 | Minimum 2 car parking space  
                 | 1 car parking space for every 10 Guest Rooms |
|                | Contd. ...... |
GUIDELINES FOR PROVISION OF PARKING FACILITIES IN BUILDINGS OF DIFFERENT OCCUPANCY: (b)

<table>
<thead>
<tr>
<th>OCCUPANCY TYPE</th>
<th>PROPOSED REGULATIONS FOR 1 CAR PARKING SPACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assembly</td>
<td></td>
</tr>
<tr>
<td>* Hotels, Serviced Aprtms.</td>
<td>2 c.p.s. for every 100 sqm. of covered area/part thereof</td>
</tr>
<tr>
<td>- Theatre, Cinema, City Hall,</td>
<td>1 Car Parking Space for every 50 sqm. covered area + plot area equivalent to 10% of the covered area to be free gifted to the U.L.B. for Public Parking Space.</td>
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<tr>
<td>Dance Hall, Auditorium, Seminar Hall etc.</td>
<td></td>
</tr>
<tr>
<td>Institutional - Hospital, Nursing Hm. &amp; similar use</td>
<td>1 c.p.s. for every 50 sqm. of covered area/part thereof</td>
</tr>
<tr>
<td>- Institutional</td>
<td>1 c.p.s. for every 50 sqm. c.a. + plot area equiv. to 10%</td>
</tr>
<tr>
<td>Same use with &gt; 200 Beds</td>
<td>of the c.a. to be free gifted to the U.L.B. for P.P.Space</td>
</tr>
<tr>
<td>Educational (Primary Schl.)</td>
<td>1 c.p.s. for every 100 sqm. of c.a. + space for 1 Bus</td>
</tr>
<tr>
<td>- Senior Secondary Schools</td>
<td>1 c.p.s. for every 100 sqm. of c.a. + space for 2 Buses</td>
</tr>
<tr>
<td>- College, University, Trng.</td>
<td>1 c.p.s. for every 100 sqm. of c.a. + plot area equiv. to 10%</td>
</tr>
<tr>
<td>Inst. on land area&gt;10,0000sqm.</td>
<td>10% of the C. A. to be free gifted to the U.L.B. for Public Parking Space</td>
</tr>
<tr>
<td>Industrial Storage</td>
<td>For c.a. over 100 sqm. - 1 c.p.s. for every 100 sqm. c.a. + 1 Truck Parking Space for every 200 sqm. of c.a.</td>
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<tr>
<td>Wholesale Trading</td>
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</tbody>
</table>
GUIDELINES FOR SCHEDULE OF PARKING FEE IN KMA

(for on-street & surface Parking Lots)

<table>
<thead>
<tr>
<th>CATEGORY OF VEHICLE</th>
<th>DURATION</th>
<th>PARKING FEE IN Rs. / hr. IN ZONES WITHIN K.M.A.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBD of Kolkata &amp; Howrah</td>
</tr>
<tr>
<td>Two-Wheelers</td>
<td>1st. Hr.</td>
<td>5.00</td>
</tr>
<tr>
<td>(Mt. Cycles &amp; Scooters)</td>
<td>2nd. Hr.</td>
<td>7.00</td>
</tr>
<tr>
<td></td>
<td>3rd. hr. / more</td>
<td>10.00</td>
</tr>
<tr>
<td>Four Wheelers</td>
<td>1st. Hr.</td>
<td>10.00</td>
</tr>
<tr>
<td>(Cars, Vans etc,)</td>
<td>2nd. Hr.</td>
<td>15.00</td>
</tr>
<tr>
<td></td>
<td>3rd. hr. / more</td>
<td>20.00</td>
</tr>
<tr>
<td>Buses &amp; Trucks</td>
<td>1st. Hr.</td>
<td>20.00</td>
</tr>
<tr>
<td></td>
<td>2nd. Hr.</td>
<td>25.00</td>
</tr>
<tr>
<td></td>
<td>3rd. hr. / more</td>
<td>30.00</td>
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</table>
ULTIMATE GOAL:

THE GOLE OF THE PARKING POLICY IS TO ENSURE THE CONCERTEDE EFFORT OF ALL THE STAKEHOLDERS TOWARDS:

- Generating parking facilities for all categories of vehicles in a sustainable manner;
- Minimize traffic disruptions and congestions due to the on-street and uncontrolled parking of vehicles.
- Planned approach of the ULBs to meet the parking problems in their respective areas.
THANK YOU