PLANNING FOR REDEVELOPMENT OF CENTRAL JAIL AREA

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by

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PLANNING FOR REDEVELOPMENT OF CENTRAL JAIL AREA

A project report

by

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# PLANNING FOR REDEVELOPMENT OF CENTRAL JAIL AREA

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1.1 INTRRODUCTION

During the Mughal period the present Central Jail was the administrative hub. After the British came into power in this part of the subcontinent, they had transformed it into a jail to imprison criminals.

The government has decided to shift the Dhaka Central Jail from its present location to Kanabari at Joydevpur Upazilla. The main reason behind this is the inadequacy of space and incompatibility of landuse in comparison to the surrounding areas in particular and to the city in general. This has provided an opportunity for redevelopment of the area.

1.2 BACKGROUND INFORMATION

The Dhaka Central Jail is located in old Dhaka. It is 0.28 km from the Sonargaon Road in the north and 0.55 km from the river Buriganga in the south. The main access from the east is by Nazimuddin Road and from the west by Bakshibazar Road.

The northern side of the study area (Badrunnessa College, Museini Daian, Alia Madrasah and Board Office area) is mostly of the institutional and academic type. In the south are mostly wholesale commercial areas like Chawkbazar, Beaubazar and Moulavibazar and the natural southern boundary is the Buriganga river with the major focus of activity located at the Sadarghat waterside area. In the east and west sides of the jail are mixed character of wholesale, retail and residential area. In the above described areas the population density is high, the buildings are mostly antiquated, non-accessible and congested.

The residential buildings were planned and designed with provision for courtyards to provide light and air. Unfortunately, in response to a growing rise in demand for building space and due to pressure of increasing population density, these spaces were used up as the sites of multi-storied buildings. As a result of this loss of space and also as a result of increasing population, the habitable condition of the area started deteriorating. The retail and wholesale trading character of the area invited increasing flow of population and transport in and out of the area. All the above conditions put a great deal of pressure on the utili-
ties of the area, resulting in total breakdown of the utility services as well as of the system.

The transport network of the old Dhaka area surrounding the jail is also antiquated and obsolete. The network is as old as this portion of the city which is about two hundred years old. The roads were built with horse drawn carriages and pedestrians in mind. Consequently, for the modern vehicles of today, the roads are narrow and cramped, leading to long periods of traffic jam.

The old Dhaka in the old days was the actual Dhaka city. It was the residence of Nawabs and the privileged classes. The consequent development was absolutely unplanned, leading to the present state of chaos and confusion. For example, most of the buildings of this area do not meet the requirements of the building laws and standards of the regulating authority. All development efforts were concentrated in the new town area and apart from a few service schemes no other major development schemes were taken for old Dhaka. Thus, the living conditions in old Dhaka started deteriorating and became congested. But surprisingly, deterioration did not discourage inhabitation in old Dhaka — it just continued to thrive.

1.3 LANDUSE PATTERN

The existing landuse has evolved considerably since the 18th century and the intensity of landuse has increased very much both horizontally and vertically. Nearly all possible horizontal development has taken place in the area and now this area has a very compact and intensive landuse. "...it is not possible to categorize old city into function areas as commercial, residential, etc. or divide residential areas into socio-economic categories" (Rizvi, 1975:457).

The surroundings contain a complete cross section of all types of urban activities — residential, commercial and cultural. The key landuses of the surroundings include several wholesale markets and bazaars which are of citywide and even of national importance, such as Chawkbazar and Moulavibazar. In addition there are several nearby smaller markets and wholesale centres which serve local and city needs.
MAP SHOWING EXISTING LANDUSES

FIG. 3
Other important landuses are godowns, banks, cinemas, schools and a number of mosques. To complete the picture, the entire area contains residential accommodation, many small shops, factories, and workshops.

The landuse pattern surrounding the Central Jail can be grouped as (1) Low density institutional landuse in the north, (2) commercial landuse in the south, and (3) mixed landuse in the east and west. These are discussed in detail below.

INSTITUTIONAL LANDUSE

This type includes institutional landuses like Huseini Dalan of historical importance, Badrunnessa Girls' College with its residential hostel, Dhaka Medical College hostel, staff quarters of Engineering University, Alia Madrasah, WASA sewage treatment area, and the Board of Intermediate and Secondary Education. Density of population is considerably low in this area.

COMMERCIAL LANDUSE

Under this category would come the different wholesale areas like

Chawkbazar  Situated in the south of the Central Jail and a centre of intense commercial activity. The area is dominated by wholesale business. Chawkbazar commercial area not only serves Dhaka city, it caters to wholesalers throughout the whole of Bangladesh. Major business items are plastic and rubber goods, textiles (rayon and cotton yarn), trunks and suitcases, aluminium, paints, stationery, paper cutting and printing, and many other commodities. Service facilities include hotels, restaurants and boardings. Chawkbazar is also crowded by hawkers and street vendors. More than 70 percent of the wholesale shops have underground storage space. The market is built up of small shops with narrow lanes intersecting the whole market.

Moulavibazar  Adjacent to Chawkbazar, well known as a food market, and has operated since the nineteenth century. Both perishable and non-perishable goods are offered here. The
MAP SHOWING BROAD CLASSIFICATION OF EXISTING LAND USE

FIG. 2
MAP SHOWING EXISTING ROAD NETWORK

FIG. 5
main foodstuffs: include all types of foodgrains, vegetables, fish, meat, and other food and cooking stuffs. All these items are sold both in wholesale and retail.

In addition to Chawkbazar and Moulavibazar a large volume of wholesale business is carried out along the main roads (e.g. Waterworks Road, Moghultully Road, etc.).

**MIXED LANDUSES**

These include retail shops, residential uses, banks, factories and workshops, hotels (both residential and non-residential), religious centres, etc. Along the wholesale business, retail shops are also found in the area. Most of the main roads, secondary roads, and even the lanes and by-lanes contain many shops.

Residential accommodation is scattered throughout the whole area. The residential density has increased very much in recent years in this area. Extensions have been built to the houses and many of these are now in multiple occupation where once they have contained only one or two families.

1.4 ROAD NETWORK

The road network of the area is as old as Dhaka city itself which dates back more than two hundred years. When the roads were built, these were designed only for pedestrian traffic and horse-drawn carts. Today the road network remains almost the same, but the type and volume of traffic has changed dramatically.

The access system consists mainly of a network of roads 12' to 15' wide, each side of which are rectangular. Sewage drains (which also carry storm flows in wet weather) usually overflow during periods of intense rainfall.

