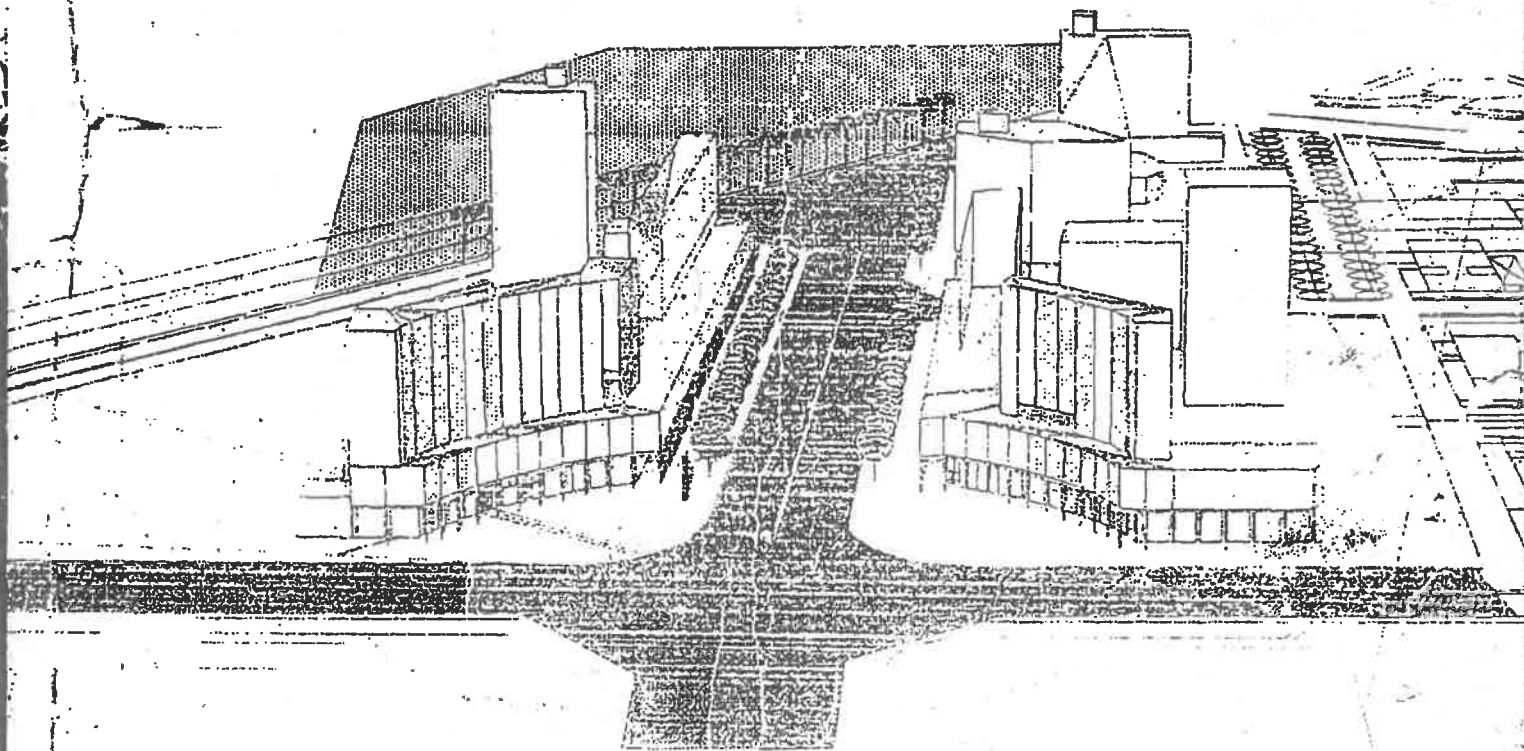


Urban Design cell Copy

ANNEXURE - VI



Urban Design Guidelines for BKC



Report - Stage III

Urban Design Guidelines

International Finance and Business Centre
Bandra-Kurla Complex, Bombay

Submitted to
Bombay Metropolitan Regional Development Authority (BMRDA)
Bombay

Study conducted by
Vastu-Shilpa Foundation
for Studies and Research in Environmental Design
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28 JUN 1995

International Finance and Business Centre, Bandra-Kurla Complex, Bombay

00000000000000000000000000000000

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 BKC as an International Finance and Business Centre
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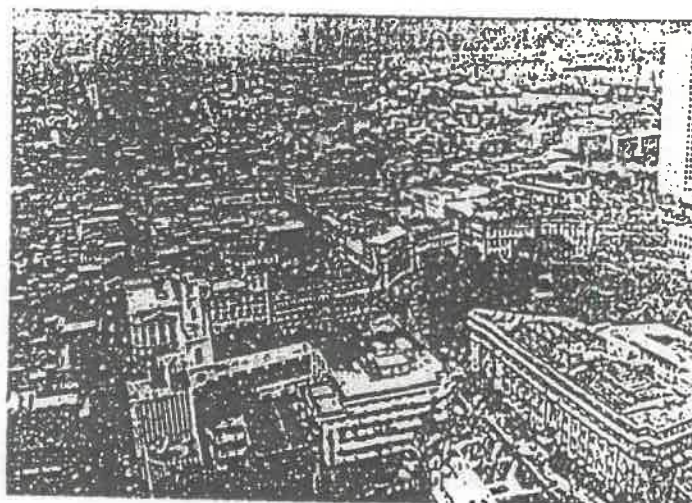
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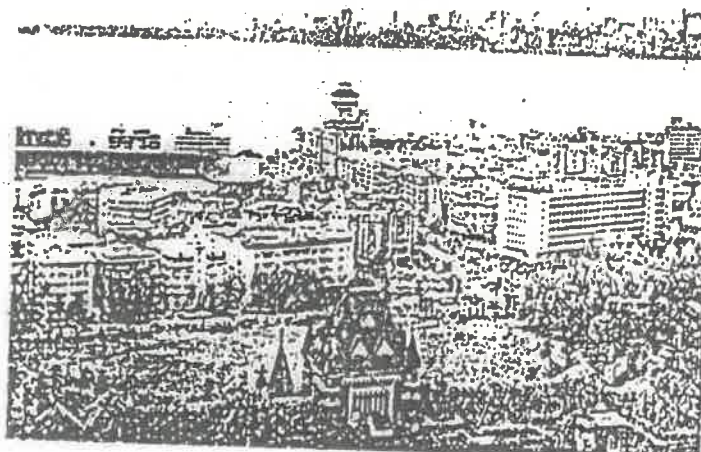
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I.1A Bombay



I.1B Bombay

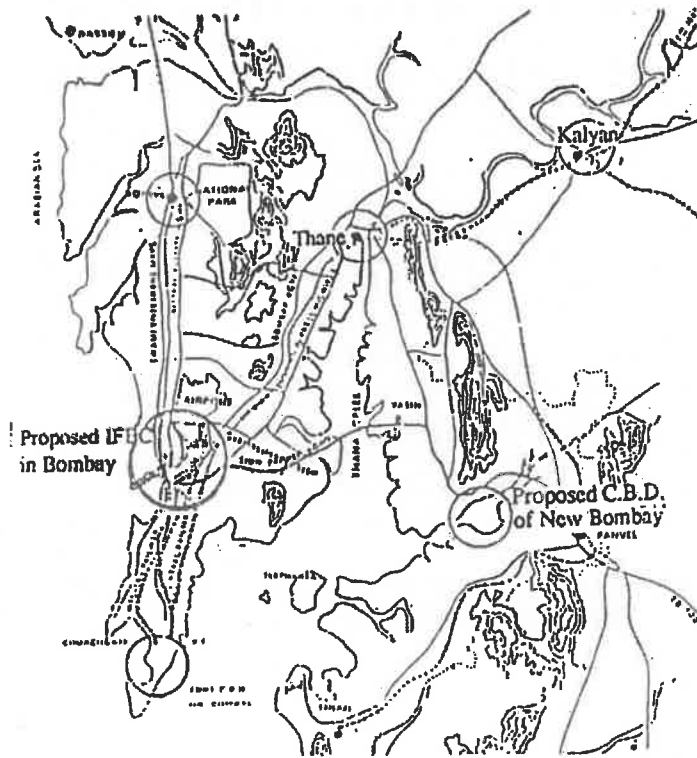
IFBC in the context of Bombay

The city of Bombay, the historical 'Gateway of India' is the most important centre for key economic and business activities of the country. This port city of 13 million people presently handles more than 38% of India's international trade. It is recognised worldwide as the financial capital of India and comprises a wide array of high quality technical, managerial and infrastructural resource. The proposal to establish an International Finance and Business Centre (IFBC) in Bombay goes well with the current measures to liberalise Indian economy and to encourage the participation of foreign companies in the development of the country. Similar attempts have also been made by other Asian countries to the liberalize their economy by setting up such centres in the already existing major cities. In the wake of unprecedented international interest, foreign investment in India has already surged ahead of expectations. IFBC will help to channelise and further expand these investment ventures. At the local level, such an effort will create new job opportunities and generate income for the government and local authority.

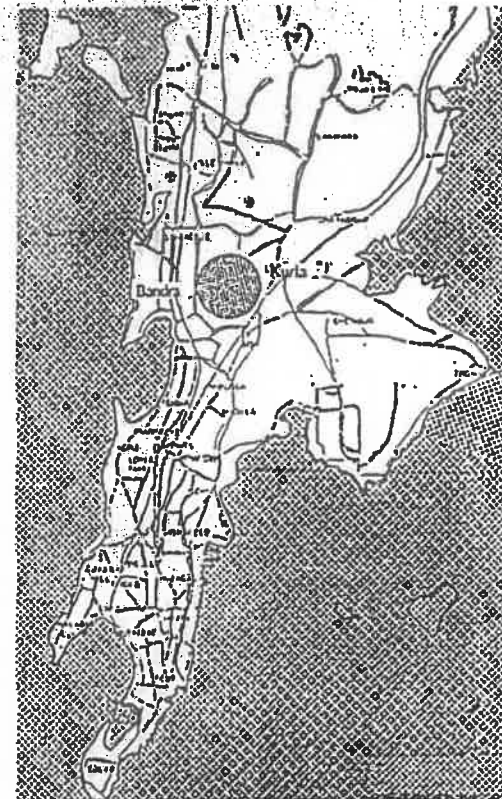
The proposal to establish IFBC was also suggested by McKinsey & Company through a study which recommended to revitalise Bombay as the services capital of India. To maintain and build its leadership position and to gear up towards establishing a global position of competence, the McKinsey report clearly states that "amongst other measures, the city must pursue a focused strategy to: (1) strengthen (its) current position as the dominant finance centre and gateway to the Indian capital market and (2) retain (its) current base of headquarters, and pro-actively move to attract new regional/India MNC head quarters"

1 A certain amount of internal restructuring within greater Bombay area itself would be necessary to bring about a redistribution of population and employment activities. Therefore, alternative centres like New Bombay, Kalyan, Borivali and Bandra-Kurla were identified and studied. Of these, the Bandra-Kurla Complex enjoys the advantage of a centralized location and a high level of accessibility which would be further enhanced

with the proposed seventh rail corridor linking the western and eastern network from Bandra to Kurla. This link between the two main railway corridors will help easy movement of people from one corridor to another and will ease pressure on the existing network. This link also will facilitate direct railway connection of New Bombay with the Bandra-Kurla complex and the other railway networks of Bombay.



