

Chapter – 3

DEVELOPMENT PLAN PROPOSALS

3.1 Introduction

Chapter -3 describes the development proposals made for the planning area. In this process, due references have been made to the policies of higher level plans.

3.2 Abiding Policy Frameworks of Higher Level Plans

Planning principles and planning standards are two important indicators in the design process for the planning area. Planning standards may differ from area to area and region to region. Planning impact depends on existing situation of the land characteristics and land value as well. The involved principle addresses two distinct situations like existing urban area and new urban area. Special attention has been given to manage development of existing urban areas, fringe areas and new urban areas. New urban areas and fringe areas development is not as fast as existing urban areas. Planning principles and standards are necessary for controlling density and creating effective landuse in future. Different measures may be taken to match the existing landuse in respect of required facilities and services.

All design principles and standards are not applied in right way, rather these4 are mentioned as reference or target. Success of implementation of the plan can be achieved through cooperation of local inhabitants, developers and depends on availability of budget. Rate of future urbanization, availability and value of land, future size of population, environmental quality and future needs of the targeted population are considered to optimize the use of land. Relevant Structure Plan, Urban Area Plan and Dacca Master Plan of 1959 has been considered as a basis and guideline of this Detailed Area Plan (as prescribed in the ToR). Sequential discussion on those guidelines are illustrated in the following paragraphs.

3.2.1 The Dacca Master Plan (1959)

The Dacca Master Plan was prepared in 1959 by the then Dhaka Improvement Trust (DIT) covering roughly 220 square miles, with a population slightly exceeding one million. Dhaka Metropolitan Development Plan superseded this plan for period of 1995-2015, but it still remains to be the legal basis for controlling development in areas covered by the Dacca Master Plan.

3.2.2 Dhaka Metropolitan Development Plan (DMDP)

The Dhaka Structure Plan (1995-2015)

The Dhaka Metropolitan Development Plan (DMDP) was a three-tier plan package, covered Structure Plan, Urban Area Plan and Detailed Area Plan. The DMDP Structure Plan provides a long term strategy for 20 years (1995-2015) for the development of the Metropolitan area of 1528 sq km, and the Urban Area Plan provides a mid term strategy for 10 years (1995-2005) for development within the RAJUK's jurisdiction. Out of the above-mentioned three components, Structure Plan and Urban Area Plan were completed in 1995.

The DMDP Structure Plan provides a long-term strategy for 20 years from 1995 to 2015 for the development of the greater Dhaka sub-region. The different issues and strategies relating to transport are indicated below.

Major Characteristics and Issues of Dhaka's Transport System

Regarding the characteristics of Dhaka's transport system, following issues were identified in the Dhaka Structure Plan (1995-2015):

1. Dhaka's traffic conditions are characterized by a conflict in the use of available road space through different modes. There is a poor institutional and regulatory framework absolutely reluctant to enforce existing legislation. Due to lack of enforcement, capacity of existing roads has been reduced. The Dhaka Integrated Transport Studies (DITS) of 1994 concluded that traffic management is so ineffective that further road investments will be of limited value until there is a demonstrable improvement in enforcement
2. Road hierarchy is poorly established and most new development is taking place without any coherent road system planning. As population grows in the urban fringe areas and as car ownership and traffic densities increase, accessibility is deteriorating fast. With every new phase of peripheral urban growth, especially in the east, ability of such urban fringe areas to function at levels of even minimal efficiency are getting increasingly compromised. Planning and safeguarding access to new and rapidly growing urban fringe areas and securing and protecting Right-of Ways (RoWs) for other infrastructure and services development should be the major priority of RAJUK and other concerned agencies.
3. Dhaka is still one of the least motorized cities in the world and proportion of all travel by motorized vehicle is low. The DITS estimated that 74% of all work trips are on foot and by rickshaws. Public transport system in Dhaka is poor and disorganized, with limited coverage; human powered transport is an inadequate form of transport for long distance movement. Mobility levels are also low, most workplaces and homes are still in close proximity. Without major transport changes, assuming these could be afforded, future shape of the city will still be constrained by the need of most people to live near to their workplaces. As the majority of the urban population is poor, any extensive outwards growth of the city will be constrained in favour of inner city densities.

To boost up the peripheral and satellite expansion and to ease transportation problems of the urbanized areas, the DMDP Project management cell has prepared infrastructure scheme for 20 years time frame. Scheme for the aforesaid period has been phased as Short Term (1995-2000), Mid Term (2000-2005; 2005-2010) and Long Term (2010-2015) perspectives.

Policies relating to transport sector advocated in the DMDP Structure Plan, derived largely from the Greater Dhaka Metropolitan Area Integrated Transport Study (DITS). The reason being the DMDP study team having worked very closely with DITS for two years during the period from March 1992 to February 1994. Long-term road and rail networks were developed by DITS and DMDP study teams, although the evaluations and pre-feasibility studies which DITS subjected these networks to, were limited mainly to medium term timeframe of the DMDP Structure Plan i.e. up to year 2005. The networks described in DMDP Structure Plan, was therefore regarded as projections of those tested DITS.

Objectives of the DMDP Structure Plan are long-term road development strategy to establish a long-term primary road network for the metropolitan area, which will effectively serve the needs of the growing urban population of Dhaka, by providing improved access to the main urban area itself and linkages to areas with higher potential for growth. Improved road communications, it was anticipated, will make a positive contribution in promoting urbanization in the growth areas proposed in the DMDP Structure Plan. Some of the major strategies recommended by the DMDP Structure Plan to promote planned and guided development included, among others, the following:

DMDP Structure Plan called for an **infrastructure led development** program, which would require major public sector initiatives in the key areas of flood protection / drainage and road development, and the protection of future Right-of-Way (RoW) and infrastructure reserves. In the existing built-up areas, such works would be essentially remedial, catering for *in situ* growth. In the new development areas however, flood protection measures and road development would be the main instruments for the promotion of growth. To implement this strategy, the Local Government Planning Authority would seek to promote, through the DMDP Structure Plan, an orderly sequence of

new area development by means of mutually reinforcing and coordinated public sector investment programs spearheaded by drainage, flood protection and transport development (**Map-3.1**).

Table-3.1: Strategic roads proposed in the higher-level plan

Sl. No.	Name of the roads	Cost in Tk. Lac.	1995-2000 (Short Team)		2000-2005 (Mid Team)		2005-2010	2010-2015 (Long Team)	Implementing Agency
			UD	9935	COM	3315			
M2	Part of eastern by pass-from Demra to Ujanpur Via Baburjayga Baraberaid Patira and Nayakhol 21 km	13250	UD	9935	COM	3315			RHD
M2A	Part of Eastern by pass-from Ujanpur to Majukhan via Nandibari 3.5 km	1225	UD	920	COM	305			RHD
M2B	Part of Eastern by pass-from Majukhan to Kuniapasur via Hyderabad (To intersect Dhaka-Mymensingh Road) 5.0 km	1875	UD	1406	COM	489			RHD
M2C	Part of Eastern by-pass from Kuniapasur to Chadara 2.0 km	750	UD	565	COM	185			RHD
M5A	From Baraberaid to Western Bank of Lakhya river near Dakshin Nabagram 4.2 km	1575	UD	1180	COM	395			RHD
M5B	From Eastern Bank of Lakhya river near Murapara to Dhaka-Sylet Highway near Bhulta market (Barurhat) 4.0 km	1400	UD	1050	COM	350			RHD
M7A	From first Balu Bridge near tek Noadda to Shitalakhya river near Brahmankhali 6.0 km	1950	UD	1450	COM	490			RAJUK

Note : UD=Under Development; COM=Completed; RHD=Roads and Highway Department.

RAJUK= (Rajdhani Unnayan Katripakkhya)

Incremental Network Development

In pursuance of the proposed long-term road transport network, the concerned Planning Authority would seek to promote an incremental approach to its overall development, as a means of conserving resources and being responsive to proven demand for the service being offered. This policy would help to utilize limited resources in the most cost-effective manner over a sustained period of time.

Ensuring, via the development control process, that Right-of-Way (RoW) reserves are maintained free from development, even prior to land acquisition for initial road development and to assist both property owners and control officers in knowing physically where RoW exists, it was recommended by the Structure Plan that the reserves should be pegged out on the ground, once an alignment had been determined.

Major Road Development Program

A total of 217 km. roads were programmed for construction to meet the following purposes:

- To provide diversions for the national grids;
- To provide infrastructural facility for urban dispersion; and
- To provide east-west intercity connection for reducing core city traffic congestion.

One of the most important link recommended for construction was a limited access to the *Dhaka by-pass* (Eastern by-pass) linking the Chittagong Road at a point near Kanchpur Bridge, in the south-east of the metropolitan area to the Tangail-Jamuna Bridge road in the north-west, to divert some of the long distance inter-district traffic, which would otherwise use the busy urban roads of the city that has already been congested beyond saturation point. Subsequently, Roads and Highways Department (RHD) started constructing a Dhaka by-pass but on a different alignment. The construction, which is almost complete, is a 2-lane road and not a limited access road, as was envisaged in the Dhaka Structure Plan (1995-2015).

Link Road Development Program

The DMDP Structure Plan also included proposals for construction of 25.8 km. strategic links with a view to provide corridors to ease the intracity traffic movement, to reduce the traffic hazards / congestions and to connect western Dhaka with the spine. In the area covered by Location-4, there was no such link road proposed for development.

Road Widening Program

To ease traffic movement and to enhance the mobility of the urbanized zones, 25km. of existing roads were prioritized for widening. But none of those roads are included in the area covered by Location-4.

Commuter Rail Network

The DMDP proposed as part of its long term plan, the development of a commuter rail network, to serve the high-density sections of the main urbanized area. It was anticipated that Dhaka, at the end of DMDP Structure Plan period of 2015, could have a population of some 15 million, as a result it would need a mass transit system capable of easing the pressures on the city road network which will experience inevitable and growing congestion.

The commissioning of a detailed feasibility study of the service corridor between Tongi and Narayanganj, to identify a feasible alignment and a more detailed cost-benefit analysis was possible under DITS. But for the remainder of the network, a long-term review of the potential network including future feasibility studies was to be undertaken to identify a possible development program.

Table-3.2: Commuter rail links recommended by the DMDP Structure Plan

Sl. No.	Name of the Rail Links	1995-2000	2000-2005	2005-2010	2010-2015
R1	Existing main line from Narayanganj to Gazipur with Track Relocation between Khilgao and Khilkhet to Gazipur	UD	COM		
R2	Purbachal to Kaliganj				ROW
R4	Tongi to Kaliganj		UD	COM	
R7	Uttara to Purbachal		ROW	UD	COM
R8	Dhamsona to Gazipur				ROW

Note: UD=Under Development; COM=Completed; ROW=Right of Way.

The Urban Area Plan (1995-2005)

Urban Area Plan (UAP) was developed for Dhaka City Corporation (DCC) and its major expansion areas, including the area to the east of the DCC, the DND Triangle and for the Tongi, Gazipur, Savar and Dhamsona areas. The UAP was intended to provide interim mid-term strategies for a 10-year period and were conceived as “nested” within the overall Structure Plan. Unfortunately, although the UAP for Dhaka covered a smaller area and was drawn at a larger scale, its level of specificity was not much different from the Structure Plan.

Location-4 is a part of **SPZ: 6 Gulshan, Banani, Baridhara, Badda**. Following table presents recommendations quoted from UAP specific to this SPZ.

SPZ : 6 Gulshan, Banani, Baridhara, Badda

Year	Population	Density (ppa)	Urban Area (acres)
1991	176,000	81	3301
2006	370,000	112	

Source : Urban Area Plan, DMDP.1995

Description

The areas under SPZ: 6 are prime residential areas of Dhaka city. However, there are also spontaneous developments in this SPZ. The zone is served by two commuter corridors and two lakes. There is a trend of commercial and institutional developments along major roads in this zone. These developments may become more extensive when anticipated new urban land developments take place east of the area. Planned part of the zone is the place of habitation by rich and the expatriate, while the spontaneous eastern part is occupied by middle and low income population.

Major Issues and Problems

- There is a strong trend of medium to high density apartment type development in parts of Gulshan and Banani. This will result in the densification of these predominantly low density residential areas and may eventually create a shortage in infrastructure services.
- A substantial number of houses in Gulshan and Banani have been occupied for non-residential uses and this process will continue and possibly accelerate. This will tend to mutate the general residential character of the area.
- Gulshan lake is under constant pressure to be filled by RAJUK for creating new residential plots. If this is allowed to continue unhindered, it will not only destroy this wonderful open space but also the essential retention capacity for storm water from a vast area resulting in local flooding and waterlogging.
- The Gulshan spine road at the north end is cul de sac and has not experienced the same level of interest from developers as have other areas of Gulshan.
- Height restriction due to ZIA International Airport should prevent high rise developments in RAJUK proposed Nikunja residential area and Joarshahara s along with some other areas.
- Spontaneous development areas of Mohakhali and Badda seriously lack utility services, connection roads and a proper internal road network, as well as being susceptible to occasional flooding.
- There will be additional pressure for supply of additional utility services in Gulshan and Banani and the changes in land use will increase the need for improved transport facilities in the zone.
- Along Kamal Ataturk road, a sub centre commercial area with high rise buildings, housing , shops, offices, restaurants and apartments is being developed without proper attention for parking requirements and utility facilities and services (i.e firefighting).
- “Eastern Housing” has planned a large scale development east of the area. This development may have substantial negative impacts on the water management regime of this area as the khal and retention pond areas may be compromised.

Opportunities

- The area is expected to be centrally located in the Dhaka Metropolitan Area of 2015.

- The area is well served by access roads and the planned areas are provided with excellent road network.
- Infrastructure provisions in Gulshan and Banani can support further densification resulting, however, in lower overall service levels.
- Proposed link road with Progoti Sarani will provide further access to Gulshan and Banani.
- General plot sizes in Gulshan and Banani support vertical expansion in view of the space available in between the buildings.
- Gulshan lake provides excellent opportunity for further development of water based recreation facilities.

Actions Committed / Required / Recommendations

- Connect the Gulshan spine road in the north with either DIT Road or the Airport Road.
- Adequate measures are required to prevent further filling and reduction in the size of Gulshan lake, so as to maintain its effective retention function and develop it as a centre of recreation. Gulshan lake should also be integrated with Begunbari Khal and effectively control development of Begunbari khal areas within this zone.
- Adequate provision of internal road network, utilities should be created in area of spontaneous development. Detailed area plans should include an assessment of the long term service needs and their effective delivery system.
- Plan and guide hitherto undeveloped areas of the zone to complement the development character of the zone.
- Provide access roads in Badda to open up and connect with areas in the east that will likely experience the faster development of Dhaka when the eastern bypass/embankment is realized.
- Connect DIT 1 round about with Badda Progoti Sarani Road.

3.2.3 Strategic Transport Plan (STP) for Dhaka

Besides DMDP, one of the recent (2006) initiatives taken by the Government of Bangladesh (GOB) was to undertake a study on “Strategic Transport Plan (STP) for greater Dhaka”. Before suggesting strategic transport network for Dhaka, STP considered three Landuse Scenarios, as indicated below, developed within the context of the updated Structure Plan:

- a) A strong Central Spine Scenario in which strong north-south axial characteristics of Dhaka were recognized.
- b) The Growth Pole scenario was one that could profitably be applied in planning and investment decisions at the national level. For the purposes of the STP study, the principles were applied at the regional level within the bounds of the study area.
- c) A dispersed settlements scenario in which the size of settlement was a function of the size of the hinterland it would serve and of its hierarchical relationship to other settlements.

Railway – in context of city transport

The STP did not undertake detailed study of railway in context of its role in greater Dhaka. The issue was left for the Bangladesh Railway for conducting a feasibility study to be initiated. Meanwhile a study under the DFID assistance was initiated to prepare a “Development Plan for Bangladesh Railway”.

3.3 Planning Principles and Standard

3.3.1 Education

There are 35 educational institutions located in the Planning area comprising of 13 primary schools, 12 secondary schools, 7 higher secondary schools, 2 Madrashes and one University. Most of the government institutes operate in two shifts.

Primary School

Determination of Standard

According to Urban Area Plan (UAP) one primary school is to be provided for every 15,000 population. The study team has estimated 1,93,831 population for the study area up to the year 2016. For this population the total number of required primary school stands at $(1,93,831 / 15,000)$ 12.92 or 13. The planning area already has 13 primary schools. So according to standard no new primary school is required.

Recommendation/Forecast

According to standards there is no need for new primary school. But considering the uninhabited informal area adjacent to J-Block under DPZ-2, the study team suggests a new primary school on an area of about 0.62 acre.

Secondary School

There are 18 secondary schools in the planning area covering together 11.06 acres of land. Average area of a secondary school is 0.61 acre.

Determination of Standard

According to UAP to serve 23,000 populations one Secondary school should be provided, each with 2 acres of land. The forecast population of the planning area is 1,93,831 persons for the year up to 2015. Therefore, as per standard UAP the planning area needs $(193831/23000) = 8$ secondary schools. Land requirement is $(10 \times 5) = 50$ acres or $(9 \times 2) = 18$ acres. At present there are 18 secondary schools in the planning area with primary and higher secondary school. Number of schools already exceeds the requirement except that schools do not have adequate provision of land.

Forecast /Recommendation

As per UAP standard, no more secondary school will be needed. Therefore, no new secondary school is recommended.

College / Higher Secondary Schools

There is one college in the planning area. Besides, 6 secondary schools contain higher secondary sections. The existing college is located on 0.16 acre of land.

Determination of Standard

UAP report does not give any standard for college.

Recommendation / Forecast

The planning area already has one degree level college apart from higher secondary level in several high schools. Therefore, no recommendation for new college is made.

University

There is a private University named Independent University in the Planning area. It is housed in 10 residential structures covering approximately one acre of land. The service area of this University is not definable. However, there are also four more private universities and a number of private educational institutions offering undergraduate degree and located close to the planning area.

Determination of Standard

There is no standard provided for university in the UAP. There is no readily available standard for providing university.

Recommendation / Forecast

Private initiative in providing higher education facilities is sufficient for accommodating new local graduate students. Therefore, no suggestion is made for university.

3.3.2 Social services

Community Centre

There is no community centre in any of the Wards within the planning area developed by Dhaka City Corporation.

Determination of Standard

UAP suggests welfare center (Community Centre) on Ward basis with an area of 0.30 acre for each.

Recommendation / Forecast

The study team recommends one Community Centre each for DPZ-3 and DPZ-4. Another is recommended for informal areas of DPZ-3. No recommendation is made for formal areas of DPZ-1 and DPZ-2 as there is no space available for such facilities.

Health Facilities

Presently about 5.21 acres of land is used for health services mostly in the private sector. The largest is Continental Hospital (2.5 acres) located at north-east Gulshan by the lake. Most facilities are, however, located in rented buildings.

Determination of Standard

No standard is available in the UAP for health facilities.

Open Space

At present approximately 27 acres of land is used as open space in the form of park and play ground. Three large formal parks with a total area of about 25 acres are situated at Gulshan area (DPZ-1). One park is located at Baridhara (2.25 acres) apart from lake side green areas. There is only one play ground in the entire planning area situated in Gulshan. There is one small play area in Badda High School. Rest of the schools does not have any play field.

Determination of Standard

UAP does not set any standard for playground. It recommends school fields to be used as neighbourhood playground.

UAP recommends one park having 4 acres for each 25,000 population (0.16 acre for 1000 population). It means for 1,93,831 people the required number of park will be $(1,93,831/25,000) 7.75$ or 8. With each park having 4 acres of land the total area required will be $(8 \times 4) 32$ acres.

Recommendation / Forecast

The study team recommends at least one play field in each DPZ with minimum area of 0.30 acre and maximum 0.86 acre depending on availability of free land.

At least one park is recommended in each DPZ with minimum area of 0.40 acre and maximum 0.86 acre depending on availability of free land. Park with restaurant may be created on free land on the lakes.

Urban Services

There is about 1.12 acres of land for urban services facilities in the form of bazar, power supply, water supply pump, gas installation etc.

Determination of Standard

Due to non-availability of free land only a limited urban service facilities have been suggested. This includes bazar, shopping centre, waste disposal site.

For bazar the UAP recommends one bazar (market) for each Ward with an area of 0.30 acre. No standard for shopping and waste disposal sites is given. Apart from four bazars- two in Gushan and two in DPZ-3 (one in Badda and one in Shahjadpur)- there are at least five more daily bazars within one kilometer of the planning area. There is also a large number of shopping centers in the planning area and its close vicinity.

Recommendation / Forecast

The study recommends three bazars, one in DPZ-2, one in DPZ-3 and one in DPZ-4, each with an area of 0.30 acre. Only one shopping centre has been proposed in DPZ-2 with an area of 0.37 acre. Six waste disposal / processing sites have been proposed each with an area of 720 sft.

3.3.3 Determination of Road Hierarchy

The Urban Area Plan component of the DMDP Master Plan of Dhaka City (1995) provides policies and standards for various infrastructure and services. For city roads the plan determines the following hierarchy:

Table-3.3 Road Standards

Main Road	24.00 m (78 ft.)	RoW
Arterial Road	14.5m (47.5 ft.)	RoW
Collector Road	13.0m (42.6 ft.)	RoW
Access Road	9.0m (29.5 ft.)	RoW
Access Road	6.0 m (19.7 ft.)	RoW
Non-motorised Road	4.0 m (13.1 ft.)	RoW
Footpath	2.5 m (8.2 ft.)	RoW

For internal road network in spontaneous areas, the current plan adopts the following hierarchy within the framework of Urban Area Plan recommendations:

Arterial Road	15.24m-18m (60 ft.-50 ft.)	RoW
Collector Road	9m – 12 M (30-40 ft.)	RoW
Access Road	6m (20 ft.)	RoW

The above hierarchy has been developed by readjustment of Urban Area Plan proposals and in consideration of high density of structures in the spontaneous areas.

Mandatory Open Space for Road Intersection Plot(s)

Corner space at road intersections in Dhaka city is not adequately wide to accommodate traffic during peak hours. This causes difficulty, particularly, for left turn traffic to move easily. BC Rule-8(4) puts condition on road corner plot owner(s) build structure leaving aside a space of 1m x 1m from the corner of the road. This is required for possible widening of the right of way of the road(s). But this is a generalized rule irrespective of road width. While this may be fairly enough for a 6m (20ft.) and lower width roads, it may not be equally adequate for a 24m or wider road. To overcome the problem, the Consultant proposes the following range of mandatory corner vacant space depending on the adjacent road width.

6m (20ft.) and below road	1m x 1m
Above 6m (20ft.) up to 12m (40ft.)	2m x 2m
Above 12m(40ft.) up to 24m (80ft.)	4m x 4m
Above 24m (80ft.)	8m x 8m

For plot(s) on roads of 6m or below width, 1m X 1m corner spaces would be needed to be reserved.

In case of plots on roads above 6m up to 12m, 2m X 2m corner space is suggested. For plots on roads above 12m up to 24m wide, 4m X 4m corner spaces will be required. For plots on widths above 24m, 8m X 8m spaces is recommended. In case of roads passing by the plot(s) are of varying width the road of the greater width will be considered for determining the mandatory vacant space. The space remaining after widening of the road may be allowed for building purpose.

3.3.4 Minimum Size of Residential Plots

Due to increasing pressure of population on fixed land, existence of laws of inheritance and high cost of land, large plots in urban areas are being sub-divided into small parcels. Sometimes plots are sub-divided into uneconomically small sizes. Extremely small plots not only make it difficult for construction of usable structures, but they also create precarious the provision of sanitation and ventilation. This situation calls for putting restrictions on sub-division of land into uneconomic sizes. Currently there exists no law regarding minimum size of a plot. Existing Building Construction Rules (2006) allow structure on plots of any size. For residential structure, on a plot up to 134 sq. m (2 katha) the rules impose condition of a 0.80m (2.62 ft.) clearance from wall on either side of the plot and 1.00m (3.20 ft.) set back from the back wall. In the front the minimum space to be reserved vacant is 1.5m (5ft.). The mandatory vacant space increases with the increase in the height of the proposed building and width of the prevailing front road. Bangladesh National Building Code (1993) in its Article 1.5.5.1 suggests minimum size of residential plots as 65 m² for row and detached type dwellings and 135 m² for semi-detached type housing for specific road frontage for each size category under each type.

To prevent uneconomic use of scarce land resource there should be restriction on approval of building plans on a minimum economic size. Restriction will compel consolidation of smaller plots and prevent wastage of limited land resource. This kind of consolidation is already taking place in commercial areas on private initiatives. The Consultant suggests minimum plot size as 100 sq.m (1.5k) with the conditions of 0.60m mandatory vacant spaces on both side and back for window opening, air and light. The minimum road frontage should be 14.76 m (15 ft. approx.). The minimum plot size should be applicable only for detached houses. In the front there should be 1.22m mandatory vacant spaces from the road front property line. These conditions are to be applicable only for single story building on a 100 sq.m plot. In case the owners want to develop multi-storied building on the same plot, BC Rule-12 should be applied. This minimum size plot will result in a minimum covered area of 75 sq.m (800 sft.) which is well enough for a single family dwelling. Row and semi-detached housing should not be considered at private sector at this moment as this would encourage high density and cause growth of unhygienic slum like housing.

3.3.5 Utility Services

There exists almost all categories of urban services in the planning area that include, water, power, gas, storm sewer. Only a limited area enjoy sewerage network.

These services will be provided by the concerned city agencies who adopt their own standards and specifications for materials and methods of estimate before preparing development projects. The Consultant, therefore, does not take any initiative to fix up standards. Instead, it indicates extension of existing lines to areas that are devoid of services. This is to draw notice of the concerned agencies that their services are necessary in those areas. Necessary statistics on requirement are, however, provided.

3.3.6 Problems of Implementing Lake Development Scheme

The development of two lakes in the Banani-Gulshan area is of utmost importance for the city. As they are the only major water bodies left in the city. But RAJUK will face some critical problems in implementing the lake development scheme. In this section the consultant analyses the possible problems and makes an attempt to suggest some measures to overcome the envisaged problems.

Lake Development Problems

The first and the most important task of lake development is to fix up the project boundary of both the lakes. RAJUK faces a host of problems in fixing up these boundaries. The entire land of the proposed lake does not belong to RAJUK. There are some pockets of private land in various segments of the western lake. In the eastern part on Badda side RAJUK has already de-requisitioned some land acquired by RAJUK earlier. This land includes part of lake also. Now, if the present lake size is to be maintained it will have to re-acquire private land again. These lands make it difficult to fix up a contiguous boundary line of the lake. For some lakeside lands there are legal injunctions from Courts to maintain status quo that enables their occupier to resist evictions. Many lakeside plot allottees encroach their property walls inside the lake. These people are powerful enough to resist eviction. At three places in the eastern lake, the local communities, with their own initiatives, have erected roads across the lake. At many locations, on the lake bank, unauthorized structures have been built. At some places people filled up lake to reclaim land. In the current plan the Consultant has proposed to create a buffer zone between the lake and the allotted plots on the western side by constructing a 20ft. road. But due to prevalence of all the above problems it is also difficult to execute the road project.

Suggested Measures

On review of the above problems, the Consultant make the following suggestions: Firstly, the authority has to fix up boundaries of the proposed lake areas through conducting field survey. After fixing project boundaries all the private land within the project boundary will have to be identified and scheduled. This private land will have to be acquired/re-acquired for lake development using the power of Land Acquisition Act.

Secondly, all encroached walls of lakeside plots will have to be demolished and all land occupied by the allottees in addition to allotment must be taken back using the powers of Building Construction Rules, 2008 and the plot allotment agreement.

All lakeside unauthorized structures will have to be cleared through eviction under the power of Building Construction Rules, 2006. The filling of lake will have to be stopped using the power conferred by the Act to prevent filling up of low land, water body and green space (Act 36 of 2000).

Thirdly, arch bridges should be constructed at three points of the lake between Gulshan and Badda-Baridhara on the link road between Gulshan-1 to Badda, on the link road between Manarat School and Shahjadpur and on the link road between Gulshan-2 and Baridhara (there is a bridge at this point). These bridges will enable free movement of water vessels from north to the south end of the lake enabling better use of the lake as an attractive place for water based recreation. Besides, this would also enable free flow of water.