The important roads of the area are: (1) Nazimuddin Road: This 23' wide road on the eastern side of the study area is an important primary road which connects the study area to new Dhaka. This road is mainly used by trucks and other heavy vehicles for entry and exit to and from this area. This road is named as Jail Road while encompassing the Central Jail area and connects 25' wide Abul Hasarat Road from
the eastern side to serve the Bangshal area. The Jail Road connects Urdu Road (width 24') from the west and serves Chawkbazar area in the south and Palashi area in the west. The other access to this area is by Bakshibazar Road, 25' wide, which also serves this area with considerable importance.

1.5 SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

The Mahallas around the Central Jail are Ward nos. 14, 15, and 18 with a population of 17033 according to the 1981 census. There are 5927 houses of which 80 per cent are dwelling units and the rest are institutional and business or industrial units. Among the dwelling units, the structure of about 74 per cent are pucca, 22 per cent are semi-pucca and 4 per cent are kutcha. Housing conditions are poor, small in size, and congested. No uniformity has been maintained in the pattern of housing. There are little or no gap between houses and only a little space is available in front of a few houses. Population density is high, about 62.3 persons per acre. According to the 1981 census, 44.2 per cent of the people are literate. Unemployment rate is also very high -- about 27 per cent. Only 17 per cent are engaged in business and manufacturing and about 19 per cent are engaged in other types of activities. Data related to the socio-economic and demographic character of the area are presented in Appendix III.
2.1 LIMITATIONS OF THE STUDY

Despite my best efforts, resource and time constraints forced me to keep the scope of the project confined only to the study area. Hence, it is to be considered as a project considering mostly localized effects. However, since the area concerned is a part of the city, some observations that transpire from the study may have city-scale implication. Certain parts of the study rely on assumptions which ideally should have been founded upon actual surveys conducted specifically for the purpose of obtaining the required information. Again, this had to be done because of the time and resource constraints which precluded the possibility of conducting some surveys to support the project.

2.2 OBJECTIVES

Old Dhaka has been growing haphazardly due to lack of appropriate planning. The study area has been selected from the old part of Dhaka which is associated with many disadvantages. The main objectives of the study are:

(1) redevelopment of the land of Central Jail area with appropriate planning principles and harmonious develop-
ment with adjoining areas and their heritage;

(2) proposal of a future land use plan of the study area;

(3) improvement of accessibility of the area;

(4) improvement of accessibility of commercial areas in the south of the study area; and

(5) identification of social and economic problems of old Dhaka and minimizing that gap by providing space-bound services.
3.1 METHODOLOGY OF STUDY WORK

For a redevelopment project many factors should be considered to get reliable information related to the study. These factors are set looking on to the objectives of the study.

For this project work, secondary source was the main basis. Other than this, some primary observations and surveys were carried out to get into the study process.

INFORMATION FROM SECONDARY SOURCES

- Review and analysis of existing data to review information related to the project, commissioned or carried out by various government departments or private sources.
- To assess the socio-economic and demographic characteristics, employment needs and affordability of new accommodation and services.
- To review government policies and programmes for the study area.
- Setting of existing standards and costs for infrastructure and construction technology.
- Review of land use maps for the study area to ascertain land use maps under different uses of different periods; dominating land uses of the present period, changes in the land uses, existing road network system, and accessibility; topography, soil conditions, and natural drainage; environmental aspects, vegetation, local climate, etc.; potential for expansion.

INFORMATION FROM PRIMARY SOURCES

Observation of the study area and surroundings to get:

- Physical condition of the area
- Character and pattern of structures
- Dominating activity of the area
- Existing traffic and transportation system
INDEX

CONGESTION POINT

AFFECTED AREA

1. TAKKHAN LANE INTERSECTION
2. JAIL GATE INTERSECTION
3. BEGUMBAZAR INTERSECTION
4. CHAWK BAZAR INTERSECTION
5. CHAWK-SOARPIGHT INTERSECTION
6. URDU ROAD INTERSECTION

MAP SHOWING CONGESTION POINTS AROUND CENTRAL JAIL.
Traffic volume survey to get:
- Nature and pattern of traffic
- Dominating mode of traffic
- Congestion and its character
- Capacity in comparison to the width of the road

Discussion with local concerned people. It would help to get a clear perspective on different problems, demand for many services, and priority of the expected solutions.

Discussion with concerned organizations -- RAJUK ("Rajdhani Unnayan Kartripaksha"), UDD (Urban Development Directorate), and FWD (Public Works Department) -- to ascertain:

- Government programmes and policies
- Research work related to the matter
- Probable steps and strategies, both short term and long term

3.2 METHODOLOGY TO ACHIEVE GOALS

For the achievement of the goals of the project, several sequences and stages are necessary. These are:

- Setting of objectives
- Collection of information
- Analysis of information
- Identification of problems
- Appraisal of problems
- Selection of problems for consideration for proposals
- Setting criteria for analyzing demand, and
- Final proposal, which covers:
  - Impact of proposals
  - Phasing of the implementation
  - Implementation of the project
4.1 OBSERVATIONS

PHYSICAL CONDITION

A detailed observation of the physical condition of the adjacent area was done where notable features, elements, spaces, and situations were noted along with different activities.

The whole area is growing in an unplanned manner. Buildings and structures are mostly antiquated and deteriorating. Almost 90 per cent of the area is covered by structures which are not even habitable. Inadequate and poorly maintained water supply and electrical facilities are part of the common picture.

ROAD NETWORK SYSTEM

Road network systems are not appropriate for modern transport facilities. There is no footpath for pedestrians and no segregation of slow and fast traffic. Traffic jam is very common in peak hours. From observation it was found that the jam is obvious in front of busy landuses of important public interests, there is little or no parking facilities to receive or discharge the total traffic load at peak hours. Again loading-unloading facilities are insufficient in the whole area, specially in wholesale commercial areas like Chawkbazar, Begumbazar, Moulibazar. Trucks coming to and from Swarighat creates traffic jam in the whole area. There are taxi stands and mini-tempo stand near the jail area but that is not sufficient to support the parking of all such vehicles that serve the area. There is no rickshaw stand in the adjacent area, but rickshaws do stop wherever they like, creating congestion and confusion in the transport system.