1.2 Proposed Activity Nodes in Bombay

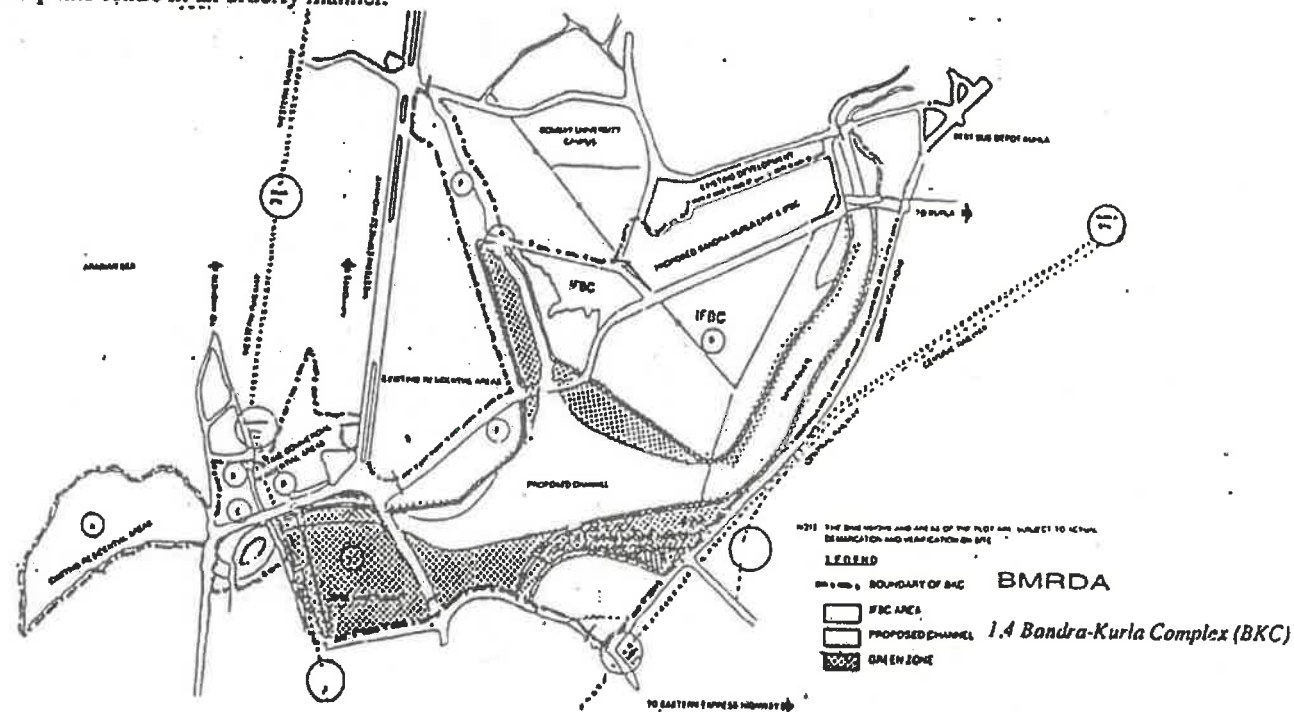


1.3 Location of the proposed CBD in Bombay

Development Pattern of Bandra-Kurla Complex.

Though the potential of Bandra-Kurla complex as an alternative Central Business District (CBD) of Bombay had long been identified, there was no proper development proposal for this piece of land of about 2000 ha. Over the years, many organisations like Maharashtra Housing and Area Development Authority (MHADA), Bombay Municipal Corporation (BMC), Bombay University and other state government agencies have been sporadically developing the Bandra-Kurla Complex. There was no coordinated effort to make this potential centre into an alternative CBD. These organisations had been working in fragments of land and development was undertaken without considering the overall effects on the environment. However, over the years Government of Maharashtra realised the need to develop this centre in an orderly manner.

Accordingly, the Bombay Metropolitan Region Development Authority (BMRDA) was appointed by the state government as a Special Planning Authority to develop an area of 1262 ha. in the Bandra-Kurla Complex (BKC) which included open land available for development after reclamation of the Mahim creek as well as some surrounding areas which were either partially or fully developed. Of these only 370 ha are available for direct development by the BMRDA as IFBC. Of these 370 ha, only 166 ha land is developable as others form the creeks and the open spaces around it. BMRDA prepared a structure plan for the entire Bandra-Kurla Complex, followed by detailed planning for various blocks, most of which have already been developed. Thus three parcels G, GN (finance) and G (textile) comprising an area of about 166 ha are available for future development as International Finance and Business Centre (IFBC).



BKC as an International Finance and Business Centre

In ascertaining the specific nature of activities which BKC would successfully house, the BMRDA has realised BKC's potential in the context of Bombay as a nucleus of India's economic growth in the near future. Bombay's potential for growing as a regional finance centre for the South Asia Region has increased substantially with the liberalization of Indian economy. BKC has the potential to be an alternative centre of employment because of its central location in Bombay and high level of accessibility. Many of the multinational corporations have already set up their headquarters in Bombay in an ad-hoc manner and it would be desirable to provide adequate space for their activities together in a place, preferably in Bandra-Kurla Complex. Then it will be possible to provide international quality of services, communication network etc. as desired by these agencies. At the same time, many of the major financial institutions of the Government of India and other corporate institutions are also looking for spaces to set up their offices in Bombay.

Terms of Reference by BMRDA

The terms of reference set up by BMRDA for the planning and urban design of Bandra-Kurla complex are as follows:

Government of India has introduced a number of measures to liberalise its trade and economic policies. These measures are intended to strengthen and boost India's international trade, attract foreign investment, attract high technology and managerial talent, and generally increase India's presence in the world economy. The impact of these measures is likely to be felt in the form of increased international business transaction, increased communications and information flow, more international business travelling and corresponding growth in the demand for related services.

It is therefore proposed to set up an IFB Centre in Bandra-Kurla Complex in Bombay. Since 1980, the BMRDA has been developing BKC as a new

growth centre. This is a part of the strategy to restructure Bombay's growth and create a poly-nucleated pattern of development.

The IFB Centre will have concentration of financial institutions, corporate head quarters of business and industrial houses, data base and computer software services, international convention centre, exhibition centre, trade information centre and services related to travel and tourism. These services will have to be supported by an excellent system of telecommunication and data transmission.

Objectives

The overall objective of this consultancy assignment is to assess the potential for the growth of international financing and business activities in Bombay; reaffirm the need for an IFB Centre in BKC; decide its nature and size; prepare detailed physical plans and establish financial viability of the development of IFB Centre.

Scope of Work

1. Make an overall assessment of the growth prospects of international finance and business activity in Bombay; visualize the role that the proposed IFB at BKC would play in promoting or facilitating these activities, and estimate share of these activities in the proposed IFB. For this purpose, the Consultants, among other things, should hold discussions with the leading national and international financial institutions, multinational corporations (MNCs) and identify those evincing interest in the proposed IFB or those whose presence is crucial for the success of the IFB.

2. Undertake a brief review of some IFB centres elsewhere in the world, and highlight such aspects as are relevant for planning, designing, construction, management and financing of the proposed IFB in BKC.

- 3 Define core and related activities of the IFB centre that provide minimum agglomeration economies.
- 4 Quantify activities mentioned above in terms of employment, floor space and land area.
- 5 Define the type, quality and extent of infrastructure facilities and communication and data transmission services required.
- 6 Suggest improvement and augmentation of city-level infrastructure facilities needed to ensure desired level of services in the IFB centre.
- 7 Review the planning proposals of Bandra-Kurla Complex and suggest changes, if any, required in the interest of the proposed IFB Centre.
- 8 Develop a design brief for the physical planning and design of the proposed IFB Centre. The design brief should provide all basic information about the physical condition of the site, specify design requirements. In particular, it should include:
 - (a) Shape, size and levels of the site.
 - (b) Micro-climate and soil conditions.
 - (c) List of various activities proposed with space requirements.
 - (d) Interrelationship with various activities and recommendations about grouping or juxtaposition of activities.
 - (e) Development control regulations and other constraints on development.
 - (f) Special design requirements, if any.
 - (g) Type and degree of architectural control desired.
 - (h) Requirements of landscape planning.
 - (i) Requirement of infrastructure, communication facilities, and data transmission facilities.
 - (j) Rail, road, parking and other transport related facilities particularly the links with airport.

9 Based on the design brief finalised after BMRDA's review, prepare detailed physical plans of the proposed IFB centre, specify architectural control proposed, and indicate phasing of the development.

10 Prepare preliminary cost-estimates of land development, common infrastructural facilities, pedestrian plazas, landscaping, street furniture and any other facility including building or structures required as a common facility essential for the IFB centre.

Need for Urban Design Proposal

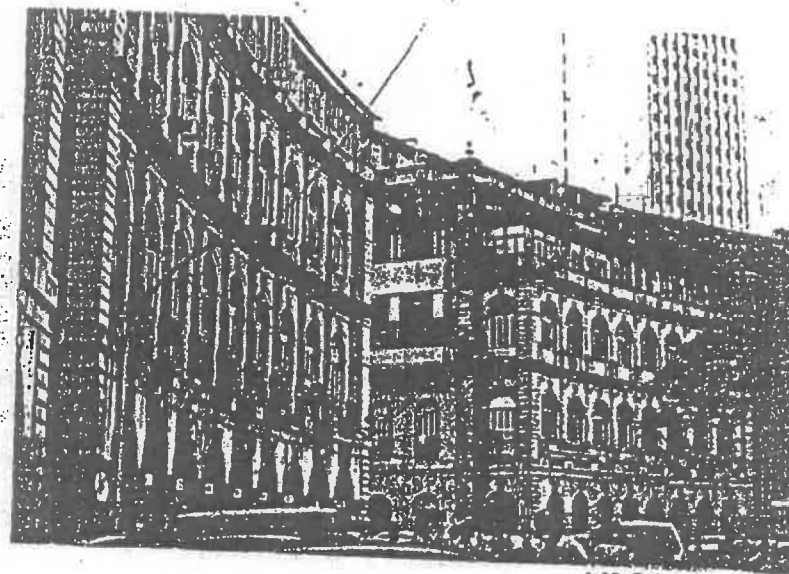
The International Business and Finance Centre (IFBC) being developed in the Bandra-Kurla Complex is the symbol of economic liberalisation policies adopted by the Government of India. Therefore the planning and urban design issues of this centre becomes very important. The image of the centre should reflect the changes in technology and material but at the same time should incorporate the good qualities of traditional builtform that exists in the city of Bombay. It was felt necessary to study the present city centre at Nariman Point area to identify the issues and problem particularly with respect to urban design so that they can be eliminated in the new finance centre. Similarly, few case studies of similar projects in other parts of the world were analysed to help forming appropriate urban design guidelines.

It was felt that existing building byelaws only can not help create an appropriate quality of environment. All buildings tend to be isolated and there is no coherence. Hence besides providing for adequate public spaces, parking and other supporting activities, certain degree of control of builtform is necessary. It was felt that a careful balance of control and flexibility should be adopted to create a sense of continuity while still giving enough flexibility to individual buildings to suitably accommodate their complex activity patterns. The following sections highlights the design considerations of various areas, along with the study of arcades in

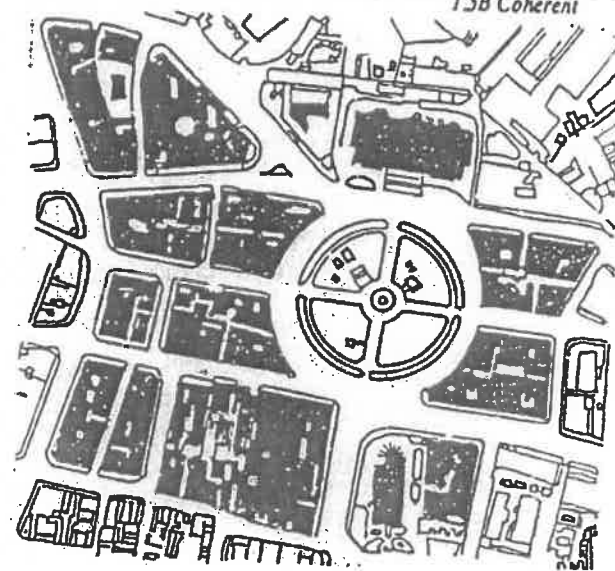
1 the city of Bombay and other parts of the world. The findings were then filtered to develop an appropriate urban design guideline for IFBC at Bandra-Kurla Complex.