3.3.7 Conflicting Landuse and its Control

Conflicting land uses is very common scene in the planning area. Control of land use is very difficult due to non-existence of any land use plan. After the abandonment of 1959 Master Plan no new land use plan was formulated for the city. The Master Plan prepared by DMDP in 1995 does not have any detailed land use plan. The DMDP Structure Plan suggested preparing land use plan for all the SPZs or their parts. And the process is now going on. There is no interim arrangement to control land use in the planning area. As a result, conflicting land uses are arising almost everywhere in the planning area as elsewhere in the city. This is spoiling the local environment, particularly, the residential areas. The only way to prevent this tendency is to expedite preparation of the land use plan under Detailed Area Planning Project and strictly enforce the land use provisions of the plan through continuous monitoring and punitive actions for violations.

After the Detailed Area Plan is approved, all planning permissions in the area should be in accordance with the provisions of the approved land use plan. Section 3(A) of Building Construction Rules, 2008 empowers RAJUK to control building construction of any area within its jurisdiction. To avoid landuse conflicts the plan has taken up measures in its landuse plan. The areas of landuse conflict have been dealt with by re-designation of landuses that best suit the areas. The residential areas that are being transformed into non-residential uses have been designated as mixed use areas. This step would ease approval of non-residential building plans, particularly, in plots with frontage of major roads. However, guidelines of Urban Area Plan should be carefully studied before giving approval to industrial and processing establishments. The processing plants and industries that pollute environment should not be allowed to be sited within the main city, particularly, close to residential areas.

3.3.8 Flooding

Flooding in the planning area is not a usual problem. During monsoon all storm water of the lake catchment run into the two large lakes and keep the area free from floods. In 1998, however, there was a flash flood in parts of DPZ-3 due to over flowing of the lake. It has been ascertained that the flooding was caused due mainly to lack of coordination between DWASA and the BWDB, the two agencies responsible for drainage and flood protection. There is a sluice gate on the eastern side of Rampura Bridge with a number of pumps to pump excess water during heavy rains. But during floods of 1998 the pumping at this point was not handled properly that caused flooding in the upstream areas.

3.3.9 Unhygienic Latrines

Latrines, in most households of the planning area are installed with septic tanks. But in the informal areas, like, Badda and Ulan, there are many low income high density habitations. Dwellers in these habitations lack in proper services, like water, drainage and sanitation. Latrines in these areas are mostly katcha and used on community basis. There is no septic tank. Sometimes the latrines are found to be illegally connected to storm sewer lines. This causes human excreta drained into local ditches. This pollutes the livable environment and causes health hazards. It is a reason for clogging of sewer line due to overloading.

3.3.10 Changes of Settlement Pattern

The Terms of Reference requires the description and analysis of changes in settlement patterns and growth trends that occurred between 1971 survey and the subsequent one in 1981 and its 1998 update. But the study documents are not available for the year 2001 for analysis.

The Guide Map printed in 1973 by the Survey of Bangladesh shows that a very few settlements existed in the present planning area of Begunbari Khal and its influenced area. It seems from the map that the scattered settlements of rural character were located in Mohakhali, Gulshan and Banani areas. The present marshy land of Begunbari Khal and lake area of Gulshan-Banani were wider and surrounded by agricultural lands even without any scattered settlements. There were no sign of settlements on the east of the present Gulshan-Baridhara Lake. The present Baridhara

Diplomatic zone was under the use of agriculture. Even to-day some of the lands in between Shajadpur of Bhatara Mouza and Diplomatic zone of Baridhara is used for agriculture producing paddy and vegetables. The Rampura Road (Progati Sarani) was a narrow road extending up to the old Rampura Bridge and from the bridge towards the north there existed agricultural lands through which no road passed.

On the south of the bridge along the western side of Rampura Bridge Road compact settlements developed covering small areas of Ulan and Shahar Khilgaon mouzas and there existed settlements in other parts of Ulan and Shahar Khilgaon mouzas.

The TOR also indicates the change of settlements and trend of land use upto year 1981. The necessary survey map for required study and analysis are not available for the target period.

As per survey map of 1989, the growth of settlements is found in Badda mouza where residential settlements developed in the available high lands of Badda and southern part of Bhatara Mouzas.

The physical features survey undertaken and completed for preparation of Detailed Area Plan reveals that the whole of delineated planning area growth has taken place and developed during this period except the land lying on the east of the Progati Sarani. Table-3.3 shows Change of Settlement Patterns.

The overview of the physical features survey map and the existing land use survey map revealed that the structures along the Progati Sarani (Bishaw Road) are used for commerce, workshops and warehouses.

In Gulshan, there are areas for commerce. But it is found in the land use survey that Commerce and other functions like commercial offices, foreign diplomatic missions etc. are gradually invading the residential areas.

It is interesting to note that the number of katcha structures are decreasing and that of pucca are increasing in the spontaneous areas of Bhatara and Badda (Table-3.3).

Table-3.4: Change of Settlement Patterns (Ward-Wise) in 2000

Ward No.	1990				2000			
	Kutchha	Semi-pucca	Pucca	Total	Katchha	Semi-Pucca	Pucca	Total
Ward No.18	667	441	454	1562	230	585	504	1319
Ward No.19	406	48	1468	1922	451	53	1631	2135
Ward No.21	1784	1027	167	2978	1546	970	1329	3845
Ward No.22	420	247	531	1198	467	274	590	1331
Total	3277	1763	2620	7660	2694	1882	4054	8630

As per survey map the whole of planning area is used for settlements leaving about 187 acres of vacant land.

In 1990, there existed 7660 structures out of which 3277 were katcha, 1763 were semi-pucca and 2620 were pucca. Most of the pucca structures were located in Ward No. 19 (Gulshan Model Town). In 2000, when the physical features survey was completed, there were 8630 structures, out of which 4054 structures were pucca. During last ten years pucca structures have doubled in number.

Location of Gulshan, Banani and Baridhara residential and Diplomatic Zone as per the Government decision have changed the settlement pattern of the planning area altogether. The natural spontaneous settlement has been forced into a high-class development. These developments have merits. Badda and Shajadpur spontaneous area can be seen lying beside.

3.4 Preferred Development Strategies

This section applies proposed strategies described for existing urban core area and urban fringe areas. The main focus of the strategies is on the spatial distribution of population. Recommended policies and proposals are those which will need to be adopted in order to achieve the targeted pattern of existing urban and fringe areas.

Following key features influenced the proposed development strategy outlined in the DMDP Structure Plan.

- The DMDP research and past planning studies have recognized the constraints imposed on Dhaka's urban land resources by flood risk. The DMDP further acknowledges the associated serious problem of water logging resulting from urban encroachment on natural depressions and khals.
- The options to reduce and minimize these major constraints rest with utilizing and optimizing naturally flood-free land and carrying out major flood protection works and protecting existing natural depressions and khals.
- In order to optimize the full potential of existing and potential new development, the areas designated as retention ponds in natural depressions and the city's existing natural drainage system and khals must be protected at all costs.
- Potential sources of affordable flood-free land, with secure tenure in the areas referred to above, will take time before they can begin to accommodate significant proportions of Dhaka's predicted population growth; although the opened up near fringe areas in the DND triangle and South East may experience faster development.
- Acknowledgement of the above facts, in the face of continuing high rates of population growth, the majority of whom will be poor, and development trends, which seek to capitalize on the advantages of centrality, leads to the key principle of the proposed strategy. That is, the adoption of an incremental approach towards achieving spatial change in the structure and pattern of Dhaka's urban development.

The area designated as urban in the DMDP Structure Plan has been subdivided into four broad categories for strategic planning purposes and to help summarize the impact of the spatial development strategy on future population distribution. The urban sub-areas so defined are-

- Established (pre-1983) urban area;
- Recently (post-1983) urbanizing fringe;
- Proposed flood protected development areas; and
- Dispersed flood free development areas.

The DMDP Structure Plan's strategy for dispersal is that priority locations in metropolitan Dhaka are those, which benefit from elements, optimize resource expenditure, minimizes development costs, most importantly, acts as a catalyst for appropriate and affordable development. The key elements of this strategy are:

- Relatively high, flood-free land;
- Minimal conflict with high quality of agricultural land;
- Existing transport links to Dhaka city and between the location and other regional centers;
- An existing core settlement or settlements;
- The vesting of an existing urban economic base;
- Existing institutions of government;
- Ease of infrastructure provision, particularly water and electricity;
- Relatively low land costs affording secure tenure rights;
- Impetus of current development trends.

Identification of proper strategies

The DMDP Structure Plan proposes the planning area as established urban area with preservation of Gulshan-Banani, Gulshan-Mohakhali, Gulshan-Baridhara and Gulshan-Badda Lakes. The DMDP Urban Area Plan proposes the planning area as Existing Mixed Use Planned zone and Existing Mixed Use Spontaneous zone.

Some Strategic Intervention of DMDP Urban Area Plan is described below:

Consolidation: New land delivery and development mechanism coupled with flood land with secure tenure in accessible locations is encouraged.

Accelerated Development: Under this strategy the targeted areas would be the existing fringe areas, i.e., areas mainly at the periphery of the more established areas where conversion from rural land occurred during the 1980s.

Ennoblement: Under this strategy, it may be reasonable that selected peripheral area identified in the Structure Plan as the likely choice for few new urban developments beyond the core area of Dhaka might be provided with primary infrastructure networks to foster development; thus it will enhance the urbanization with assistance of sectoral agencies.

Discouragement: Under these strategies the designated locations are selected where urban development should be discouraged. This area is flood flow zone and totally rural area, which should not be developed any way.

Based on the above strategies, following policies are considered for the preparation of detailed area plan.

Policy-1

Minimum Possible Displacement

During preparation of the plan utmost care would be taken not to displace the existing settlers. Particular adherence to this policy will be given in spontaneously developed areas.

Justification

A spatial development plan with too many displacements produces a number of adverse effects on execution of the project, like,

- instigating the affected ones to move against the project,
- raise cost of development,
- linger project execution due to lengthy process of land acquisition.

Policy-2

Capturing Unused Land

To implement physical development proposals it is appropriate to make use of vacant or unused land. To attain this objective sometimes compromise has to be made with planning standards and norms.

Justification

Use of unused or vacant land for implementing development proposals has a number of advantages-

- saves project expenditure on structures,
- make use of unused land before they are put to any other use,
- less or no resistance against the project by the affected people.

Policy-3**Creation of Open Space**

Priority is given for creation of open spaces on vacant land.

Justification

Particularly, in spontaneous areas density of population is higher and the roads are narrow. As a result breathing spaces are severely constrained. With further densification the physical environment of spontaneous areas will deteriorate. It is appropriate to establish more open spaces to create livable environment.

Policy-4**Prioritizing of Environmental Conservation**

Whenever possible, the planning should aim at conserving the natural environment, if necessary with minor adjustment.

Justification

Conservation of natural environment would help create a sustainable livable environment in the high density urban areas.

Policy-5**Protection and Conservation of Water Body**

In the process of planning, the natural water bodies, depressed land may be protected and conserved in a planned manner.

Justification

Most of the spontaneous areas are devoid of storm water drainage system. The natural water bodies and depressed areas help retain storm water during monsoon and save the locality from flood. Large depressed areas, like Begunbari serve as retention areas for the city drain outs.

Policy-6**Creation of Accessibility**

In spontaneous areas emphasis has to be given to create accessibility by -

- widening existing roads, wherever possible, and
- creating new accesses in high density built up areas.

Justification

The spontaneous areas are crowded and have higher density. But the most critical problem remains to be the narrow and inadequate road network. This not only causes severe problems in mobility but also restricts property value. The plan aims to open up congested areas and create linkage with arterial roads.

Policy-7**Creation of Economic Plan**

The planning experts have to adhere the principle of *'economic planning'* in preparing proposals of any kind.

Justification

Adoption of economy in planning is necessary to keep the project expenditure within the limits of available resources. As infrastructure and urban development projects are mostly non-revenue earning, the decision makers are usually reluctant to allocate fund for such projects.

The planning approach for preparation of current detailed area plan is based on:

- understanding of the key issues/problems of the planning area,
- needs and aspirations of the local people,
- possible constraints to implementing the schemes,
- availability of resources to implement the development schemes, and
- creation of sustainable living environment.

Justification

Understanding of the existing situation, issues and problems, is the primary task of any planning exercise. Review of current situation gives a thorough understanding of the problems and issues prevailing in the locality that may need to be addressed. As per TOR the residential areas of Begunbari / Badda are located under the Gulshan, Banani, Baridhara and Badda areas of SPZ-6. The zone is served by two commuter corridors in between which large section of the area is functioning as retention ponds. The area is the main channel for discharge of runoff from the city areas and plays an important role in the environmental aspect. There exist the following issues / problems:

- i) The spontaneous areas seriously lack utility facilities and services as well as internal road network system and is susceptible to occasional flooding.
- ii) Except the planned areas, there is lack of accessibility of the people. Flooding due to drainage congestion is a critical problem.
- iii) Absence of external link road connecting the Gulshan spine road with the Progati Sarani and Airport Road is a major problem in east-west connection.
- iv) The present trend of unplanned and haphazard growth is a problem in promoting utilities services and roads communication.

The problems and issues noted above have been drawn up based on field survey and investigations.

Every sub-planning area has its own particular physical characteristics. Income level, needs and aspirations of the population are to be given due consideration in preparation of the development proposals. Needs and aspirations, however, vary from area to area. The problems as identified are more acute and complex in low and middle income spontaneous areas. Particular attention has been given to the spontaneous areas through understanding their issues/problems and fulfilling their needs and aspirations.

Implementing of a physical development plan is the most difficult task in planning exercise. The degree of complexity of problems varies from area to area depending on land ownership pattern and physical characteristics. In spontaneous areas the land is owned privately and supply of land is highly constrained for providing municipal services and physical infrastructure. In government owned planned areas the problem is not so acute in providing with well furnished physical infrastructure. There land is available for additional physical infrastructure. However, in public areas the problem of encroachment is the major constraint in creating a better environment.

Resource is very important factor in materializing the ideas expressed in plans. In the face of resource constraint, funding for urban development has been a real problem in this country. The approach to planning has, therefore, been primarily based on the aspect of economy. The consideration of economy has two main dimensions:

- reduction of the cost of development,
- recovery of the cost of development wherever situation permits.

One of the major reasons for failure of the earlier plans was non-availability of resources to fund development schemes. Therefore, availability of fund has been given due importance in respect of plan implementation.

The ultimate consideration for determining the approach to planning has been the creation of a sustainable environment for urbanites. Creation of livable environment is needed for future generations when the density will be higher exerting more pressure on the limited available land and physical and social infrastructure.

3.5 Infrastructure Development

3.5.1 Sewerage Management

There exist limited sewerage facilities in the planning area in terms of network. Though there is a comprehensive storm water / sewerage network in the planned areas of Gulshan, Banani and Baridhara, only limited network facility exist for the spontaneous areas of Shajadpur, Badda and Ulan areas. A major sewerage line passes under the Progati Sarani but without branch lines into the spontaneous areas on either side of the road.

3.5.2 Drainage and Stormwater Management

Storm sewer lines are built when roads are developed and paved. The consultant has proposed new road links for the planning area. New storm sewer lines will have to be under these roads. They are usually developed during construction of roads by Dhaka City Corporation. Additional km of storm sewer lines will be required in the planning area that includes 38 km. of new roads.

Review of DMDP Plans and RAJUK Development Proposals on Begunbari Khal Area

Urban Area Plan i (page 56) recommends that Gulshan Lake should be integrated with Begunbari Khal and effectively control the development of Begunbari Khal areas within the zone. In its Flood Protection Priority section the report recommends Begunbari Khal as a retention pond its retention capacity should not be reduced to less than 84 hectare. The report also states that as the khal drains about a third of the city, a large retention pond will be needed in Begunbari Khal within the protected area. Until a retention pond is created in future, east Begunbari Khal area should not be developed. However, it can be used for water based leisure pursuits.

As RAJUK has already prepared a development scheme for the entire Begunbari Khal area, as a result the area has been deliberately put outside the planning area of the current project. Therefore, it is not mandatory for the consultant to make planning recommendations on the area. However, the area falls in between the two segments of the planning area. For the purpose of integrating both the parts, the importance of Begunbari area can not be totally ignored. Another important reason for giving importance to the area is that it is a basin that accommodates all the drainage channels of the surrounding region including the planning area. It also serves as a retention pond for the excess rain water during monsoon. Therefore, the area demands worthy consideration in respect of drainage as well. In the following sections a review has been carried out on development proposals on the area followed by some recommendations by the Consultant in respect of drainage.

Dhaka Metropolitan Development Project (DMDP) in its study report - Technical and Economic Analysis of Gulshan-Dhanmondi Link Road Project and analysis of Area Development Potential, January, 1995- made three alternatives on development of the Begunbari Khal area:

Option-1 : Development of Begunbari as a Lake/Open Space

- Conversion of the area into an open space/lake covering 86 hectare or 215 acres.
- Construction of a new 100 ft. wide road on the north-western side connecting Tongi Diversion Road and Gulshan south.

- Construction of a new 60 ft. wide peripheral road on the south-eastern part with several link roads.
- A bridge at the centre to facilitate north-south link.
- Underground box culvert along proposed 60 ft. wide road as extension of JICA-funded drainage system.

Option-2 : Use as Drainage Facility

- All the road proposals of option-1 will remain the same.
- Lake will be developed covering an area of 52 hectare with pumping station and flood gate at Rampura Bridge.
- 71 hectare area to be developed as mixed-residential and commercial-zone and water based recreation facilities.

Option-3 : Development of Land into Urban Area

- Land fills of the entire basin for urban development.
- Reclamation of 129 ha of land for mixed use-residential cum commercial- at public and private sector.

RAJUK Development Proposal

RAJUK prepared a comprehensive development plan for the entire low / unused land of Begunbari Khal area. The proposal is a mix up of all the three options of DMDP study proposal. The proposals contain major and secondary link roads, industrial, commercial and residential plots, lakes for recreation and drainage, green spaces. However, the plan fails to consider the drainage links of Gulshan-Banani, Gulshan-Baridhara-Badda lakes and surrounding low lands. RAJUK proposal will allow substantial land available for urban development after keeping provisions for road, drainage and open areas.

Opinion of DoE and DWASA

The Consultants discussed on the project including the issue of drainage with the Directorate of Environment (DoE) and the Dhaka Water and Sewerage Authority (DWASA). DoE suggested that since the depression at Begunbari area presently serves as an area of retaining water during monsoon, this should be retained as a retention pond. They also opined that the two lakes in the project area should be developed as healthy lakes taking all necessary measures to protect the environment of the lakes and their vicinity.

Regarding storm water drainage and sewerage network in the Begunbari area, DWASA made its own proposals in response to RAJUK's request to comment on its Begunbari project. For draining out excess storm water from two lakes in Gushan-Badda area, DWASA proposed for two 5m X 4.3m box culverts - one from Niketan-Gulshan lake outlet and the other from Gulshan-Badda lake outlet. Both the culverts are to be merged at a point south and converge into a single flow leading towards further south. This channel is to be linked with another box culvert coming from west by the south side of the RAJUK proposed lake in the area. This box culvert is to pass under Rampura Bridge and become an outfall on the other side of the bridge carrying storm water. For transportation of sewage a link network will be created by DWASA from its existing line at the south of Gushan Avenue with the line passing from Tejgaon Industrial Area to Khilgaon at a point north-west of Ulan. This link will pass through RAJUK Begunbari project. A lift station will be set up at this point. Both the storm water and sewerage network and box culvert will pass underneath the RAJUK proposed lake to save it from being contaminated.

Proposals of the Current Project

Regarding improvement of the drainage system in the entire planning area, the study team suggests to construct a storm sewer network in line with the WASA proposal integrated with the rest of the city. Without such a network it would be extremely difficult to prevent flooding in low lying areas of the area under study during days ahead when the open areas will be covered by the jumble of concretes and bricks. The situation will be worst in spontaneous areas where the density of structure and population is higher than that in the planned areas. However, before taking up the

extensive storm sewer project, improvement should be made to the existing surface drainage in all the sub-areas. Surface drains should be constructed in un-served areas to improve local drainage. Regular maintenance of surface drains is essential to keep the drains operative. All waste water drainage connections into the lakes should be closed immediately and re-connected to sewerage lines. To facilitate drainage of storm water from two lakes in Bannai, Gulshan and Baridhara, the Consultant suggests three drainage channels to be linked to the RAJUK proposed lake cum drainage channel. The first channel of 100 ft width will come from south-west Gulshan and Niketan area (as proposed by WASA), pass under the Gulshan-Tejgaon Industrial area road and move southward. Another 100 ft. wide channel (as suggested by WASA) will come from Gulshan-Badda Lake, pass under the south-Gulshan-Badda Road and move southward. Both the channels will meet at a little distance, cross a number of proposed roads before meeting the RAJUK proposed lake cum drainage in the south. The third surface channel of 50 ft. width, will come from south Badda low land and moving straight to the south meet the RAJUK proposed lake cum drainage channel near Rampura Bridge. All land for drainage channel should be acquired immediately. All the drainage channels should have wide vegetation on both sides to serve as a green buffer between channel and the private land. This would prevent unwanted encroachment of drainage channels.

It is understood that RAJUK has gone for a mixed use plan for Begunbari area on practical grounds. The project is likely to yield enough revenue to implement the entire development proposal under the project which is a condition of approval of the government. Though not enough, plan keeps provision for open spaces which would not have been possible if the area had been left totally with the private developers. The Consultant feels that RAJUK should go ahead with the Begunbari project with some modifications based on the current project recommendations. Changes to the plan should be made in connecting the three channels with the proposed lake.

The study team feels that RAJUK, during its development activities, must take care of the drainage problem with utmost seriousness. In its development project at Begunbari, utmost care has to be taken so that the existing water channels with sufficient width remain open up to Rampura Bridge. The entire channel up to Balu River has to remain open as well. Otherwise, serious consequences will follow in the upstream areas.

3.5.3 Solid Waste Management

The study team feels that apart from proper monitoring of waste management innovative ideas are needed to be generated in disposing and treatment of the garbage locally. The one of the ways might be to go for recycling of waste. This approach will not only relieve the concerned authority from the problem of transporting garbage to far off disposal sites but will also generate new output for productive use including creation of employment. It would also generate of new resources that can help to add to municipal income to finance city's waste management. There are NGOs who are working with new ideas on production of organic manure by recycling of organic waste. Dhaka City Corporation can take up a pilot projects as a test case for recycling. If found useful, local recycling plants can be set up in other parts of the area. This would, however, require sufficient land for setting up plants. As a test case, a local community with the support of Dhaka City Corporation and an NGO may initiate the recycling project. Under the current project the Consultant has earmarked 6 sites having area of 720 sft. each that can be used for processing/recycling of garbage locally. As the recommended sites are under private ownership they will have to be acquired by the concerned authority before putting them to use. In the meantime, however, community initiatives can be developed at *mahalla* level to organize door to door collection and disposal of household waste. This approach is being widely used in different parts of the city. The local Ward Commissioner can take initiative to organize *mahalla*-wise waste management committees for household waste collection and disposal.

In a recent study on solid waste management (Solid Waste Management in the Pilot Roads in Dhaka City (Contact No. RTM-SWM-2) conducted by the Project Implementation Unit of Dhaka Urban Transport Project of DCC, it has been recommended to engage CBOs, NGOs and micro enterprises on contract basis for collection and disposal of solid waste and street sweeping. The study recommended to undertake such study as a pilot project so that its success and failure can be assessed before taking up a citywide program.

Table-3.5: Additional Utility Services Lines

Sub Planning Area	Service Lines (Km)					
	Water	Gas	Power	Telephone	Sewerage	Storm Sewer
DPZ-1	9.20	6.20	5.20	7.20	4.20	18.20
DPZ-2	23.57	24.07	22.07	27.07	34.84	28.07
DPZ-3	75.64	75.60	76.84	80.84	95.84	77.84
DPZ-4	27.43	26.93	26.93	28.63	40.93	26.93
TOTAL	135.84	132.8	131.04	143.74	175.81	151.04

3.5.4 Water Supply

Water supply in the entire city is in crisis due to shortage of supply against rising demand. Supply through local production tube well is not a sustainable solution to water supply, because water table is going down and down every year due to over extraction of ground water. Water supply based on production tube well is also very expensive and hazardous for future environment of the city. A new surface water supply project is underway at Saidabad using the water from the river Sitalakkhya .It is expected that with the commissioning of the plant all the water deficit of the city can be met. The Consultant suggests to install hydrant on all roads at every ¼ km to enable emergency water supply during emergency fire fighting. However, for new link roads and existing un-served areas 4 km and 5.20 km of water lines respectively, will have to be installed.

3.5.5 Gas Supply

A sound gas supply system exists in the planning area. Titas Gas Company has its various hierarchies of networks in most of the planning area. New gas lines connections are given regularly by the company to new houses. When proposed new roads will be developed the company will have to build new distribution pipelines of about 139 km.

3.5.6 Power Supply

Power Development Board and DESA are trying frantically to overcome power deficit all over the country. Huge system loss is a major reason for ensuring sufficient power supply. It can not take up new power plants due to lack of sufficient capital. The planning area would require additional power line of about 131 km. for existing un-served areas and new residential areas.

3.5.7 Telephone Network

Though network is existing, telephone service is not widespread all over the planning area due to small number of subscribers. With the construction of new roads 143 km. of new telephone network will have to be installed that also include areas where network do not exist.

3.5.8 Sewerage

Except DPZ-1 and DPZ-2 there is hardly any existence of sewerage network. In total about 176 km. of sewerage network will have to be installed within the planning area.

3.5.9 Storm Sewer

About 151 km of storm sewer lines will have to be constructed under the roads that include 112 km of proposed road network.

Table-3.6: Proposed Landuse of the Project/Study Area

LANDUSE CATEGORY	EXISTING (Area in Acre)						RECOMMENDED (Area in Acre)					
	DPZ- 1	DPZ- 2	DPZ- 3	DPZ- 4	TOTAL	%	DPZ- 1	DPZ- 2	DPZ- 3	DPZ-4	TOTAL	%
Residential	443.14	159.11	172.22	101.22	880.45	49.30	407.30	171.25	157.80	102.22	838.87	46.97
Commercial	22.63	5.94	6.77	2.07	34.41	1.93	28.25	6.24	11.07	2.07	47.63	2.67
Mixed	6.88	0.62	1.95	2.23	11.15	0.62	84.04	11.87	36.96	4.04	136.38	7.64
Administrative	23.90	1.07	0.15	0.00	25.12	1.41	20.90	3.34	0.15	00.00	24.39	1.37
Industrial	00.00	00.00	00.00	0.87	0.87	0.05	00.00	00.00	00.00	00.00	00.00	00.00
Institutional Social Service	11.19	6.94	4.78	1.65	25.27	1.41	11.19	7.86	5.98	2.39	27.42	1.53
Urban Service	2.14	00.10	00.54	00.06	2.84	0.16	2.14	0.79	0.92	0.38	4.23	0.24
Open Space (Park and Play Field)	19.37	6.72	00.00	00.00	26.09	1.46	28.17	9.89	3.68	1.66	43.40	2.43
Recreational	0.20	00.00	0.20	00.00	0.20	0.01	0.20	00.00	0.20	00.00	0.20	0.01
Road	229.50	50.70	43.11	10.57	333.88	18.69	315.96	54.86	73.59	15.81	460.22	25.77
Water Body / Lake	89.18	33.18	73.27	9.90	205.55	11.51	60.18	32.61	55.17	00.00	147.96	8.28
Unused / Vacant	107	34.3	42.2	00.0	183.8	10.	00.0	00.0	00.0	00.00	00.00	00.
Diplomatic	30.2	27.5	00.0	00.0	57.70	3.2	30.2	27.5	00.0	00.00	57.70	3.2
TOTAL	986.00	326.27	345.16	128.57	1786.00	100	986.00	326.27	345.16	128.57	1786.00	100

3.6 Detailed Planning Zone

DPZ-1: Gulshan, Banani (part), Niketan (part) and Part of Begunbari Area (Ward No. 19 and 37)

General Characteristics

The most dominant part of this DPZ is the Gulshan Model Town. Gulshan is basically a high class residential area of the city. Though originally established for residential purpose, the residential character of the area is rapidly changing with the invasion of non-residential uses. There are two distinct commercial hubs, Gulshan Circle-1 and Gulshan Circle-2 within the area. The 40 feet wide (crest) Gulshan Avenue running north-south, accommodates most of the commercial enterprises and diplomatic offices. Gulshan is fringed on the east and the west by two lakes. The lake in between Gulshan and Baridhara is better maintained than the lake on the western fringe. The lake front and the lake itself on the western fringe is undeveloped. A large part of the western lake belongs to private ownership and other government agencies. The encroachment and filling of the lake by allottees is the most critical problem for the lake lying on the western fringe. This practice has substantially squeezed the original lake over the years. Gulshan accommodates 5 parks/open space areas of which only two are well maintained.