TRAFFIC MANAGEMENT

Mismanagement is also a source of the traffic congestion, this was noted during the survey. Many unhealthy situations were observed in front of the on-duty traffic police. Specially the jam at night is due to the mismanagement of the traffic police. The loaded trucks on Chankharpool from Sonargaon Road is expected to enter through Nazimuddin Road to Chawkbazar, Armanitolâ and Swarighat after 8 p.m., but
TIME 8:00 AM TO 9:00 PM

IMPACT OF DIFFERENT MODES ON TRAFFIC
2 WAY TRAFFIC ON MONDAY AT JAIL ROAD

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Rickshaw</th>
<th>Baby Tr.</th>
<th>Push B.</th>
<th>Hand Cart</th>
<th>Hand Car</th>
<th>Trolley</th>
<th>Bi-Cycle</th>
<th>Motor Cycle</th>
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<td>AM 9-9:30</td>
<td>200</td>
<td>30</td>
<td>6</td>
<td>1</td>
<td>9</td>
<td>8</td>
<td>20</td>
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<td>404</td>
<td>30</td>
<td>18</td>
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<td>24</td>
<td>9</td>
<td>16</td>
<td>10</td>
<td>541</td>
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<tr>
<td>E-6:30</td>
<td>708</td>
<td>16</td>
<td>22</td>
<td>7</td>
<td>8</td>
<td>24</td>
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<td>32</td>
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<tr>
<td>in P.M.</td>
<td>354</td>
<td>16</td>
<td>56</td>
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<td>48</td>
<td>24</td>
<td>20</td>
<td>12</td>
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</tr>
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TRAFFIC VOLUME SURVEY

FIG. 8
trucks were seen to and from this area just after 7 p.m. creating severe congestion and traffic jam in Nazimuddin road in front of taxi-mini-tempo stand. The effect of this jam is traffic congestion in Armanitola, Chawkbazar, and Begumbazar area as well as Urdu Road and Bakshibazar Road. This jam clears up after 10 p.m. when activities of different types becomes almost dead except loading-unloading in the wholesale and waterfront areas.

4.2 THE COMPOSITION OF TRAFFIC IN THE STUDY AREA

The study area was built for horse drawn carts and pedestrians some two hundred years ago. In recent times the composition of the traffic has changed with the introduction of modern vehicles. The types of vehicles are categorized as: (1) motorized transports like trucks, pick-up vans, cars, auto-rickshaws, and motor cycles; (2) non-motorized transports like rickshaws, rickshaw-vans, bullock cart, push cart, and bicycle. Other than these, important forms of traffic are pedestrians and head-loaders.

The traffic composition displayed a number of notable characteristics. Firstly, nearly all types of vehicles were found to be present around the study area. The roads are generally very narrow, this suggested that there was a much greater potential for conflict between the modes, given the different speeds, sizes, and functions of the different vehicles.

Secondly, pedestrians and rickshaws formed overwhelming majority of the traffic. The total volume of pedestrian traffic was very high and it represented the most important single form of transport in old Dhaka. The rickshaw accounted for the maximum number of vehicles.

Thirdly, other motorized vehicles, i.e. cars and trucks, were very small in number.

The capacity of roads was reduced either due to the presence of potholes and sections of broken pavement, or by temporary and permanent obstructions like extension of business on the roads, I&T poles, water taps, telephone junction boxes, unauthorized construction, and so on.

The variation in traffic composition from road is due to
various reasons. A major reason why the different roads held different functions was because the landuse of the area influence the nature of the traffic on the road network. For example Urdu Road and Jail Road were more frequently used for passenger trips as people travel from old Dhaka to different parts of the city through these roads. The major mode of traffic is rickshaw for this area.

Nazimuddin Road acts as the main access to the old area and received all modes of transport to and from business, commercial and residential as well as other activity centres. At night there was an additional major mode, trucks.

The other reason why different roads held different functions and characterized with it a dominating mode of transport was because some roads were not suitable for certain modes of traffic. For example, Urdu Road is quite narrow and is almost unusable for trucks whereas it is quite suitable for lighter and smaller traffic such as push-carts and head-loaders.

The greatest traffic problem and congestion occur simply because the demand (volume of traffic) far exceeds the available supply (road space). To summarize, the main causes of traffic congestion are:

- Restricted supply and limited road space which can be caused by old and narrow road layout and poor road quality.
- Increased volume of demand, due to changed landuse and increasing concentration of road users at peak periods.

Other factors that have been found to influence the level of traffic in the study area are: weather conditions, seasonal variations, and special occasions like religious festivals, football matches, political rallies, etc. any one of which can create a sudden and abnormally high surge in the demand for mobility, and consequently the volume of traffic.

4.3 TRAFFIC VOLUME SURVEY

Congestions are expected to occur during the peak hours in the working days of the week. Beyond these peak hours the
congestion is likely to be less. Also, not all days of the week is expected to draw the same volume of traffic. The aim of this chapter is to determine the capacity of the Nazimuddin Road which is the main access to the Central Jail area. As a first step, a traffic volume survey was conducted by the researcher on a spot on the Nazimuddin Road.

Determination of the busiest day of a week: From observation and information gathered from local people, Monday was thought to be the busiest day of the week. On that a traffic count was taken for 30 consecutive minutes in every hour from 8:00 a.m. to 1:00 p.m. Two peaks were found. They were:

- A broad peak running from approximately 9:00 a.m. to 12:00 noon.
- An evening peak, running from 3:00 p.m. until 8:00 p.m., reaching its peak around 5:00 p.m.

At most times of the day, the number of pedestrians moving along the roads was very high and constituted a substantial part of the traffic, both in terms of numbers and road space occupied.

The highest numbers of pedestrians occurred during the evening peak period, around 7:00 p.m. Another distinct peak was between 9:00 a.m. and 12:00 noon.

Rickshaws constituted the dominant mode of traffic throughout the day. In the evening, however, the flow contained significantly higher numbers of large vehicles. Trucks enter these areas for business activities in the evening hours, this is one of the reasons of the change in the composition of traffic at the end of the day.

REASONS FOR PEAK HOUR RUSH

Morning peak hour owes its existence to the large number of people going to their day's work. As business and commerce are the key activities in the area, it is believed that a large number of the trips are connected with business purposes. The morning peak was observed to taper off upto 12:00 p.m. then fell sharply around 1:00 p.m. This mid-day-low in traffic continued upto 3:00 p.m. The reasons for abrupt fall
of traffic around this time is probably people taking off for lunch break, change in the drivers of rickshaws which ply on shift basis, etc.

The evening peak hour is due mostly to people returning home from work, school, or whatever other places of activities there are. This is also an active time for businessmen, both for traveling to work as well as going back after finishing their business. A large number of shopping, recreational, and social trips are made during the evening hours. The markets, shops, cinemas, restaurants, all are busiest at this time of the day. Thus one of the busiest times of the day for traffic in the surroundings of the study area was found to be the evening peak period starting approximately from 4 p.m. At this time of the day traffic is generated from a complete cross-section of purposes — business, commercial, shopping, and commuting.