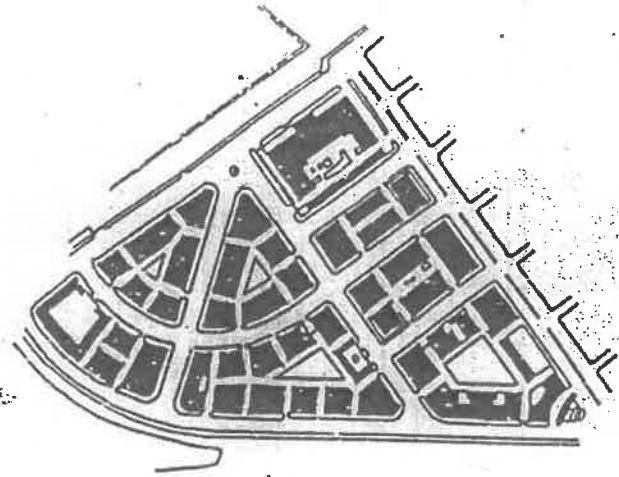
1 SA Builtform at Nuriman Point devoid of a legible language



1 SB Coherent

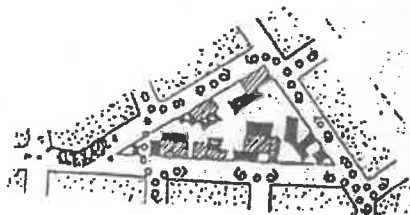


1 SC Usurping of footpaths by hawkers



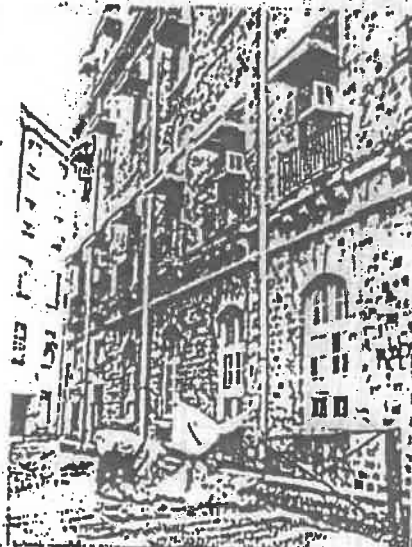
**NODES AND URBAN SPACES
SPACE - 2**

- COMMERCIAL
- PEDESTRIAN
- SERVICES AND UTILITIES
- ENCROACHED SETTLEMENTS
- GARBAGE



1.6B Plan

1.6A Arcaded builtform at Horniman Circle



1.6C Cluster Openspace Misused

Study of Urban form in Bombay

A study was carried out in various commercial centres in Bombay. These study areas at Nariman Point, Horniman Circle and Ballard Estate revealed the flows and virtues pertaining to their urban form.

Success of streets as appropriate urban space for various socio-cultural, commercial activities is evident in Ballard Estate and Horniman Circle areas. Wide footpath with rows of trees or arcades alongwith commercial activities on the edges is one of the most desirable urban space typology as evident from the intensive use of such spaces. In sharp contrast the streets in Nariman Point were found devoid of desirable image and were also inadequate in terms of spaces allocated to pedestrian and other activities.

Garden in Horniman Circle by virtue of its accessibility and visibility is used all day long by visitors and during lunch hours by the employees. This space thus gives relief from the intense activity of the surrounding area and also enhances the quality of living environment through trees and other landscape features.

Spaces within the boundary walls in Nariman Point are leftover spaces and only partially used for parking; they remain unutilized and are ugly. On the other hand, Ballard Estate with building blocks without any boundary wall provides an appropriate setting in which spaces around the buildings are be used as urban open spaces. However, the cluster spaces located in the midst of the building blocks were not utilised as the building do not have entrances facing these spaces, thereby rendering it lifeless and is subjected to garbage litter and as haunts for undesirable elements.

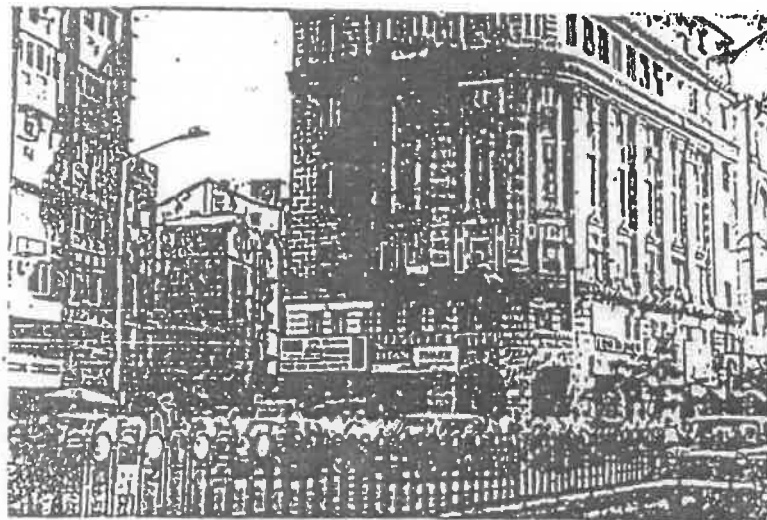
The builtform at Horniman Circle and Ballard Estate offers excellent possibilities of lowrise - high density urban form as against the builtform at Nariman Point which is in the form of isolated towers not forming any coherent urban image.

Therefore, the lessons derived from these studies suggested continuous builtform without compound walls where street would act as a behaviour setting for pedestrians and public activities.

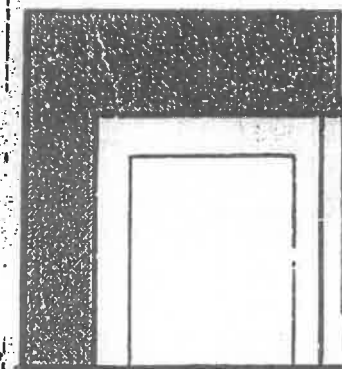
Study of Arcades

One of the most significant visual and functional element of the building is the arcade. The arcade is effective as

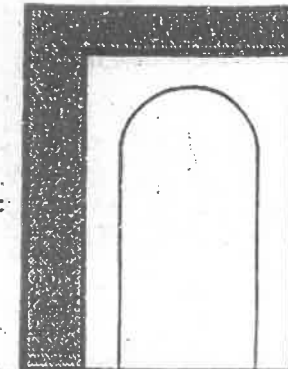
* An environmental device for protection against sun and rain to pedestrians as well as shops.



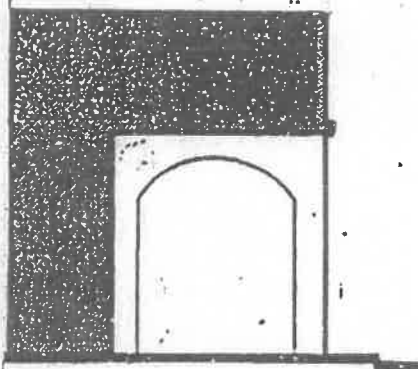
1.7 D.N. Road



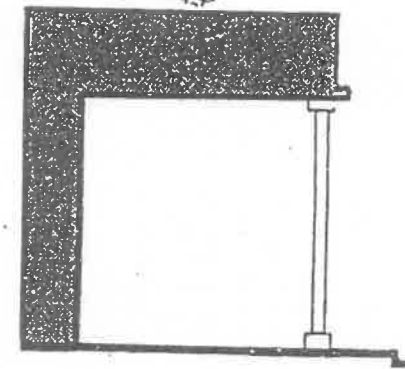
1.8A Flat Arch Arcade



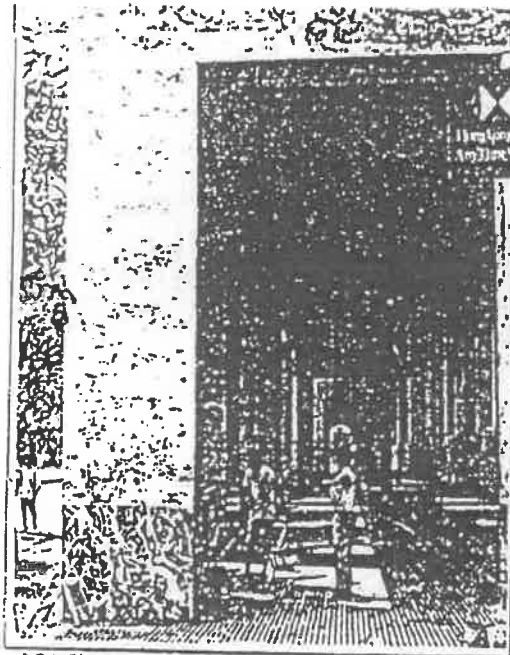
1.8B Semi-Circular Arcade



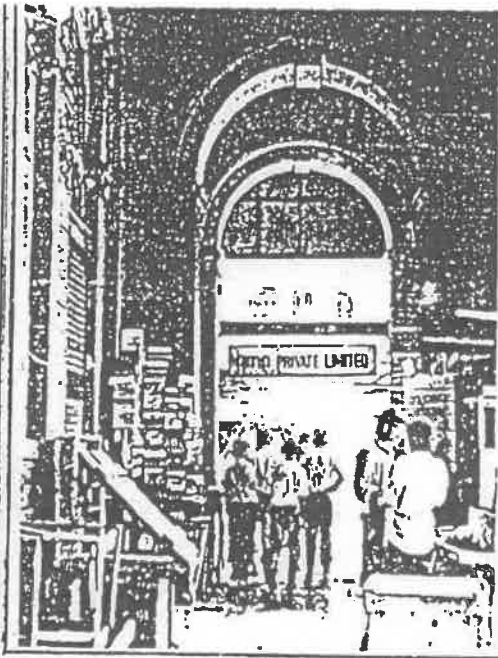
1.8C Segmental Arch Arcade



1.8D Colonnade



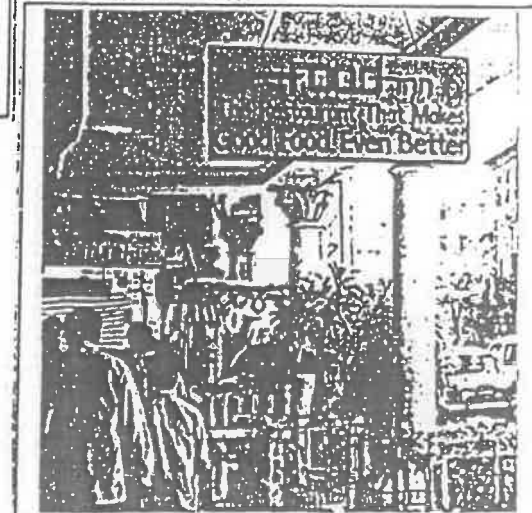
1.9A Flat Arch Arcade



1.9B Semi Circular Arcade



1.9C Segmental Arch Arcade

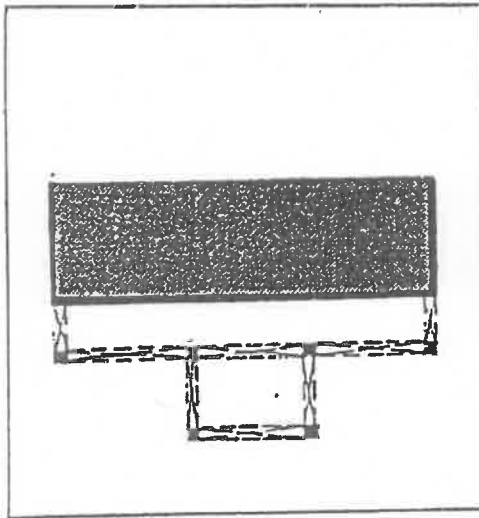


1.9D Colonnade

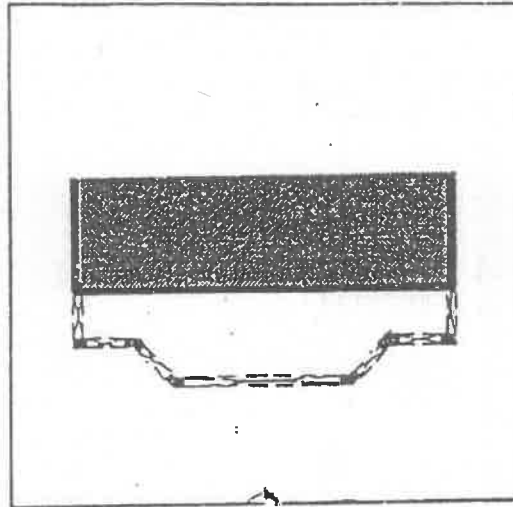
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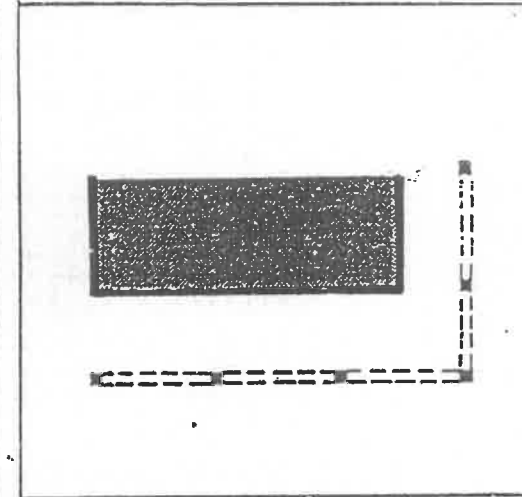
Introduction