Assessment of Present Status

This sub-planning area comprises of the entire area of Gulshan and a little area of Banani and Niketan. It also includes the Gulshan-Banani and Gulshan-Mohakhali lakes and a part of T&T area and a small part of Begunbari Khal. The entire area forms parts of Ward No. 19 and part of Ward No. 37 having same physical characteristics. The built up area is predominantly used for residential purposes with two large commercial centers and substantial mixed use areas of Gulshan. The study area encompasses 985.98 acres.

Since the entire Gulshan, Banani and part of Niketan are developed areas, there the problems are less acute. Major problems of the sub-area are:

- encroachment of lake areas,
- unauthorized landuse and developments.

Encroachment and filling up of lakes is a critical issue for Gulshan Area. It is also threatening the local environment severely. Unless steps are taken immediately, there will be acute drainage problems in near future. The violation of Building Construction Rules is also severe in the area. Use of residential structures for non-residential purpose is common for the financial gain of house owners. Ill maintenance of park and deliberate development of slum on parks is not only limiting the recreational spaces in the area but is also threatening the environment. The following development proposals are set forth for ameliorating the local problems.

Issues / Problems

On analysis of the sub-planning area the study team has identified the following issues and problems:

- Gulshan is bounded from both east and west by two attractive lakes. But due mainly to lack of management, both the lakes are in environmentally poor state. Encroachment and unauthorized occupation of lake areas has become a threat to their existence. Particularly, the lake lying on the west is squeezing fast due to encroachment.
- Public land on both of the lakes is occupied by squatters. Squatters are the source of social crime. Thus both, the physical and social environments of this DPZ are under threat.
- Another major environmental problem in Gulshan area is the change of residential structures to non-residential use. It violates agreement of allotment and provision of land use contained in the Master Plan. This is severely degrading the residential environment of the area. Non-residential uses, found during the survey, are hotels and guest houses, restaurants, banks, shops, offices. The non-residential uses affect the residential character of the area. Non-residential use of structures is gradually increasing which may spoil the residential environment in near future.
- There are privately owned land in the Gulshan-Banani Lake area.
- As per provisions of Master Plan and rules contained in the Building Construction Rules, 1996 (amended in 2006) the private owner of land are not allowed to construct any structure. Land owners are constructing sub-standard structures for renting. In many cases, the powerful rich are buying privately owned lands lying in the lake and constructing the high-rise structures by-passing existing rules as applicable in the surrounding planned areas.
- Due to poor maintenance, the open spaces located in Gulshan area are not useable. Therefore, spaces for passive recreation although exist in Gulshan but they are not used properly due to lacking in their maintenances.
- Educational institutions and health clinics are developing here and there in Gulshan Residential Area. Effective policies do not exist to control them.

Opportunities

The study team has identified the following development opportunities in the sub-planning areas:

- In Gulshan area, there are two lakes which offer a unique opportunity to develop the aesthetic view of the area. The environment of Gulshan area will surely be pleasing if the lakes are developed with proper landscaping.
- There is opportunity to develop Gulshan Area as per plan proposals, because development control of the area lies with RAJUK.
- RAJUK as authority can take steps against any violation of rules for development and construction.
- There is adequate open spaces in Gulshan area that can be used as places of recreation if they are properly maintained.
- There are sufficient number of wide roads in the Gulshan Residential Area to accommodate large volume of traffic in future generated by rise in population and increase of economic activities.

Lake Development and Management

The two lakes in the planning area are the valuable assets of the city. They must be conserved and maintained with utmost care.

In the process of development of Banani and Gulshan Model Towns large parts of the original water body of the lakes have been turned into built up areas through creation of residential plots. Areas of lakes have also been filled up by the lake side plot owners through encroachment. The common practice for encroachment of lake is the extension of the original plot boundary enclosing the lake area. The study team feels that the lake can be protected from the hands of the land grabbers by creating a buffer zone in between the allotted plots and the lake. To achieve this objective, 20 ft. wide road all along the lake bank is proposed for both the lakes. The development of lake side road will create

some incidental spaces which may be developed as green buffer spaces by planting trees. Accessibility created by the proposed lakeside road will facilitate the access to the lake frontage and recreational spots on the lake. A few proposals in this regard have been added in this chapter. Regular monitoring is needed to prevent growth of unauthorized thatches and sheds on the lakeside vacant land to maintain aesthetics of the lakes.

All waste water drainage connections into the lakes must be closed immediately. The drain carrying waste water not only pollutes the lake water but is also hazardous for all living creatures in the lakes. An outlet must be created having sufficient width to carry excess water of the lakes. The lake edges have to be developed by shaping proper slopes and plantation to make them places of tourist attraction.

Lake management is very important to maintain its environmental qualities. Lake management will include:

- maintenance of outlet of the drainage channel through Begunbari Khal,
- development of lake by cutting beautiful shapes.

Lake Side Road Development

To protect the lake and to create better accessibility to the lake side, the Consultants suggest creating a 20 feet wide road all around the lake. The length of the proposed 20 feet wide road will be around 18.00 km. At some places the road may take up lake spaces due to absence of adequate buildable high land. The proposed road is expected to serve a number of purposes to remove the identified issues / problems. They are:

- prevention of encroachment of the lake by lakeside property owners;
- stoppage of any more creation of new plots devouring lake land;
- enhancement of access facilities to the proposed recreational areas.

Table-3.7: Proposed Infrastructure Facilities in DPZ-1

Infrastructure Facilities	Length in Miles	Length in km.	Area in Acres
Access Road-Lake Side Road (20 ft. wide)	11.18	18.00	27.10
Collector Road-Link Road	0.04	0.06	0.18
Lake Development	-	-	89.18
Total	11.22	18.06	116.46

Educational Institutions

Education facility at Gulshan is provided mostly by private sector. They are located on permanently allotted plots. Out of 4 primary/high schools Gulshan Model High School and College on Gulshan Avenue is located on 0.58 acre of land, Manarat International School on Road No.104 has an area of about 1.76 acres, G M Primary School on Road No. 85 occupies 0.46 acre and Taltala Primary school on Gulshan Avenue has an area of 0.01 acre (545 sq. feet). There exist 11 schools of different categories; most of them are English Medium.

There are 10 schools of various grades in Gulshan area. About 60% of those schools are located in rented houses. Four schools were found to be located on permitted lands, covering about 1.00 acre. Out of 10 schools, 6 schools are of English medium. This is the area of high income group of people who send their children to these schools to educate them in western style. It seems that the demand for English medium schooling is gradually increasing.

According to population projection of Gulshan and adjoining areas (DPZ-1), the total population of this part of study area (falling under Ward No.19 and 37) will be about 41142 persons by the year 2015. According to DMDP Urban Area Plan, 1 primary school is needed for every 15,000 population, as such by the year 2015. $(41142/15000) = 3$ primary schools would be needed. But at present there are 8 primary level schools out of which 4 schools are located in rented houses. They should be formalized. No additional schools would be needed in the plan period. Moreover, there is no space left in the area for locating a single school.

Health Facilities

There exists 8 hospitals/clinics/diagnostic centers in Gulshan area; most of them are in rented houses. Continental Hospital is the only formal and authorized hospital in the area. It is situated in north-eastern part of Gulshan by the side of the eastern lake. The Consultant does not feel it is necessary to earmark any additional land for health facilities as much of the health service can be met by private sector initiatives in planned areas of Gulshan and Banani.

Open Space

Parks/open spaces for out door recreation were earmarked at four distinct places with a total area of 29.55 acres. A park with lake exist (9.25 acres) on the north-west Gulshan (on the west of Gulshan Avenue). This is the only well maintained park in the area. Another park (8.05 acres) exists near Gulshan Circle-2. The park is in precarious condition due to lack of proper maintenance. On the south of Circle-2 a large spaces (8 acres) is used for Wonderland, open air recreation spot, a playing field and a nursery. The Park on the southern end of Gulshan has been turned into a total slum by Dhaka City Corporation by settling their sweepers and other class IV employees. The area of the park is approximately 4.25 acres.

Lake Side Park, Play Field and Park with Restaurant

Three Lakeside Park and play field and park with restaurants will be established at three locations with a total area of about 3.45 acres. All the spots are on lake side unused land on the lake between Gulshan and Banani.

Table-3.8: Proposed Open Spaces in DPZ-1

Facility	No. of Sites	Area in Acres
Lakeside Park with Restaurant and Play Field	3	3.45

Mosque

There is a large mosque with wide space (3.28 acre) on Gulshan Avenue. Another small mosque is located near Gulshan Circle-1. Mosques are not evenly distributed in the area.

Miscellaneous Facilities

There is a post office at Road No. 21. A police barrack is located near Gulshan Circle-2. There are two clubs in Gulshan namely Gulshan Club and American Club located at Road No. 5 and Road No. 70 respectively.

Power Sub-station and Telephone Exchange

There is a power sub-station at Gulshan Circle-1 One Post office is located at Road No. 21. At Gulshan Circle-1 there is a large telephone exchange of T&T Department. There is one Deep Tube Well with pumping station of WASA at Gulshan Circle-2.

Storm Water Drainage and Sewerage

There is no storm water drainage system in Gulshan area. Surface water, during rains, flows towards nearby low lands and lakes gravitationally. There is a central sewerage system for the area.

Solid Waste Management and Water Supply

Solid waste in DPZ-1 is managed by Dhaka City Corporation as part of its basic responsibility. Due to the special status of the area as a diplomatic zone and a locality of the elites and high income groups the management of solid waste is comparatively much better in the area. Water supply is provided by Dhaka Water and Sewerage Authority (WASA) through a supply network using DTW pumps.

Review of available facilities and services in the area showed that the facilities provided are not satisfactory and found not to be in organized manner as it should be in a planned residential area.

Landuse Zoning

Rapid invasion of residential land by non-residential use is a major concern in Gulshan area. Gulshan is a prime planned residential area of the city. According to allotment terms and conditions, an allottee must construct a residential structure on the allotted plot within a period of four years of allotment and use it for residential purpose only. But field survey has revealed that a large number of structures (about 50%) in Gulshan area are used for non-residential purposes, which is in violation of land allocation agreement. However, it can not be denied that Gulshan area has virtually developed as an independent and self-contained township. The volume of economic activities in the area has substantially been increased demanding more space for non-residential uses. As a result, the rent of buildings has gone up, particularly in areas close to designated commercial areas. Taking advantage of the demand for non-residential uses, many house owners have rented out their structures for non-residential uses to reap higher profit violating Building Construction Rules. Study has revealed that the commercial activities along with other economic activities are on fast increase in the area gradually resulting in invasion of residential structures by non-residential uses. Considering the increasing demand for non-residential uses, the Consultants are proposing mixed use of land on both sides of Gulshan Avenue and Kamal Atatürk Avenue up to the depth of one plot only. The mixed use provision will allow residential houses to be used either for residential purpose or commercial purpose or for both.

Commercial use will include, apart from shops, commerce establishments and offices, company offices, location of foreign missions etc. But other activities like workshops, factories, or any use detrimental to sanctity of residential environment should not be allowed to be located in the mixed use areas of Gulshan and Banani.

Table-3.9: Existing and Proposed Landuse of DPZ-1

Landuse Category	Area in Acre			% of Total Land	Comments
	Existing	Proposed (Additional)	Recommended Total		
Residential	443.14	-35.84	407.30	41.31	Vacant lands have been added to residential use and some residential land has been converted to mixed use.
Commercial	22.63	+5.59	28.25	2.87	Some residential plots/ land have been proposed for commercial use
Mixed	6.88	+77.49	84.04	8.52	Vacant land and land from residential use have been proposed for mixed use
Administrative	23.90	-3.00	20.90	2.12	-
Institutional / Social Service	11.19	-	11.19	1.13	-
Urban Service	2.14	-	2.14	0.22	-
Diplomatic	30.20	-	30.20	3.06	-
Open DAPce- Park and Play Field	19.37	+8.80	28.17	2.87	New parks and recreational green spaces have been proposed on lakeside lands.
Recreational	0.20	-	0.20	0.02	-
Road	229.50	+86.46	315.96	32.04	New roads have been proposed.
Water body/ Lake	89.18	-31.53	57.65	5.85	Parts of water bodies have been proposed for new road construction.
Unused/Vacant	107.23	-107.23	00.00	0.0	Vacant lands have been proposed for other uses.
Total	986.00	-	986.00	100.00	-

The Table reveals that residential landuse is proposed to remain as the dominant use in the built up area of DPZ-1. It means that as development control authority, RAJUK, will have to take a strong drive to evict unauthorized non-residential uses in the residential parts of the area. Mixed uses have been proposed on either side of Gulshan Avenue, Mohakhali-Gulshan-1 Road and Kamal Atatürk Avenue. The reorganized land for mixed uses will create new spaces to accommodate commercial uses. Creation of green/ open spaces on the lakeside is a major addition in the local area developments.

The existing education, health and diplomatic uses is proposed to be retained due mainly to dearth of suitable space around to accommodate those uses.

DPZ -2: Baridhara Residential Area and Diplomatic Enclave, Baridhara J-Block and Adjoining Areas (Part of Ward No. 18 and Adjacent Non-Municipal Areas)

Boundary and Area

DPZ-2 comprises of Baridhara Residential Area and Diplomatic Enclave (a large part of DCC Ward No. 18), Baridhara J-Block on the eastern side of the Progati Sarani and adjoining informal areas of 32 acres. DPZ-2 includes 296.11 acres. The official land use of the Baridhara Residential Area is residential. But widespread non-residential uses are also observed in the area including educational institutions and trading offices. Diplomatic Enclave is primarily an office area.

General Characteristics

DPZ-2 can be divided into 4 different distinct areas- Baridhara Residential Area, Diplomatic Enclave, undeveloped J-Block and informal low density areas adjoining J-Block. Like Gulshan-Baridhara, the J-Block is also a posh high class residential area adjacent to the Diplomatic Enclave. Although the area is basically residential, even then a large number of structures are found under non-residential use. Excepting small open spaces no other urban services are found. There on the south of the Baridhara Residential Area lies Diplomatic Enclave accommodating many of the foreign diplomatic offices and staff residences are located on the south of the Baridhara Residential Area. Many plots in the Diplomatic Enclave are still lying vacant. Baridhara J-Block was originally a part of planned Baridhara Residential Area. Due to dispute on land ownership; the area could not be developed along with Baridhara. Now, that dispute has been resolved and the area is going to be developed soon. So this area is still lying vacant. A small part of the adjacent informal areas on the north of J-Block also forms part of DPZ-2.. Only a few scattered settlements have been observed during field surveys. The area comprises of high and low lands. High lands are used for settlements and low lands for agriculture. Due to absence of settlements only a few narrow roads of 15 feet to 30 feet width are located in the area.

Assessment of Current Situation

Excepting Baridhara Residential area and Diplomatic Enclave, the other remaining areas can not be compared to Gulshan area. Unauthorized land use is the prime problem of the area. Due to prevalence of lakeside road and green spaces there is hardly any complaint of lake encroachment. The undeveloped J-Block is also a proposed planned residential area. The informal area adjacent to the J-Block is still largely vacant and mostly low. Few settlements are observed on comparatively high lands. However, ribbon like informal commercial developments has been taken place by the side of Progati Sarani. Roads are unplanned, narrow and tortuous and undeveloped. Excepting two small green areas at Baridhara, there is no provision of open spaces in DPZ-2.

Issues and Opportunities

In the current chapter the study team has tried to identify the critical issues/problems present in the sub-planning area and the opportunities for development. They are discussed in the following paragraphs:

- Baridhara is facing the problem of invasion of non-residential landuse spoiling the residential sanctity. Areas adjacent to Progati Sarani are particularly subject to rapid change.
- The private areas adjacent to the J-Block is quickly going out of control due to spontaneous private development. Such development will soon cause deterioration of the physical environment of the area.
- Areas along Progati Sarani are gradually going under the use of commerce. Such development may lead to traffic congestion on Progati Sarani in future when business activities will get further momentum.
- Baridhara is a planned residential area and its land has been leased out to the public. So it is comparatively easy for RAJUK to impose control over the land owners.

The Baridhara parallel road along the Progati Sarani will offer excellent opportunity to keep free the Progati Sarani from possible congestion due to development of commercial activities in the road side plots of Baridhara.

New Link Road

About 4.12 km. of new link roads have been proposed for informal areas adjacent to the Baridhara J-Block. As the area is still undeveloped the proposed roads will provide an opportunity to open up this area through linking with local and primary roads. Two categories of roads – 30 ft. and 20 ft. - have been proposed. A 20 ft. wide road along the boundary of the project area has been proposed. The road will ultimately link with Progatai Sarani. Three additional 20 ft. wide north-south roads have also been proposed to open up undeveloped areas. There will be four 30 ft wide roads of which three will be new and the other will be widened to 30 ft. The proposed new roads in the area cover about 1.36 acres of land. In Baridhara area there are lakeside roads. Hence no new road is proposed.

Road Widening

About 0.50 acre of land has been proposed to be acquired for widening existing narrow roads in the informal areas located on the north of J-Block. The existing major east–west road has been proposed to be widened up to 30 ft. The Kalachandpur road passing on the north of Baridhara connects Gulshan and Baridhara with Progati Sarani. The road is narrow having average width of 15 feet. As a link road it is very important for Gulshan, Baridhara and the adjacent areas of Kalachandpur. The study team proposes the road to be widened to 30 feet with a view to increase its capacity. This might cause some land acquisition with demolitions. Widening of this road will need extra land of only about 2 katha (1440 sq. feet) of land.

Table-3.10: Proposed Road in DPZ-2

Road Type and Facilities	Length in feet	Length in meter	Length in km.	Area in acres	Area in hectares
Collector Road-30 ft (9 m) wide	950	290	0.29	0.65	0.27
Access Road-20 ft (6 m) wide	5800	1768	1.77	2.66	1.09
Road widening	3100	945	0.95	0.85	0.35

Lake Development

The northern part of Gulshan-Baridhara Lake falls within DPZ-2. This part of the lake comprises of about 33 acres. The study team proposes development of the lake through re-excavation and recommends its regular maintenance. There are a number of waste water connections into the lake. This causes contamination of the lake water. The pollutant drained into the lake may endanger lake environment causing harm to the species. Therefore, all waste water drains with inlets into the lake will have to be closed down immediately to save the lake.

Social and Urban Services

As there is no usable space in Baridhara area, hence no new services can be proposed. In the informal area adjacent to J-Block a complex of social services has been proposed that covers 0.30 acre for a community centre and 0.30 acre for a bazar, 0.30 acre for a play field, 0.40 acre for a park and 0.62 acre for a secondary school. In total 720 sft. on the north-east corner of the proposed bazar have been earmarked for developing a waste processing / disposal site. The site has been placed adjacent to the proposed bazar to serve as a collection point for bazar waste that contains large amount of organic waste everyday. As the area is yet to be covered by municipal boundary, RAJUK may have to acquire the entire land and develop the above facilities. A space of about 0.37 acre has been earmarked for a shopping complex. This site can be taken over by RAJUK and auctioned to the private parties for development of a shopping complex. This would help RAJUK to realize a part of the development cost of providing social facilities. Acquisition and auction of the land earmarked for bazar can also enable recovery of a part of the invested development cost. A school from primary up to 12th class is proposed on an area of 0.62 acre. The school can be developed by local initiative or by RAJUK or by DCC.

Table-3.11: Proposed social and urban services in DPZ-2

Services	No. of sites	Area in acre
Community Centre	1	0.30
School (primary to 12 th classes)	1	0.62
Bazar	1	0.30
Shopping Centre	1	0.37
Waste Disposal / Processing Site	1	0.02 (720 sft)

Open Space

There are two open spaces /parks in Baridhara area. One is located by the side of the bridge covering an area of about 2.30 acres. Another park is located on Park Road on an area of 2.25 acres. There is also a small lakeside green on the south-west. A small lakeside incidental space is found near the new mosque on the north-west part of Baridhara. This area is proposed to be converted into green areas with restaurant facilities. The green spaces will enhance beauty of the area and increase recreational value of the lake. Combining the present 2.25 acres and the proposed 0.40 acre land for open spaces the total green spaces at Baridhara area will amount to 2.65 acres. In the informal area adjacent to J-Block a small park on 0.40 acre and one small play field of about 0.30 acre have been proposed.

Table-3.12: Proposed open space in DPZ-2

Open Spaces	No. of sites	Area in acre
Park	1	0.40
Play field	1	0.30
Lake Side Green Space with Restaurant	1	0.40

Educational Institution

There are only two educational institutions at Baridhara, one is the private International University and another one is an international standard school called American School. The university is located on rented house, while the school is run by the diplomatic mission of a foreign country and is located on its own property.

Landuse Zoning

Anticipating commercial use of the plots adjacent to Progati Sarani, the Consultants recommend the first road side plots of Baridhara Residential Area and J-Block along Progati Sarani to be mixed use areas. Baridhara has a separate service road (Suhrawardy Avenue) parallel to Progati Sarani. Therefore, commercial use of the said plots will not create any traffic problem for Progati Sarani. About 100 ft. depth from Progati Sarani inside the informal areas lying north of J-Block is also proposed to be declared as mixed area.

Table-3.12 shows the overall existing and proposed land use pattern in DPZ-2 of the planning area. A hundred feet wide strip along the Progati Sarani in the informal area lying adjacent to J-Block has been proposed as mixed use area. In the same way the roadside first row of plots on Progati Sarani in Baridhara RA and J-Block have been earmarked as mixed use areas. This would allow growth of non-residential uses in these places without violation of Building Construction Rules. A substantial part of unused land in the informal area has been earmarked for residential uses.

Table-3.13: Existing and Proposed Landuse in DPZ-2

Landuse Category	Area in Acre			% of Total Area	Comments
	Existing	Proposed	Total		
Residential	159.11	+12.14	171.25	52.20	Vacant lands have been added to residential use and some residential land has been converted into mixed use.
Commercial	5.94	+0.30	6.24	1.91	New land added to commerce from residential use and vacant category.
Mixed use	0.62	+11.25	11.87	3.64	Mixed land use proposed from residential and vacant category.
Administrative	1.07	+2.27	3.34	1.04	-
Institutional / Social Service	6.94	+0.92	7.86	2.60	New facilities proposed on the vacant land.
Urban Service	0.10	0.69	0.79	0.24	-
Diplomatic zone	27.50	00.00	27.50	8.43	-
Park and Play Field	6.72	+3.17	9.89	3.03	New facilities created from vacant land.
Road	50.70	+4.16	54.86	16.81	New roads have been proposed on vacant land.
Water body	33.18	-0.57	32.61	-	-
Unused / vacant	34.39	-34.39	00.00	-	-
Total	326.27	-	326.21	100.00	-

DPZ-3: Shahjadpur-Badda Area**Boundary and Area**

On the north of DPZ-3 lies the Diplomatic Enclave and on the south, lies the low lands of Begunbar. The area is fringed by Progati Sarani on the east and on the west, by the Gulshan-Baridhara and Gulshan-Badda Lakes. The area includes Shahjadpur, Madhaya and Dakshin Badda. This section of the study area covers about 345.16 acres of land.

General Characteristics

Shahjadpur-Badda is an informal or spontaneously developed private residential area. It is a medium density mixed area with all the ills of unorganized development. Roads are narrow and tortuous. Width varies between 8 ft. to 16 ft. As a result traffic congestion is a regular phenomenon. Basic amenities like drainage, open spaces, community center are lacking. Among the various problems, the problems of road, drainage, and open spaces seem to be most acute. Uncontrolled land use development spoils the residential environment.

Assessment of Current Status

Shahjadpur-Badda forms over 90% of Ward No. 21 and a part of Ward No. 18 of the DCC area with a forecast population of about 73,448 persons by the year 2015. Shahjadpur-Badda is primarily a residential area with scattered informal non-residential uses. The area is dominated by middle and lower middle income groups of people. In the year 1991 the gross population density was about 91 persons per acre, which is anticipated, to rise to 196 persons per acre by the year 2015. Badda-Shahjadpur is one of the most problem stricken areas in Location-4. The most acute problems of the area are accessibility and urban service facilities. The roads are narrow and tortuous. Movement by any kind of motorized traffic is difficult. Congestion is a regular phenomenon. There is no daily bazar, play ground and park facility in the locality. Other problems include drainage, community centers and health facilities.

Like other parts of the city, supply of water is also a critical problem. Since the area is not connected to the city's central sewer system, waste water is drained into the lake which threatens the environment of Gulshan-Baridhara Lake. In the following sections specific proposals have been presented for development of the DPZ.

Issues / Problems

On investigation of the DPZ-3 area, the study team has identified the following issues and problems.

- The spontaneously developed Shahjadpur-Badda area seriously lack in proper drainage as a result part of the area suffers from temporary water logging during heavy rains.
- From the internal road network, access to arterial road is extremely difficult. The width of internal roads vary between 8 ft. to 16 ft. Roads are tortuous and not well connected. In absence of wide feeder roads, traffic jam is frequent.
- Indiscriminate land use development hampers residential sanctity and disturbs the residential environment.
- Frequent violation of development control regulation including set-back rules cause deficiency of air circulation and light in individual houses that deteriorates the environmental qualities of the residential area.
- There is serious lack of open space and play field. Absence of open space, recreational opportunities may lead to bad social implications on the youth juvenile as the density increases in future.

Opportunities

The area still offers some opportunities for overcoming the problems/issues discussed hereunder:

- The area is not fully built up. In many part of the area there are opportunities to widen the roads and create new road links.
- In various parts of the area, there are chunks of unused low land that can be used to provide space for many utility and social services.
- There are opportunities for development of lakeside road and render the lake an attractive water body as a place of recreation.

The area also offers opportunities to create east-west road linkage connecting Gulshan Avenue and Progati Sarani.

Road Development

Accessibility is the most acute problem of Shahjadpur-Badda area. There is about 35.78 km (22.22 miles) of road network in Shahjadpur-Badda area. To increase mobility and improve the condition of living in the area more roads are to be provided with adequate width and the existing roads would require to be widened to enhance their capacity. However, in a highly built up area of Shahjadpur-Badda, it is extremely difficult to create accessibility without affecting the structures. In some cases the authority will have to determined to ensure standard road facilities.

Link from Shahjadpur area to Gulshan by Manarat School should be retained and developed. The road across the lake is proposed to be widened to 40 ft. with an arch bridge. The bridge will not only facilitate proper drainage in the area but will also enable cruises on the lake creating water based recreation facilities. A well designed arch bridge will also add to the beauty of the lake and the surroundings. Similar bridge should also be developed on the Gulshan-1 and Badda Link Road.

Existing roads cover 43.11 acres. For proposed new link roads and for widening of existing roads 30.48 acres of land would be needed. Therefore, after development total area under roads will cover 73.59 acres of land. Details of road development proposals have been set in Table-3.14.

Table-3.14: Proposed Road in DPZ-3

Road type and facilities	Length in feet	Length in meter	Length in km.	Area in acres	Area in hectares
Arterial Road-60 ft. (18.00m) wide	4150	1265	1.27	5.72	2.35
Collector Road-40 ft. (15 m) wide	12160	3671	3.71	11.17	4.58
30 ft (9 m) wide	5495	1675	1.68	3.78	1.55
20 ft (6 m) wide	6459	6274	6.28	9.45	3.87
Road widening	1300	396	0.40	0.36	0.15

Lake Side Road

A 40 feet wide lakeside road is proposed on the eastern bank of the Gulshan-Baridhara Lake. The road starting from Gulshan-Badda link road on the south will proceed toward the north along the eastern bank of the lake and will meet the western peripheral road of the Diplomatic Enclave. On its way the road will link Gulshan-1 to Badda link road and the Central-Gulshan-Badda link road. The road will serve a number of purposes. These are:

- It will open up the congested Badda-Shahjadpur area. It will also connect the other parts of Badda including Gulshan-Badda road. Thus good accessibility will be created for the congested area of Shajadpur-Badda.
- It will serve as a buffer zone in between the lake and the existing built up areas of Shajadpur-Badda. Thus it will save the lake from further encroachment. This, however, will necessitate acquisition of entire land for construction of road.
- The road will open up the lake to the visitors as a place of recreation.

