

KOLKATA CAR PARKING SYSTEM



10.0 Kolkata Car Parking System

10.1 Context

Kolkata is the capital of the Indian state of West Bengal. It is located in eastern India on the east bank of the River Hooghly. As of 2001, Kolkata city had a population of 4,580,544, while the urban agglomeration had a population of 13,216,546. The Kolkata Municipal Corporation (KMC) area has registered a growth rate of 4.1% during 2001-11, which is the lowest among the million-plus cities in India. When referred to as Calcutta, it usually includes the suburbs, and thus its population exceeds 15 million, making it India's third-largest metropolitan area and urban agglomeration as well as the World's 8th largest agglomeration.

10.2 Situation before Implementation of the Project

10.2.1 Problems and Needs Addressed by the Project

Central Kolkata, particularly the New Market area near the KMC Head Office, is a very busy commercial zone with narrow streets and roads. The Lindsay Street, part of this locality and a very busy place with a market, shops and vegetable vendors around, is one of the most congested roads in terms of traffic. The problem was further aggravated by haphazard, unruly parking that led to serious traffic jams sometimes even resulting in brawls.

10.2.2 Reason for Adoption of Particular Parking Project

Parking in central Kolkata, the heart of this mega city, has always been a hassle as is the case with most inner city areas. The traffic woes are a source of concern, not only for the owners of vehicles but also the pedestrians. In an attempt to mitigate the situation, the KMC decided to utilize the rights to the space underground and undertake the parking project as a PPP (Public-Private Partnership) project on a Build, Own, Operate and Transfer (BOOT) basis.

The project benefited all the stakeholders – the KMC, the construction company/contractor (also known technically as the concessionaire) and most of all, the car owners and the harassed pedestrians – all in a most sustainable manner. The uniqueness of the project lies in the two direct car lifts for drivers to take their cars to and out of the parking lot.

10.3 Description of the Project

i) Project Description

There are two levels of basement in the system, of which the upper basement (Level-1) has been utilized for the purpose of commercial development while the lower basement (Level-2) is exclusively used for the car parking. This was a double-concession BOOT project, one for Level-1 and the other for Level-2.

Underground Level - 1: Commercial Development

To make the project self-sustaining and as part of BOOT arrangement, the KMC granted permission to Simplex to construct and lease out the commercial blocks on a long term basis on mutually agreed terms and conditions. Simplex pays the lease rent as well as basic rent. It was granted the right to enter into a lease agreement with the prospective trader ('lessee') for an initial period of 60 years during which it will collect the lease rent (the lease agreement is renewable in blocks of 30 years). The KMC collects the basic rent directly from the lessee for the period of the lease.



Figure 10.1: Underground Shopping Arcade Simplex Mall on Level-1

Underground Level - 2: Parking Lot

On the basis of entry and exit to the parking area, the mechanics of movement of vehicles from the surface to the parking bays is of two categories: shuttle dolly system and palette shifting system. Each palette is 6 meters in length and 2.5 meters in width.



Figure 10.2: Movement of vehicles from surface to Level-2 parking bays

The type of elevator also varies accordingly, blocks 1-3 and 5 have hydraulic elevator, while block 5 has provision for an electric elevator. The movement of vehicles, from the time it is set on the palette at the ticketing counter on the surface to being taken to level 2 and placed in the parking bay is fully automated and works more or less on the principle of a jigsaw puzzle. The ticketing is also done with the help of SCADA (Supervisory Control and Data Acquisition) software, where each entry of vehicle is marked with a Unique Identity Number given in a card to the vehicle owner. Database of every car is maintained by feeding in the car and license number. This is used daily to check revenue generation.

At the expiry of the concession period of 20 years, the parking system will be handed over to the KMC. After the expiry of such a period, Simplex may undertake to execute an annual maintenance and operation contract with the KMC on mutually agreed terms and conditions. At that point of time, and as per the agreement, Simplex shall train, free of costs, a maximum of 4 Engineers or qualified personnel nominated by the KMC to manage and maintain the system. This will be done during the period of 12 months prior to the expiry of stipulated period (notified in advance to KMC) to enable smooth hand over of the system.



Figure 10.3: Types of Parking: a) Palette Shifting and b) Shuttle

Goals of the Project

- To provide multi level underground car parking system at Lindsay Street on BOOT basis.
- To provide commercial complex at same place.

ii) Strategy Used to Achieve the Desired Goals

The PPP parking project was conceptualized as a two-part BOOT project with two concession periods – one for the parking system and the other for the commercial complex (both underground). The overland portion was converted into a pedestrian plaza.