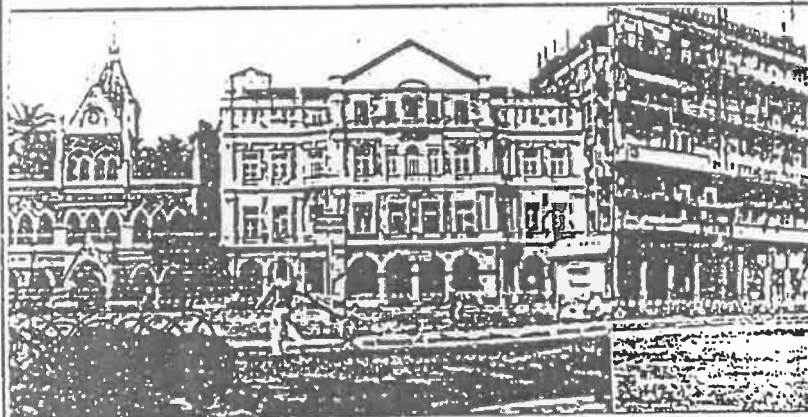
1.10A Arcaded Building and Proch



1.10B Arcaded Building



1.10C Colonnaded Building



1.11A David Sassoon Library

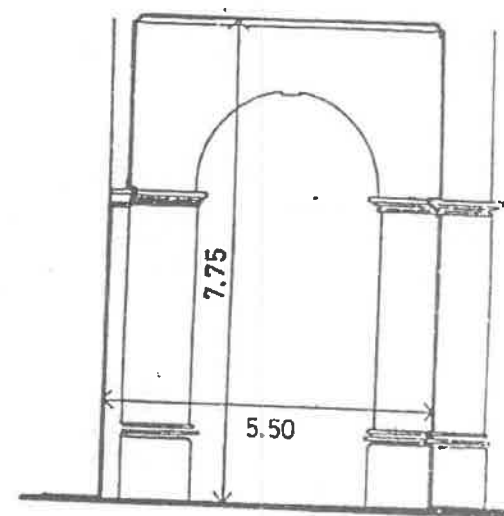
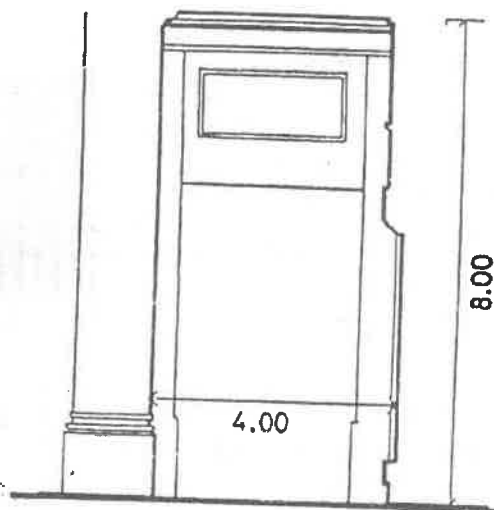
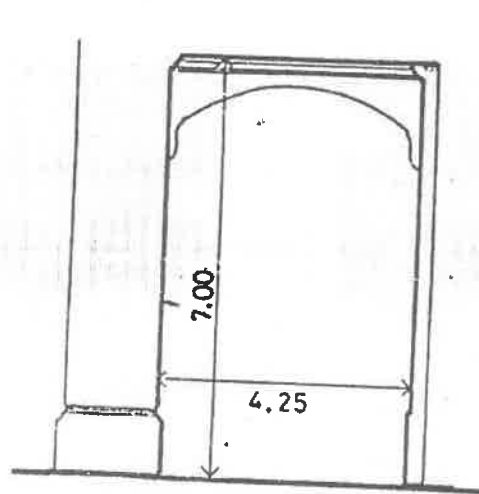
B Army & Navy Building

C Esplanade Mansion
M.G. Road

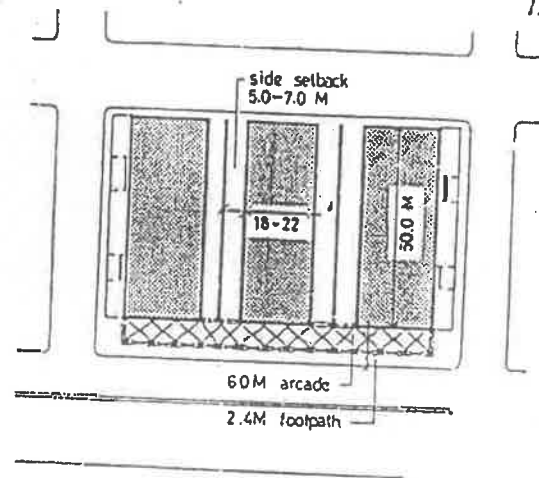
- * A transition zone between the public and private realms.
- * A unifying element at eye level as a continuous facade. The modulation of voids and piers establish a visual rhythm further articulating the front edge.

Arcades are present at in the Fort Precinct at D.N. Road and Fort area in Bombay. The articulation of each building facade although remaining distinct, the ground floor feels contiguous with arcade being the unifying element. The arcade for each building differ in style and proportion yet possess desirable spatial qualities and effect. The different types of arcades and their manifestations are

- 1 Flat arch arcades
- 2 Semicircular arcade
- 3 Segmental arch arcade
- 4 Colonnades

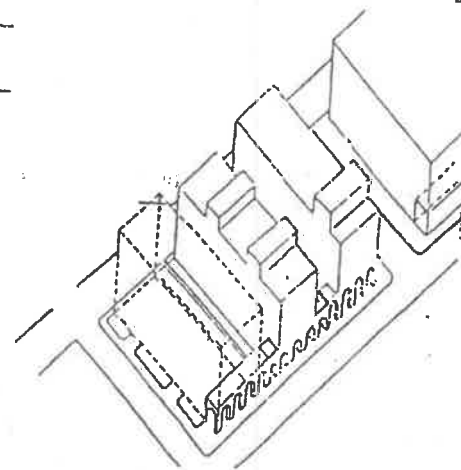


1.13A Plan - D.N. Road edge



1.13B Builtform along the road

1.12 Arcade along D.N. Road, divided into three categories



1.13C blocks with arcade fronting street

Further variations of arcades are
 Arcaded building with Porch
 Extended arcaded building
 Colonnaded building.

The arcades along D.N. Road can be divided into three categories on the basis of its proportion.

Width of 4.25 m and height of 7.00 m

Width of 4.00 m and height of 8.00 m

Width of 5.50 m and height of 7.75 m

Arcade Terminations

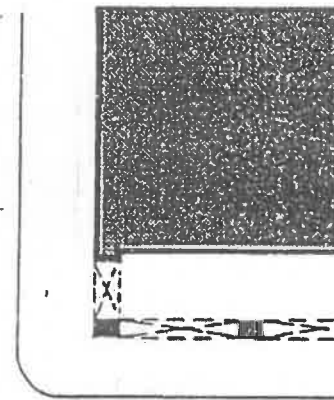
At the junction of an arcaded street and any other road, the arcade terminations manifest in a variety of ways.

The arcade extend to the end of the building

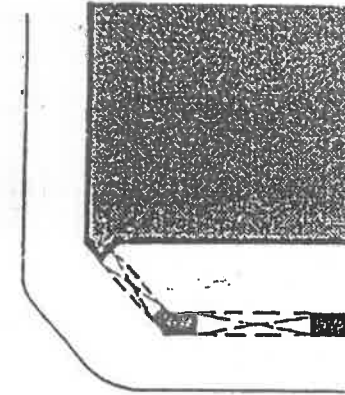
Chamfered at the corner

Terminated at a small distance from the building corner

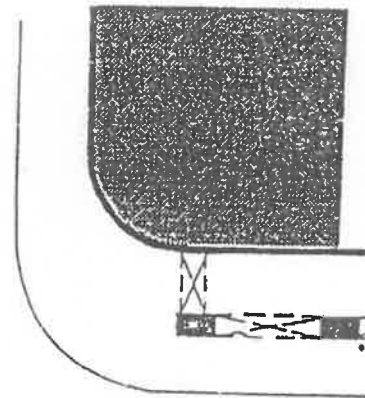
Or in the event of both roads being wide and important enough, the arcade continues around the bend of the building.



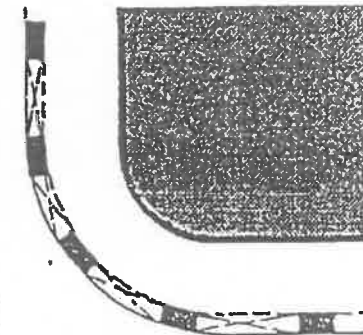
1.14A Termination at corner



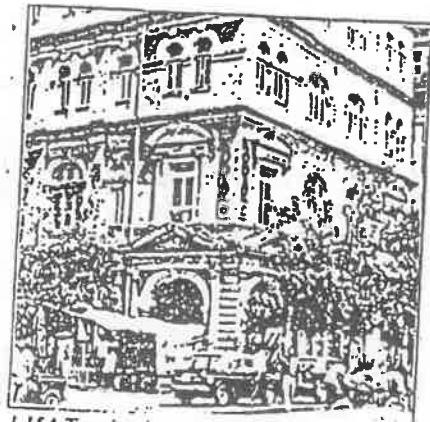
1.14B Chamfered Cor



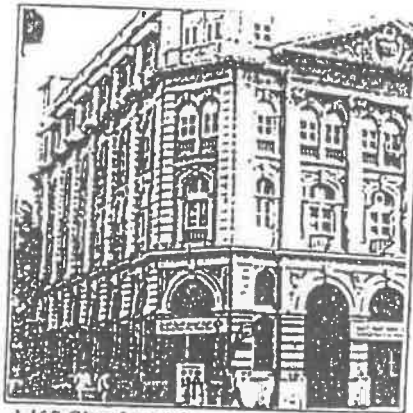
1.14C Termination with rounded corner



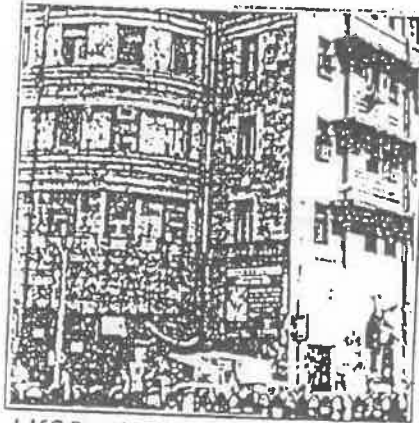
1.14D Arcade turning around



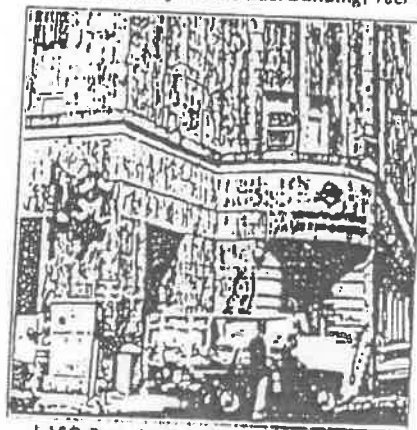
*1.15A Termination at corner
Kodak House, D.N. Road*



*1.15B Chamfered Corner
British Bank of Middle East Building, Veer Nariman Point*



*1.15C Rounder Corner
Bombay Mutual Building, D.N. Road*



*1.15D Rounder corner
United India Assurance Building, M.G. Road*



*1.15E Rounded corner
Hongkong Bank building, M.G. Road*

Checklist of Design Considerations for Arcade

Functions of Arcades

Arcades, covered walkways at the edge of buildings, which are partly inside and partly outside play a vital role in the way people interact with buildings.

Arcade should serve as a connecting link between buildings.

It should provide for easier and well protected movement of pedestrians.

It also should accommodate to some extent informal commercial activities, public utilities etc.

It is not only a channel of movement for pedestrians but also should act as a public space for social interactions.

It should serve as a transition zone between the private and public realm.

Finally arcade should not only function merely as a movement channel and a connecting link between buildings, but in doing so it should be able to tie up various building forms into an coherent urban form with distinct identity and imageability of a place.

Design Considerations

- * It should be human in scale.
- * Width and height of arcades should correspond to the magnitude of users.
- * Size of arcade should also visually respond to the hierarchy of street network.

- * Width should be sufficient to accommodate informal commercial and other activities.

- * Form of arcade should respond to entrances to adjoining buildings.

- * Form of an arcade also should vary with respect to the changing landscape.

- * Adequate protection from sun and rain should be ensured. However, an arcade need not be completely covered all the time.

- * Design of arcade should also respond to the bus stops, zebra crossings, and vehicular drop off zones.

- * Arcade should not be a monotonous element, but rather should provide variety and rhythm to various urban settings.

- * It should be raised above the road level and vehicular entry into an arcade should be prohibited.

- * It should integrate the street furniture and other landscape elements.

- * Roof of an arcade can facilitate a pedestrian network in future and can correct buildings at upper level.