Link Road

New link roads are needed for opening up of Shahjadpur-Badda area and for averting traffic congestion in the area in future when density and traffic movement will increase. Attempt has been made to provide new link roads at appropriate places. Care has been taken to minimize evictions to avoid adverse social impact.

A new road is proposed to link Gulshan Avenue with Progati Sarani via Badda by the southern part of Gulshan and Badda. The link road is proposed to be 60 feet wide. The link road will follow the existing road from south Gulshan to Badda. The road will move eastward along south Badda built up area and will be connected with the Progati Sarani at about 600 feet north of Rampura Bridge.

Connecting Mohakhali Road via Gulshan-1 with the Progati Sarani is of vital importance to ease movement of people from high density Badda-Shahjadpur area and also create another east-west link. A 60 ft. wide link road is proposed from Gulshan-1 to Progati Sarani with an arch bridge over the lake. The road will affect many structures. But considering its importance and vitality, the road should be implemented with top priority despite high cost involvement.

Existing road across Gulshan-Badda lake near Manarat School is proposed to be widened to 40 feet with an arch bridge over the lake. This road will open up Shahjadpur area giving easy access into the eastern part of the city through Gulshan area.

In DPZ-3 about 3.71 kms of 40 ft. wide road, 1.68 km. of 30 ft. wide road and 6.28 km. of 20ft. wide new link roads have been proposed.

Road Widening

In addition to link roads a number of existing narrow roads have been proposed to be widened. Careful consideration has been given to cause minimum possible affect to the existing structures. Depending on situation, roads have been proposed to be widened up to 30 feet. About 0.40 km of roads is to be widened with average width of about 12 ft. This would require about 0.36 acre of land to be acquired from the road side land owners.

Educational Institution

In Shahjadpur-Badda there are 5 primary, 2 primary-secondary schools, 7 secondary schools and one madrasha. As per population projections there will be 72830 persons in the area by the year 2015. According to Urban Area Plan (UAP), one primary school is needed for every 15000 population. Therefore, the area needs only 4 primary schools. Existing primary schools would be enough to serve the area up to 2015. Therefore, no new primary school is proposed on public sector.

Survey shows that there are 6 secondary schools in the area. As per the standards of Urban Area Plan the area needs only 3 secondary schools (1 school for every 23,000 population). The Consultant, therefore, proposes no new secondary school for the area concerned.

Community Service

The Urban Area Plan proposes one community Centre for each Ward with an area of 0.30 acre (18 katha). At present there exists no community centre in Ward No. 21. An area of 0.30 acre may be used for a Community Centre. The proposed site at south Badda is low lying but is accessible by existing and proposed roads.

Table-3.15: Proposed Social Services in DPZ-3

Social Services	No. of Sites	Area in Acre
Health facility	7	1.94
Community Centre	2	0.60

Health Facilities

There are three health facilities in this DPZ in the form of clinic and diagnostic centre. One (UFHP) is operated by the government. As per recommendation of UAP, proposed Community Centre can be used for health services. In fact, private sector is the main provider of health services. Building Construction Rules allows Health facilities of 10 beds for residential areas. The current plan earmarks seven strategic locations. in Shahjadpur-Badda area where the land owner/ private individuals/companies/CBOs/NGOs can set up health facilities with approval from RAJUK. Total area of these sites is 1.52 acres.

Park and Play Field

For park, the Urban Area Plan recommends 4 acres for every 25000 population. As per standard prescribed in the UAP, 3 acres of land need to be provided for park. No vacant land is available in one location to provide a 3 acre park. The study team has identified two vacant sites where two parks can be provided. One is provided in the north-west Shahjadpur on an area of about 1.60 acres and the other on the south-east Badda with 0.30 acre. The two parks together will give about 1.90 acres of park area.

Table-3.16: Proposed Open Space in DPZ-3

Open DAPce	No. of Sites	Area in Acre
Play field	2	1.00
Park	2.	1.73

Space is not available for location of separate play field. As per recommendation of the UAP, the primary school ground would be used for this purpose. Existing school fields are too small to use as play ground. Therefore, the study team recommends for two play fields, one at south Badda near the proposed Community Centre and the other at north-west Shahjadpur. The former will occupy an area of about 0.32 acre while the later will have an area of about 0.38 acre.

Lake Development

The Consultants propose to develop the lake in between Gulshan and Badda with an area of about 53.11 acres. With the lake side road this would turn into an area of recreation and breathing place for city dwellers.

Bazar / Shopping

The residents of Shahjadpur-Badda do their everyday shopping in Madhya Badda Bazar, Kalachandpur Bazar, Uttar Badda Bazar, Shgahjadpur Bazar, Madhaya Badda Gudara Ghat Bazar, Gulshan-1 and Gulshan-2 Bazars. There are two small bazars in DPZ-3 one at Gudara Ghat near the link road between Gulshan-1 and Badda, another at Shahjadpur area. Street side vendors are found at various points of the area selling vegetable and fish. According to Urban Area Plan one bazar of 0.30 acre can be provided in each Ward. Considering the present and future density of the area and space constraints to establish a large bazar the study team proposes 1 new bazar at the north-west Shahjadpur (east of Mosque) with an area of 0.30 acre. There is no fire service and civil defence establishment nearby. One is being constructed a few kilometers at Natun Bazar. Considering the density of population and demand for fire and health services, the Consultant proposes a Fire Service-cum-Civil Defence Station at South Badda beside proposed new 60 ft. wide link road with an area of about 0.17 acre (10 katha). To provide constant water supply for the fire service, a water reservoir / retention pond (0.62 acre) has also been proposed on the existing low land nearby. This will not only provide water supply to the fire station but will also serve as a retention pond for its catchment area during rainy season.

Table-3.17: Proposed Urban Services in DPZ-3

Urban Services	No. of sites	Area in Acres
Fire Service Civil Defence Station	1	0.17
Reserve / Retention Pond	1	0.62
Bazar	1	0.30
Waste Disposal Site	4	0.07

Waste Disposal / Processing Site

To enable disposal/processing of locally generated waste, the plan proposes three sites in the area each comprising of 720sft. One site will be adjacent to the proposed bazar at Shahjadpur. The second will be located adjacent to the bazar at Gudara Ghat area. The third is to be placed on the south-eastern part of the DPZ-3 by the proposed 30 ft. wide road. The two sites on the north have been proposed adjacent to bazars as they will help dispose off daily bazar wastes quickly. Since a large part of central Badda will remain un-served, a third site has been proposed on the south-eastern part of the DPZ-3. All the sites will be served by access roads.

Rehabilitation or Resettlement of Affected Land / Building Owners

During implementation of the proposals of the detailed area plan a large number of land/property owners will be affected. RAJUK needs to rehabilitate or resettle those land owners. Such a measure is necessary not only on humanitarian ground but also to win people's active cooperation on execution of the project. The consultant has earmarked two rehabilitation blocks of two sites each. Block-1 comprises 1.36 acres and block-2, 2.20 acres. Block-1 is located at Shahjadpur and block-2 at South Badda. Deducting 35% land for road and other services the sites will have 2.31 acres as net residential land. This will allow to create about 56 plots of 2.5 katha each. Alternatively plots may be allotted on joint ownership basis. This would enable to rehabilitate larger number project affected persons. (PAP) Additional affected people may be rehabilitated in other RAJUK site and services housing projects. It is extremely difficult to determine the exact number of affected persons at this moment as there is no data about the number of land parcels and their owners affected by the proposed development projects that need land acquisition.

Table-3.18: Rehabilitation Sites in DPZ-3

Site	Location	Area in acre	Approximate number of Plots to be created
Site-1	Mouza Badda-Shahjadpur on lowlying ditch.	1.36	21
Site-2	Mouza Badda – south Badda on vacant ditch.	2.20	41

Solid Waste Management and Water Supply

Dhaka City Corporation is in charge of solid waste management of the area. But there are complaints of irregular cleaning of disposal sites. This causes inconvenience to locality due to air pollution by the piled up trash. The roads are narrow and it is difficult for garbage lorries to enter into the area. Waste is carried from bins to major collection points in the main road. Bins are limited in numbers and not properly placed. Due to absence of sufficient spaces by the side of roads, it is difficult to place bins. Water supply is provided by WASA through piped network using local DTW and pumps. But like other parts of the city the supply is inadequate to meet local demand for water.

Landuse Zoning

In view of rapid growth of non-residential uses, particularly, commerce on the Progati Sarani, it is felt that land along Progati Sarani should be designated for mixed use. Recommendations may also be made to allow mixed use on either side of the proposed Gulshan-1 and Progati Sarani link road. It is recommended that a strip 100 feet depth from the road edge may be allowed for mixed use. Mixed use may include residential, processing and workshops that are not harmful for adjacent residential environment.

Table-3.19: Existing and Proposed Landuse in DPZ-3

Landuse Category	Area in Acre			% of Total Area	Comments
	Existing	Proposed Additional	Recommended Total		
Residential	172.22	-14.42	157.80	45.70	Land for residential use converted to mixed use and new land added from vacant category.
Commercial	6.77	+4.30	11.07	3.21	Land added from vacant category.
Administrative	0.15	-	0.15	0.04	-
Mixed	1.95	+35.01	36.96	10.71	Mixed land use created from commerce, residential and vacant category of land use.
Institutional / Social Service	4.78	+1.20	5.98	1.73	Land use created from Vacant category.
Urban Service	00.54	00.38	0.92	0.27	-
Park and Play Field	00.00	+3.68	3.68	1.07	Facilities proposed on vacant land
Recreational	0.20	00.00	0.20	0.06	-
Road	43.11	+30.48	73.59	21.77	New roads have been proposed on vacant land.
Water body / Lake	73.19	-18.38	54.81	15.70	-
Unused / Vacant	42.25	-42.25	00.00	-	-
Total	345.16	-	345.16	100.00	-

Commercial land use has substantially been reorganized through adjustment with other land uses. New health service landuse has been created. In the proposed health land use areas the land owners / tenant would be allowed to use the land / property for health purpose only. Also new green and open spaces have been provided. Land under proposed green and open spaces will have to be acquired from its present owners by the development authority before development.

DPZ-4: Ulan-Begunbari and Adjoining Areas (Part of Ward No. 22)**Boundary and Area**

The DPZ-4 is bounded on the north by the South -Badda and proposed Rajuk Project. On the south by southern part of Ulan area. On the east by Rampura road and on the west by Mahanagar Land Project of Eastern Housing and the low lands of Begunbari. The total area under the present DPZ stands at 128.57 acres.

General Characteristics

Primarily being a residential area, DPZ-4 is very similar to DPZ-3 with respect to the pattern and level of development. The area has grown spontaneously. Roads are narrow (10 to 18 ft.) and zigzag. Traffic congestion is a common phenomenon. Due to poor accessibility, house rent is comparatively lower which attracts low and lower middle income people. As a result density is high in the area. Drainage of storm water is a major problem in the monsoon. There are some patches of vacant land including large ditches which serve as retention ponds. Absence of bazar, community centre and open space are other major problems.

Assessment of Present Status

Ulan and its adjoining areas, falling under Ward No. 22 is a spontaneously developed residential area fringed by Rampura Road on the east, low and undeveloped Begunbari area on the north and north-west, Mahanagar Housing on the south-west and other spontaneous housing area on the south. Ulan is also characterized by narrow and tortuous roads, absence of open space and drainage facilities. The area is dominated by middle and lower middle income group of people. As a part of Ward No. 22, the Ulan area covers almost 128.57 acres. The gross density of population per acre stands at about 140 persons.

Issues / Problems

The identified major issues/problems are as follows:

- Accessibility suffers due to narrow and tortuous roads. Traffic congestion makes mobility difficult. Lack of drainage infrastructure causes serious inconvenience to the residents during monsoon.
- Violation of development control and setback rules is rampant which degrades the liveable environment by restricting air and natural light into the individual abodes.
- Absence of open space affects recreational opportunities for the youth and the juvenile and is a cause for social disturbance.
- Mixed and incompatible land uses and development tend to disturb the residential sanctity of the area.

Opportunities

Compared to its problems the opportunities for development is very limited in DPZ-4. Following opportunities for development have been observed in the area:

- There are opportunities to develop some link roads which will help to interlink various parts of the sub-planning area.
- The pockets of low and vacant land will help to provide space for different utilities and social services including open space, bazar and community centre.
- The large ditch will help serve as a retention pond and reduce the flood risk.

Road Development

As a spontaneous area, accessibility is the most critical problem of the area. Roads are usually narrow, width varying from 8 feet to 16 feet and difficult for movement of vehicular traffic. To increase accessibility in the area the plan

makes a two way approach, creation of new link roads and widening of existing narrow roads wherever situation permits. Following are the road development proposals for the area.

Table-3.20: Proposed Road in DPZ-4

Road Type and Facilities	Length in			Area in Acres	Hectare
	Feet	Meter	Kilometer		
Arterial Road-50 ft. (15 m) wide	3100	945	0.94	3.56	1.46
Collector Road-30 ft (9 m) wide	3400	1037	1.04	2.34	0.96
Access Road-20 ft (6 m) wide	3910	1192	1.19	1.56	0.64
Road widening	1192	678	0.69	0.33	0.14

Link Road

About 3.17 km (10410 ft.) of new link roads have been proposed in Ulan area. A 50 ft. wide northern periphery road (same road is also proposed by RAJUK in its Begunabari Project) has been proposed as major link and outlet. About 1 km. of 30 ft wide link road has also been proposed. The first road originates from the central low land and links the area with Rampura Road. Another road originating from the same place runs southward and joins Rampura Road by widening of existing road near the connecting point. The third 30 feet wide road is located on the north-western part of Ulan. It links the existing roads with the RAJUK proposed 50 feet wide road of the of the Begunbari Khal project. About 1.19 km (3910 ft.) of 20 ft .wide new link road has been proposed in DPZ-4 with a total land of 1.56 acres. The new road will link the areas where there are scope of developing roads and also where new road links are vitally needed. At many places short links have been established between existing and new roads.

Road Widening

Due to over crowding and congestion there is very little scope for widening of existing roads in Ulan area. However, the Consultants with frantic effort has proposed widening of 0.61 km. of existing roads. The extension will be approximately 12 feet additional width on an average. Road widening would require about 0.33 acre of land.

Social Services

The study team recommends a complex for social services facilities on the unused water body on the western part of Ulan. The complex will comprise of about 2.26 acres of land with proposal for various facilities as stated below. The entire land of the complex will have to be acquired before developing the social services facilities.

Health Facilities

For other health services the local people will have to depend on other government health facilities and large number of private and NGO-operated facilities are available outside the area. However, an entrepreneur can run health facilities and clinics not exceeding 10 beds, on commercial basis (Building Construction Rules, 2008). For health facilities the Consultants earmarked one site comprising of about 0.34 acre on the western part of Ulan. The land owners themselves or any interested party can develop health facilities in the site. Public sector health facilities can also be created in the Community Centre. The facilities may include primary health care and immunization services.

Community Service

A Community Centre is proposed on the low land in the eastern part of DPZ-4, opposite to proposed bazar on an area of about 0.30 acre.

Table-3.21: Proposed Social Services in DPZ-4

Social Services	No. of Sites	Area in Acre
Health facility	1	0.34
Community Centre	1	0.30

Park and Play Field

There is no park and play ground in the study area. As per population projections for the study area the total population by the year 2015 will be 65,721 persons. As per UAP standards, 4 acres of land is needed to provide open space for 25,000 people. Therefore, 10.51 acres of land will be needed for park land by the year 2015. Considering the non-availability of vacant land, the plan proposes only 0.86 acre of land for location of park and 0.80 acre for a play field in the proposed social services complex.

Table-3.22: Proposed Open Space in DPZ-4

Open Space	No. of Sites	Area in Acre
Play field	1	0.80
Park	1	0.86

Bazar / Shopping Area

There exist a few small street-side vegetable shops to serve the local community. Rampura Bazar is the main daily market for the area. But this market is extremely small and congested to serve a vast population within its vicinity. The study team, therefore, feels that a separate daily bazar for Ulan area is necessary. The plan, therefore, recommends about 0.30 acre of land for a bazar in the low land on the eastern part of DPZ-4.

Table-3.23: Proposed Urban Services in DPZ-4

Urban Services	No. of Sites	Area in Acre
Bazar	1	0.30
Waste Disposal/Processing Site	1	720 sft.

Drainage

There is no underground storm water drainage system nor there is any sewerage system in the area. Surface drainage system is extremely poor. Due to non-availability of drainage, the water logging at different parts of the area take place during monsoon which hamper movement of the people. There is one big ditch in the area which serves as a retention pond for the area. But it is not enough to receive sufficient water to make free the area from flooding.

Solid Waste Management and Water Supply

Dhaka City Corporation is in charge of solid waste management of this Ward. But irregular cleaning of disposal sites causes inconvenience to locality due to pollution spread by the hip of untreated garbage. The narrow roads make it difficult for garbage lorries to enter into the area. Bins are limited and not well placed. Lack of space on roads makes it difficult to place bins. A waste disposal / processing site have been proposed on the south-western corner of the proposed bazar on an area of 720 sft. In this case also the site has been located near the bazar as a large amount of odor producing organic waste is created by daily bazars everyday. The site will also be served by a 30 ft. wide access road. Water supply is provided by WASA through pipe network using local DTW and pumps. But like other parts of the city the supply of water is inadequate to meet local demands.

Landuse Zoning

To ease development of compatible land use on Rampura Road and to allow uninterrupted growth of economic activities, the land use plan proposes a strip about 100 feet wide from the edge of the Rampura Road inwards into the private land to be declared as mixed use zone.

Table-3.23 shows the existing and proposed land uses in the DPZ-4, where housing still remains as the most dominant use (79.55%). It can be seen from the Table that only 10.57% of the land was devoted to roads which has increased to 15.81% as per land use proposals.

Table-3.24: Existing and Proposed Landuse of DPZ-4

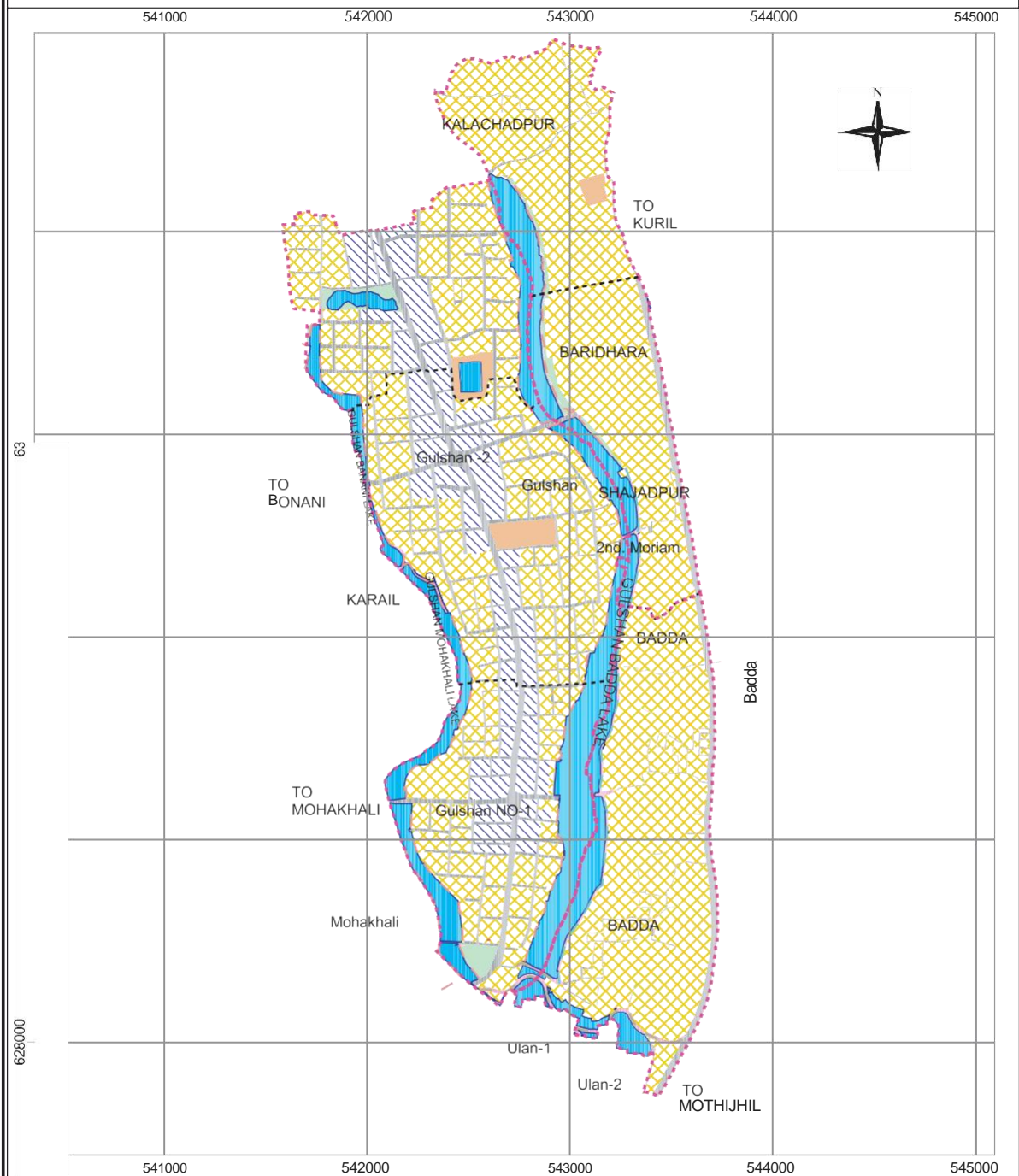
Landuse Category	Area in Acre			% of total Area	Comment
	Existing	Proposed Additional	Recommended Total		
Residential	101.22	+1.00	102.22	79.51	Land transferred to mixed use and roads.
Commercial	2.07	0.00	2.07	1.61	Land added from residential housing and vacant category.
Mixed	2.23	1.81	4.04	3.14	Land use created with land from housing, commerce and vacant category.
Industrial	0.87	-00.00	00.00	00.00	-
Institutional / Social Service	1.65	0.64	2.39	1.86	New facilities created from vacant land.
Urban Service	0.06	+0.32	0.38	0.30	-
Park and Play Field	00	+1.66	1.66	1.29	New facilities have been proposed on vacant land.
Road	10.57	5.24	15.81	12.30	New road have been proposed on vacant land.
Water body	9.90	-9.90	00.00	00	-
Total	128.57	-	128.57	100.00	-

National Development Plan (Public Agency Support)

Substantial agency support would be necessary for the implementation of the Detailed Area Plan proposed for Locatio-4 area. This support needs to come from different sectors of urban management and development at the initial stage. The important public agencies which will be involved directly in implementation phases are:-

- RAJUK, Upazila Parishad, LGED, RHD.
- Bangladesh Water Development Board (BWDB).
- Department of Public Health Engineering (DPHE).
- Power Development Board (PDB) and Rural Electrification Board (REB).
- Bangladesh Telecommunication Company Ltd. (BTCL).
- Titas Gas Transmission and Distribution Authority.
- Directorate of Health.
- Directorate of Environment (DoE).
- Bangladesh Agriculture Development Corporation (BADC).
- Dhaka City Corporation (DCC).

MAP 3.1: PROPOSED LAND USE PLAN FOR THE PROJECT AREA



<p>coHsuc u</p>	<p>Detailed Area Plan for DMDP Area, Location-04</p>	<p>CLIENT</p>			
<p>INDEX MAP DMDP</p> <p>Study area</p>	<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;"> <p>Legend:</p> <ul style="list-style-type: none"> ----- Mauza bo diary ----- Sheet boundary ----- Proposed Road (Feet) <ul style="list-style-type: none"> 6 4C 6C </td> <td style="width: 33%;"> <p>Proposed Landuse</p> <ul style="list-style-type: none"> Administrative Zone Agricultural Zone Commercial Zone (Business) Commercial Zone (Office) Transportation & Communication Flood Flow Zone General Industrial Zone Heavy Industrial Zone Institutional Zone Open Space Overlay Zone Proposed Road Network </td> <td style="width: 33%;"> <ul style="list-style-type: none"> Mixed Use Zone (Commercial-General Industrial) Mixed Use Zone (Residential-Commercial) Mixed Use Zone (Residential-Commercial-General Industrial) Mixed Use Zone (Residential-General Industrial) Non-Conforming Use Rural Settlement Zone Transportation Facilities Urban Residential Zone Water Retention Area Waterbody </td> </tr> </table>		<p>Legend:</p> <ul style="list-style-type: none"> ----- Mauza bo diary ----- Sheet boundary ----- Proposed Road (Feet) <ul style="list-style-type: none"> 6 4C 6C 	<p>Proposed Landuse</p> <ul style="list-style-type: none"> Administrative Zone Agricultural Zone Commercial Zone (Business) Commercial Zone (Office) Transportation & Communication Flood Flow Zone General Industrial Zone Heavy Industrial Zone Institutional Zone Open Space Overlay Zone Proposed Road Network 	<ul style="list-style-type: none"> Mixed Use Zone (Commercial-General Industrial) Mixed Use Zone (Residential-Commercial) Mixed Use Zone (Residential-Commercial-General Industrial) Mixed Use Zone (Residential-General Industrial) Non-Conforming Use Rural Settlement Zone Transportation Facilities Urban Residential Zone Water Retention Area Waterbody
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Chapter – 4

PLAN IMPLEMENTATION

4.0 Introduction

The current chapter is about the measures required for implementation of the plan proposals. Apart from area development priorities and phasing, the chapter recommends some land development measures based on participatory planning approach. The chapter also suggests some development control measures in order to overcome the present limitations of the BC rules presently in vogue.

4.1 Implementation Strategy

Traditionally, government does not feel it necessary to include people in the planning process where projects were implemented using its legal power. Such policy is no longer favourable for smooth execution of projects, as in many cases the project affected people (PAP) resist such development initiatives. With the increasing democratisation of human society it is now realised that people or the beneficiary of the projects have the lawful right to know about the plan which has direct bearing on their life and livelihood. People usually show considerably low price of their land in land records. Thus they are financially looser when a land is acquired for development and the land owner is paid according to documented land price. Compensation all over the world is a complicated process. Brokers prop up to bridge the gap between innocent people and the government machinery. Money sticks to broker's hands. Another sufferer group emerges to resist plan implementation process. Plan Implementation through Active Community Participation is an affective answer to offset these insurmountable obstacles on the way to plan implementation.

4.2 Land Management

4.2.1 Land Development Technique

The land management plan has been prepared as a potential residential area going to be developed or already developed as sprawl area when there is still scope for improvement or upgrading through provision of infrastructure. The plan has been prepared based on the local landowners as development partners supported by other stakeholders including local service agencies. For the existing urban areas density control guideline and certain incremental development of new urban areas, planning principles and appropriate techniques have been suggested including descriptions. One of the land management techniques considers neighbourhood development according to the method described below.

The main purpose of the land development management, DPZs would be under strict landuse control and management for ensuring harmonious environment in the study area. For this, a tabular formed municipal land development regulation has been prepared according to the DMDP's land development regulation, and it is a bit more organized. Any future land development within the study area must be in conformity with this land development regulation.

Table-4.1: Land Management Techniques

Suitable Techniques	Area of Intervention	Remark
Community Based Area Development	Highly Congested Areas where road width is very narrow	As the informal areas are already highly built-up there is hardly any opportunity for participatory land development.
Guided Land Development	Slowly developing new urban area	
Land Readjustment	Slowly developing new urban area	Only initiated road widening can be undertaken wherever possible.

a. Guided Land Development Plan (GLDP)

Guided Land Development Plan is a participatory plan which is usually adopted where a large number of small land parcel belongs to different owners. The main features of GLDP are -

- a) Usually prepared for urban fringe areas;
- b) Land remains under the existing ownership;
- c) Development agencies construct road and other infrastructure facilities;
- d) NGO can play active role in negotiation, planning and development;
- e) Landowners may provide land free of cost for road and other infrastructure development.

b. Site and Services Detailed Area Plan

It is a conventional local area based housing development plan undertaken by the urban development authorities through legal powers of compulsory land acquisition in Bangladesh. The main features are -

- a) Land compulsorily acquired before development;
- b) Layout plan prepared according to the potentiality of the site;
- c) Original landowners are compensated for land as per the land law;
- d) All necessary services and facilities provided according to the necessity of the community;
- e) Original landowners considered as a part of resettlement program or allotment plots.