4.4 OPINION OF CONCERNED ORGANIZATIONS

The general view of people working for different organizations associated with Dhaka's landuse or development plans appears to be that land should be utilized according to its economic value. In case of the proposed study area, demand for habitable living should be determined first. Secondly, land should be categorized according to priority of their requirement. Thirdly, use value of land should be converted to land value to judge the rationale behind the allocation of land.

4.5 OPINION OF THE LOCAL PEOPLE

They were very much concerned about the effect of congestion and its costs. At the same time they were keen to receive social and cultural facilities for them within the study area.
5.1 IDENTIFICATION OF PROBLEMS

DENSITY OF POPULATION

With comparison to an urban area population density is higher in the surroundings of the Central Jail and average household size (6.1) is again higher than that of the normal size of 5.8. Open space is almost non-existent and the area is cramped by antiquated structures of deteriorating condition.

TRAFFIC CONGESTION

The road network of this area is old and were designed only for pedestrian traffic, horses, and horse-drawn carts. The roads remaining the same, the volume and type of traffic has changed dramatically. The average road width, 9.3 m or 28', is inadequate in comparison to total traffic volume (pcu) in peak hours. Traffic jam is common in this area and two or three major jams within an hour is quite common. Traffic jams were found to occur in front of the traffic generating sources and landuses like girls' high school, parking lots, and loading-unloading areas in front of wholesale commercial areas like Chaukbazar and Begumbazar areas.

PARKING AND LOADING-UNLOADING FACILITIES

There are minibus, tempo, and auto-rickshaw stands but these are not enough to serve the purpose. Many off-street parking were seen creating congestion and traffic jam. There is no parking area for rickshaws and bicycles in the area. Rickshaws were seen parked all over the Nazimuddin Road, specially in front of Central Jail gate; without any discipline or order. Unauthorized parking of rickshaws are thought to be the main cause of jam during daytime hours.

TRAFFIC MANAGEMENT

At night at 8 p.m. the trucks are permitted to enter the area for loading and unloading purposes. As it is a peak time for other traffics to get in or out from their business, trucks which are supposed to get in the area at 8 p.m. are actually seen in the area just after 7 p.m. This has been observed to happen in front of the on-duty traffic police. Even trucks
were seen in the morning hours in the study area during traffic volume count survey. This management problem in fact helps creating a severe traffic jam on Nazimuddin Road upto Chowkbazar affecting the entire area till 10 p.m.

PEDESTRIAN WAYS

From volume survey we can see a large stream of pedestrians crossing the area where there is no footpath for them. Pedestrians suffer very much because of unregulated rickshaws and motorized vehicles. Sometimes, it becomes difficult to walk one step ahead because of traffic jam and short term hawking on the congested road in a jam situation.

OPEN SPACE FOR RECREATION

Open space for recreation is rare not only in the immediate surroundings of the study area, rather throughout old Dhaka. There is no playground or recreation area for children also.

WOMEN ACTIVITY

Women in adjacent areas want to take part in national progress. They want to participate in socio-economic activities of the country. There are few welfare centres for women of old Dhaka and adjacent areas. But these are all isolated and scattered. Moreover, women of these areas cannot use these facilities because of some social reasons.

COMMUNITY FACILITIES

Lalbagh Community Centre, the only one get-together place in the Thana cannot serve the demand of the area. People of old Dhaka honour their old culture and heritage. They want to attend and perform community services within the locality. Lalbagh Community Centre is equipped with a small gymnasium and library but not enough to serve the whole area in facilities and not even accessible from all parts of the area because of distance.

There are many mosques in different locations even just on the corner of Nazimuddin Road. Few of them are very old but they serve people nicely and their maintenance is also very good. A shrine named Makkusha Mazar is found on the Nazimud-
Jin Road. There are a few family graveyards. There is no Eidgah in this locality.

UTILITY SERVICES

The overloaded overhead electric supply network causes frequent power failure in this area. These overhead lines pass dangerously close to, or even traverse, buildings which is within the reach of danger.

A poor water supply system in old Dhaka area is not sufficient for the area. The supply system is a question of maintenance. Lack of pure drinking water is very common and so the scene of collection of water from street supply line is also a feature of old Dhaka. This is because the supply is not only inadequate, it is also very limited. Water is supplied for brief periods only twice a day.

It transpired from discussions with the local people that sewage disposal is grossly poor and surface drainage system becomes flooded during heavy rains. Sometimes latrines are discharged directly into surface drains. Open drains were found unmaintained, manholes with lids missing. People in general did not appear to be much conscious about health, hygiene, or environmental pollution.

HEALTH FACILITIES

The nearest maternity is located at Begumbazar. Though equipped with modern facilities, it is not sufficient to serve the people of the entire area. There is no other public health centre nearby.
### 5.2 ANALYSIS OF PROBLEMS

<table>
<thead>
<tr>
<th>ANALYSIS OF PROBLEMS</th>
<th>DEMAND/REQUIREMENT</th>
<th>PROBABLE SOLUTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>Residential</td>
<td>Housing to accommodate maximum population considering less than the present density.</td>
</tr>
<tr>
<td>Deteriorating condn. accommodation of structures</td>
<td></td>
<td>Present cost of construction of structures.</td>
</tr>
<tr>
<td>Utilization of open courtyards by structures</td>
<td></td>
<td>Walk-up limit of human beings.</td>
</tr>
<tr>
<td>Congestion and capacity of existing roads</td>
<td>Improvement of accessibility</td>
<td>Road widening by acquisition as per design.</td>
</tr>
<tr>
<td>Rickshaw as dominating mode of transport</td>
<td>Uninterrupted smooth movement</td>
<td>Consideration for Rickshaw in design.</td>
</tr>
<tr>
<td>A good number of pedestrian traffic</td>
<td></td>
<td>Segregation of pedestrian traffic.</td>
</tr>
<tr>
<td>Capacity of road reduced by temporary extension and permanent obstruction such as facilities extension of business, utility services, poor quality of surface</td>
<td>Addition / establishment of community facilities</td>
<td>Provide comm. facilities for an optimum size to have of control over the volume of traffic that can receive or generate.</td>
</tr>
<tr>
<td>Virtual non-existence of open area; little/no access to open spaces; lack of children's play area</td>
<td>Accessible open recreational area</td>
<td>Open air play area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Covered play area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Recreation open area considering a rational distribution and balance betw. other spaced related demand for old area.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Consideration of Funding.</td>
</tr>
</tbody>
</table>
Characteristics of old Dhaka -- Shop houses

Same character should be maintained to some extent in redevelopment area.