- * Connection between the arcade and the building should be clearly established where at times the adjoining buildings opening out on to the arcade. There also should be variety in this connection between the arcade and the buildings.

- * An arcade should incorporate and integrate various elements required for urban life such as

- Planters for landscape
- Street furniture

- Advertisements panels and notice boards
- Street lighting
- Space for informal commercial activities
- Open stairs leading to skywalk and underpasses
- Regulate pedestrian entry into vehicular area
- Bus stops
- Social gathering places
- Dust bins
- Fountains
- Courts and gardens
- Public water taps
- Telephone booths
- Kiosks
- Information booths and space for distributing city maps

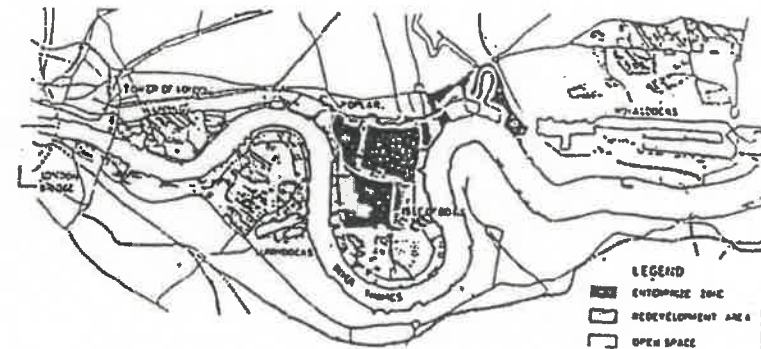
- It should be simple in design and easy to construct

- Design and materials of the arcade should be such that it requires minimum maintenance.

Planning of London Dockland

Fearing that the use of large scale master plan and authoritarian town planning would result in "misplaced social and physical order", the philosophy of the London Docklands Development Corporation (LDDC) was to allow market forces to reign in an unrestrained fashion. This had resulted in an ad-hoc built environment largely devoid of language and symbols of civilised urban design.

The Dockland project is a well documented case of laissez-faire urban redevelopment which has resulted in utter failure in all aspects of urban design. It strengthens the case for predetermined urban planning and urban design guidelines for projects of such nature and magnitude.



1.16 London Dockland, U.K.

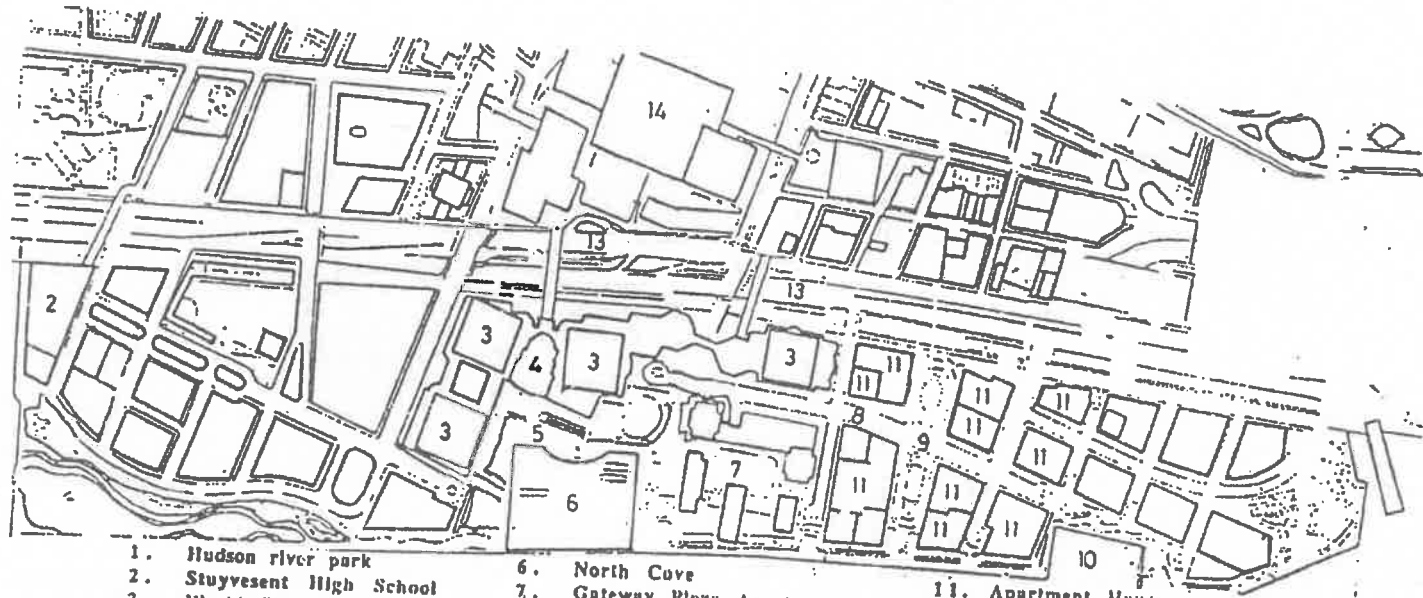
Competition between developers had resulted not in an orderly reconstruction of a wonderful watery peninsula but a Los Angeles like pattern of bulky glass office towers standing haphazardly in a cityscape of parking areas, building site and lowrise factory units. Thus, the design parameters appear to be shaped by a concern for security, corporate identity and functional anonymity and not visual coherence or imageability of global financial centre. Without a strong network of streets tying together the major projects in terms of order and hierarchy, the enterprise has quickly degenerated into a chaotic townscape devoid of the usual clues to legibility such as identity, squares, gateways, edges etc.

Planning of Battery Park City, New York

The Battery Park City (BPC) was designed to reproduce on newly filled land in small parcels to encourage participation by as many developers and architects as possible. It took advantage of the waterfront, extending the street grid of Lower Manhattan, establishing a commercial district to

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1



1. Hudson river park
2. Stuyvesent High School
3. World Financial Centre
4. Winter Garden Plaza
5. Plaza

6. North Cove
7. Gateway Plaza Apartments
8. South End Avenue
9. Rector Place Neighbour
10. South Cove

11. Apartment House
12. Esplanade
13. West End
14. World Trade Centre

1.17 Battery Park, New York

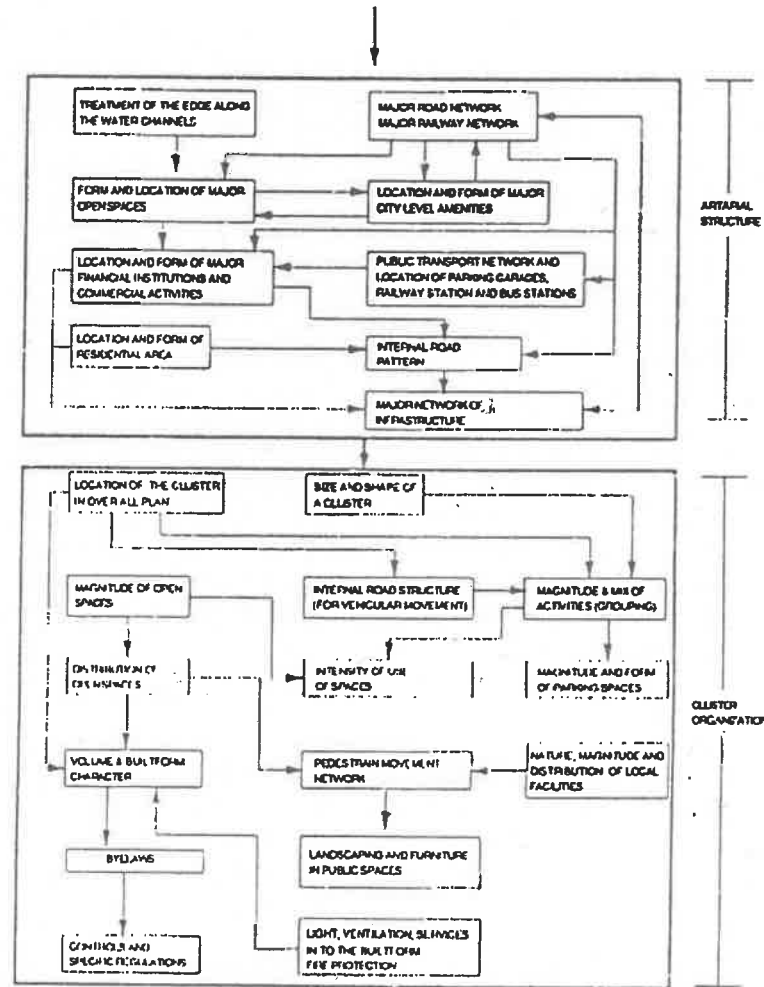
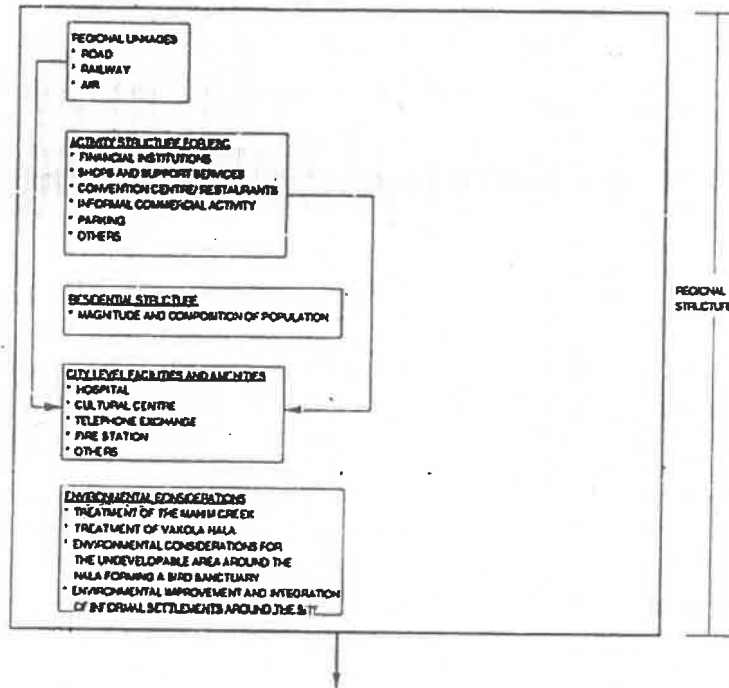
connect to the existing transportation hub at the world trade centre and implementing design guidelines that controlled bulk, scale and materials, and by allocating a significant portion of the site to public spaces and parks. However the BPC failed to keep in mind the great diversity that makes New York a dynamic city. In Battery Park City over prescriptive design guideline and zoning has resulted in the construction of a regimented and dead living environment which discourage a free flowing street life. This is an example which illustrates clearly that if public spaces are divorced from street, they do not get any real use and consequentially create a dead environment.

The lifelessness of the BPC's inner street can be partially explained by the fact that the complex is physically and psychologically segregated from the rest of Manhattan and the city by a multi-zone highway called west street. Though two enclosed pedestrian bridges 200 long link the BPC's commercial area, the World Finance Centre to the city, their under-articulated exteriors and airport concourse interiors are as uninviting as the walk across west street is intimidating.

The main artery through the residential areas remains empty and characterless most of the time as its retail component is nearly invisible. Grocery stores, video shops, dry cleaners, beauty saloons and daycare centres are largely hidden under deep imposing arcades.

PLANNING AND URBAN DESIGN OF BANDRA KURLA COMPLEX, BOMBAY

Sequential Analysis of Decision Areas



Master Plan for IFBC

2 Introduction

In order to prepare a master plan, it is necessary to translate the planning process into decisions and principles at various scales namely from the city to the individual plot level. Within each scale, there are various decision areas and they themselves are interrelated in certain ways. In order to make a successful plan, besides responding to the site characteristics and surrounding development these relationships need to be resolved through certain planning principles. It is an iterative process to relate site characteristics and form and location of activities at various scales. There are many theoretical framework available to accomplish this task. However, for the planning of Bandra-Kurla Complex, an activity location matrix was prepared to help organize the concept plan. Locational attributes of major landuses were tabulated against the various locations available within the planning framework. Some of these attributes are access to natural features like water and hillocks, road hierarchy, major circulation network in the form of railway and proximity to various activities within the complex. At the same time, these locational attributes of major landuses were translated into desirable building typology, building heights and the required degree of publicness to help determine the imageability of various areas. This process was repeated several times which incorporated the views of various professionals involved in the planning process in an interactive frame work.

Master Plan Proposal

The planning process adopted for Bandra Kurla Complex identified a series of goals to be achieved. These goals were derived from enquiry into past planning efforts of similar developments and contemporary urban situations in the country and through contextual analysis of linkages and site characteristics.