KMC is the owner of the stretch of land along Lindsay Street Opposite New Market, with all underground rights thereof. It offered the concessionaire, Simplex projects, the right to construct the parking system including the shopping complex at that location.

iii) Activities Implemented to Achieve the Desired Goals

The KMC has allowed Simplex to impose and collect the parking charges for all the vehicles parked within the system on a mutually agreed terms and conditions. Simplex pays the KMC, 5% of the gross annual revenue earned from parking for the concession period of twenty years.

If Simplex makes any profit after meeting its expenses towards loan servicing, debt obligations, provision for all liabilities, contingencies, including the operation and maintenance cost but excluding payment of all dividends, then on availability of cash profit, the KMC would be given an extra bonus of 10% of the said profit.

Simplex has been given the right to put up advertisements in the form of show-windows, kiosks and other such formats of advertisement at no extra costs. The KMC has prohibited ‘on-street parking’ in the ‘zone of influence’ around the system and within a radius of 100 meters. This ensures that the people use this parking facility and in order to decongest the Lindsay Street locality.

iv) Role and Activities of the Partner

The KMC and Simplex Projects entered into a BOOT agreement for a period of 20 years for the parking system. All architectural designs and drawing were approved by the KMC. The technical design was from Holland from where engineers from Simpark took training.

v) Important Stakeholders Involved and Communication / Networking Procedure for the Project are

- KMC
- Simplex Pvt. Ltd.

10.4 Factors of Success

- 250 parking slots in the underground parking system at L-2 level.
- Market complex at L-1 level with 200 shops on lease; the premium goes to the Concessionaire as charged by him.
- The pedestrian plaza on the ground is a bonus for the pedestrians.
- Street parking is no longer allowed on Lindsay Street, the traffic jams have become a thing of the past.

10.5 Budgetary Implications and Sustainability

i) Total Cost of the Project

The Cost of Project is ₹ 36 crore (approx.) and is to be borne by the Concessionaire (Simplex Projects).

ii) Source of Finance for Sustainability of the Project

Parking Fee: Rs 10/- per hour (with a provision of discount for long-term parking) – to be collected by Simplex. KMC will get 5% of the parking revenue from Simplex Projects for 20 years until handing over of the project to KMC. This will generate estimated annual revenue of Rs 5 lakh for KMC. Besides, the KMC will get Secondary Basic Rent @ Rs 60/- per sq m per quarter (subject to upward revision by 10% after every five years) from the commercial space. This will generate an annual revenue of Rs 9, 20, 000/-.



Figure 10.4: Underground Parking Bay that can accommodate 250 cars in 5 blocks

10.6 Impact of the Initiatives

A public-private partnership model on BOOT basis has many advantages. Over a long concession period, both the BOOT operator and the KMC are bound to earn revenues and even profits. More importantly, a very sensitive issue of traffic has been resolved on a particularly busy street.

- 1) PPP models of partnership in infrastructure development form the most sustainable approach for a city government that most often has a resource crunch both, in terms of finance and in terms of engineering staff.
- 2) Public service provided by a local government can also become an alternative source of additional revenue.
- 3) Underground development can be an alternative where ground level space is scarce, especially in all mega cities.

10.7 Summing Up

In order to solve haphazard, unruly parking of vehicles at the Lindsay Street of Central Kolkata, KMC decided to utilize the rights to the space underground and undertake the parking project as a PPP (Public-Private Partnership) project on a BOOT (Build, Own, Operate and Transfer) basis.

There are two levels of basement in the system, of which the upper basement (Level-1) has been utilized for the purpose of commercial development while the lower basement (Level-2) is exclusively used for the car parking. This was a double-concession BOOT project, one for level 1 and the other for level 2. The overland portion was converted into a pedestrian plaza.

To construct and lease out the commercial blocks on a long term basis, KMC has granted the right to Simplex Pvt. Ltd (private sector) to enter into a lease agreement with the prospective trader ('lessee') for an initial period of 60 years. During this period, it will collect the lease rent (the lease agreement is renewable in blocks of 30 years). The KMC collects the basic rent directly from the lessee for the period of the lease.

The KMC and Simplex Projects entered into a BOOT agreement for a period of 20 years for the parking system. KMC has allowed Simplex to impose and collect the parking charges for all the vehicles parked within the system on a mutually agreed terms and conditions. Simplex pays the KMC, 5% of the gross annual revenue earned from parking for the concession period of twenty years.

The aforesaid PPP based model has many advantages as over a long concession period, both the BOOT operator and the KMC are bound to earn revenues and even profits. It may be treated as most sustainable approach for a local government that has a resource crunch both, in terms of finances and in terms of technical / engineering means. Moreover, underground parking can be one of the alternatives where ground level space is scarce, especially in megacities.