Part of new housing supply may be considered as shop houses.

Part of new commercial supply may be considered as shop houses.

Capacity of 20-bed Begum Bazar Maternity is insufficient to support the existing as well as proposed area.

Household size (6.1) is above normal (5).

Not conscious about taking care of health and hygiene.

Lack of accessible community facilities to support their heritage and socio-cultural activities.

Adequate Health facilities with proper management and furnishings.

Adequate community facilities.

Consideration of community facilities in the form of community centres, club, auditorium -- multipurpose hall, gymnasium and theatre plaza for different groups of people considering cost of construction and use value.
6.1 PRINCIPLES AND CRITERIA

At this stage of the study with all the information of research work in hand some principles can be set which will serve as guidelines for setting proposals for the redevelopment scheme. The proposal is set considering present understanding of socio-economic, cultural and academic aspects, information regarding utility services and facilities, recreational facilities along with environmental condition, law and order situation, and traffic and transportation system. Land value of the area, present cost of construction, and affordability of the local people for paying rent or buying flats are the major guiding factors for the proposal's final form. So, the broad principles set for this project are:

- achievement of a self-financing project;

- preservation of the character of the area and not considering any landuse which can altogether change the growth dynamics;

- to make the programme socially and politically more acceptable by incorporating an in-built rehabilitation programme for the affected persons;

- solution of space related social and community problems by providing respective facilities.

6.2 PROPOSALS

Though old Dhaka suffers from many problems and the people are deprived of many urban facilities, many of the problems are beyond the scope of the project. The problems related to space only can be considered to be solved within the study area. The other non-spatial problems will help in the planning process in providing adequate facilities within prior calculation.

Traffic, Congestion

Of the problems identified so far, the one deserving solution first is the traffic congestion problem. Steps necessary for these are primarily those relating to the development of an automated traffic control mechanism, and wherever possible, adequate manual measures to control the flow of traffic.
Road Widening

From observation and traffic volume survey it is evident that the existing width of most of the roads is grossly inadequate for the volume of traffic served. Roads and lanes of this area needs immediate widening, including provision for median-separated dual carriageway wherever possible. From traffic volume survey and from observation and analysis of background research materials we can say that, from capacity considerations, the present 29' average road width is grossly inadequate for supporting the present traffic load of 1224 p.c.u. per hour.

From the survey it was also found that the number of rickshaws were quite significant and also characterized as a dominating mode of transport in the area for the landed pattern and socio-economic class of people of that area at the present situation. So, considering both, recommendation is made for a 60' wide median separated two-way six-lane road with pedestrian ways on both sides. Out of the three lanes each side, two 6' wide lanes are suggested for rickshaw and other slow traffic, and the rest 11' is proposed for motorized transport to ensure uninterrupted traffic-flow. These three lanes are proposed for Nazimuddin Road starting from Chankharpool, straddling the Central Jail area in the eastern side through Chawkbazar Road, extending all the way to the riverfront. This proposal is made to serve the maximum traffic generating to and from the academic and business areas of the eastern as well as southern landsizes of the area. A median-separated two-way four-lane with footpath on both sides is proposed for the rest of the road surrounding the jail area to the west and the north. Instead of three lanes, two lanes in each side of the road is suggested considering the relatively fewer number of rickshaws in this part. In both the cases central reservations are proposed for physical separation, street lighting, and for the safety of the children, the elderly, and the otherwise handicapped people who might need to cross the road.

It is expected that the proposed expansion of the roads will improve accessibility of not only the study area but will also enable better traffic circulation in commercial and wholesale area of entire old Dhaka. With the improvement of
FIG. 10
accessibility of the area expansion of business of the area
is also assured.

A road shall be constructed to link the Begumbazar Road -
Abul Hasnat Road intersection and the Urdu Road - Kamal Daha
Road intersection. The portion of the site to the west
within these two connecting roads would be developed as a
pedestrian shopping plaza. On a part of this precinct, along
the road, a three-storied market would house rentable shops.
The ground floor shall remain free for parking and vendors.
The hawkers from the roads of Chawkbazar would be rehabili-
tated on this plaza with raised low-height platforms specifi-
cally designed for this purpose. The existing public toilet
would be shifted to a more discreet location, possibly within
the new market building.

The triangular site now occupied by the residences of the
jail staff would be developed as public activity places and
parking lot for the auto-rickshaws, 'tempo', and auto-trucks
that now park along the adjacent road. The Kamal Daha Road
shall be straightened to join the Orphanage Road intersection
directly, as shown in Figure (11).

Pedestrian Ways

From the volume survey and background studies it has been
observed that pedestrian traffic is significant enough to
warrant provision for separate footpath on all roads. Provi-
sion of footpaths, on both sides of the road, is strongly
recommended and proposed along with the proposal of widening
of road.

Parking Facilities

Recommendation is made to provide adequate parking space for
cars and rickshaws near all significant traffic generating
sources. At the same time steps should be taken to discour-
age on-street parking. To provide loading-unloading bays at
required spots, there should be separate bays for different
types of vehicles.
SECTION THROUGH THE SITE (A-A)
PROPOSED ROAD
(FROM CHANKHAR POOL TO SOARGHAT)

[Diagram showing proposed road dimensions and land allocation for various purposes, including footpath, drain, lane for rickshaws, and vehicular road.]

SECTION A-A

FIG. 13
Land Acquisition

As widening of roads is already recommended around the Central Jail to improve accessibility of this area, acquisition of land will be required from Nazimuddin Road upto the gate of the present Central Jail, part of Chawkbazar on the south, and from the reserved area of WASA on the north of the study area.

Resettlement

Persons displaced by the land acquisition programme may be resettled in the study area as far as possible without allowing the population density to exceed the desired level. In this connection, resettlement structures should be of the similar type and status to fulfill emotional and psychological needs of the resettled people. Allocation of the proposed land should be proportionate to that of the acquired land.

Acquisition of land of Nazimuddin Road from Chankharpool upto the jail gate is recommended to propose as commercial development along with proposed two-way six-lane road as shown in the map. This will help in giving a new commercial character to the area, at the same time can form a tie between old and new Dhaka as a gradual harmony.

Children Facilities

Children of the resettled population should be provided schooling facilities within the area so that movement to and from school does not have to include crossing of any busy thoroughfare. An associated requirement in the form of mother-club is recommended where mothers can accompany their school attending children at the same time can spend their time productively.