The overall concept plan for the IFBC was developed a series of decision areas at various scales. They ranged from regional linkages to the site, to

major road network required, activity mix, location and form of major office and commercial activities and the builtform character. In the planning process, an attempt has been made to keep the interrelated decisions in mind and to continuously check back on the goals and performance criteria. In this section, we report on the main decisions related to the physical form of the IFBC. They have been crystallized into three scales namely, regional structure, arterial structure and cluster organization.

Regional Structure

The IFBC would have to strongly respond to the city structure of Bombay as development of this centre would create pressure on existing network of roads and other infrastructure. This section of the report deals with the regional parameters, their relationships with the IFBC, aspects which would have to undergo change or would have to be provided for. Additional city level facilities which would be required and environmental improvement of the surrounding areas which would be required for formulation of a successful plan.

Regional Linkages

The proposed IFBC is located seven kilometres from the Santacruz and Sahar airport and it would be easily accessible for domestic as well as international business travellers. The 45 m wide Bandra-Kurla Link road is the main access to IFBC from the rest of the city which connects with the Western Expressway and Bombay Agra National Highway. This road is also expected to carry some through traffic. Based on the available assignment figures provided by the Atkins study on Bombay's Transportation, substantial volumes of traffic are to be negotiated by this road. Similarly, the Sion-Dharavi-Bandra Link road, the Western Expressway and the road linking Western Expressway with BKLR would

also have high traffic volumes. A proposal to develop an additional access position by linking 'G' Block with 'H' block and the 30 m wide road to the east of the proposed textile market has also been included. This would ensure smooth flow of vehicular traffic on all the assigned routes. Intersection of the road on the north of the IFBC and Western Expressway would be grade separated to ensure smooth flow of traffic.

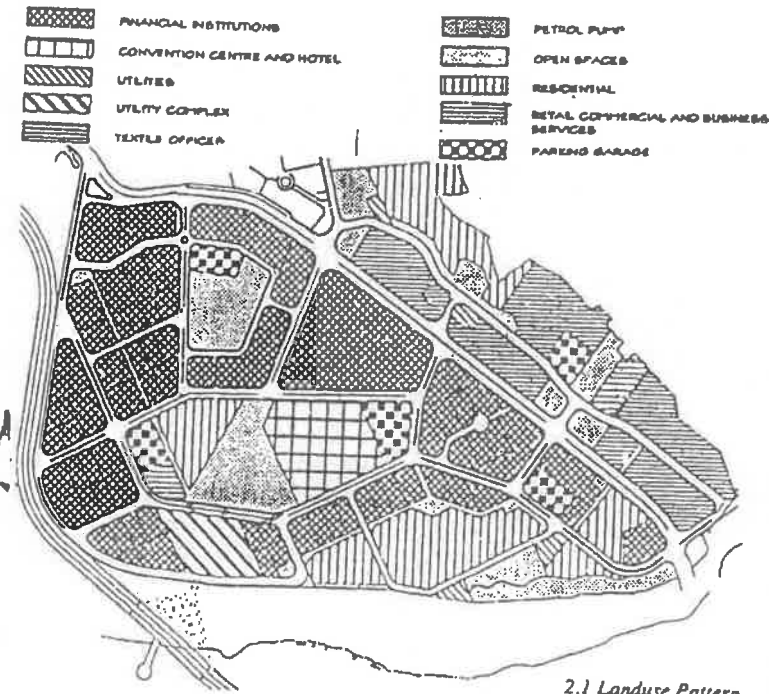
The nearest railway stations are Bandra and Kurla which are about 3 km and 1.5 km away respectively from the proposed IFBC. It was realized that the magnitude of work trips and trips made by visitors to IFBC could be accommodated only if the railway network exists. This is because the modal split share of railways in Bombay is 45% of the total trips which is the predominant mode of transport. Earlier railway alignment was required to emerge from Bandra behind the GN block and cut through the site along the 45 m wide road and proceed towards Kurla. However, it was not considered feasible as the alignment had lot of encroachments in its way. Several rounds of discussion with the BMRDA and the RITES consultants have culminated in the new alignment of the proposed seventh MTPR corridor. The alignment would skirt the IFBC along its south eastern edge and pass through the land adjoining the E Block. The two new railway stations, one adjoining the E Block and the other on a strip of land along the creek adjoining the G-Block have been proposed.

Landuse Pattern

The proposed activity structure and the intensity of the use of the land should match with the capacity of the major network to handle the amount of traffic that will be generated. Various combination of activity mix for F.S.I. of 2.0 and 2.5 were tried out by varying the share of the residential area in the total developable area. Alternatives were assessed with respect to total and peak hour traffic generation in terms of PCUs and rail traffic based on the expected modal split across different activities and total marketable floor space distribution and the balance of floor space between different activities. A higher F.S.I. could not be taken as a load on railways

and road network would increase beyond the carrying capacity and also due to administrative difficulties in seeking a revision in F.S.I. which would need approval of the Government of Maharashtra and would be a time consuming process.

The total magnitude marketable net plot area and activity wise floor space was based on the parameters like estimated proportion of developable area under external roads, area requirement per worker for public spaces, long term parking requirement, open space per resident for public spaces in residential areas and residential net plot density. For all commercial and office development, a net FSI of 2 was adopted, whereas for residential use the permissible FSI was 1.5.



2

Table 2.1

Land Use Distribution - International Finance and Business Centre (Bandra-Kurla Complex)

Land Use	G BLOCK FINANCE				"GN" BLOCK				G BLOCK TEXTILE				TOTAL AREA			
	V.S.F Proposal		B.M.R.D.A Proposal		V.S.F Proposal		B.M.R.D.A Proposal		V.S.F Proposal		B.M.R.D.A Proposal		V.S.F Proposal		B.M.R.D.A Proposal	
	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution	Land Area (Ha)	Percentage Distribution
Financial Institutions	50.85	42.42	51.03	42.56	1.06	8.03	0.87	7.82	-	-	-	-	51.91	30.73	51.90	31.21
Textile Offices	-	-	-	-	-	-	-	-	18.14	50.64	27.31	77.55	18.14	10.74	27.31	16.43
Retail Commercial & Support Services	1.25	1.04	-	-	-	0.00	0.36	3.24	-	-	-	-	1.25	0.74	0.36	0.22
Parking Garages	4.01	3.34	2.00	1.67	-	-	-	-	1.00	2.79	-	-	5.01	2.96	2.00	1.20
Facilities & Amenities	0.81	0.68	2.84	2.37	2.13	16.11	0.86	7.73	0.58	1.62	-	-	3.52	2.08	3.70	2.23
Utility Complex (Utility 2.5 Ha, Cultural Complex 1 Ha)	3.46	2.89	3.80	3.17	-	-	-	-	-	-	-	-	3.46	2.05	3.80	2.29
Hotel and Convention Center	6.00	5.00	5.83	4.86	-	-	-	-	-	-	-	-	6.00	3.55	5.83	3.51
Residential & Mixed Residential	14.28	11.91	14.68	12.24	5.91	44.72	4.85	43.62	5.97	16.67	-	-	26.16	15.49	19.53	11.75
Open Space	16.36	13.65	15.80	13.18	1.02	7.72	1.24	11.15	5.74	16.03	2.66	7.54	23.12	13.69	19.70	11.85
Roads	22.87	19.08	23.91	19.94	3.10	23.41	2.94	26.44	4.39	12.25	5.29	15.00	30.35	17.97	32.14	19.33
Total Land Area	119.89	100.00	119.89	100.00	13.225	100.00	11.12	100.00	35.82	100.00	35.26	100.00	168.92	100.00	166.27	100.00
Total Buildable Land Area (deducting for roads and open spaces)	80.66		80.18		9.10		6.94		25.69		27.31		115.45		114.43	
Total Buildable Floor Space (deducting for roads and open spaces)	162.18		157.02		15.25		10.74		50.39		54.62		227.83		222.38	
Total Commercial Floor Space ^S	129.73		125.32		2.12		2.46		38.89		54.62		170.73		182.40	
Total Residential Population	10000		10000		4000		3000		4000		0		10000		13000	
Total Working Population	135000		22000		6000		4000		4000		72000		195000		198000	
Employment Density (No. of People/Ha)	1126		1018		454		360		1508		2042		1154		1191	
Night Time Density (No of persons/Ha)	83		83		303		270		112		-		107		78	

Note: An FS1 of 4 counted for parking garages

* As a part of Financial Institutions 11.75 Ha of land area for Retail Commercial and Support Services is provided in Utility Complex and Parking Garages.

② Road area shall be 23.91 Ha. instead of 22.82 Ha., shown by B.M.R.D.A as internal sector level road is not included.

S Total Commercial Floor Space calculated from the residue of following activities

According to VSF proposal, excess of 2.57 ha land area may attributed to the changes in (1) Boundary line of Textile Block (2) The road alignment of 30 m wide m CST road

(3) The road alignment of 45 m wide road, difference in existing survey drawing and proposed drawing

Master Plan for IFBC

Table 2.2

Total Commercial Floor Space

Type of Commercial	V.S.F Proposal			B.M.R.D.A Proposal		
	G Block Finance (Ha)	'GN' Block (Ha)	G Block Textile (Ha)	G Block Finance (Ha)	'GN' Block (Ha)	G Block Textile (Ha)
Financial Institutions	101.07	2.12	-	102.06	1.74	-
Textile Offices	-	-	36.28	-	-	54.62
Retail Commercial and Support Services	2.50	0.00	-	-	0.72	-
Parking Garages	8.01	-	2.00	4.00	-	-
Hotel and Convention Center	11.99	-	-	11.66	-	-
Utility Complex excluding (Cultural Complex)	4.92	-	-	7.60	-	-
Cinema cum Comm. Complex	0.60	-	0.60	-	-	-
Total Commercial Floor Space	129.73	2.12	38.88	125.32	2.46	54.62
Total Commercial Floor Space		170.73			182.40	
Employment in International Finance and Business Center 'G' Block and 'GN' Block						
Banking Institutions	78000		2000	101000		2000
Business Offices						
Other Financial Services						
Parking Garages	6000	1000				
Retail Commercial and Business Support Services	34000	12000	1000	205		
Utilities	6000					1000
Facilities and Amenities	1000	2000	3000	6000		
Hotel and Convention center	10000			5000		1000
Wholesale Textiles		39000		10000		
Retail Shopping					72000	
Total Employment	135000	54000	6000	122000	72000	4000

Table 2.2

Total Commercial Floor Space

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Master Plan for IFBC

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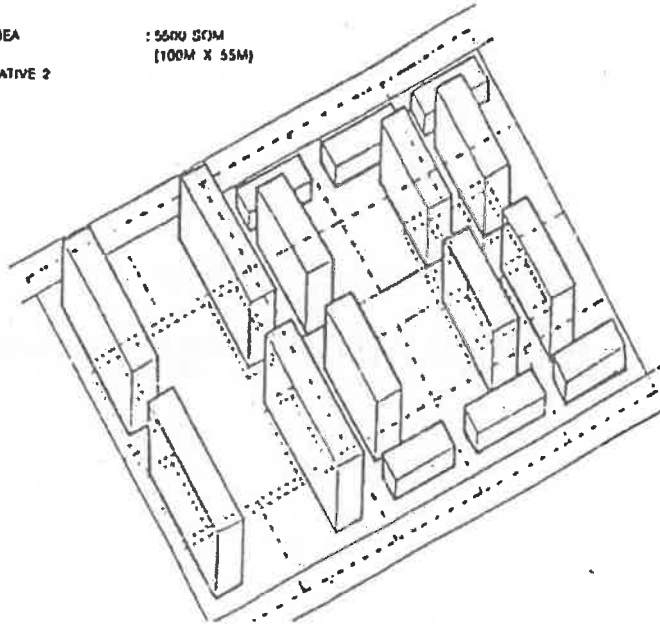
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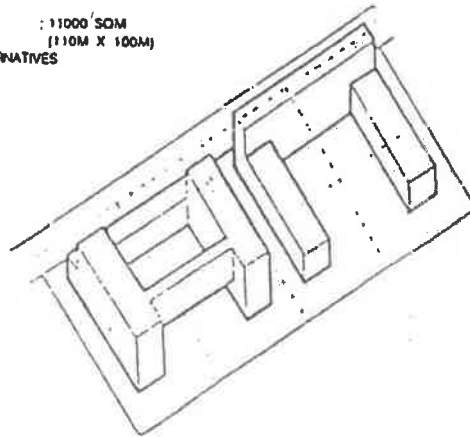
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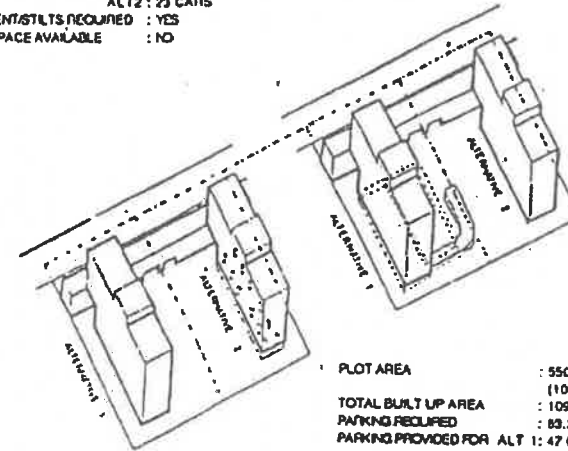
PLOT AREA : 5500 SQM
(100M X 55M)
ALTERNATIVE 2