The rationale behind such a choice is that except site and services type projects there are only a handful examples of other types that have ever been effectively tried in Bangladesh. There are a few examples of Guided Land Development (like, Lalmatia in Dhaka) but those were not institutionalized later or no replications were made afterwards. No Land Readjustment project has ever been tried here some with GLDP and AIP. So, it is uncertain which method would be easy to apply and widely acceptable to the people. Site and services method is a traditional approach of land development widely applied both by the public and private developers. On the part of the public authority their projects often serve the interest of privileged class of the society at the cost of eviction of a large number of indigenous families since this approach involves compulsory land acquisition.

Whatever type of ADP is undertaken, the development authority must go for pilot projects first before undertaking full scale projects. This will enable to understand the constraints and opportunities involved with implementation process of each type.

C. Community Based Area Development Plan (CBADP)

Community Based Area Development Plan (CBADP) is prepared for exerting control on existing spontaneous sprawl and unplanned development threatened for degradation of physical environment. Community based Committee may be formed with few members headed by the Ward Commissioner. Ward Commissioner is considered as the legal authority to organize the meetings regarding the problems of that community. Objective of such plans will promote civic facilities and improvement of livable environment. The main features of CBADP are as follows:

- a) Development authority should provide road and other basic infrastructures.
- b) Community may or may not share open space with others or the cost of infrastructure and services development.
- c) Development authority will create livable environment and enable the landowners to build their structures.
- d) Widening of existing narrow roads up to appropriate level to allow smooth movement of traffic and easy accessibility.
- e) New link roads will create to open up congested areas.
- f) Solid waste disposal, environmental issues, health and sanitation facilities, educational issues may be provided through participatory program.

- g) Contribution of the local community may provide to share development cost in the form of land or money; development authority will bear the initial cost of development.
- h) In case of the beneficiaries fail to share development cost, development authority can charge betterment fees as per their Ordinances to minimize the cost.
- i) Development cost may be minimized from the beneficiaries through development of appropriate mechanism.

d. Compulsory Land Acquisition Based Development

This is a conventional type of development tool undertaken by the urban development authorities as a special development project on land already under its possession or by compulsory acquisition of land or by purchase of land. In order to implement any project land acquisition is generally indispensable because in Dhaka maximum land is owned by private individuals. The government by using the power of eminent domain can acquire any land for community interest. The affected people are entitled to receive compensation as per rule. This kind of project serve special development needs. Such type of development plans may or may not involve people's participation.

e. Land Purchase

Any government authority, NGOs and private developers can purchase land for development purposes like building construction for housing, erection of factories and establishment of commercial centre or any other project. Land can be purchased through legal agreement and any other legal formalities as prescribed by the contemporary regulations. It is the mutual understanding between owner and purchaser, which is duly legalized by registration process. Affected people must be rehabilitated in respect to the compensation declared in the regulations. All other facilities will be provided for their survival.

Applicability of the above techniques of land development depends mainly on densities. Community based area development is the proper approach for those areas where very little open space remains. Where more unoccupied open space is available, guided land development may be the most suitable approach. Large tracts of barren land offer opportunities for site and services schemes and (where under low development pressures) for land pooling or land readjustment schemes.

In the built up areas, which have already developed haphazardly, suggestions have been made to widen some of the roads to form a network which could facilitate easy circulation and distribution of traffic and provide better accessibility of the residents to major networks of the city. In this context, some initial discussions were held with the locally elected representatives and in some cases they expressed certain reservations. With regard to the widening of some of the road links to enhance circulation within the area under planning, the reservations were expressed because widening will need demolition of some of the building along those roads This issues need to be further discussed at different levels of locally elected members including the members of Technical Management Committee.

f. Land Readjustment Plan (LRP)

Development authority can play a vital role in planning and development through Land Readjustment Plan projects (LRP) in collaboration with the landowners and other service giving agencies. The features of LRP are as follows:

- a) Prepared for undeveloped urban fringe areas where structures are yet to crop up.
- b) Landowners need to surrender their land development rights temporarily to the developer.
- c) Developer shall take over the entire tract comprising of suitable sizes of plots.
- d) The area is developed and provided with road and other services and infrastructure.
- e) After development, the plots are allotted to the original landowners as per agreement and the surplus land remained after allotment sold out to recover the project cost.

Dhaka as the capital of the country encounters a host of problems perpetuating for decades. With the growing importance of the city and mounting up pressure of population the problems are getting more and more precarious every year. Among the problems, uncontrolled sprawl development perhaps is the most irritating one particularly for a

development control agency like RAJUK. The unwanted sprawl originates not only due to ineffective development control but also due to failure of the equilibrium between demand and supply of rapidly diminishing buildable urban land.

The DMDP plan package has been correctly framed to address the development issues of the city that covers development. The Detailed Area Plan component of the plan package will have the most direct and practical implications on micro level development. Understanding about the framework, concept and ideas stated in the Structure Plan needs to be interacted with the site and its environments to produce a plausible solution. Good assessment of the existing situation will form an effective basis for this planning effort. The project shall take utmost care to best analyze and understand the study area by making a comprehensive survey in order to expose all details of its physical, social and economic aspects.

4.3 Areas for Action Area Plan

As the area falling under Location-4 is already a built-up area there is not much that can be done to improve the area. Roads in spontaneous areas are narrow and not at all planned with rational interlinkages. There is little scope of road widening as it would lead to huge financial involvement and create unrest among the land and property owners. However, the Begunbari project being implemented by the Government will bring some relief in easing traffic problems in the southern part of the planning area and open up hitherto inaccessible areas.

4.4 Public Sector Action Programme

Hatir Jheel project is a major physical development project in Dhaka city at the moment. A part of this project area lies in the southern periphery of Location-4 plan area. The development components of this project falling within the planning area include a road connecting Gulshan-Tejgaon link road with Progoti Sarani, Begunbari lake development, linking Gulshan lake with Begunbari lake, land development in the southern periphery of Gulshan. There will be substantial environmental improvement of Hatir Jheel area including circulation and drainage.

The Gulshan-Badda Link Road project has already been executed with a 60 feet wide link road. This serves as a vital east-west link. Footpaths have already been built along the western bank of Gulshan lake and eastern Bank of Gushan-Banani lake. These foot paths, apart from pedestrian use, will also save the lakes from further encroachment. So far as known there is no major public sector development programme in SPZ:6.

4.5 Area Development Priorities and Phasing

Since SPZ: 6 is largely a built up area, it is not necessary to determine phasing of new areas for development. However, there is scope to prioritize existing areas for development where developments have been proposed.

4.5.1 Phasing

The Detailed Area Plan (DAP) implementation phases have been indicated in the DMDP Structure Plan. The DAP implementation phases are categorized as Short Term (1995-2000), Medium Term (2000-2005) and Long Term (2005-2015). Short Term Phasing has already lost its validity. A large part of long term phase is also gone. The Consultant finds the only phase left is that of 2010 to 2015. So all the projects will have to be executed within this only period left.

DMDP Structure Plan Phasing of the Plan is as follows:

Table-4.2: Structure Plan Phasing

Structure Plan Phase	Period (Year)
Short-term	1995-2000
Medium-term	2000-2005
Long-term	2005-2015

Source: Structure Plan, DMDP

The development proposals under Detailed Area Plan for Locatio-4 area should have been implemented by 2015 being the current plan period. But there are no proposals which may neither be possible to implement within this period. Thus the consultant proposes three following sub-phases for implementation of various proposals made in the project. The sub-phases are,

Sub-Phase-I	2010-2012
Sub-Phase-II	2012-2015
Sub-Phase-III	Beyond the plan period

4.5.2 Fixation of Priorities

In order to meet needs of time the projects identified are needed to be appropriately phase out. Among which some were made first priority and some were made second priority. This time based priorities will be implemented based on phasing of DAP project. A list of phased out projects is provided in Chapter-5.

4.6 Landuse Zoning

Zoning is a form of legal power which is delegated to development authorities/municipalities through enabling legislation to ensure the welfare of the community by regulating the most appropriate use of the land. Zoning is a classification of land uses that limits what activities can or cannot take place on a land parcel by establishing a range of development options. Zoning has been defined as an action through legislation provided to a development authority/municipality to control...a) the heights to which buildings may be erected; b) the area of lots that must be left un-built upon; and c) the uses to which buildings and lots may be put.

▪ Area Zoning

The objective of area zoning is to specify which types of land use are considered appropriate for different areas or 'zones', and it therefore indicates the planning control objectives of the authority or municipality for its administrative area. The authority is obliged under the planning acts to designate in its development plan objectives for the use solely and primarily of particular areas for particular purposes.

▪ Density Zoning

The aim of the density zoning is to provide an acceptable density which is related to the designed facilities and amenities especially in the residential areas. This will ensure a healthy community and enjoyable community life.

▪ Height Zoning

This zoning provides height limits for structures and objects of natural growth and standards for use of an area which encourage and promote the proper and sound development of areas. It is also applicable to height restrictions for flight safety around airports or other similar purposes.

For effective development control, in addition to landuse zoning, individual facility and the structures therein is to comply certain regulations imposed to ensure desirable end. Relation between ground cover of buildings and the land parcel that house it, minimum setback of building from the adjoining plot boundaries, and the maximum floor area that can be constructed in relation to plot size and the connecting road etc. among many other details, are controlled by RAJUK's Building Construction Rules. Besides, Bangladesh National Building Code focuses on the appropriate materials, construction method, building safety and associated issues. In absence of DAP the above rules did not have scope for area specific rules and hence were common for the whole development process.

According to the Building Construction Rule, 2008, minimum permissible road width for obtaining plan permit is to be shown, construction is allowed on plots connected by narrow roads provided the plot owner leaves formally half of the additional area needed to make the road minm. 6m wide for or to the permitted minimum. Perhaps the intension behind this was that gradually the whole road would be raised up to 6m in short time and it is true for new areas coming urban development as most of the structures are non-permanent and they are to correct under this rule to permanent buildings making the whole road 6m wide in the process. But congested unplanned Dhaka represents an alarming picture. Most of the plots are occupied almost entirely by pucca structures several storied high soaring right from the property line connected by the narrow pathways, these owners did not bother for RAJUK's plan permit and a handful those who obtained a plan permit did not bother to follow them.

4.6.1 Landuse Classification

Detailed Area Plan as its Area Zoning responsibility classified the Landuse of DMDP area into following zones:

- a. Urban Residential Zone
- b. Commercial Zone (Business)
- c. Commercial Zone (Office)
- d. General Industrial Zone
- e. Heavy Industrial Zone
- f. Mixed Use Zone (Commercial-General Industrial)
- g. Mixed Use Zone (Residential-Commercial)
- h. Mixed Use Zone (Residential-Commercial-General Industrial)
- i. Mixed Use Zone (Residential-General Industrial)
- j. Institutional Zone
- k. Administrative Zone
- l. Agricultural Zone
- m. Flood Flow Zone
- n. Open Space
- o. Rural Settlement Zone
- p. Water Retention Area
- q. Water Body

The following sections deal with the general definition of the use and description of associated permitted and conditionally permitted uses under each Landuse zone one by one. The uses not listed here in any of the category shall be treated as **Restricted Use** for the corresponding landuse category and shall not be permitted only except unanimously decided otherwise by the Nagar Unnayan Committee. In such situations the use shall get permission in the category of **New Use**.

a. Urban Residential Zone

Urban Residential Zone is intended primarily for housing development but may also include a range of other uses particularly those that have the potential to foster the development of new residential communities such as schools, small shops, doctors' chambers, open spaces like playing fields and so on. Limited Commercial facilities within this zone shall be planned and developed as an integral retail or business unit which complies with the planned mixed-use concept of the Urban Area Plan.

Purpose

The prime objective of this zone is to provide the space for living as well as to meet the daily needs of the residents.

The main purposes of this zone are:

- To provide for residential development, associated services and to protect and improve residential amenities.
- To improve the quality of existing residential areas and strengthen the provision of local community services and amenities.
- To control unscheduled development on individual lots or tracts, promote economical and efficient land use.
- To provide for a variety of housing types and densities to meet current and future residential needs.
- To provide an appropriate mix of house sizes, types and tenures in order to meet household needs; to promote balanced communities; and to promote higher densities in the development centre to facilitate day and evening activity and ensure a 'living' centre.

The urban areas that are already densely and haphazardly built are termed here as Spontaneous Residential Zone. These zones primarily support living with some civic facilities. The main purpose of this landuse zone is to provide enough space for residence. There will have some supporting uses, too, for the residents.

The areas that have some scope to develop as a planned area are declared as Planned Residential Zone. In Planned Residential Zone, there will have a variety of supporting uses such as small retail, parking, post box etc with primarily residential use. Planned residential area in the neighbourhood form should be followed for new urban development.

The neighbourhood is a walk able community in human scale, with a frequently interconnected street network which weave a mix of housing types, and small local scale retail and service uses that serve the local population. The services designed here are in walking distances considering the day to day needs. Service standards for neighbourhood level are already mentioned in the previous standard section of this chapter. For purposes of administering the DAP Permitted Land Uses in the neighborhood, the design specification, standards and guidelines about the area and number must be maintained.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.3: Landuse Permitted for Urban Residential Zone

All Types of Residential House	(No Outside Storage)
Apartment Housing	Housing Project
Artisan's Shop	Housing Projects
Assisted Living or Elderly Home	Landscape and Horticultural Services
ATM Booth	Memorial Structure (Ancillary)
Barber Shop	Monument (Neighborhood Scale)
Bill Payment Booth	Mosque, Place of Worship
Boarding and Rooming House	Newspaper Stand
Book Stall	Nursery School
CBO Office	Orphanage
Child Daycare / Pre-school	Permitted
Children's Park (Must have parking)	Photocopying and Duplicating Services (No Outside Storage)
Cleaning / Laundry Shop	Pipelines and Utility Lines
Communication Service Facilities	Playing Field
Communication Tower Within Permitted Height	Primary School
Community Center	Private Garages (Ancillary Use)
Condominium or Apartment	Project Identification Signs
Confectionery Shop	Property Management Signs
Cottage	Public Transport Facility
Cultural Exhibits and Libraries	Retail Shops / Facilities
Cyber Café	Satellite Dish Antenna
Daycare Center (Commercial or Nonprofit)	Shelter (Passer by)
Departmental Stores	Shoe Repair or Shoeshine Shop (Small)
Doctor / Dentist Chamber	Special Dwelling
Dormitory	Specialized School: Dance, Art, Music, Physically Challenged & Others
Drug Store or Pharmacy	Stationery Store
Dwelling	Temporary Pandle for Permitted Function
Eidgah	Temporary Tent
Employee Housing (Guards / Drivers) / Ancillary Use	Transmission Lines
Fast Food Establishment / Food Kiosk	Urban-Nature Reserve
Fitness Centre	Uses in Neighborhood Center (Where Neighborhood Center exists)
Flowers, Nursery Stock and Florist Supplies	Water Pump / Reservoir
Gaming Clubs	Woodlot
General Store	
Grocery Store	
High School	
Household Appliance and Furniture Repair Service	

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure while the application meets the criteria mentioned in the requirement.

Table No. 4.4: Landuse Conditionally Permitted for Urban Residential Zone

Addiction Treatment Center	Graveyard / Cemetery
Amusement and Recreation (Indoors)	Guest House
Art Gallery, Art Studio / Workshop	Market (Katcha Bazaar) Place
Automobile Driving Academy	Neighborhood Co-Operative Office
Beauty and Body Service	Optical Goods Sales
Billiard Parlor / Pool Hall	Outdoor Café
Building Maintenance/Cleaning Services, No Outside Storage	Overhead Water Storage Tanks
Bus Passenger Shelter	Paints and Varnishes Store
Coffee Shop / Tea Stall	Parking Lot
Community Hall	Patio Homes
Correctional Institution	Photofinishing Laboratory
Courier Service	Plantation (Except Narcotic Plant)
Crematorium	Police Station
Electrical Sub Station	Post Office
Emergency Shelter	Postal Facilities
Energy Installation	Row House
Fire Brigade Station	Slaughter House
Flood Management Structure	Sports and Recreation Club
Fruit Markets	Static Transformer Stations
Funeral Services	Telephone Sub Station
Furniture & Variety Stores	Temporary Rescue Shed
Garages	Tennis Club
Garden Center or Retail Nursery	Tourist Home or Resort

Restricted Uses

All uses except permitted and conditionally permitted uses.

b. Commercial Zone (Business)

Commercial areas generally contain one or more of a wide variety of uses that includes business uses, offices, hotel, public houses, and limited forms of retailing. Uses that are particularly appropriate to these areas include wholesale, business service uses, the sale of motor vehicles and limited forms of retailing that involve the sale of bulky goods unsuitable to be carried away by pedestrians. This would allow uses that are compatible with, or reinforce, the commercial function of the area. As a whole, Commercial Zone is intended to provide all the facilities & services with the commercial landuse that are designed for basically trade and business.

Commercial zones are classified into two types: office and business predominated zones. Commercial Business Zone is a business predominated commercial zone that mainly supports business. This zone is intended to support large commercial developments in major incorporated areas such as retail distribution, retail warehouse, retail storage and retail logistics facilities.

The Commercial Business Zone is intended to provide areas for logistical and retail warehousing activities, including storage, distribution and packaging of goods and products as well as activities which require a large site and space.

Purpose

- The intent of this zone is to provide commercial nodes in convenient and strategic locations of the area to meet urban needs and to encourage clustering commercial development as opposed to strip commercial development and commercial sprawl.
- The main objective for designating this zone is to promote trade and commerce compactly associated with all other facilities.

Commercial business zone is mainly intended for supporting the business and associated works. There are several functions that are permitted in this zone.

Landuse Permitted

Commercial Zone (Business) is mainly intended for supporting the Business related activities. There are several functions that are permitted in this zone.

Table No. 4.5: Landuse Permitted for Commercial Zone(Business)

Accounting, Auditing or Bookkeeping Services	Confectionery Shop
Agri-Business	Conference Center
Agricultural Sales and Services	Construction Company Offices
Ambulance Service	Courier Service
Antique Store	Cyber Café
Appliance Store	Day-care Center (Commercial or Nonprofit)
ATM Booth	Department Stores, Furniture & Variety Stores
Auction Market	Doctor / Dentist Chamber
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Drug Store or Pharmacy
Auto Leasing or Rental Office	Electrical and Electronic Equipment & Instrument Sales
Auto Paint Shop	Fast Food Establishment / Food Kiosk
Auto Parts and Accessory Sales (Indoors)	Freight Handling, Storage & Distribution
Auto Repair Shop (With Garage)	Freight Transport Facility
Automobile Sales	Freight Yard
Automobile Wash	Fruit and Vegetable Markets
Bakery or Confectionery Retail	General Store
Bank & Financial Institution	Grocery Store
Barber Shop	Guest House
Beauty and Body Service	Hotel or Motel
Bicycle Shop	Inter-City Bus Terminal
Billboards, Advertisements & Advertising Structure	Jewelry and Silverware Sales
Billiard Parlor/Pool Hall	Market (Bazar) Place
Book or Stationery Store	Mosque, Place of Worship
Building Material Sales or Storage (Indoors)	Motorcycle Sales Outlet
Bulk Mail and Packaging	Multi-Storey Car Park
Bus Passenger Shelter	Newspaper Stand
Cinema Hall	Outdoor Recreation, Commercial Outdoor Recreation
Commercial Office	Parking Lot (Commercial)
Communication Service Facilities	Pet Store
Communication Tower Within Permitted Height	Photocopying and Duplicating Services
Computer Maintenance and Repair Shop	Photofinishing Laboratory & Studio
Computer Sales & Service Shops	Pipelines and Utility Lines

Post Office
Preserved Fruits and Vegetables Facility/ Cold Storage
Printing, Publishing and Distributing House
Professional Office
Project Identification Signs
Property Management Signs
Public Transport Facility
Refrigerator or Large Appliance Repair
Resort
Restaurant
Retail Shops / Facilities
Satellite Dish Antenna
Shelter (Passers By)
Shopping Mall/ Plaza
Slaughter House
Social Forestry

Software Development Firm
Sporting Goods and Toys Sales Centers
Super Store
Taxi Stand
Telephone Exchanges
Television, Radio or Electronics Repair (No Outside Storage)
Theater (Indoor)
Transmission Lines
Utility Lines
Vehicle Sales & Service, Leasing or Rental
Veterinarian Clinics, Animal Hospitals
Warehousing
Water Pump / Reservoir
Wood Products
Woodlot

Landuse Conditionally Permitted

Some functions are permitted with some condition in this zone.

Table No. 4.6: Landuse Conditionally Permitted for Commercial Zone (Business)

Amusement and Recreation (Indoors)
Bicycle Assembly, Parts and Accessories
Broadcast Studio / Recording Studio (No Audience)
Coffee Shop / Tea Stall
Concert Hall, Stage Shows
Construction, Survey, Soil Testing Firms
Container Yard
Trade Shows
Craft Workshop
Plantation (Except Narcotic Plant)
Energy Installation
Re-fuelling Station
Firm Equipment Sales & Service
Agricultural Chemicals, Pesticides or Fertilizers Shop
Fitness Centre
Flowers, Nursery Stock and Florist Supplies
Forest Products Sales
Fuel Dealers
Garages
Garden Center or Retail Nursery
Police Box / Barrack

Fire / Rescue Station
Grain & Feed Mills
Household Appliance and Furniture Repair Service
Incineration Facility
Indoor Amusement Centers, Game Arcades
Indoor Theatre
Junk / Salvage Yard
Lithographic or Print Shop
Motor Vehicle Fuelling Station / Gas Station
Musical Instrument Sales or Repair Shop
Optical Goods Sales
Painting and Wallpaper Sales
Paints and Varnishes Store
Parking Lot
Patio Homes
Private Garages
Retail Shops Ancillary To Studio / Workshop
Stone / Cut Stone Products Sales
Salvage Processing Activities
Truck/Covered Van Stand

Restricted Uses

All uses except permitted and conditionally permitted uses.

c. Commercial Zone (Office)

The Commercial Zone (Office) is intended to provide all the facilities and services with the commercial landuse. Commercial Office Zone is an office pre-dominated commercial zone that mainly supports the official works. It

supports other types of commercial activities, too. Proposals for these areas involve large-scale buildings and require a high degree of accessibility and parking space for car users and delivery vehicles.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.7: Landuse Permitted for Commercial Zone (Office)

Accounting, Auditing or Bookkeeping Services	Freight Transport Facility
Ambulance Service	General Store
Antique Store	Government Office
Art Gallery, Art Studio / Workshop	Health Office
ATM Booth	Hotel
Auditorium, Meeting Halls, and Conference Facilities, Convention Center	Hotels
Auto Leasing or Rental Office	Indoor Amusement Centers, Game Arcades
Automobile Driving Academy	Mosque, Place of Worship
Automobile Wash	Multi-Storey Car Park
Bank & Financial Institution	Newspaper Stand
Billboards, Advertisements & Advertising Structure	Parking Lot (Commercial)
Boarding and Rooming House	Pathological Lab
Book Stall	Photocopying and Duplicating Services
Bulk Mail and Packaging	Photofinishing Laboratory & Studio
Bus Passenger Shelter	Post Office
Catering Service	Professional Office
Chinese Restaurant	Project Identification Signs
Cinema Hall	Project Office
Clinic	Property Management Signs
Coffee Shop / Tea Stall	Public Transport Facility
Commercial Office	Real Estate Office
Communication Service Facilities	Restaurant
Communication Tower Within Permitted Height	Retail Shops / Facilities
Computer Maintenance and Repair	Sales Office of Industries
Computer Sales & Services	Satellite Dish Antenna
Confectionery Shop	Software Development Firm
Conference Center	Stationery Store
Construction Company	Taxi Stand
Construction, Survey, Soil Testing Firms	Telephone Exchanges
Courier Service	Toys and Hobby Goods Processing and Supplies
Cyber Café	Training Centre
Day-care Center (Commercial or Nonprofit)	Utility Lines
Dental Laboratory	Utility Lines
Department Stores, Furniture & Variety Stores	Vehicle Sales & Service, Leasing or Rental
Diagnostic Center	Veterinarian Hospitals
Doctor / Dentist Chamber	Water Pump / Reservoir
Food Court	Woodlot
Freight Handling, Storage & Distribution	

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure.

Table No. 4.8: Landuse Conditionally Permitted for Commercial Zone (Office)

Amusement and Recreation (Indoors)	Outdoor Café
Beauty and Body Service	Painting & Wallpaper Sales
Broadcast Studio / Recording Studio (No Audience)	Paints and Varnishes Store
Civic Administration	Parking Lot (Commercial)
Concert Hall, Stage Shows	Patio Homes
Counseling Services	Plantation (Except Narcotic Plant)
Dental Clinic / Lab	Police Box / Barrack
Diagnostic Center / Pathological Lab	Printing, Publishing and Distributing
Drug Store or Pharmacy	Psychiatric Hospital
Fast Food Establishment / Food Kiosk	Radio / Television or T&T Station With Transmitter Tower
Fire / Rescue Station	Retail Shops Ancillary To Studio / Workshop
First Aid & Ambulance Service	Super Store
Fitness Centre	Theater (Indoor)
Flowers, Nursery Stock and Florist Supplies	Transmission Lines
Fuelling Station	Vulcanizing Services
Garage	Workers' Dormitory
Lithographic or Print Shop	
Optical Goods Sales	

Restricted Uses

All uses except permitted and conditionally permitted uses.

d. General Industrial Zone

Promoting the development of industrial areas as the primary locations for uses including manufacturing, repairs, warehousing, distribution, open-storage, waste materials treatment and recovery, and transport operating centers, industrial zone has been earmarked. The development of inappropriate mixes of uses, such as office based industry and retailing will not normally be encouraged here.

It is an objective to ensure that, normally, new buildings in primarily industrial areas are single storey with high ceilings to provide versatility and adaptability to accommodate a broad range of types of plant, machinery and delivery vehicles throughout their design life.

It is an objective to ensure that the likely demand for car parking and delivery vehicle facilities are fully met within the site, to apply the highest standards of design, hard and soft landscaping and to ensure that pedestrian access is provided and that provision is made for public transport.

Purpose

The intent of this zone is to accommodate certain industrial uses which, based on their operational characteristics, is incompatible with residential, social, medical, and commercial environs. As a result, the establishment of such zones shall be restricted to areas geographically buffered from such environs, and the operations of such uses monitored by performance standards to ensure environmental compatibility.

- The purpose and intent of industrial zone is to provide areas in appropriate locations where various light and heavy industrial operations can be conducted without creating hazards to surrounding land uses. Industrial

zones are cohesive, planned tracts, with all elements sharing the same or compatible architectural and landscaping themes within a parcel.

- Areas intended to accommodate a variety of industrial establishments which: 1) employ high environmental quality standards; 2) may function as an integral part of an overall development area; and, 3) have minimal impacts on adjacent uses.
- The purpose and intent of General industrial zone is to provide areas in appropriate locations for certain types of light manufacturing, processing or fabrication, warehousing establishments of non-objectionable products or adjacent uses because they are characterized by a minimum of material, processes or machinery likely to cause undesirable effects upon nearby or adjacent residential or commercial property.