Reflection of Similar Character/Shop-houses

For the resettled people, planning should be done to reflect similar character of facilities of that of the vacated one. So shop houses and purely residential plots along with wholesale commercial plots are proposed for the study area.
In this connection it is important to consider that the density of population should not be allowed to exceed its present level. If it does, it will invite an additional volume of traffic, in turn creating congestion in the proposed area and its surroundings.

Apartments

After providing space bound posing services and facilities in the area, a step should be taken to provide housing facilities for the lower and middle income group of people of the area. Accordingly 5-storied walk up apartment are proposed.

Neighbourhood Shopping

For the resettled people, activities and places of daily necessities are also required. These are like shopping arcades. As this area has already a heavy demand for shopping and market facilities, these can be provided in a group and in a planned manner to provide services for the proposed area as well as extending service to the adjacent areas.

Mosques

Since there is an existing mosque in the study area and in addition a number of mosques are located around the site and are easily reachable even without crossing the road, there appears to be no need for an additional mosque. The existing mosque at the corner of Central Jail and Nazimuddin Road demands caution during acquisition for widening of road. To honour the religious sentiments, the mosque will have to be restored in an acceptable form. The mosque can either be relocated to the immediate adjacent location as shown in the map, or the mosque may be built straddling the road where the upper floor will remain as it is for saying of prayers.

Mazar

The existing Makkushah Mazar can be redesigned to form a traffic island with a low enough profile so that vision is not obstructed from any direction.
Civic Facilities

Civic facilities provided by the Lalbag Community Centre is not enough to support the area. As a result it is often necessary for local people to go out of the area for social and other occasions which, to them, is not entirely desirable. They are a tradition-following people who like to perform and celebrate their rites and rituals in their own area in their own manner. An auditorium with a multi-use floor can be proposed for their cultural programmes as well as social and religious occasions. Adequate parking space should also be provided along with this auditorium.

Wholesale Shopping Facilities

Begumbazar and Chawkbazar are wholesale market areas. We have seen the already narrow roads partly blocked by extensions of shops. From observation and discussions with concerned people it appears that an increasing demand for wholesale shopping is to be anticipated. In view of this we like to propose an integrated wholesale shopping area located just opposite to the existing market area.

Health Facilities

Only one maternity in Begumbazar area demands more similar and modern facilities for the existing area which will serve the proposed area too. Family planning, health care, centres are proposed to serve the population.

Green Areas

The existing high density residential area with less accessible open area demands for green space in the Central Jail area. This will serve as recreational area for all age groups. Existing ponds within the study area can be part of the whole development with its shape and size modified and adjusted with the total integrated landscaping. Plants of different species should be proposed to maintain a balance with the nature. One of the buildings from the maximum security unit, where many illustrious political personalities of the country have from time to time been detained, may be preserved in the park as a 'Jail Museum' as an added attraction. The park would act as a natural barrier separating the
residential area from the din and hustle of the commercial districts.

Facilities for Women

Women of old Dhaka are found to be eager for participating in the national progress. Though there are a few social welfare centres and other small centres for such activities, these are not adequate. In addition, sometimes these are not even accessible due to some social reasons. A centre where women can honourably participate in socio-cultural and economic activities is thus a necessity.

An integrated social welfare club or society should be provided for the women of the area which can cater to their recreational and educational needs. This club/society should also provide training facilities in occupations suitable for women. It is hoped that such a centre can be a useful institution for the economic and intellectual improvement of the womenfolk of the neighbourhood.

Walkways

Walkways barred to vehicular traffic should be provided within residential areas and to connect different services where vehicular access is not necessary. Green areas, play-lots, civic centres, etc. should be connected by uninterrupted pedestrian ways to ensure safety of the children and the handicapped.

Preservation of Historical Interest

Old Dhaka has its own name to reflect history but pays no historical value. Like other countries of the world, historical value should be considered in terms of inviting tourists to explain its own character, heritage, and style of the period. This has potential for national gain as well. Students of the academic sessions and citizens from all classes can enrich their knowledge to assess their position in the world history. So few elements, structures, and places should be preserved as objects of historical interest.

After a detailed study, it is proposed to preserve the gate of the Central Jail as the 'Gate' and main entry point to the
redevelopment area. Along with this date, a few adjoining structures can be preserved and renovated. Structures of historical importance, where threatened by the development, may be relocated elsewhere. The same applies to structures which may have some emotional value, nationally. As the central area is preserved as green space, the existing museum can be preserved. To give it a better focus, some landscaping development can be recommended along with the construction of a few decent sculptures fitting into the total harmony of green lawn and water body that constitute the surroundings.
WHOLESALE MARKET:

SECTION THROUGH A WHOLESALE MARKET/PARKING-LOADING-UNLOADING AREA

FIG. 15
ALLOCATION OF LAND USES FOR THE PROJECT AREA

The following table presents the proposed distribution of major land uses:

<table>
<thead>
<tr>
<th>No.</th>
<th>Land Use Description</th>
<th>Area (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td>Resettlement Scheme</td>
<td>9.3</td>
</tr>
<tr>
<td>B.</td>
<td>3-Storyed Commercial Land Use</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td>(wholesale shopping, office, parking and loading-unloading)</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td>4-Storyed Mixed Land Use</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>(shops, houses)</td>
<td></td>
</tr>
<tr>
<td>D.</td>
<td>6-Storyed Residential Land Use</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>1) 400-sft. walk-up apartments for lower middle income group (1.5 acres)</td>
<td></td>
</tr>
<tr>
<td>E.</td>
<td>Public Facilities</td>
<td>0.25</td>
</tr>
<tr>
<td>F.</td>
<td>Health Facilities</td>
<td>0.50</td>
</tr>
<tr>
<td>G.</td>
<td>Civic Facilities</td>
<td>2.00</td>
</tr>
<tr>
<td>H.</td>
<td>School and Mothers' Club</td>
<td>0.50</td>
</tr>
<tr>
<td>I.</td>
<td>Open Green Space/Playground</td>
<td>4.45</td>
</tr>
<tr>
<td>J.</td>
<td>Internal Road Network</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>32.50</strong></td>
</tr>
</tbody>
</table>

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### 6.3 COST ANALYSIS

In this section a cost analysis for the whole project is presented.