PLOT AREA : 11000 SQM
(110M X 100M)
BASIC BUILT FORM ALTERNATIVES

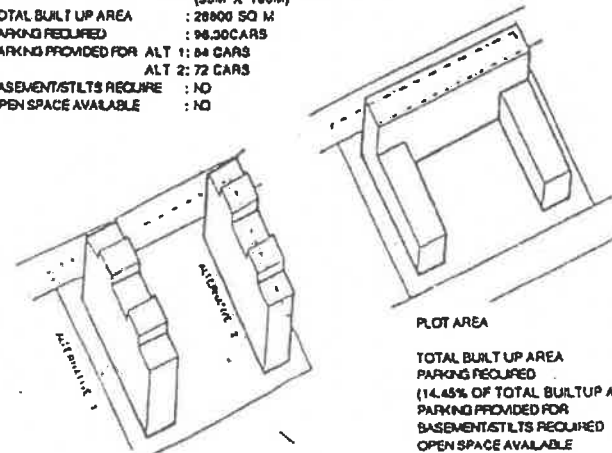


PLOT AREA : 5500 SQM
(100M X 55M)
TOTAL BUILT UP AREA : 10992 SQM
PARKING REQUIRED : 83.28 CARS
PARKING PROVIDED FOR ALT 1 : 83 CARS
ALT 2 : 23 CARS
BASEMENT/STILTS REQUIRED : YES
OPEN SPACE AVAILABLE : NO



PLOT AREA : 5500 SQ M
(100M X 55M)
TOTAL BUILT UP AREA : 10992 SQM
PARKING REQUIRED : 83.28 CARS
PARKING PROVIDED FOR ALT 1 : 47 CARS
ALT 2 : 86 CARS
BASEMENT/STILTS REQUIRED : YES
OPEN SPACE AVAILABLE : NO

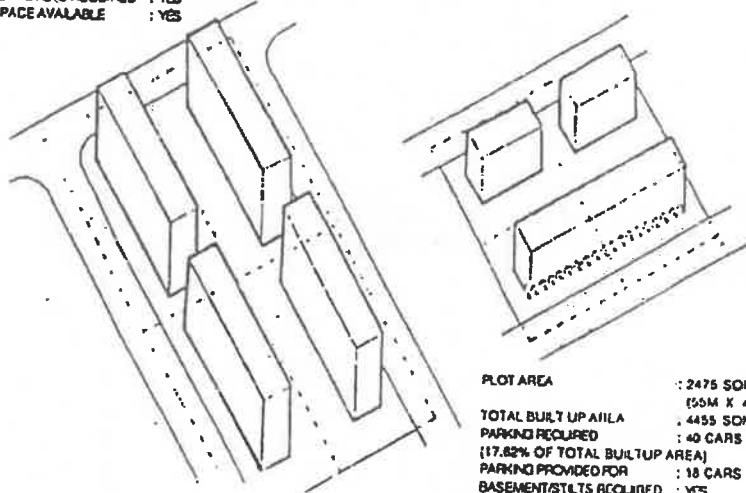
PLOT AREA : 5500 SQ M
(55M X 100M)
TOTAL BUILT UP AREA : 28800 SQ M
PARKING REQUIRED : 96.30 CARS
PARKING PROVIDED FOR ALT 1 : 84 CARS
ALT 2 : 72 CARS
BASEMENT/STILTS REQUIRED : NO
OPEN SPACE AVAILABLE : NO



PLOT AREA : 9900 SQM
(110M X 90M)
TOTAL BUILT UP AREA : 17820 SQM
PARKING REQUIRED : 129 CARS
(14.45% OF TOTAL BUILTUP AREA)
PARKING PROVIDED FOR : 85 CARS
BASEMENT/STILTS REQUIRED : YES
OPEN SPACE AVAILABLE : NO

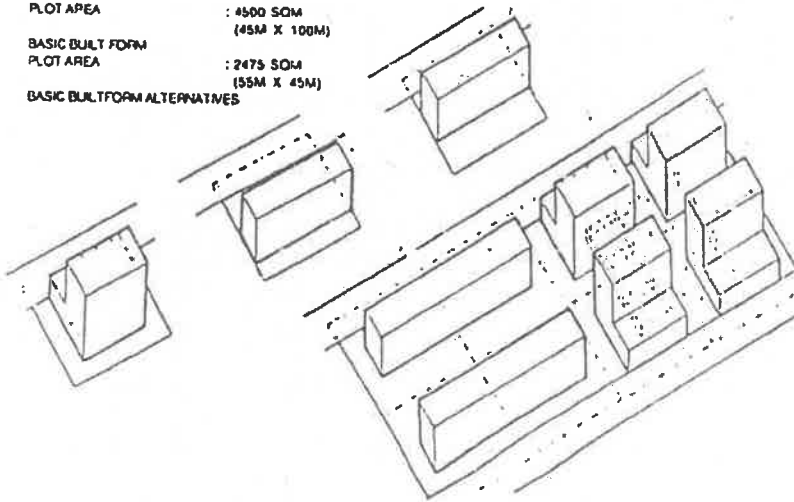
2.2a Builtform Characteristics with FSI 2.0

TOTAL BUILT UP AREA : 8910 SOM
 PARKING REQUIRED : 105 CARS
 (17.65% OF TOTAL BUILT UP AREA)
 PARKING PROVIDED FOR : 36 CARS
 BASEMENT/STLTS REQUIRED : YES
 OPEN SPACE AVAILABLE : YES

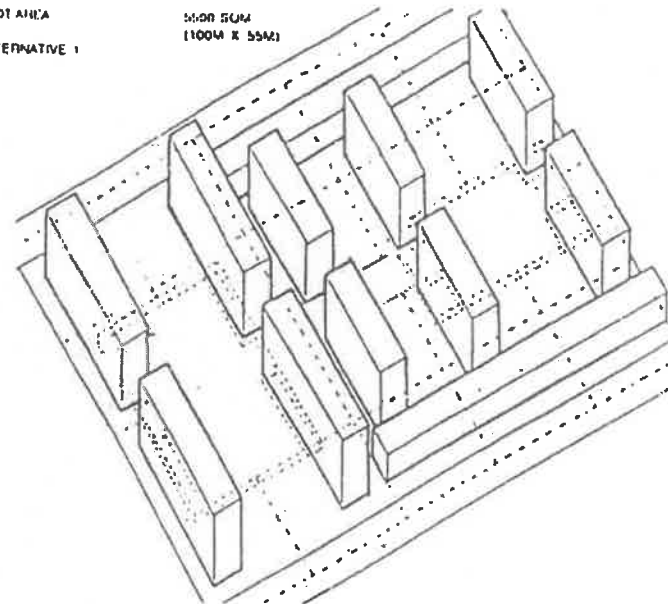


PLOT AREA : 2475 SOM
 (55M X 45M)
 TOTAL BUILT UP AREA : 4455 SOM
 PARKING REQUIRED : 40 CARS
 (17.82% OF TOTAL BUILT UP AREA)
 PARKING PROVIDED FOR : 18 CARS
 BASEMENT/STLTS REQUIRED : YES
 OPEN SPACE AVAILABLE : NO

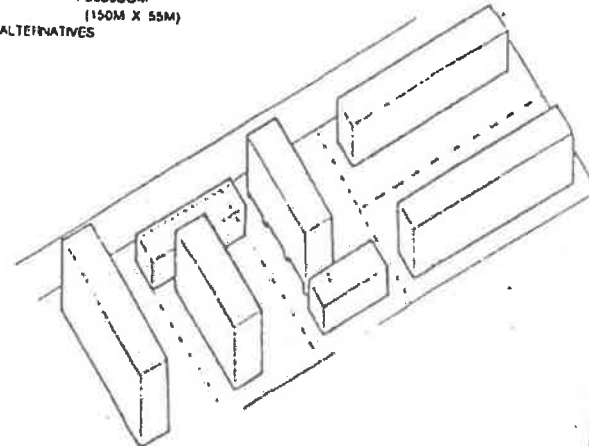
PLOT AREA : 4500 SOM
 (45M X 100M)
 BASIC BUILT FORM : 2475 SOM
 (55M X 45M)
 BASIC BUILT FORM ALTERNATIVES



PLOT AREA : 5500 SOM
 (100M X 55M)
 ALTERNATIVE 1



PLOT AREA : 5500 SOM
 (100M X 55M)
 BASIC BUILT FORM ALTERNATIVES



4.2B PBuiltform Characteristics with FSI 2.0

Master Plan for IFBC

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a) Financial, Business and Textile Offices

Financial and business offices which forms the bulk of the development would occupy 50.85 ha (42.42%) of area in G Finance Block and 1.06 ha (8.03%) in GN block. Textile offices occupy 18.14 ha (50.64%) in the G Textile block. This was based on the minimum requirement of the commercial built up area as spelt out by BMRDA.

b) Retail Commercial and Support Services

Retail commercial and support services etc. would apart from serving the financial institutions, would create a lively street character in IFBC. Thus, it has been provided to an extent of 1.25 ha (0.74%). Adequate space for retail commercial activities also provided as part of other landuses like parking and utilities to an extent of 28.02 ha floor space and would be of the type of shopping malls, departmental stores, leisure and recreational clubs etc. The suburbs, which are deficient in terms of shopping space, would thus benefit by these developments.

c) Form and Location of Informal Commercial Activities

Existing CBDs have had the experience of the invasion of informal activities on the pavements and would leave no space for the pedestrians. The IFBC would be an exception to this and space has been provided to accommodate informal commercial activities at appropriate locations which is generally not considered in a conventional design.

d) Parking

Personalized modes would account for 15% of the total work trips generated in the IFBC and a sizeable number of visitor trips would be done through personalised modes. Parking space has been provided for both workers and visitors. The requirement works out to be 12% of the