General Industrial Zone is to accommodate Green, Orange A, Orange B types of industries of Department of Environment (DOE) prepared categories and Urban Area Plan designated light industries and general industries along with some other new types. Here the industries will not be noxious and heavy.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.9: Landuse Permitted for General Industrial Zone

Aluminum products	Fabric washing Plant
Artificial Fiber Production	Factory for production of chocolate and lozenge.
Assembling and manufacturing of clocks and watches	Fire / Rescue Station
Assembling and manufacturing of electrical and Electronic home products etc.	Flour (large) Mill
Assembling and manufacturing of electrical and Electronic home products etc.	Freight Transport Facility
Assembling and manufacturing of toys (except plastic items)	Furniture Manufacture of wood/iron, aluminium, etc.
Assembling of motor vehicles	Galvanizing
Assembling of telephones	Garments and sweater Factory
ATM Booth	Glass factory
Automatic rice mill.	Glue (excluding animal glue)
Bakery	Grinding/husking wheat, rice, turmeric, chilly, pulses - machine above 0 Horse Power
Bakery.	Grocery Store
Bank & Financial Institution	Hotel, multi-storied commercial building.
Bicycle Assembly, Parts and Accessories	Household Appliance and Furniture Repair Service
Blacksmith	Ice-cream
Bus Passenger Shelter	Jute mill
Chocolate and lozenge Factory	Lime
Cinema Hall	Machine Sheds
Clinic and Pathological lab	Manufacture of Agricultural tools, equipments and small machinery.
Cold storage	Manufacture of Industrial tools, equipment and machinery.
Communication Tower Within Permitted Height	Manufacturing of wooden vessel
Confectionery Shop	Match Factory
Dry-cleaning	Meat and Poultry (Packing & Processing)
Edible oil	Metal utensils/spoons etc
Effluent Treatment Plant	Mosque, Place Of Worship
Electric cable	Motor vehicles repairing works
Engineering works	Newspaper Stand
	Packaging Industries

Perfumes, cosmetics
Pharmaceutical Industry
Photocopying and Duplicating Services
Photographic Film Factory
Pipelines and Utility Lines
Plastic & rubber goods (excluding PVC)
Police Box / Barrack
Power Loom
Printing and writing ink manufacturing Industry
Printing Press
Printing, Publishing and Distributing
Processing : fish, meat and food
Processing and bottling of drinking water and carbonated drinks
Production of artificial leather goods
Production of Artificial leather goods
Production of Comb, hair band, hair clip etc.
Production of gold ornaments.
Production of Pin, board pin, U Pin etc.
Production of powder milk/condensed milk/dairy.
Production of shoes and leather goods
Production of spectacles frames.
Production of utensils and souvenirs of brass and bronze.
Public Transport Facility
Repairing of refrigerators
Restaurant
Restaurant
Retail Shops / Facilities
Salt Industry
Salt production

Salvage Processing
Salvage Yards
Satellite Dish Antenna
Sawmill, Chipping and Pallet Mill
Shelter (Passers By)
Shoes and leather goods production
Soap
Social Forestry
Sodium silicate Factory
Spinning mill
Sports goods Production
Starch and glucose factory
Stone grinding, cutting and polishing
Tea processing
Television, Radio or Electronics Repair (No Outside Storage)
Tire re-treading
Transmission Lines
Truck Stop & Washing or Freight Terminal
Utensils made of clay and china clay/sanitary wares (ceramics)
Utility Lines
Water Pump / Reservoir
Water Purification Plant
Weaving and handloom.
Wood Products
Wood treatment
Wood/iron/aluminum Furniture production
Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee following appropriate procedure.

Table No. 4.10: Landuse Conditionally Permitted for General Industrial Zone

Amusement and Recreation (Indoors)
Appliance Store
Assembling and manufacturing of clocks and watches
Assembling and manufacturing of electrical and Electronic home products etc.
Assembling and manufacturing of toys (except plastic items)
Assembling of motorcycles, bicycles and toy cycles
Assembling of scientific and mathematical instruments

Assembling of telephones
Bamboo and cane goods
Book-binding
Candle Production
Carpet and mat production
Cork items Production
Cyber Café
Daycare Center (Commercial or Nonprofit)
Doctor / Dentist Chamber
Electrical and Electronic Equipment and Instruments Sales

Employee Housing
Energy Installation
Fast Food Establishment / Food Kiosk
Garages
Gold ornaments Production
Grain & Feed Mills
Incineration Facility
Laundry
Lithographic or Print Shop
Manufacturing of Artificial flower
Medical and surgical instrument production
Motor Vehicle Fuelling Station / Gas Station
Motorcycle Sales Outlet
Musical instruments
Outdoor Fruit and Vegetable Markets
Outside Bulk Storage
Overhead Water Storage Tanks

Painting and Wallpaper Sales
Paints and Varnishes
Parking Lot
Parking Lot (Commercial)
Pen and ball-pen Factory
Photographic Lab (except ultra violet and infra red)
Plantation (Except Narcotic Plant)
Private Garages
Production of artificial leather goods
Re-packing of milk powder (excluding production)
Retail Shops Ancillary To Studio / Workshop
Rope and coir mat production
Sports goods (excluding plastic made items)
Super Store
Tea packing (excluding processing)
Washing Plant

Restricted Uses

All uses except permitted and conditionally permitted uses.

e. Heavy Industrial Zone

The purpose and intent of Heavy Industrial Zone is to provide areas in appropriate locations where various heavy industrial operations can be conducted without creating hazards to surrounding land uses.

Areas are intended to accommodate manufacturing and fabricating establishments that are generally characterized as producing noise, vibration, heavy freight traffic, fumes, and other forms of pollution which may be objectionable to adjacent uses is characterized as Heavy Industrial Zone.

Heavy industries are those industries listed as red industries in the DOE Industry Type list and industries listed in the Urban Area Plan as noxious industries including mining/quarrying.

Purpose

- To confine heavy, noisy and vibrating industries as they harm human living in the surrounding area.
- To ensure that industrial development achieves high environmental standards of cleaner production, waste disposal, noise and air quality
- To encourage the design and construction of energy efficient, functional and flexible industrial and commercial facilities.
- To restrict heavy and noxious industrial developments along major approach routes and major roads.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.11: Landuse Permitted for Heavy Industrial Zone

Acids and their salts (organic or inorganic) Industry	Ordnance Factory
Animal Glue	Other Chemicals Industry
Artificial Rubber Industry	Outside Bulk Storage
Asbestos Factory	Paper and Pulp Mill
ATM Booth	Pesticides, Fungicides and Herbicides Industry
Bank & Financial Institution	Phosphorus and its Compounds/Derivatives Industry
Basic Industrial Chemicals Industry	Photo Films,
Battery Industry	Photo papers and Photo Chemicals Industry
Bicycle Assembly, Parts and Accessories	Pipelines and Utility Lines
Bitumen Industry	Plastic Raw Materials (PVC, PP/Iron, Polyesterin etc.) Factory
Board Mills	Police Box / Barrack
Bus Passenger Shelter	Power plant
Carbon rod Industry	Public Transport Facility
Cement Industry	Raw materials of Medicines and Basic Drugs Industry
Chemical dyes, Polish, Varnish, Enamel Paint Factory	Refractory
Chemical Industry	Refrigerator/Air-conditioner/Air-cooler manufacturing
Chlorine, Fluorine, Bromine, Iodine and their Compounds/Derivatives Industry	Re-rolling Mills
Communication Tower Within Permitted Height	Re-rolling Mills
Detergent Factory	Road Network
Distillery	Rodenticide Industry
Effluent Treatment Plant	Satellite Dish Antenna
Electroplating	Saw Mills
Explosive Industry	Scrap industry
Fabric Dyeing and Chemical Processing Industry	Sewage Treatment Plant
Fibre-glass Factory	Shelter (Passers By)
Fire / Rescue Station	Ship Manufacturing
Flood Control Structures	Social Forestry
Formaldehyde Industry	Sugar Mill
Fuel Oil Refinery	Tannery
Grocery Store	Tire and Tubes
Heavy Engineering Workshop	Tobacco Processing, Cigarette/Bidi Factory
Heavy Repairing of Motor Vehicles	Transmission Lines
Hospital	Truck Stop & Washing
Incineration Facility	TSP Fertilizer Factory
Industrial Estate	Urea Fertilizer Factory
Industrial Gas (Oxygen, Nitrogen & Carbon-dioxide) Industry	Utility Line
Iron and Steel Mill	Utility Lines
Jute Mill	Various Products made from Petroleum and Coal Industry
Life Saving Drugs Industry	Waste Incinerator
Lumber and building supply	Water Pump / Reservoir
Metallic Boat Manufacturing	Water Treatment Plant
Mosque, Place of Worship	Wooden Boat Manufacturing
Murate of Potash Manufacturing	Woodlot
Newspaper Stand	
Non-iron Basic Metals Industry	

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee following appropriate procedure.

Table No. 4.12: Landuse Conditionally Permitted for Heavy Industrial Zone

Amusement and Recreation (Indoors)	Motor Vehicle Fuelling Station / Gas Station
Cyber Café	Nitrogen Compounds (Cyanide, Cyanamid etc.)
Daycare Center (Commercial or Nonprofit)	Industry
Doctor / Dentist Chamber	Parking Lot
Employee Housing	Parking Lot (Commercial)
Energy Installation	Plantation (Except Narcotic Plant)
Freight Transport Facility	Private Garages
Garages	Retail Shops Ancillary To Studio / Workshop
Machine Sheds	

Restricted Uses

All uses except permitted and conditionally permitted uses.

f. Mixed Use Zone (Commercial-General Industrial)

There are areas where the mixture of uses is such that they can't be segregated, the areas are declared as mixed use zone. An appropriate mix of landuses will be maintained in these types of zones. Four types of mixed use zones have been proposed here. Each of them has unique characteristics.

In Industrial cum Commercial area exclusive residential landuse will not be permitted except in the form of quarters for the employees within the Industrial complex.

Purpose

The purpose of the Commercial-Industrial zone is to provide areas in the city primarily for medium to high density mixed-use developments, with commercial, office and industrial uses that are sensitive to the adjacent residential areas; to support an urban growth centre where there will be a bulk of trade and commerce. The Commercial-Industrial zone is intended to achieve cohabitation of uses, while ensuring that negative impacts on residents are minimized. The spaces created in the Commercial-Industrial zone are intended to encourage a diminished need for motorized travel and shall possess characteristics of the both area of commercial and industrial. The Mixed Use Zone allows a wide variety of uses including, warehouse, shop, office and accommodation with condition.

- To preserve and promote viable industries that can coexist with more commercially oriented uses,
- To meet the need for a mix of lower rent bulky goods retailing, specialized industrial, commercial and service activities alongside general industry.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.13: Landuse Permitted for Mixed Use Zone (Commercial-General Industrial)

Accounting, Auditing or Bookkeeping Services	Grocery Store
Agricultural Chemicals, Pesticides or Fertilizers Shop	Home Furnishings
Agricultural Sales and Services	Mosque, Place of Worship
Agro-Based Industry (Rice Mill, Saw Mill, Cold Storage)	Motorcycle Sales Outlet
Antique Store	Multi-Storey Car Park
Appliance Store	Musical Instrument Sales or Repair
Art Gallery, Art Studio / Workshop	Newspaper Stand
Artisan's Shop	Photocopying and Duplicating Services
ATM Booth	Pipelines and Utility Lines
Auto Leasing or Rental Office	Preserved Fruits and Vegetables Facility / Cold Storage
Auto Paint Shop	Project Identification Signs
Auto Parts and Accessory Sales (Indoors)	Property Management Signs
Auto Repair Shop (With Garage)	Public Transport Facility
Automobile Sales	Public Utility Stations & Substations
Automobile Wash	Real Estate Office
Bakery or Confectionery Retail	Refrigerator or Large Appliance Repair
Barber Shop	Research organization (Agriculture / Fisheries)
Bicycle Shop	Restaurant
Billboards, Advertisements & Advertising Structure	Retail Shops / Facilities
Billiard Parlor / Pool Hall	Rickshaw / Auto Rickshaw Stand
Blacksmith	Satellite Dish Antenna
Boarding and Rooming House	Shelter (Passers By)
Book or Stationery Store or Newsstand	Social Forestry
Broadcast Studio / Recording Studio (No Audience)	Sporting Goods and Toys Sales
Building Material Sales or Storage (Indoors)	Stone / Cut Stone Products Sales
Bulk Fuel Sales Depot	Storage & Warehousing
Bulk Mail and Packaging	Television, Radio or Electronics Repair (No Outside Storage)
Bus Passenger Shelter	Toys and Hobby Goods Processing and Supplies
Cinema Hall	Training Centre
Commercial Recreational Buildings	Transmission Lines
Communication Service Facilities	Truck Stop & Washing or Freight Terminal
Communication Tower Within Permitted Height	Utility Lines
Confectionery Shop	Vehicle Sales & Service, Leasing or Rental
Construction, Survey, Soil Testing Firms	Warehousing
Courier Service	Water Pump / Reservoir
Doctor / Dentist Chamber	Wood Products
Firm Equipment Sales & Service	Woodlot
Fuel and Ice Dealers	
Funeral Services	
General Store	

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee.

Table No. 4.14: Landuse Conditionally Permitted for Mixed Use Zone (Commercial-General Industrial)

Assembling and manufacturing of clocks and watches	Freight Handling, Storage & Distribution
Assembling and manufacturing of electrical and Electronic home products etc.	Freight Transport Facility
Assembling and manufacturing of electrical and Electronic home products etc.	Freight Transport Facility
Assembling and manufacturing of toys (except plastic items)	Gallery / Museum
Assembling of telephones	Garages
Auction Market	Government Office
Bank & Financial Institution	Grain & Feed Mills
Beauty and Body Service	Grocery Store
Bicycle Assembly, Parts and Accessories	Hotel or Motel
Blacksmith	Household Appliance and Furniture Repair Service
Bus Passenger Shelter	Household Appliance and Furniture Repair Service
Coffee Shop / Tea Stall	Machine Sheds
Communication Tower Within Permitted Height	Meat and Poultry (Packing & Processing)
Computer Maintenance and Repair	Meat and Poultry (Packing & Processing)
Computer Sales & Services	Optical Goods Sales
Concert Hall, Stage Shows	Outdoor Fruit and Vegetable Markets
Confectionery Shop	Outside Bulk Storage
Conference Center	Painting and Wallpaper Sales
Construction Company	Paints and Varnishes
Cottage	Plantation (Except Narcotic Plant)
Counseling Services	Police Box / Barrack
Craft Workshop	Printing, Publishing and Distributing
Cyber Café	Project Office
Department Stores, Furniture & Variety Stores	Retail Shops Ancillary To Studio / Workshop
Drug Store or Pharmacy	Telephone Exchanges
Energy Installation	Television, Radio or Electronics Repair (No Outside Storage)
Fabric Store	Theater (Indoor)
Fast Food Establishment / Food Kiosk	Trade Shows
Fire / Rescue Station	Transmission Lines
Forest Products Sales	Truck Stop & Washing or Freight Terminal

Restricted Uses

All uses except permitted and conditionally permitted uses.

g. Mixed use zone (Residential–Commercial)

Mixed-use development shall mean a development consisting of one or more lots developed as a cohesive project and designed with a blend of various compatible uses such as commercial and residential. These landuse areas will contain residential and limited commercial activities only such as small retail, general store, food kiosk etc.

Purpose

Industrial uses within the Mixed Use zone should be restricted to those uses that have a minimal amenity impact on adjoining uses and surrounding residential use. The main purposes of this type of landuse classification are:

- To provide for a mixed use development centre in conjunction with the development plan for the overall development, and to provide for high-density residential development, and to identify, reinforce, strengthen

and promote urban design concepts and linkages with the existing town centre activity areas so that the pressure on vacant land are minimized.

- The aim is to develop a zone scale retail development in a mixed use centre by densification of appropriate commercial and residential developments ensuring a mix of commercial, recreational, community, educational, civic, cultural, leisure, residential uses, urban streets and urban open spaces, while delivering a quality urban environment which will enhance the quality of life of resident, visitor and workers alike.
- Provide for a range of commercial and service activities at a scale that will protect the planned hierarchy of commercial centres and the territory's preferred locations for office development.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.15: Landuse Permitted for Mixed use zone (Residential–Commercial)

Accounting, Auditing or Bookkeeping Services	Correctional Institution
Addiction Treatment Center	Courier Service
Agricultural Sales and Services	Cyber Café
Antique Store	Daycare Center (Commercial or Nonprofit)
Apartments	Doctor / Dentist Chamber
Appliance Store	Dormitory
Art Gallery, Art Studio / Workshop	Employee Housing
Artisan's Shop	Fabric Store
Assisted Living or Elderly Home	Fast Food Establishment / Food Kiosk
ATM Booth	Funeral Services
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	General Store
Auto Leasing or Rental Office	Grocery Store
Automobile Driving Academy	Guest House
Automobile Wash	Hospital
Bakery or Confectionery Retail	Housing Projects
Bank & Financial Institution	Individual Housing
Barber Shop	Jewelry and Silverware Sales
Bicycle Shop	Landscape and Horticultural Services
Billboards, Advertisements & Advertising Structure	Mosque, Place of Worship
Billiard Parlor / Pool Hall	Newspaper Stand
Blacksmith	Nursery School
Boarding and Rooming House	Photocopying and Duplicating Services
Book or Stationery Store or Newsstand	Pipelines and Utility Lines
Bus Passenger Shelter	Primary School
Child Daycare / Preschool	Project Identification Signs
Children's Park	Property Management Signs
Cleaning / Laundry Shop	Public Transport Facility
Commercial Recreational Buildings	Resort
Communication Service Facilities	Rickshaw / Auto Rickshaw Stand
Communication Tower Within Permitted Height	Satellite Dish Antenna
Community Center	Shelter (Passers By)
Condominium or Apartment	Shoe Repair or Shoeshine Shop (Small)
Confectionery Shop	Slaughter House
	Social Forestry

Social organization
Software Development
Special Dwelling
Toys and Hobby Goods Processing and Supplies
Training Centre
Transmission Lines

Utility Lines
Vehicle Sales & Service, Leasing or Rental
Warehousing
Water Pump / Reservoir
Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee.

Table No. 4.16: Landuse Conditionally Permitted for Mixed use zone (Residential–Commercial)

Agricultural Chemicals, Pesticides or Fertilizers Shop	Health Office, Dental Laboratory, Clinic or Lab
Amusement and Recreation (Indoors)	Hotel or Motel
Beauty and Body Service	Household Appliance and Furniture Repair Service
Broadcast Studio / Recording Studio (No Audience)	Indoor Amusement Centers, Game Arcades
Building Maintenance / Cleaning Services, No Outside Storage	Indoor Theatre
Building Material Sales or Storage (Indoors)	Lithographic or Print Shop
Coffee Shop / Tea Stall	Market (Bazar)
Commercial Office	Musical Instrument Sales or Repair
Computer Maintenance and Repair	Optical Goods Sales
Computer Sales & Services	Outdoor Café
Concert Hall, Stage Shows	Outdoor Fruit and Vegetable Markets
Conference Center	Painting and Wallpaper Sales
Construction Company	Paints and Varnishes
Construction, Survey, Soil Testing Firms	Patio Homes
Cottage	Photofinishing Laboratory & Studio
Counseling Services	Plantation
Craft Workshop	Poultry
Crematorium	Printing, Publishing and Distributing
Cultural Exhibits and Libraries	Project Office
Department Stores, Furniture & Variety Stores	Psychiatric Hospital
Drug Store or Pharmacy	Radio / Television or T&T Station With Transmitter Tower
Energy Installation	Refrigerator or Large Appliance Repair
Fitness Centre	Restaurant
Flowers, Nursery Stock and Florist Supplies	Retail Shops / Facilities
Freight Handling, Storage & Distribution	Retail Shops Ancillary To Studio / Workshop
Freight Transport Facility	Sporting Goods and Toys Sales
Gaming Clubs	Sports and Recreation Club, Firing Range: Indoor
Garages	Telephone Exchanges
Garden Center or Retail Nursery	Television, Radio or Electronics Repair (No Outside Storage)
Government Office	
Graveyard / Cemetery	

Restricted Uses

All uses except permitted and conditionally permitted uses.

h. Mixed Use Zone (Residential-Commercial-General Industrial)

The Residential- Commercial- General Industrial zone is intended to achieve cohabitation of uses, while ensuring that negative impacts on residents are minimized. The spaces created in this zone are intended to encourage a diminished need for motorized travel and shall possess characteristics of all of the three- Residential, Commercial and Industrial.

Purpose

The main purpose of this zone is to support the diversification and expansion of the area's industrial base and employment growth as well as to facilitate investment in a wide range of industrial and related activities, with efficient land utilization and provision of infrastructure. To make provision for small-scale services that support surrounding industrial activities, or which meet the needs of the local workforce is a primary aim of this type of landuse. Provide convenient access for the area and regional residents to industrial goods, services and employment opportunities, too, is an important purpose of this zone.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.17: Landuse Permitted for Mixed Use Zone (Residential-Commercial-General Industrial)

Accounting, Auditing or Bookkeeping Services	Courier Service
Antique Store	Fire / Rescue Station
Appliance Store	General Store
ATM Booth	Grocery Store
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Guest House
Auto Leasing or Rental Office	Hospital
Auto Paint Shop	Landscape and Horticultural Services
Auto Parts and Accessory Sales (Indoors)	Mosque, Place of Worship
Auto Repair Shop (With Garage)	Newspaper Stand
Automobile Driving Academy	Nursery School
Automobile Sales	Photocopying and Duplicating Services
Automobile Wash	Pipelines and Utility Lines
Bakery or Confectionery Retail	Police Box / Barrack
Bank & Financial Institution	Primary School
Barber Shop	Project Identification Signs
Bicycle Assembly, Parts and Accessories	Property Management Signs
Bicycle Shop	Public Transport Facility
Billboards, Advertisements & Advertising Structure	Rickshaw / Auto Rickshaw Stand
Billiard Parlor / Pool Hall	Satellite Dish Antenna
Blacksmith	Service Garage
Boarding and Rooming House	Service Stations, Full Service (With Minor Repair)
Book or Stationery Store or Newsstand	Sewage Treatment Plant
Bulk Mail and Packaging	Shelter (Passers By)
Bus Passenger Shelter	Shoe Repair or Shoeshine Shop (Small)
Children's Park	Social Forestry
Cleaning / Laundry Shop	Social organization
Commercial Recreational Buildings	Solid Waste Recycling Plant
Communication Service Facilities	Special Dwelling
Communication Tower Within Permitted Height	Transmission Lines
Confectionery Shop	Utility Lines
Construction, Survey, Soil Testing Firms	Water Pump / Reservoir
	Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.18: Landuse Conditionally Permitted for Mixed Use Zone (Residential-Commercial-General Industrial)

Agricultural Chemicals, Pesticides or Fertilizers Shop	Garages
Amusement and Recreation (Indoors)	Garden Center or Retail Nursery
Auction Market	Government Office
Beauty and Body Service	Grain & Feed Mills
Building Maintenance / Cleaning Services, No Outside Storage	Health Office, Dental Laboratory, Clinic or Lab
Building Material Sales or Storage (Indoors)	Hotel or Motel
Bulk Fuel Sales Depot	Household Appliance and Furniture Repair Service
Coffee Shop / Tea Stall	Incineration Facility
Computer Maintenance and Repair	Indoor Theatre
Computer Sales & Services	Jewelry and Silverware Sales
Concert Hall, Stage Shows	Lithographic or Print Shop
Condominium or Apartment	Market (Bazar)
Conference Center	Musical Instrument Sales or Repair
Construction Company	Outdoor Fruit and Vegetable Markets
Correctional Institution	Painting and Wallpaper Sales
Counseling Services	Paints and Varnishes
Craft Workshop	Pet Store
Cyber Café	Photofinishing Laboratory & Studio
Daycare Center (Commercial or Nonprofit)	Plantation
Department Stores, Furniture & Variety Stores	Project Office
Drug Store or Pharmacy	Psychiatric Hospital
Employee Housing	Refrigerator or Large Appliance Repair
Energy Installation	Restaurant
Fabric Store	Retail Shops / Facilities
Fast Food Establishment / Food Kiosk	Retail Shops Ancillary To Studio / Workshop
Firm Equipment Sales & Service	Sporting Goods and Toys Sales
Fitness Centre	Sports and Recreation Club, Firing Range: Indoor
Flowers, Nursery Stock and Florist Supplies	Telephone Exchanges
Forest Products Sales	Television, Radio or Electronics Repair (No Outside Storage)
Freight Transport Facility	
Gaming Clubs	

Restricted Uses

All uses except permitted and conditionally permitted uses.

i. Mixed Use Zone (Residential-General Industrial)

The areas with the mix of residence and industry will make up the Residential-General Industrial zone that will create an industrial urban environment to strengthen the industrial base of the area as well as the entire country.

Purpose

The main purpose of this zone is to provide an industrial area supported by employees' housing, additional civic amenities, utilities and services. This zone will be composed of some light industries that are declared as green categories of industries by Department of Environment (DoE) with some additional facilities like appliance store;

bakery or confectionery shop; bank & financial institution; barber shop; book or stationery store or newspaper stand; caretaker dwelling; child day-care or preschool; cleaning or laundry shop; communication service facilities, cyber café; addiction treatment centre etc.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.19: Landuse Permitted for Mixed Use Zone (Residential-General Industrial)

Addiction Treatment Center	Cyber Café
Appliance Store	Fire / Rescue Station
Art Gallery, Art Studio / Workshop	General Store
Assisted Living or Elderly Home	Grocery Store
ATM Booth	Newspaper Stand
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Nursery School
Auto Leasing or Rental Office	Photocopying and Duplicating Services
Bank & Financial Institution	Pipelines and Utility Lines
Barber Shop	Police Box / Barrack
Bicycle Assembly, Parts and Accessories	Project Identification Signs
Bicycle Shop	Property Management Signs
Billiard Parlor / Pool Hall	Public Transport Facility
Blacksmith	Rickshaw / Auto Rickshaw Stand
Book or Stationery Store or Newsstand	Satellite Dish Antenna
Broadcast Studio / Recording Studio (No Audience)	Service Garage
Bulk Fuel Sales Depot	Service Stations, Full Service (With Minor Repair)
Bus Passenger Shelter	Shelter (Passers By)
Child Daycare / Preschool	Shoe Repair or Shoeshine Shop (Small)
Children's Park	Social Forestry
Cleaning / Laundry Shop	Social organization
Commercial Recreational Buildings	Special Dwelling
Communication Service Facilities	Training Centre
Communication Tower Within Permitted Height	Transmission Lines
Condominium or Apartment	Utility Lines
Confectionery Shop	Water Pump / Reservoir
	Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.20: Landuse Conditionally Permitted for Mixed Use Zone (Residential-General Industrial)

Amusement and Recreation (Indoors)	Conference Center
Beauty and Body Service	Daycare Center (Commercial or Nonprofit)
Building Maintenance / Cleaning Services, No Outside Storage	Department Stores, Furniture & Variety Stores
Building Material Sales or Storage (Indoors)	Drug Store or Pharmacy
Coffee Shop / Tea Stall	Employee Housing
Computer Maintenance and Repair	Energy Installation
Computer Sales & Services	Fast Food Establishment / Food Kiosk
Concert Hall, Stage Shows	Firm Equipment Sales & Service
	Flowers, Nursery Stock and Florist Supplies

Forest Products Sales
Freight Transport Facility
Garages
Hotel or Motel
Household Appliance and Furniture Repair Service
Incineration Facility
Lithographic or Print Shop
Market (Bazar)
Musical Instrument Sales or Repair
Outdoor Fruit and Vegetable Markets
Overhead Water Storage Tanks
Painting and Wallpaper Sales

Plantation
Psychiatric Hospital
Refrigerator or Large Appliance Repair
Restaurant
Retail Shops / Facilities
Retail Shops Ancillary To Studio / Workshop
Sporting Goods and Toys Sales
Sports and Recreation Club, Firing Range: Indoor
Telephone Exchanges
Television, Radio or Electronics Repair (No Outside Storage)

Restricted Uses

All uses except permitted and conditionally permitted uses.

j. Institutional Zone

Institutional Zones are designed to provide some institutional boundaries. These will help improving the socio-economic condition of the area by enhancing educational status.