#### 1. COST OF THE PROJECT

<table>
<thead>
<tr>
<th>Item Description</th>
<th>No. of items</th>
<th>Total land in acres</th>
<th>Construction cost of structures/sft. (in thousands)</th>
<th>Total cost (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Road Widening</td>
<td></td>
<td>9.30</td>
<td>L.S.</td>
<td>121,777</td>
</tr>
<tr>
<td>2. Commercial Land use</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Wholesale Shopping</td>
<td></td>
<td>6.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Parking, Loading</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Mixed Land use</td>
<td></td>
<td>4.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Shop (102)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. House (102)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Apartments</td>
<td></td>
<td>3.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. 400 SFT Flats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(406 Nos.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. 800 SFT Flats</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Public Facilities</td>
<td></td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Health Facilities</td>
<td></td>
<td>0.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(700 Sft.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Civic Facilities</td>
<td></td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. School &amp; Mother's Club</td>
<td></td>
<td>0.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Open Green Area</td>
<td></td>
<td>4.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Internal circulation</td>
<td></td>
<td>2.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total cost of construction of structures = Total Taka 990,709

(for detail see appendix 1)
D. Utility facilities in the site: Site development cost including electrification, rain and surface water disposal, sewage disposal, boundary wall and gate, including gate, guard house.

- 5% of total cost: Taka 45,900

C. i) Contingency = 15% of total cost: Taka 137,800
ii) Overhead charges

D. Compensation of structures L.S. 600,000

Net cost of the project Total: Taka 1702,500

II. EARNING OF THE PROJECT

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description of item</th>
<th>Floor Area</th>
<th>Total cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Whole sale shopping and parking including circulation areas:</td>
<td>Sft. Taka '000</td>
<td></td>
</tr>
<tr>
<td>1) Possession money earned from office @ Taka 2000/8ft.</td>
<td>174240</td>
<td>348,480</td>
<td></td>
</tr>
<tr>
<td>2) Possession money earned from wholesale shopping @ Taka 4000/8ft.</td>
<td>261360</td>
<td>1045,440</td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Shop Houses: (including land cost @ 4lac/Kha)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Expected earning by selling 102 twin units</td>
<td></td>
<td>267,280</td>
<td></td>
</tr>
<tr>
<td>11) Expected earning by selling 102 shops</td>
<td></td>
<td>66,797</td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Appartment: (including land cost of 3 acres @ 4lac/Kotha)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) 6 storied 400 sft. 466 flats</td>
<td></td>
<td>152,939</td>
<td></td>
</tr>
<tr>
<td>b) 6 storied 800 sft, 243 flats</td>
<td></td>
<td>143,219</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2057,722</td>
<td></td>
</tr>
</tbody>
</table>
III Total earning by selling 0.96 Acres 34,800
25'-0" wide commercial plots at Nazimuddin Road.

IV Net earning of the project = 2058,800

V Balance of the project (IV - I) = 356,300
6.4 IMPLEMENTATION OF THE PROJECT

Once the planning is done, responsibility for implementation lies on different line agencies. To avoid unwanted delay in the development work, cost for that respective part will be compensated by the project itself. These line agencies will only be expected to deliver their expertise and assistance as an integrated part of the development scheme which can minimize the loss incurred by the "time factor" due to non-cooperation and unforeseen measures.

A coordinating cell may be created in this regard from the following departments or agencies:

1. Urban Development Directorate (Ministry of Works) for overall planning implementation.

2. Department of Architecture, Ministry of Works, for overall supervision and implementation of the various projects related to architecture.

3. Public Works Department for the construction and construction supervision of the project.

4. Municipal Corporation for the development of existing roads (local widening).

5. Water and Sewerage Authority (WASA) for the (i) water distribution and sewerage disposal network, (ii) external electrification, street lighting, etc., (iii) surface drainage system, (iv) waste disposal, etc.

6. Department of Forest for enhancing beauty by afforestation.

7. T&I for their related services.

8. Tilas Gas for the gas distribution system.

9. Department of Museum and Archaeology for the preservation of historical structures.

10. Local police station for considerations of law and order.
6.5 CONCLUSION

The people in the old areas of the city are deprived of many urban facilities and services. In many areas, even the basic services are either inadequate or absent. Many prosperous areas of the past have already turned into slums or will turn into slums in the near future if remedial actions cannot be undertaken now. However, financial constraints have been one of the major constraints to consider redevelopment programmes for any such areas. In this context, the present project provides a unique opportunity to undertake one such project. In absence of detailed information and limited survey works that could be undertaken, the project has been planned based on many pragmatic assumptions and limited evidences. When an actual project of this scale is undertaken, further investigations on these issues might prove to be necessary. The present exercise does, however, prove that a redevelopment project financially, politically, socially, and technically viable can be designed. The exercise also shows that the project may generate a surplus fund which can be used as a revolving 'seed' fund to undertake similar other projects in the old area. If this can be done then gradually the whole of the old area can be redeveloped in phases. One thing, however, requires to be developed before any such project is undertaken in practice. Administrative and managerial skills for these purposes are deficient with the present urban management institutions of the city. Acquiring such skills is essential for successful implementation of this type of project. Besides, as a large number of institutions are involved, a mechanism for their concerted efforts also requires to be devised.
APPENDIX - I  COST ANALYSIS

[All amount are quoted in thousand Taka]

A. Resettlement in Central Jail area:

1. Shop-House  = 1.72 acres
2. Shop-House  = 0.58 "
3. Road widening = 3.25 "
4. Jail area    = 3.75 "

Required area for resettlement in study area = 9.3 acres.

Expected cost:

B. Road widening

8.34 R.W + .96 Conn. sale = 9.30 acre at Nazimuddin road from Chankarpool unto Chawk Bazar 70' width, 60' width road around Jail Area, widening of Bakshi Bazar road & Chawk Bazar road unto river front.

Total 9.30 Acre (405108 sq ft.).

Cost of pavement construction including construction of central reservation, drain, foot-path and light (lump sum) = 121,277

C. COMMERCIAL LANDUSES : 5 acre (231350 sq ft.).

3 Storied Wholesale Market and Parking:

(a) Cost of construction of structure excluding parking.

261350 sft./Floor x 3.5x @ Tk. 350/sft. = 228,550

*Factor 2 for 2 floors 1/2 for ground floor (2 Acre for parking).

(b) Parking and load-unloading : Total 3 acres (130580 sq ft.).

(2 Acre from built up area & 1 Area for open area.)

Cost of construction : 130580 sft.@ Tk. 100/sft. = 13,058

34
D. MIXED USE 4.5 Acre (196020 sft.).

5-storied

Shop House:
Number of twin units = 102

*Each unit contains 8 shops (100 sft./shop) and 8 respective houses (400 sft./house).