Purpose

The purpose of these zones is mainly to provide locations for institutional uses such as libraries, public and private schools of special needs, colleges or universities, research centres, cultural academies etc. Housing facilities for the students, teachers, employees and their families within the compound are also allowed in the zone.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.21: Landuse Permitted for Institutional Zone

Addiction Treatment Center
Art Gallery, Art Studio / Workshop
ATM Booth
Automobile Driving Academy
Billboards, Advertisements & Advertising Structure
Bus Passenger Shelter
Child Daycare / Preschool
College, University, Technical Institute
Communication Service Facilities
Communication Tower Within Permitted Height
Confectionery Shop
Conference Center
Correctional Institution
Cultural Exhibits and Libraries
Cyber Café
Dormitory
Freight Transport Facility
General Store
Grocery Store

High School
Hospital
Lithographic or Print Shop
Mosque, Place of Worship
Multi-Storey Car Park
Newspaper Stand
Nursery School
Outdoor Religious Events
Photocopying and Duplicating Services
Post Office
Primary School
Professional Office
Project Identification Signs
Property Management Signs
Public Transport Facility
Satellite Dish Antenna
School (Retarded)
Scientific Research Establishment
Shelter (Passers by)

Social Forestry
Specialized School: Dance, Art, Music & Others
Training Centre
Transmission Lines
Utility Lines

Veterinary School / College and Hospital
Vocational, Business, Secretarial School
Water Pump / Reservoir
Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.22: Landuse Conditionally Permitted for Institutional Zone

Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention
Bank & Financial Institution
Barber Shop
Boarding and Rooming House
Coffee Shop / Tea Stall
Counseling Services
Courier Service
Daycare Center (Commercial or Nonprofit)
Doctor / Dentist Chamber
Drug Store or Pharmacy
Fast Food Establishment / Food Kiosk

Flowers, Nursery Stock and Florist Supplies
Gallery / Museum
Garages
Indoor Theatre
orphanage
Outdoor Café
Parking Lot
Pipelines and Utility Lines
Plantation
Postal Facilities
Psychiatric Hospital
Stationery Store or Newsstand

Restricted Uses

All uses except permitted and conditionally permitted uses.

k. Administrative Zone

Administrative zone will allow agglomeration of administrative structures to make a convenient communication among them. This zone houses important government machinery such as the National Assembly Complex, Nagar Bhaban, Secretariate, High Court Complex etc.

Purpose

The main purpose of this zone is to agglomerate the administrative structures within a certain boundary for convenience of people.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.23: Landuse Permitted for Administrative Zone

Accounting, Auditing or Bookkeeping Services
ATM Booth
Bus Passenger Shelter
Civic Administration
Communication Service Facilities
Communication Tower within Permitted Height
Confectionery Shop
Construction, Survey, Soil Testing Firms
Cultural Exhibits and Libraries

Cyber Café
Emergency Shelter
Freight Transport Facility
General Store
Government Office
Grocery Store
Guest House
Multi-Storey Car Park
Newspaper Stand

Outdoor Religious Events
Photocopying and Duplicating Services
Post Office
Professional Office
Project Office
Public Transport Facility
Satellite Dish Antenna
Scientific Research Establishment

Shelter (Passers By)
Social Forestry
Training Centre
Transmission Lines
Utility Lines
Water Pump / Reservoir
Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.24: Landuse Conditionally Permitted for Administrative Zone

Amusement and Recreation (Indoors)	Flowers, Nursery Stock and Florist Supplies
Auditorium, Coliseum, Meeting Halls, and Conference Facilities, Convention	Freight Handling, Storage & Distribution
Bank & Financial Institution	Freight Yard
Boarding and Rooming House	Gallery / Museum
Book or Stationery Store or Newsstand	Garages
Coffee Shop / Tea Stall	Lithographic or Print Shop
Conference Center	Mosque, Place of Worship
Courier Service	Outdoor Café
Daycare Center (Commercial or Nonprofit)	Parking Lot
Detention Facilities	Parking Lot (Commercial)
Doctor / Dentist Chamber	Pipelines and Utility Lines
Energy Installation	Plantation (Except Narcotic Plant)
Fast Food Establishment / Food Kiosk	Police Box / Barrack
Fire / Rescue Station	Postal Facilities

Restricted Uses

All uses except permitted and conditionally permitted uses.

I. Agricultural Zone

Agricultural Zone is the zone of 'food production' where predominantly agricultural production will be encouraged. All types of agricultural activity such as crop production; aquaculture etc. will be dominant and will be permitted to ensure food security. The Agricultural zone is intended to prevent scattered indiscriminate conversion of crop land into settlements.

Purpose

- To safeguard food security by protecting agricultural land from indiscriminate conversion in the name of development.
- To promote farming activity and farming operation in the land especially suitable for the purpose.
- To conserve agricultural lands within urban areas and encourage the long term viability of agricultural operations and the supporting agricultural industry.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.25: Landuse Permitted for Agricultural Zone

Animal Shelter	Wall etc)
Aquaculture	Shallow Tube Well
Aquatic Recreation Facility (Without Structure)	Social Forestry
Arboriculture	Static Transformer Stations
Cash Crop Cultivation	Temporary Structure (Agricultural)
Dairy Farming	Transmission Lines
Deep Tube Well	Tree Plantation (Except Narcotic Plant)
Duckery	Utility Lines
Food Grain Cultivation	Vegetable Cultivation
Horticulture	Woodlot
Irrigation Facilities (Irrigation Canal, Culvert, Flood	

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure subject to compliance of the condition mentioned in the requirement by the applicant.

Table No. 4.26: Landuse Conditionally Permitted for Agricultural Zone

Communication Tower Within Permitted Height	Graveyard / Cemetery
Crematorium	

Restricted Uses

All uses except permitted and conditionally permitted uses.

m. Flood Flow Zone

The area over which the flow of floodwater during monsoon passes through is termed here as flood flow zone.

Purpose

The intent of the Flood Flow Zone is to protect adverse hydrological impact, human life and health, minimize property damage, encourage appropriate construction practices, and minimize public and private losses due to overflow of water.

Additionally, this zone is intended to maintain the sound use and development of flood-prone areas and to restrict potential home buyers by notifying that property is in a flood area. The provisions of this zone is intended to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, and sewer lines, street and bridges located in the floodplain, and prolonged business interruptions; and to minimize expenditures of public money for costly flood control projects and rescue and relief efforts associated with flooding.

Landuse Permitted

In the zone, uses permitted by the Authority are:

Table No.4.27: Landuse Permitted for Flood Flow Zone

Aquatic Recreation Facility (Without Structure)	Plantation (Except Narcotic Plant)
Dry Season Play Field	Static Transformer Stations
Marina / Boating Facility	Transmission Lines
Pipelines and Utility Lines	Utility Lines

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee.

Table No. 4.28: Landuse Conditionally Permitted for Flood Flow Zone

Communication Tower Within Permitted Height	Poultry
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Restricted Uses

All uses except permitted and conditionally permitted uses.

n. Open Space

The primary uses in these areas include playgrounds, parks, and other areas for outdoor activities, sports centers, sports pitches, outdoor recreation and landscaped areas. High standards of accessibility are essential in this zone. Accessibility standard is related to the use of that particular open space. For example, local amenity areas and playgrounds may require emphasis on access for pedestrians and cyclists. Sports Centers serving a wider catchments area will require accessibility by public transport and car users.

Purpose

To provide for the active and passive recreational needs of the city and the protection of its bountiful natural resources as well as to protect the natural and aesthetic qualities of the area for the general welfare of the community. The purpose of this zone is:

- To provide for, protect and improve the provision, attractiveness, accessibility and amenity value of public open space and amenity areas.
- To provide for, protect and improve the provision, attractiveness and accessibility of public open space intended for use of recreational or amenity purposes. Only development that is incidental to, or contributes to the enjoyment of open space, amenity or recreational facilities will be permitted within this zone.
- To preserve and provide for open space and recreational amenities. The zoning objective seeks to provide recreational and amenity resources for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the Planning Authority.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.29: Landuse Permitted for Open Space

Botanical Garden & Arboretum
Bus Passenger Shelter
Carnivals and Fairs
Circus
Landscape and Horticultural Services
Memorial Structure
Open Theater
Park and Recreation Facilities (General)
Pipelines and Utility Lines
Plantation (Except Narcotic Plant)

Playing Field
Social Forestry
Special Function Tent
Tennis Club
Transmission Lines
Urban-Nature Reserve
Utility Lines
Woodlot
Zoo

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.30: Landuse Conditionally Permitted for Open Space

Communication Tower Within Permitted Height	Motorized Recreation
Fitness Centre	Trade Shows
Flowers, Nursery Stock and Florist Supplies	

Restricted Uses

All uses except permitted and conditionally permitted uses.

o. Overlay Zone

The uses that are not compatible to the surrounding landuse but to honour the aspiration of the people or for any other unavoidable reason shall continue to maintain its present status are called overlay sites and the sites compose the Overlay Zone.

Purpose

There are some very important purposes of overlay zones. These are not zones; actually, these are sites only. The locally, regionally or nationally important things or uses that don't conform to surrounding landuses will remain unchanged that are called Overlay Zone. No other use except the use of overlay site is permitted in this zone.

There is no scope for permitting or conditionally permitting the functions or uses as the zone itself is an overlay. The present and proposed use of the zone will continue until the next zoning regulation is imposed on those specific parcels of land.

There are a variety of overlay zones within the project area. Some of the important types of overlay and their purpose are listed below:

γ Historic Preservation Overlay Site

The places that are historically important as fort or historic building will not be demolished and these will remain as Historic Preservation Overlay Site. Recognizing the area's unique character and promoting the conservation and preservation of the area's historic resources and properties, to maintain, preserve, protect and enhance the architectural excellence, cultural significance, economic vitality, visual quality and historic importance of the area overlay zone is delineated.

Purpose

The purpose of this zone is to provide for protection against destruction or encroachment upon historic areas, buildings, monuments or other features or buildings and structures of recognized architectural significance which contribute or will contribute to the cultural, social, economic, political, artistic or architectural heritage. The main purposes of this zone are:

To protect the area's valuable cultural and historic resources from degradation or destruction and promote the adaptive reuse of older buildings and structures, and enhance residents' experience of the area's environmental resources through the protection of scenic landscapes and roads, to maintain non-residential uses in historic structures in the historic Preservation Overlay Zone.

The Zone is designed to protect designated landmarks and other historic or architectural features and their surroundings within a reasonable distance from destruction, damage, defacement and obviously incongruous development or uses of land. It is also designed to ensure that buildings, structures or signs shall be erected, reconstructed, altered or restored so as to be architecturally compatible with the historic landmark buildings or structures within the Zone.

It is the intent and purpose of the Historic Preservation Overlay Site is to encourage and promote the educational and cultural welfare of the citizens by preserving and protecting historic structures, sites, monuments, streets, areas etc.

which serve as visible reminders of the history and cultural heritage of the community. Furthermore, the purpose is, by stabilizing and improving property values in historic areas, and to encourage construction and development that will be harmonious with existing historic structures and areas.

Y Environmental Protection Overlay Site

To preserve, protect and manage the area's natural resources including streams and other water bodies, wetlands, woodlands, and wildlife habitats, development in some areas will be precluded. These will be treated as Environmental Protection Overlay Site.

Purpose

The purpose of this zone is to protect from misuse and to ensure, for future generations the areas of environmentally sensitive, wetlands, marshes, rivers, creeks, and other natural resources critical to the ecosystems they support, and however, the above is not intended to discourage quality development.

Due to the fragile nature of these resources, development standards for this zone generally are more rigid than elsewhere in the area, requiring closer attention to the environment, and mitigation of land disturbing activity which would negatively impact such resources.

To promote the use of flexible and creative planning, open space management, land stewardship, and engineering practices to facilitate protection and enhancement of the natural, cultural, agricultural, scenic, historic and recreational resources of the area.

To encourage an attractive community that represents the natural environment provides for land uses located in proper relationship to each other, and to land, energy, water and air resources, and to further development at an orderly pace.

Y Graveyard Overlay Site

The existing graveyards have been treated as Graveyard Overlay Site where there will have restrictions to build it other way.

Y Sports and Recreation Overlay Site

Some open spaces, water bodies etc. are demarcated as Sports and Recreation Overlay Site to safeguard the future need of the people. Here no use will be permitted except sports and recreation.

Y Special Use Overlay Site

There are some areas that will be used for special use. These are termed as Special Use Overlay Site. Special Temporary Events like Carnivals, Fairs, Hats etc. will be permitted in this zone.

p. Rural Settlement Zone

Rural Settlement Zones are the island like isolated clusters of rural homestead that preserve country's traditional agrarian community beside agricultural zones within DMDP jurisdiction from indiscriminate and insane conversion into urban use so as to safeguard food security; preserve appropriate opening in between mounds that are essential to allow uninterrupted flow of annual flood water and safeguard our complex hydrological system.

The intent of this classification is to preserve, sustain, and protect rural areas and resources, particularly forest and agricultural land from suburban encroachment and maintain a balanced rural-urban environment.

The retention of open lands, woodlands, plantations, and farmlands, which make up a large part of this area, are essential to clean air, water, wildlife, many natural cycles, and a balanced environment, among other things. Even more essential from an economic perspective are the agricultural lands and farming operations in this area.

Purpose

The purpose of this zone is to protect the natural environment; promote appropriate compact development and to promote creative developments that provide a range of housing styles and prices that suit the needs of local people.

- Protect the natural environment,
- Making development economically viable by concentrating the activities,
- To provide for development in an orderly manner that preserves the rural character of the area by guiding higher density residential and commercial development according to compatible and supportive land uses, available infrastructure, and other facilities and services.

Rural Homestead

Rural homestead zone is the zone that contains the traditional rural character of the area. In this zone housing that are compatible to this character, mainly farmhouse, single or multifamily housing are the focus of this area. These buildings should be maximum two-storeyed so as to maintain the rural nature.

Purpose

As stated earlier, Isolated Rural Homestead will preserve the rural and traditional Character of the area. Isolated Rural Homestead zone will be composed of dwelling, small shops, some special uses and pure landscaping elements. Cluster uses that are compatible with and complementary to existing facilities, particularly with regard to food processing and warehousing and the markets, including some small scale food retailing are permitted here.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.31: Landuse Permitted for Rural Settlement Zone

Agricultural Dwellings	Nursery School
Animal Husbandry	orphanage
Animal Shelter	Outdoor Religious Events (Eidgah)
Child Daycare / Preschool	Plantation (Except Narcotic Plant)
Communication Tower Within Permitted Height	Playing Field
Cottage	Primary School
Crematorium	Satellite Dish Antenna
Dairy Farming	Social Forestry
General Store	Special Dwelling (E.G. Dorm For Physically Challenged Etc.)
Graveyard / Cemetery	Specialized School: Dance, Art, Music, Physically Challenged & Others
Grocery Store	Static Electrical Sub Stations
Handloom (Cottage Industry)	Temporary Shed / Tent
Housing For Seasonal Firm Labor	Transmission Lines
Memorial Structure	Utility Lines
Mosque, Place of Worship	Woodlot
Newspaper Stand	
NGO / CBO Facilities	

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure while the application meets the criteria mentioned in the requirement.

Table No. 4.32: Landuse Conditionally Permitted for Rural Settlement Zone

Artisan's workshop (Potter, Blacksmith, Goldsmith Etc.)	Fish Hatchery
Emergency Shelter	Garden Center or Retail Nursery
Energy Installation	Research organization (Agriculture / Fisheries)
	Sports and Recreation Club, Firing Range: Indoor

Restricted Uses

All uses except permitted and conditionally permitted uses.

γ Growth Center

According to the location theorists, "Such settlements which are nuclei or central to their influence area are called growth centres". In the context Bangladesh, growth Centres are rural market places that have been identified by the Planning Commission on the basis of socio-economic and administrative criteria for making development investment. There are about 8,000 rural market places throughout Bangladesh that are popularly known as 'hat' or 'bazaar'. Realizing their importance in the rural sector, the government felt the need to upgrade them with some infrastructure facilities in order to enhance their efficiency. However, due to fund constraint it was not possible to include all the 'hats' or 'bazaars' for development investment. Thus, initially 1,400 of them were selected in 1984 and later in 1993; another 700 'hats' or 'bazaars' were added to this list to take the final number to 2,100. In our planning area, there are some growth centres that contain substantially the following characteristics:

- It incorporates a mix of uses that typically include or have the potential to include the following: retail, office, services, and other commercial, civic, recreational, industrial, and residential uses, within a densely developed, compact area;
- It incorporates existing or planned public spaces that promote social interaction, such as public parks, civic buildings (e.g., post office, municipal offices), community gardens, and other formal and informal places to gather.
- It is organized around one or more central places or focal points, such as prominent buildings of civic, cultural, or spiritual significance or a square.
- It results in compact concentrated areas of land development that are served by existing or planned infrastructure and are separated by rural countryside or working landscape.

Rural commercial centre in the "Growth centre" form is one of important feature for rural economic sustainability. In growth centre, people can find their necessary service activity in a easy accessible distance apart from the urban area. In this sense the permitted uses for growth centre are the following:

Table No. 4.33: Landuse Permitted for Growth Center

Accounting, Auditing or Bookkeeping Services	Appliance Store
Addiction Treatment Center	Auction Market
Agricultural Chemicals, Pesticides or Fertilizers Shop	Auto Repair Shop (With Garage)
Agricultural Dwellings	Bank & Financial Office
Agricultural Product Sales	Barber Shop
Agro-Based Industry (Rice Mill, Saw Mill, Cold Storage)	Barber Shop
Agro-Based Industry (Rice Mill, Saw Mill, Feed mill)	Billboards, Advertisements & Advertising Structure
Ambulance Service	Blacksmith
Amusement and Recreation (Indoors)	Boarding and Rooming House
Ancillary Dwelling	Book or Stationery Store or Newsstand
Animal Husbandry	Bus Passenger Shelter
Antique Store	Cinema Hall
	Cleaning / Laundry Shop

Coffee Shop / Tea Stall
Cold Storage
College/Technical Training School / Centers / Agro Based Trading
Communication Service Facilities
Communication Tower Within Permitted Height
Community Center
Computer Maintenance and Repair
Computer Sales & Services
Confectionery
Courier Service
Craft Workshop
Cyber Café
Dairy Firming
Daycare Center (Commercial or Nonprofit)
Department Stores
Doctor / Dentist Chamber
Dormitory
Drug Store or Pharmacy
Electrical and Electronic Equipment and Instruments Sales
Emergency Shelter
Energy Installation
Fabric Store
Family Welfare Center
Fast Food Establishment / Food Kiosk
Firm Equipment Sales & Service
Fish Hatchery
Fitness Centre
Flowers, Nursery Stock
Freight Transport Facility
Fuel and Ice Dealers
Funeral Services
Furniture Stores
Garages
Garden Center or Retail Nursery
General Store
Grain & Feed Mills
Grocery Store
High School
Motel
Household Appliance and Furniture Repair Service
Housing For Seasonal Firm Labor
Indoor Amusement Centers
Indoor Theatre
Jewelry and Silverware Sales
Katcha Bazar

Loom (Cottage Industry)
Mosque, Place of Worship
Newspaper Stand
NGO / CBO Office
Nursery School
Open Theater
Optical Goods Sales
Orphanage
Outdoor Fruit and Vegetable Markets
Outdoor Religious Facility (Eidgah)
Paints and Varnishes Shop
Photo Studio
Photocopying and Duplicating Services
Postal Facilities
Primary School
Public Utility Stations & Substations
Research organization (Agriculture / Fisheries)
Restaurant
Retail Shops / Facilities
Rickshaw / Auto Rickshaw Stand
Satellite Dish Antenna
Sawmill
Shoe Repair or Shoeshine Shop (Small)
Signboard / Billboard
Slaughter House
Small Workshop
Social Forestry
Specialized School: Dance, Art, Music & Others
Specialized School: Dance, Art, Music, Physically Challenged & Others
Static Transformer Stations
Storage & Warehousing
Taxi Stand
Television, Radio or Electronics Repair
Theater (Indoor)
Transmission Lines
Truck Stand & Freight Terminal
Utility Lines
Variety Stores
Vehicle, Leasing or Rental Service
Veterinary Centre
Veterinary Clinic / Center
Wood Products
Woodlot

Landuse Conditionally Permitted

The following uses may be permitted or disallowed in this zone after review and approval by the authority/committee following appropriate procedure while the application meets the criteria mentioned in the requirement.

Table No. 4.34: Landuse Conditionally Permitted for Growth Centre

Artisan's Shop	Library
Auto Leasing or Rental Office	Motor Vehicle Fuelling Station / Gas Station
Beauty Parlor	Musical Instrument Sales or Repair
Building Maintenance/Cleaning Services (No Outside Storage)	Pet Store
Building Material Sales or Storage (Indoors)	Plantation (Except Narcotic Plant)
Carnivals and Fairs	Police Station
Circus	Poultry
Correctional Institution	Preserved Fruits and Vegetables Facility / Cold Storage
Fire Brigade Station	Sports and Recreation Club
Freight Handling, Storage & Distribution	Stage Shows
Freight Yard	Temporary Rescue Shed
Guest House	Trade Shows

**All of the Commercial Activities shall be located at Growth Centres*

Restricted Uses

All uses except permitted and conditionally permitted uses.

q. Water Retention Area

Retaining water is the main purpose of this type of Landuse.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.35: Landuse Permitted for Water Retention Area

Aquatic Recreation Facility (Without Structure)
Fishing Club (non-structural)
Utility Lines
Water Parks

r. Waterbody

Water body serves the natural flow of water along their alignment.

Purpose

This zone tends to preserve flow and level of water across all seasons along their natural alignment. DMDP area is covered by a network of natural water body including river, canal and pond. To promote and provide environmentally safe and sound living for the people of the area and for the future generation, water body has an immense important. Water body should be preserved not only for environmental concern but also for active and passive recreation purposes.

Landuse Permitted

The following uses in the tables are proposed to be applicable for this zone only.

Table No. 4.36: Landuse Permitted for Waterbody

Aquatic Recreation Facility (Without Structure)
Fishing Club (Non-structural)
Utility Lines
Water Parks

Landuse Conditionally Permitted

The following uses may be permitted or denied in this zone after review and approval by the authority/committee.

Table No. 4.37: Landuse Conditionally Permitted for Waterbody

Marina / Boating Facility
Water based Recreation

Restricted Uses

All uses except permitted and conditionally permitted uses.

a. Special Functional Options

Besides above categories of landuse, some situations are not so infrequent in nature. Successful control of development needs specific regulations for handling such functional options too.

New Use

Suppose a new electric substation needs to be installed in a residential neighborhood to cover the additional load. The plot in which it is to be installed is of course, earmarked as urban residential landuse. But since this facility is not permitted within the urban residential zone, this electric substation cannot be legally installed in the zone unless the landuse of the plot is altered to allow it. This process of changing the permitted use of a particular plot or land parcel to allow uses not presently permitted in the corresponding landuse zone is termed as New Use. Conversion of the permitted use to accommodate new function shall require formal permission of the Nagar Unnayan Committee.

Nonconforming Use

Some functions, structures or facilities may have been in the area prior to landuse zone declaration and the facility does not conform to the new landuse zone. Considering the degree of incompatibility or the adverse impact on the surrounding landuse, such functions, structures or facilities have been termed as non-conforming to the permitted facilities of the zone. Nonconforming use/function, structure or facility may either be legal or illegal depending on the plan permit status but in either case they have to be discontinued in the corresponding zone and may be relocated in the prescribed zone in due course.

Basic Nonconforming Elements

Any nonconforming facility is comprised of one or a combination of two or three of basic nonconforming elements in varying combinations, namely, use/function, structure and development over the site. In case of relocation of many nonconforming use/functions, especially foot loose industries such as RMGs and RKGs, packaging industries, small engineering works etc., structure need not to be demolished since it can house zone permitted functions and continue. Few industries and plants such as chemical industries, rerolling mills, brick fields etc., may require demolition of structures or plants that are meant specifically for that facility. Besides these, some nonconforming

developments, such as land fill in flood flow, water retention area and agricultural zones requires clearing of landfill materials to restore uninterrupted flow of perennial flood water, to maintain design capacity for water retention and to safeguard food security respectively.

General Regulatory Provisions

The continued existence of nonconformities is frequently inconsistent with the purposes for which the “zoning” of the area has been worked out and thus, the gradual elimination of such nonconformities is generally desirable.

The following provisions shall apply to all uses/functions, structures and/or developments set forth as nonconforming to the respective zone as per this Zoning Regulation.

- There must be a time frame of up to 5 years within which the non conforming uses have to be relocated to places where those specific uses are permitted according to this regulation. This time frame for relocating a particular non conforming use will be determined by RAJUK subject to approval by the Nagar Unnayan Committee. However, the time frame may vary depending on that particular use but shall not exceed five years unless decided otherwise by the Nagar Unnayan Committee.
- RAJUK shall formulate strict conditions for nonconforming facilities restricting enlargement, alteration, expansion, restoration of those uses within interim period till its relocation to permitted zone.
- RAJUK shall closely monitor non conforming facilities to guard against non-compliance of the abiding conditions and also to ensure relocation to permitted zone. In case of non compliance in terms of conditions or of relocation to permitted location within set time frame, action to ensure immediate discontinuation or to restrict the facility or to relocate it in the permitted zone shall be initiated by RAJUK.
- To expedite relocation of nonconforming facilities to permitted zones, imposing higher tax for continuation in the present location as opposed to incentives in the form of subsidy, tax holiday etc. if relocated to the prescribed zone may be actively considered by the government.

Identification and Registration of Non-conforming Uses and Structures

All uses and structures existing at the effective date of this Regulation which do not conform to the requirements set forth in this Regulation, or any amendments thereto, should be identified and registered by RAJUK. Failure or negligence of the authority to identify or register uses or structures which are non-conforming as defined in this Regulation or subsequent amendments does not exempt such use or structures from the applications of this Regulation.

Continuation of Non-conforming Uses and Structures

Any non-conforming use or structure may be continued up to their time frame, provided such use or structure:

- (1) Shall not be moved to another location where such use or structure would be non-conforming.
- (2) Shall not be changed to another non-conforming use or structure without approval of NUC and then only to a use or structure which, in the opinion of the NUC is of the same or of a more restricted nature in accordance with the Restrictions above.
- (3) Shall not be re-established if such use or structure has been discontinued for any reason for a period of twelve (12) months or more, or has been changed to, or replaced by, a conforming use or structure. Intent to resume a non-conforming use shall not confer the right to do so.
- (4) Shall not be restored for other than a conforming use after damage from any cause, unless the non-conforming use or structure is reinstated within twelve (12) months of such damage; if the restoration of such structure is not completed within the said twelve (12) month period, the non-conforming use of such structure shall be deemed to have been discontinued, unless such non-conforming use is carried on without interruption in the undamaged portion of such structure.

Maintenance

Maintenance of a building or other structure containing or used for a non-conforming use will be permitted when it includes necessary non-structural repairs and incidental alterations which do not extend or intensify the non-conforming building or use.

Reconstruction

A non-conforming use which has been damaged by fire, explosion, or an act of God, to the extent of sixty (60%) percent of its reproduction value at the time of damage shall be restored in conformity with the current regulations of the zone in which it is located. When damaged by less than sixty (60%) percent of its reproduction value a non-conforming use may be repaired or reconstructed and used as before the time of damage, provided such repairs or reconstruction are started within one (1) year from the date of such damage.

Discontinuance or Abandonment

A non-conforming structure occupied by a non-conforming use may be re-occupied by a conforming use following relocation of the nonconforming use. If a non-conforming use is abandoned for a period of two (2) years, any future use of the premises shall be in conformity with the provisions of this Resolution and shall not again be used except in conformity with the current regulations of the zone in which it is located.

Unsafe Structure

Any non-conforming structure or portion thereof containing a non-conforming use is allowed to undergo routine and ordinary maintenance, repairs or replacement of non-load bearing walls, fixtures, wiring, or plumbing, provided that the floor area and floor height shall not be increased. However, only in case the structure/s or a portion thereof declared to be unsafe by any official in charge of protecting public safety, strengthening or restoring of any building or part thereof to make it safe upon order of such official shall be allowed. But in such cases it will require approval of the Nagar Unnayan Committee.

Termination and Removal of Non-Conforming uses, Structures or Developments

Uses, structures or developments of land listed as non-conforming shall be brought into compliance with the Zoning Regulation or be completely removed from the premises on or before the expiration within maximum five year period.

b. Principal Use and Accessory Use

Use of any facility may be categorized under two broad heads: Principal Use and Accessory Use. Any use may be principal in one zone while accessory in another or vice versa. Also, same use may simultaneously be principal and accessory in the same zone based on the nature of facility that house it. Principal Use indicates functions which the facility is primarily intended for. The Academic Building in a school is definitely its principal use. But an entire primary school would fall under accessory use category when it is located in the university complex to facilitate children of the teachers and officials working there. Ancillary functions of any facility are grouped as accessory use. A garage of a residence is an accessory use. But multi storied commercial parking in motijheel is definitely its primary function.

The functional uses belonging to different landuse classes under both unconditional and conditional category have been further labeled as principal and accessory uses in the following paragraphs:

4.6.2 Development Permit

Development Permit is the most important function of RAJUK and for that matter of any City Development Authority. DAP will have no bearing unless development can be channelized to its desirable direction through effective permit procedure. DAP has developed its plan using GIS database and other advanced computer software of world standard. The necessary planner to handle this database is quite available in the country. This combination provides RAJUK the unique opportunity to make its plan permit procedure fast, well managed and transparent. This is also in line with the idea of digital Bangladesh pronounced by the present govt.

a. Computerization of the Permit procedure

Maintaining information of all the development activities within the DMDP jurisdiction is a mammoth task and maintain them in the present manual method is neither possible nor necessary. Consultant recommends development of customize software for the purpose. Necessary software experts are available locally. The system would prove worthwhile by saving in the form of time, cost, ease of management, ease of upgrading of information, control of corruption and so forth.

b. Landuse Permit

RAJUK has the legal responsibility to develop plan for the wellbeing of the citizens within its jurisdiction and implement the same by channelizing all developments through appropriate control mechanisms. Issue Plan Permit to private plot owners or developers working with the consent of the owners that comply the set regulations constitute the most part of development control activity conducted by RAJUK. In the following paragraphs the structures of the proposed landuse control Authority has been elaborated considering that RAJUK shall be strengthened adequately and that in that situation planner's ranks would be as under [in light of the Sthapatya Adhidaptar]:

- Chief Town Planner
- Additional Chief Town Planner
- Deputy Chief Town Planner
- Assistant Chief Town Planner
- Assistant Town Planner

Structure of Landuse Permit Authority

The Landuse Permit Authority shall be comprised of three vertically linked tiers:

- At the entry level Landuse Permit Planner [LPP]
- At the mid level Landuse Permit Committee [LPC] to control LPPs, clarify legal provisions regarding land use permit decisions on a case to case basis, and
- At the top level Nagar Unnayan Committee comprised of representatives from planning departments, professional institutions, imminent scholars and citizens of the city.

Figure No. 4.1 shows the tiers along with their inter links.

Landuse Permit Planner

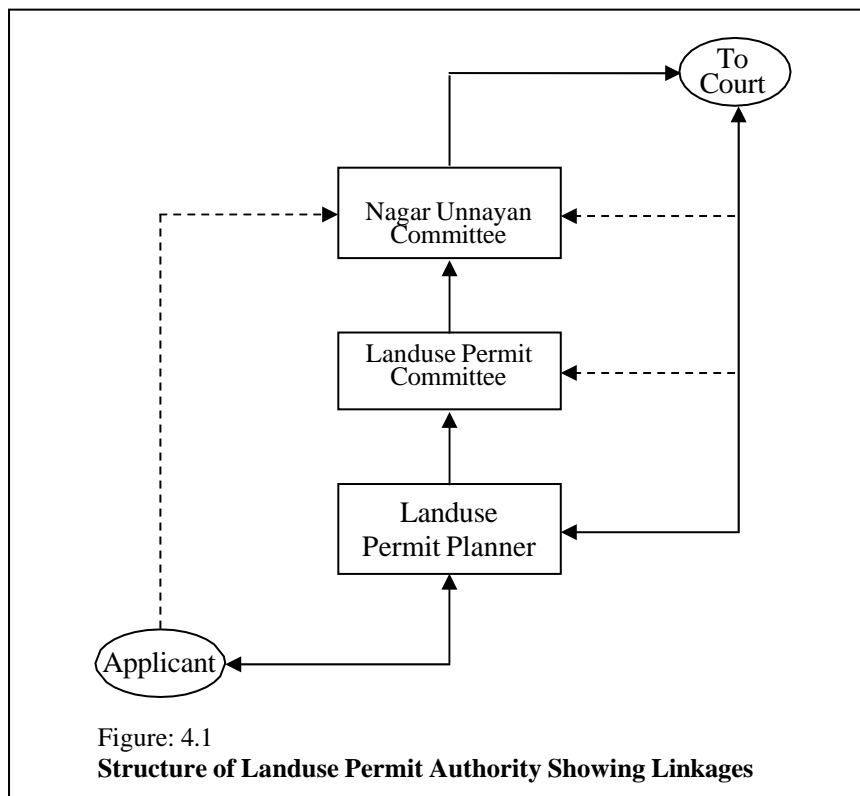
Landuse Permit will be issued with the sign of Landuse Permit Planner [LPP] appointed by the Chairman, RAJUK from among the Planners not below the rank of Assistant Town Planner. Landuse Permit issued by the LPP/s shall be null and void, even if signed, unless the use sought for is permitted in the landuse options of the respective zone that contains the plot.

To cover the vast DMDP area under RAJUK jurisdiction, Paurashava Planners [PP] working in the Paurashava within the DMDP area, in addition to RAJUK's main stream LPPs, may be delegated with the power to act as LPP and issue Plan Permit and control development within the provision of DAP on RAJUK's behalf. He/she must have needful Inspectors and GIS facility with logistics and knowledgeable personnel to operate so as to accomplish such responsible job. For all plan permit activities PPs shall be accountable to, controlled by and act in close communication with Landuse Permit Committee at RAJUK.

Landuse Permit Committee

At the mid level Landuse Permit Committee [LPC] shall function for effective control of LPPs [both main stream and Paurashava] and to clarify legal provisions regarding landuse permit decisions on a case to case basis. LPC shall be a maximum seven member committee headed by RAJUK's Chief Town Planner [CTP]. LPC Members shall be not below the rank of Assistant Chief Town Planner while Deputy Chief Town Planner, Development Control shall act as the Member Secretary of this Committee. The activities of LPC will include

- Clarify the legal provisions for the LPPs as per their request.
- Make recommendations in case of New Use or Conditional Use and send it to the Nagar Unnayan Committee [NUC] for decision.
- Earmark plot numbers under non-conforming uses and notify the owners about the time span to relocate the facility, procedure and conditions that must be strictly maintained to avoid immediate eviction.



Nagar Unnayan Committee

Nagar Unnayan Committee [NUC] shall be the supreme authority regarding Landuse Permit within RAJUK jurisdiction. The Members of the Nagar Unnayan Committee are (not as per the protocol):

- Head : Secretary, Ministry of Housing and Public Works, GoB
- Member Secretary : Chief Town Planner of RAJUK
- Members : Chairman RAJUK
: Head of the Department of URP, BUET
: President BIP
: President IAB
: Chief Town Planner, Dhaka City Corporation

: Mayor, Paurashava [within RAJUK jurisdiction]

: Chief of Concerned Line Agencies

: Three eminent citizens of Dhaka

NUC shall be well supported by a secretariat and shall be empowered both authoritatively and financially to carry out study and/or survey, arrange public hearing, round table conference, seminar, or if necessary, engage experts.

NUC shall decide whether the proposed New Uses should be permitted or denied; in case of Conditional Permit impose the conditions to comply; accept variances for specific cases and so forth. Besides, NUC shall decide strict conditions to nonconforming uses and the action against its violation if so happens.

Landuse Permit Option

For a plot seeking landuse permit there can be three possible options:

- Landuse permitted
- Landuse conditionally permitted, or
- Landuse restricted

Landuse Permitted

Landuse that unconditionally permitted in the zone are listed in this category. When permission is sought for a residential landuse on a plot earmarked as urban residential zone then it falls under this category.

Landuse Permitted with Condition

Landuse that generally not incompatible or harmful for the community but whose number, location or specific use nature may pose threat to community's lifestyle, privacy, safety or security etc. then the landuse is permitted but with a condition to fulfill so that the potential threat is avoided. For example, in a Residential-General Industrial Mixed use zone a request is made seeking landuse permit for a composite textile mill with a dyeing unit. Since the use is compatible in the zone except for the release of noxious effluent to the surrounding, the permit may be issued with a pre condition to exclude the dyeing unit in order to get landuse permit. Now, following the formal agreement by the applicant to comply the condition the permit is issued against the plot. A list of such conditional uses is maintained in this category.

Landuse Restricted

Landuse that is harmful for the community are restricted by law. Such harmful landuse is listed in this category. A cinema hall in a neighborhood may be cited as an example under this category. But for convenience, any use not listed in the permitted and conditionally permitted use category is considered as restricted for the zone.

Landuse Permit Procedures

Land use permit procedure is a product of a number of interlinking activities. The whole process has been shown in a flow diagram for clearer understanding in Figure 4.2.

The procedure is commenced with the submission of formal application by the applicant to the Chairman of RAJUK. The applicant must submit along with other information and documents a mauza map showing his plot including plot no, mauza name etc. The concerned official designated as Landuse Permit Planner (LPP), will then check the compliance of the land use desired by the applicant with the land use zone containing his plot and the uses permitted therein.

Four situations may be possible:

- Desired Use is listed as Permitted in the zone
- Desired Use overlaid
- Desired Use is listed as Conditionally Permitted in the zone, and
- Desired is not listed under any of the categories and may be permitted as New Use

If the desired use is listed as Permitted or Overlaid then it will be permitted without any question. If the desired use is listed as Conditionally Permitted the LPP would refer it to the LPC for further action.

In case of desired use not found in the permitted or conditionally permitted lists of the zone, the LPP shall reject the desired land use as it is not allowed in the zone. At this stage if the rejection decision taken by the LPP is not satisfactory to the applicant, he/she can appeal to the NUC. If the decision of the NUC goes in favor of the applicant, LPP shall then issue the permit. NUC may also ask the applicant to make some modifications to make his/her claim appropriate for approval. The applicant may comply accordingly and apply afresh.

If the applicant is not satisfied with the decision of the NUC he/she may go to the court for decision.

If the LPP is convinced that the desired use should be allowed for the greater interest of the people and therefore deserves to be considered under New Use category, he may recommend it to the LPC furnishing reasons in favour. The LPC if convinced by the reasoning will send the case to the NUC with recommendation to permit desired land use in the New Use category. Following necessary study and investigation if the NUC is also convinced about permitting the use as recommended by the LPC, they may decide so and authorize the LPP to issue permit for the desired land use in the New Use category.

c. Field Level Vigilance

Development cannot be channelized as per the plan unless an effective control at the field level is achieved. Due to unhealthy concentration of political, administrative, financial and even judicial power in the capital city, almost entire in-migrant population from all over the country rush to Dhaka to try their luck. This is the root cause of all the problems Dhaka has been and will be facing in time. Land value and rent of space within the city soaring sky high exerting tremendous development pressure that tempts opportunists to fill out low lying areas completely disregarding its legality provisions set by the plan. Land classified in plan as agriculture, flood flow or retention pond is indiscriminately filled out for making plots every day. Such environmentally catastrophic activities must be guarded to save our city through effective Field level vigilance. And as a custodian of DAP the responsibility falls on to RAJUK's shoulder.

Another kind of damage to plan takes place at the implementation level in the form of illegal structures, unauthorized structures, deviation from the approved plan and so forth. These too need close vigilance from RAJUK's end.

Vigilance is very vital for identification of overlay and non-conforming structures and to ensure their compliance to plan permitted use and maintenance protocols.

Consultants recommend a large, strong, committed and effective department with appropriate personnel and logistics to guard against all such evil activities.

d. Interaction with People

Plans and Reports furnish various information that has direct bearing on the people since they need to follow the guidelines provided in these documents while developing their parcel of land/s. Presently RAJUK makes it difficult for the common people to gather information that are necessary for various development ventures on their land parcel/s. This hiding attitude makes way for unplanned developments and people feel reluctant to come to RAJUK for plan permit. But in reality availability of information has a vital role to play towards effective plan implementation.

Planning Department of RAJUK should have close interaction with the citizen of Dhaka at large in order to make people aware of the benefits of a good plan which in turn steer people's social responsibility to promote plan implementation and resist contraventions. A specific Interactive Cell is recommended to be put to operation in this respect with following objectives:

- Provide pre-application advice to residents, consultants and developers about landuse management issues and application procedures for the submission of development applications.
- Interact with communities, especially spontaneously developed ones, lacking specific needs and provide them with proper planning guidance to overcome them through collective efforts.
- Listen to people informing about contraventions, deviations to approved plans, damage to planned developments, obstruction to flow of water or filling out of retention areas for personal or group benefits and inform them about the remedial measures taken and thereby encouraging inclusion of people in guarding the implemented plan.
- Appraise the citizens about the planning and landuse management related legislation and zoning scheme regulations.
- Investigate and report to the higher authority about complaints made by the citizens about plan violation, violation of landuse of a zone and miscellaneous complaints.

Such interactive windows may be opened at convenient locations. Answers to frequently asked questions may be provided in the internet. Besides, these may be publicized in the print and electronic media time to time.

RAJUK should immediately open up in all possible ways to reach people and earn their confidence.

Chapter – 5

PROJECT PLAN

5.1 Introduction

In Chapter-5 of the Planning Report for Location-4 area the consultant highlights the projects with preliminary cost estimates and design. The projects included in this chapter are to be executed in the first phase of implementation period that is 2010-202. The projects presented in this chapter are eastern lake side road and lake side walkway on the eastern side of the Gulshan-Banani-Niketan Lake.

5.2 Description of the Projects

The Consultants have identified several projects for the Location-10 area which is mostly road development and recreational based. Out of all projects, the details description of Park development project is given as follows.

5.3 Indication of Project Cost

5.3.1 Road Development Project

a. Name of the Project: Shahjadpur-Badda Lakes Side Road

i. Description of the Project

This will be a 40 ft. wide road on the east of Gulshan-Badda Lake starting from diplomatic zone lake side road and will move towards south along the lake upto south Badda. The 5.80 km road will be connected to south Gulshan East West Road proposed by Hatir Jheel and Begunbari Integrated Development Project. The road intended to prevent lake encroachment first, and open up the western part of Badda. The road will enable people to enjoy the lake in a better way. It will create new avenues to water based recreation facilities.

ii. Objectives of the Project

- a. Open up congested areas.
- b. Protect the lake from possible encroachment.
- c. Create opportunities for water based recreation facilities.

iii. Implementing Agency

Rajdhani Unnayan Katripakkha (RAJUK)

iv. Feasibility Report

The proposed road project will bring economic and social benefits to the society. The road will increase local property value. This will lead to increased revenue of the government as local government taxes, sales tax and property transfer tax etc. will be raised. New employment opportunities will be created through investment in recreation, shopping and housing. This will have multiplier effects in the economy.

v. Cost

Table-5.1 Detailed Cost Breakup

Sl. No.	Description of Item	Unit	Quantity	Rate	Total Cost
1.	Land acquisition	katha	936.73 k	Tk. 12,00,000.00/katha	Tk.112,40,76000.00
2.	Land Development	cft.	76,08,447 cft.	Tk. 15.00/cft.	Tk. 11,41,26,705.00
3.	Construction of Bituminous Road with Footpath on both sides	km	5.80 km	Tk. 1,20,00000.00/km.	Tk. 6,96,00000.00
Total :					Tk.130,78,02,705.00

vi. Financing

The project will be financed by the Government of Bangladesh.

vii. Impact Assessment

The project will benefit society in general. It will create new recreation facilities for the local people in particular. However, some land owners will be losing their land due to land acquisition. It will enhance lake side property value, leading to increase in government revenue. New employment will be created that will cause multiplier effects in the city's economy. The road will help protect the lake from encroachment and destruction by creating a buffer between lake and the settlement. The lake will be used as a water retention area during monsoon.

viii. Duration

The project will be implemented as a priority project by the year 2015, before the expiry of the validity of Structure Plan.

ix. Catchment Area

The project benefits will be spread over the catchment area of Badda, Gulshan, Banani, Baridhara, Mahakhali in particular and the city in general.

x. Recommendations of DMDP

As policies, Structure Plan recommended to develop road infrastructure in the planning area.

It recommended to adopt incremental road network development and a long term development strategy (Policy In/2-Incremental Network Development, Page-89, Structure Plan).

Structure Plan clearly asked to retain low lands and major water bodies as flood retention points to hold excess rain water to prevent settlement from flooding (Policy RS/5-Flood Retention Ponds, Page-54, Structure Plan).

5.3.2 Walkway Development Project

a. Name of the Project: Walkway Development on the Western Bank of Gulshan-Banani Lake

i. Description of the Project

This will be a 6 ft. wide walkway on the western bank of of Gulshan-Banani Lake starting from Niketan Residential Area and it will move towards north along the lake upto the northern end of Banani R/A. The total length of the walkway will be 6.92 km.

ii. Objectives of the Project

- d. Open up the lake as an open space for use by the public.
- e. Protect the lake from possible encroachment by the lake side land owners.
- f. Create opportunities for water based recreation facilities.

iii. Implementing Agency

Rajdhani Unnayan Katripakkha (RAJUK)

iv. Feasibility Report

The proposed walkway project will bring social benefits to the local community. Morning and evening walks on the walkway will have positive benefits to public health. It will increase local property value. This will lead to increased revenue of the government as local government taxes, sales tax and property transfer tax etc. New employment opportunities will be created through investment in recreation. This will have multiplier effects in the economy.

v. Cost**Detailed Cost Breakup**

Sl. No.	Description of Item	Unit	Quantity	Rate	Total Cost
1.	Land acquisition	katha	375.11 katha	Tk. 12,00,000.00/katha	Tk.56,26,65,000.
2.	Land Development	cft.	cft.	Tk. 15.00/cft.	Tk. 6,07,78,000.
3.	Construction of Bituminous Road with Footpath on both sides	km	6.92 km	Tk. 20,00000.00/km.	Tk. 1,38,40,000.
Total :					Tk. 63,72,83,000

vi. Financing

The project will be financed by the Government of Bangladesh.

vii. Impact Assessment

The project will benefit the local community. It will create new recreation facilities for the local people and help improve their physical and mental health. However, some land owners will be losing their land due to acquisition. It will enhance lake side property value, leading to increase in government revenue. The walkway will help protect the lake from encroachment by the lake side land owners by creating a buffer between lake and the settlement. The lake will be used as a water retention area.

viii. Duration

The project will be implemented as a priority project by the year 2015, before the expiry of the validity of Structure Plan.

ix. Catchment Area

The project benefits will be spread over the catchment area of Gulshan, Banani and Niketan area.

x. Recommendations of DMDP

As policies and Structure Plan itself recommended to develop road infrastructure in the planning area. It recommended incremental road network development as a long term development strategy (Policy In/2-Incremental Network Development, Page-89, Structure Plan). Structure Plan clearly asked to retain low lands and major water bodies as flood retention ponds to hold excess rain water to prevent settlement from flooding (Policy RS/5-Flood Retention Ponds, Page-54, Structure Plan).

Chapter – 6

FOLLOW UP ACTIONS

6.1 Introduction

Chapter-5 is the concluding part of the planning report for Location-4 area where the follow up actions that are necessary to undertake execution of the plan proposals and strengthening of planning activities of RAJUK have been illustrated. Issues such as circulation and publicity of the plan document, action against violation of land use plan provisions and other legal and institutional measures have been discussed.

6.2 Follow Up Actions

The following follow up actions are recommended to be taken up by RAJUK for effective implementation of the DAP and create an environment where effective control over development and planning process can be created.

6.2.1 Awareness Building

It has been mentioned that town planning has not become a part of our cultural practice. This is mostly due to ignorance about the benefit of planned development and the evils of haphazard /sprawl development. This can be achieved by way of propagation and direct contact with people. Easy availability of plan document also enables people to become aware of the plan and thereby follow the guidelines. As such RAJUK should take initiatives so that the plan document is available easily and at minimum cost.

6.2.2 Willingness of the Authorities to Implement the Plan

RAJUK on adoption of the planning document should show its intent to implement the plan through effective control measures. This calls for equipping it with necessary logistic and efficient manpower.

6.2.3 Revision of existing and formulation of new Legal Provisions Relevant to DAP

There is general tendency to violate the land use provisions by the developers. The developers always try to use the space for their personal benefits ignoring the plan provisions that are designed to attain community interest. These violations take place in many different ways. Sometimes fake information is supplied about the location of the plot. Sometimes use of the structure is changed after approval and construction of the building. Sometimes deviations of approved building plans are made during construction. Stern action should be taken for such violations.

RAJUK can earmark areas of all the proposed developments including roads in the field by means of pegging and let the people know that the particular land will be taken over by the government for development of infrastructure sometime in the future. This will create a community awareness about the area and the land owner would not dare to develop anything on the land. Obviously, RAJUK will refrain from according permission to any building plan in the site concerned. In case any land owner builds a structure or use the structure violating the DAP land use provisions, punitive measures may be taken against the land owner by RAJUK using the legal power of East Bengal Building Construction Act 1952.. A cash fine may be collected from the land owner, with the further order to change the land use as per land use provision. In case the accused land owner fails to carry out the order the authority may pass order to demolish the structure and recover the cost as public demand as per provision laid down in the East Bengal Building Construction Act 1952.

The present legal documents pertaining to planning and urban development and development control used by RAJUK and other agencies are age old. They do not match to the changed circumstances. These legal documents need to be replaced or have to undergo major reshuffling. Reforms are needed in the following legal documents:

Based on the Town Improvement Act 1953, RAJUK administers all its functions. This act was a copy of Calcutta Town Improvement Act. It is very old and has virtually turned obsolete to tackle the current day planning and development problems of the huge Dhaka city. Major reshuffling is needed in respect of organization of RAJUK as an urban development organization, its functions, manpower, and legal power to increase its capacity as a service giving agency. The revision must address such issues of good governance such as:

- transparency of activities and accountability to the citizens and
- ensuring participation of the people in planning and development activities.

As public sector has been proved incapable to address the increasing development needs of Dhaka city, measures are required to involve private sector in urban development as well, where the role of RAJUK will be the role of an enabler and not a provider. It will arrange providing all the urban services and infrastructure to enable private sector cause necessary development. It can also work out ways and means to realize the cost of infrastructure development from the beneficiaries.

As a RAJUK is a service giving agency its activities should be transparent to the service recipients. RAJUK should know the people about its programs and projects and future areas of activities and functions. Status of files should be notified for knowledge of the applicants. It should go for automation immediately to augment transparency and for E-governance. Targets of transparency can be better achieved through legal reforms and should be pertinent to good governance. RAJUK should be made accountable to its service recipients for its activities and this accountability provision should be incorporated in the legal reforms. The new Act must ensure that the activities of RAJUK are directed towards the interest of the greater segment of the city community and not for the vested interested groups. The new Act must also ensure people's participation in decision making, particularly, in planning activities. In local area planning like detailed area planning there should be legal provision for active participation or representation of the local community. Other issues such as strengthening or reorganization of the organogram in line with the objectives of the organization, private participation in planning and development, checking and supervision of development control, realization of development cost from the beneficiaries should also be addressed in the new Act.

6.2.4 Identification and Preparation of Policies for Non Conforming Uses

There have been many structures constructed in various areas which do not conform to the Landuse prescribed for the area. These have been identified as non-conforming use. Non-conforming use structures have to be relocated and structure use has to be changed in conformity with the permitted Landuse of the area. To implement these, legal coverage have to be included in the TI Act and other relevant Acts and regulation.

6.2.5 Preparation of Action Plans for Participatory Development

Only preparation of Detailed Area Plan will not be enough to ensure development due to resource constraint.s Securing right of way for circulation network and utility corridors need huge funds which cannot be met by the public exchequer. To minimize the cost of development, RAJUK should involve the land owners in the development process. This can be achieved by declaring some of the developing corridors as concession for development through people's participation where land-owners will become development partners and share the development cost through contribution of a portion of their land. RAJUK has to prepare Action Area Plan for those areas utilizing appropriate development techniques like Guided Land Development or Land Readjustment etc. RAJUK has to show strong determination and willingness as this is a very difficult task to accomplish involving hundreds of people. RAJUK has to increase its efficiency and do the work at the appropriate time. A separate cell under Planning Department may be set up with sufficient number of qualified professionals.

6.2.6 Resolving Duality of Power in Granting Planning Permit

It is found that local authorities like Paurashava or Union Parishad grant planning permit within RAJUK's jurisdiction area. The Local Government Ordinance provides power to the local government institutes to issue planning permits. This has given rise to duality issue in the performance of development control function resulting in chaos as RAJUK and local government institutes follow different rules. Proper regulation would have to be made to mitigate the duality of power in granting planning permit within the RAJUK jurisdiction.

6.2.7 Decentralization of RAJUK Function

RAJUK zonal offices should be more powerful and these offices should be set up at Paurashava level, if not union level. The zonal office should be given appropriate authority to enable them to handle planning permit issues.

6.2.8 Bringing Potential Urban Areas under Municipal Authority and Creation of New Municipality

There are many areas within RAJUK's jurisdiction without coverage of any municipal authority which prevents management of utility provision very much difficult. These areas should be brought under municipal coverage both for utility management as well as for effective development control.

6.2.9 Strengthening Planning Department of RAJUK

RAJUK's Planning Department especially the plan implementation and monitoring wing should be equipped with sufficient number of qualified planners and logistic to enable them monitor the development trend within the RAJUK area. This will help them effectively guide developments in preferred areas of urban expansion.

6.2.10 Co-ordination among Related Authorities/Agencies

RAJUK should take initiative to foster better co-ordination among the stakeholders especially line agencies. Through this, RAJUK will be able to stop unauthorized construction by public sector agencies.

6.2.11 Enforcement of Law for Restoring Plan

There are many Acts and Regulations for development and development control. Unfortunately there is no application of these Acts and Regulations. In absence of effective enforcement, plan violation has become very common. As such efforts have to be made to ensure application of the existing acts and regulation in order to strengthen development control function.

6.2.12 Provision of Penalty for Plan Violation

There should be provision of punishment for violation of the plan provision by individuals as well as development and public sector agencies. Violation of planning provision makes it difficult to implement planning provisions properly.

6.2.13 Plan Review

RAJUK should take initiative to review the performance and functioning of the plan during the planning period. It should also make arrangement for regular updating of the plan. Provision should also be made to prepare fresh plans on expiry of a plan period.

Chapter – 7

CONCLUSION

Dhaka as the capital city of the country encounters a host of problems perpetuating for decades. With the growing importance of the city and mounting up pressure of population, the problems are getting more and more precarious every year. Amid all the problems, uncontrolled sprawl development is perhaps the most irritating one particularly for a development control agency like RAJUK. The unwanted sprawl originates not only due to ineffective development control but also due to failure of the equilibrium between demand and supply of buildable and livable urban land.

The DMDP plan package was correctly framed to address the development issues of the city that covers development. The Detailed Area Plan components of the plan package have the most direct and practical implications on micro level development. Understanding of the framework, concept and ideas stated in the Structure Plan interacted with the site and its environments to produce a plausible solution. A realistic and adequately accurate assessment of the existing situation was a pre-condition to form an effective basis for this planning effort. In order to accomplish those stated objectives, the Consultants have taken utmost care to best analyze and understand the study area by making a comprehensive survey in order to expose all details of its physical, social and economic aspects.

The experts and staff of the project teams made constant liaison with RAJUK to keep the activities on track all through various levels of the plan preparation. Needs and requirements of RAJUK regarding the content, form and principles of the specific object for Detailed Area Plan was well taken care of through repeated discussion with the Project Director, Project Manager of RAJUK or their designated/nominated officials and professionals.

It may be emphasized here that planning works are not always limited to physical exercises of surveys, analyses and production of maps. Planning process is also one kind of mental exercise. In Detailed Area Planning, there were involvements of the client, consultants, beneficiaries, stakeholders, developers, GO and NGOs as well as CBOs. As a result, all issues of proper planning and opinions were considered and expressed by the Consultants.

The Consultants prepared the Detailed Area Plan in considering the details requirements of the ToR. However, though late, RAJUK took up the preparation of Detailed Area Plan in one go, although initially the idea was to proceed selectively, taking the high pressure zones first and then gradually taking up lesser priority zones. This strategy was adapted as Structure Plan accepts and recognizes the uncertainty of future and leaves more detailed problems for resolution nearer the time they occur. This is more applicable for areas where growth of population and economic development cannot be determined with any degree of precision. But events in metro-Dhaka overtook this assumption and it is observed that in reality development has been initiated by private and individual developers in areas designated as of low priority, flood flow zones and retention pond reserves. Naturally, it has become an imperative to prepare Detailed Area Plan for whole of metro-Dhaka and this bold decision by RAJUK may prove to be beneficial for the city in the long run and the country as a whole.

Annexure 1**List of Mouza and its area for Location 04**

Sl	Mouza_JI_Sheet	Area (acre)
1	Badda 38_01	302.845
2	Bhatara 32_01	164.924
3	Bhatara 32_02	164.226
4	Gulshan R/A 37_01	199.109
5	Gulshan R/A 37_02	357.054
6	Gulshan R/A 37_03	251.703