Cost of construction including staircase

(a) Shop : 960 sft. X 102 @ Tk. 300/sft. = 29,376

(b) House : 960 sft. X 4 X 102 @ Tk. 500 sft. = 195,640

E. Apartment construction : 3 Acre (130680 sft.).

6-storied walk-up apartment.

a) Total 486 nos. flats, 400sft. each @ Tk. 500/sft. = 152,939
   including 50 percent of staircase.

b) Total 243 nos. flats, 800sft. each @ Tk. 500/sft. = 143,219
   including 50 percent of staircase.

F. Public facilities : 0.25 Acre (108090 sft.).

Cost of construction and installation of post office, fire
service, public toilet, telephone etc. L.S. = 2,000

G. Health facilities : 0.5 Acre (21780 sft.).

Cost of construction of 2 storied building including
furnishing = 7000 sft. X 2 @ Tk. 700/sft. = 9,800

H. Civic facilities : 2 Acres (87120 sft.).

Cost of construction of complete structures containing one
community centre, one gymnasium, one youth club, one
theatre, one auditorium including open plaza = 72,000

I. Schools and Mothers Club including nursery school, primary
   school, child care centre, library, art gallery etc. : 0.5
   Acre (21780 sft.).

Total construction cost including furnishing = 10,000

J. Green space : 4.45 Acre (193842 sft.) including children park
and play ground.

Site development cost = 5,000

K. Internal circulation : 2 Acres (87120 sft.)

L. Cost of pavement construction = 7,500

M. Utility facilities, contingencies and over head charges = 176,700

N. Compensation of structures = 600,000

Total cost = 1702,500

EXPECTED EARNING

C. Wholesale market and parking : 5 Acre (261360 sft.).

a) Possession Money for wholesale areas (1st floor)
(excluding 33% of 6 acres for circulation and 2 acre in ground floor for parking).
174240 sft. @ Tk. 5000/sft. x 1.5 = 1045,440

b) Possession Money from 2nd floor :
174240 sft. @ Tk. 2000/sft. = 348,480

D. 5 storied Shop House : 4.5 Acres (196020 sft.)
land cost Tk. 4 lac per katha.

a) Expected revenue by selling of 102 units
Each unit contains 8 flat in 4 floors
Cost of construction @ Tk. 3000/sft. including
50% of Stair case = 960x4x120x500 = Tk. 220,400,000
Cost (including land cost) / flat = Tk. 327,550

b) Expected revenue by selling of shops. Each
twin unit contains 8 shops. Cost of construction
Tk. 3000/= per sft. Cost of Construction
of 102 twin shopping units = 260 x 120 x 300 =
29376000. Cost (including land cost) per flat
= Tk. 81860.
E. Apartment selling : 3 Acres (130680 sft.)
land cost Tk. 4 lac / Katha, cost of construction Tk. 500/sft.

a) 400 sft. flats 486 nos. including 50% of stair case =
486 x 500 x 486 = Tk. 115,640,000
Cost including land cost/flat = Tk. 314,690

b) 800 sft. flats 240 nos. cost of const. of
240 flats including 50% of stair case =
Tk. 106,320,000

Public facilities : .25 Acres (10840 sft.)

Revenue/year.

G. Health Facilities : .5 Acres (21780 sft.)

Revenue = Nil.

H. Civic Facilities : 2 Acres (87120 sft.)

Expected Revenue will balance the maintenance.

I. School and Mothers club : .5 Acres (87120 sft.)

Expected Revenue = Nil.

J. Green space : 4.45 Acres (193842 sft.)
including children, park and play ground.

Expected Revenue = Nil.

K. Internal circulation : 2 Acres (87120 sft.)

Expected Revenue = 0.0

L. Commercial land selling on Nazimuddin Road = 34,800

Taka (thousands) = 2058,800

However, it may be mentioned here that in terms of rent from the
commercial landsuses an estimated taka 1.5 lac will be collected
as annual rent which will increase in the subsequent years. This
money may be utilized for the maintaining and paying taxes and
rates to different national and local government agencies.
APPENDIX - II  ALLOCATION OF LAND USES AT CENTRAL JAIL AREA

Land in Acres

A. Resettlement Shop Houses : Shop - 1.72 acres
Scheme Houses - 0.50 acres

Road widening (upto
National - Jail Rd. - 3.75 acres
Road widening,
Chowkbazar - 5.60 acre - 3.25 acres

9.30 acres

B. Commercial Office Wholesale Parking
Land Use acres acres acres

| 3-STORIRED | 1st floor | 4.0 | 6.00 |
| 2nd floor | 4.0 |

Total 4.0 6.0 3.0
(Excl. circ.)

C. Mixed Shop Houses
Land Use

| Shop-Houses | Ground | 2.25 |
| 1st floor | 2.25 | 4.50 |
| 2nd floor | 2.25 |
| 3rd floor | 2.25 |
| Total 2.25 6.75 |
(Excl. circ.)

D. Apartment (A) Ground 81

For 400 1st floor 81

sft. 2nd floor 81

lower 1.5 3rd floor 81

income acres 4th floor 81
group 5th floor 81

6-STORIRED

Total flats 400 no. of 3.00
Excl. cir. (50%) flats

Apartment (B) Ground 41

For 800 1st floor 41

sft. 2nd floor 41

lower 1.5 3rd floor 41

income acres 4th floor 41
group 5th floor 41

6-STORIRED

Total flats 245 no. of
Excl. cir. 50% flats
of total

38
| E. Public Facilities          | Public toilets  |
|                             | Telephone Booth |
|                             | Fire Service    |
|                             | Post Office     |
|                             | Bank            |
| F. Health Facilities        | Maternity       |
|                             | Family Planning Clinic & Training Centre |
|                             | Immunisation Centre |
|                             | Mother & Child Care Centre |
| G. Civil Facilities         | Community Center |
|                             | Gymnasium       |
|                             | Youth Club      |
|                             | Theatre and Plaza |
|                             | Auditorium      |
|                             | Private Parking |
| H. School & Mothers Club    | Primary School for |
|                             | Nursery School  |
|                             | Child Care      |
|                             | Library         |
|                             | Art Gallery     |
| I. Green Space              | Museum, Water, body and sculptural garden and football ground |
| J. Internal Road Network    |                |
|                             | 2.00            |
| Total                       | 52.15           |
APPENDIX - III SOCIO-ECONOMIC & DEMOGRAPHIC CHARACTER
OF WARD NO: 14, 15 & 18

**TABLE-1**

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<thead>
<tr>
<th>Ward No.</th>
<th>Total</th>
<th>Jotal</th>
<th>Kutchca</th>
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**TABLE-4**

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