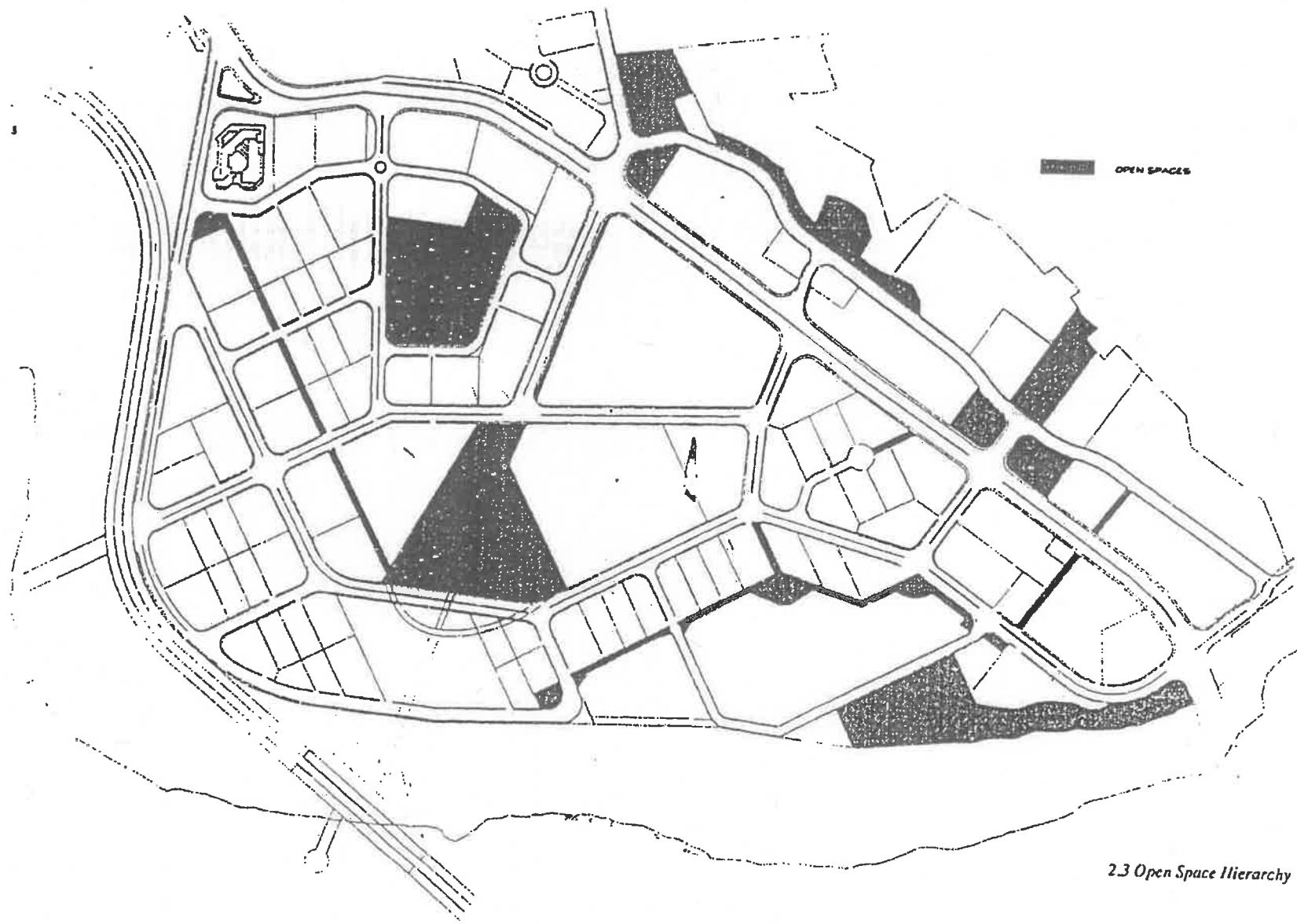
total built up area implying that provision of parking on ground would take up 24% of area. This would lead to high rise buildings with low ground coverage without any public spaces as would happen in a conventional design of commercial centres and would degrade the quality of environment. In order to avoid allocating such large areas for parking on the ground, 5 multi-storeyed parking garages of one heacter each has been proposed, totalling 5 ha with an individual capacity of 800 cars. Parking beneath the recreational grounds are also planned for which would generate another 3500 cars particularly for the visitors in the cluster has also been provided on the ground.

e) Open Space

Open space requirement for commercial and residential uses have been met by providing 23.12 ha (13.69%) of land. The open space requirement was calculated by assigning per capita requirement of 0.9 sqm per working population and another 3 sqm per residential population. This amount was derived through findings of earlier studies on urban open spaces. In addition, certain amount of open spaces would be generated within the plot through proper organization of built spaces.

Four open space typology have been envisaged in the IFBC. City level space in the form of maidan form the major component of the open spaces provided. The second type of open spaces are the linear greens which would crisscross through the site and join major nodes and open spaces acting essentially as a pedestrian pathway. The third type of open spaces are provided in the residential areas. Schools in the residential area possess open space which would be accessible to the general public during evening hours. The fourth type of open spaces envisaged are within the cluster of plots to the extent of 10% of plot area.

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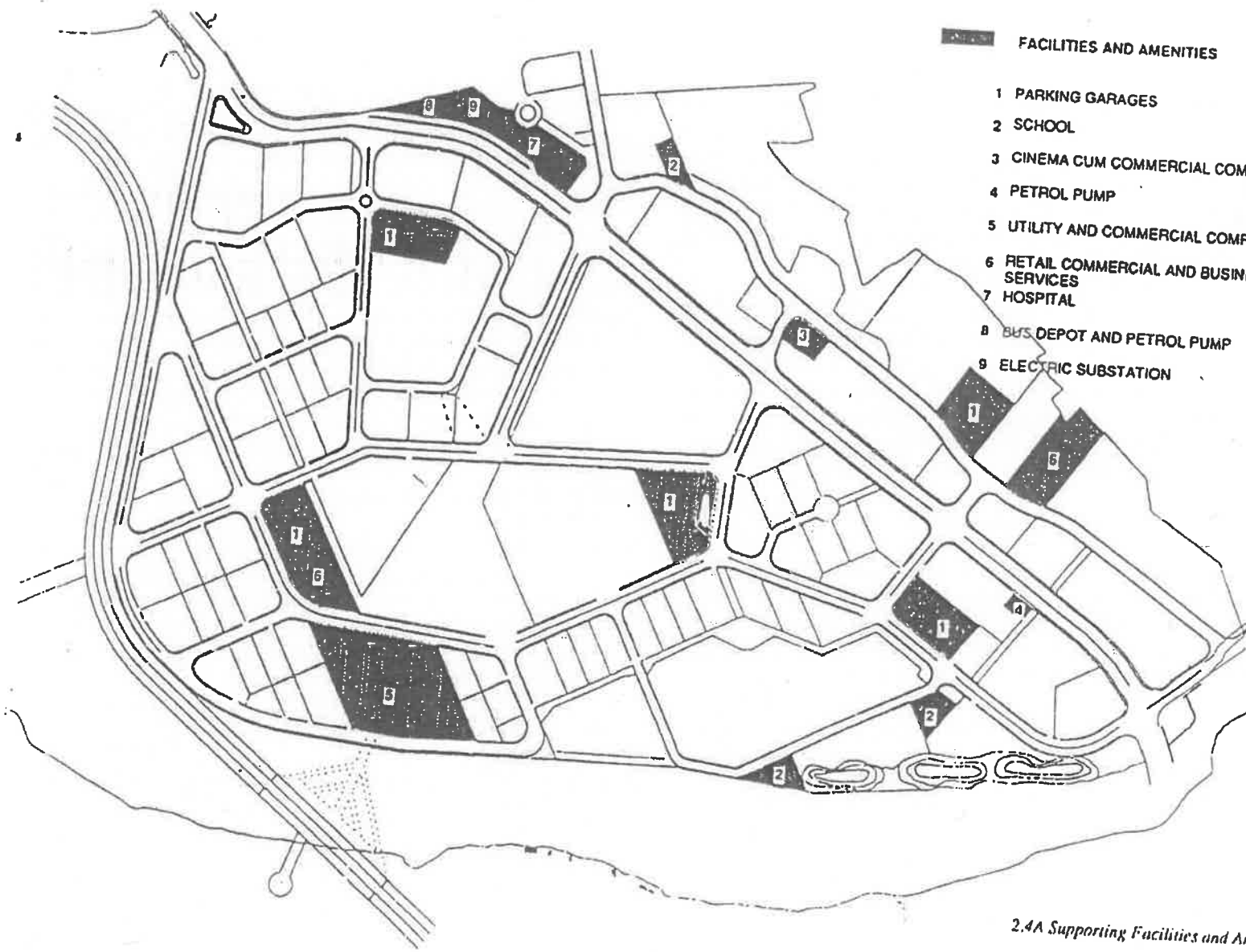


2 D Supporting Facilities and Amenities

A full fledged Convention centre has been proposed along with a five star hotel with a land area of 6.0 ha. Other major facilities proposed are a hospital of 1.0 ha, a cultural centre of 1.0 ha as a part of utility complex and the telephone exchange of 1.0 ha which would cater to the entire node. Three composite schools of 0.25 ha each and one having 0.36 ha. have been proposed.

Table 2.3
Facilities and Amenities in IFBC

	V.S.F Proposal		B.M.R.D.A Proposal	
	Land Area (Ha)	No.s	Land Area (Ha)	No.s
FINANCE BLOCK				
Composite School	0.70	2		
Petrol Pump	0.11	1		
Facilities and Amenities (Total)	0.82		2.84*	
Parking Garage (1 Ha of each)	4.01	4	2.00	2**
Utility Complex (including Cultural Complex)	3.46	1	3.80	1
Open space	16.36		15.80	
Total Area	25.46		24.44	
TEXTILE BLOCK				
Composite School	0.27	1		
Cinema cum Commercial Complex	0.31	1		
Parking Garage	1.00	1*		
Open space	5.74			
Total Area	7.32			
"GN" BLOCK				
Hospital	1.00	1		
Composite School	0.41	1	0.36	1
Electric Sub Station	0.47	1	0.5	1
Petrol pump and Bus Depot	0.25	1		
Open space	1.02		1.38	
Total Area	3.15		2.24	
* Hospital, school and telephone exchange				
** Retail Commercial and Business service activities will be added on to this land to consume the permissible FSI.				



2.4A Supporting Facilities and Amenities

m wide road, providing with a pathway through which a significant volume pedestrian flow would take place. The pathway would be shaded with trees and interspersed with water bodies. Open spaces on either side of the pathway would be lined by a rows of trees across the maidan in the centre; the maidan would also double up as a venue for trade fairs and exhibitions. The southern corner of the central green would have the character of a street garden where visitors can spend time between meetings and employees during lunch hours.

The other open space of 3.9 ha has been committed in the BMRDA plan which would be a plaza and would be linked to the central recreational ground through a linear green space so as to provide direct pedestrian linkages. It would also have under ground commercial spaces along with parking. Some social amenities in the form of clubs and other recreational amenities are to be built to the extend of 10% of the ground area. these activities will help ensure consistant use of open spaces.

e) Form and Location of Major Activities

The financial institutions are located in clusters along the major roads in such a way that they are highly accessible and within easy walking distance from the railway station. The financial institutions and larger business houses would prefer independent plots for their corporate identity devoid of the mixed commercial land use. The clustering of the financial institutions would lead to a quieter environment in the non commercial parts of the development. Textile offices are provided as a separate zone segregated from the financial institutions, across the 45 m wide road.

Retail commercial and service establishments are located along the main bus route. By virtue of their location, they would be highly accessible to the financial and business offices. Treautment of the public spaces along the retail commercial spine by the providing arcades would give it the character of a street bazaar. The skywalk which emerge from the station through a series of stairs would descend onto the maidan.

The utility complex which would be one of the most important development in the plan has been located centrally adjacent to the railway station. There would be multi level pedestrian pathway cutting through the complex through which rail commuters would descend onto the bus way or taxi stand or continue on foot towards other parts of IFBC. The public transport routes forming a loop in the IFBC would terminate in the utility complex.

Other utilities like fire station, ambulance bay, police station would be located at the ground level within the utility complex. Electric substation and telecom services would be located in the basement along with the parking for 1350 cars. Cultural complex would be provided on the upper floors. The retail commercial in the form of shopping malls would be located at the level of the skywalk for easy access to the pedestrians. Business offices and telecom offices would be located on the upper floors.

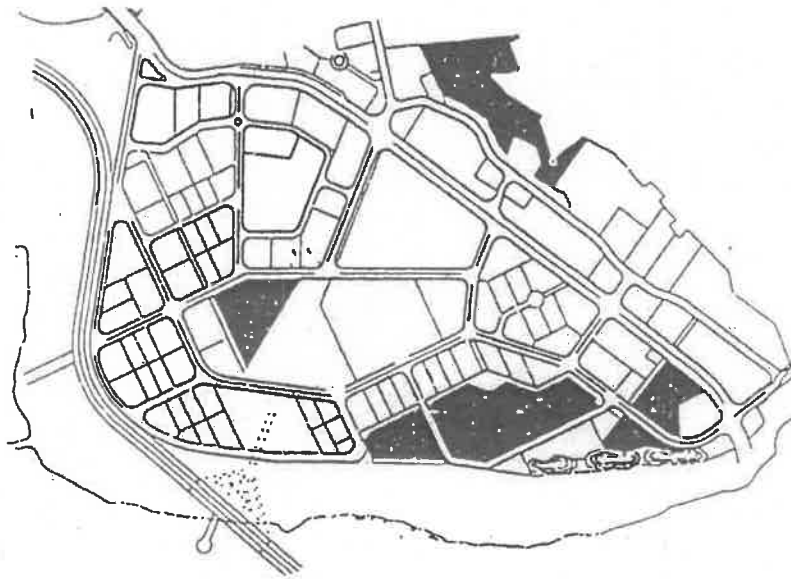
Location of Other Facilities and Amenities

The hospital which would cater not only to the IFBC but also to a much larger area around has been located at the entry to the IFBC on the G-N block, fronting the 45 m wide road. Secondary transport terminal too has been located at the G-N block. Other facilities provided includes the truck terminal at one corner of the site taking advantage of the road near Kurla providing easy access to the National Highway.

Location and Form of Residential Areas

Residential areas have been located in such a way that they are distributed at the periphery adjacent from the major activity nodes and yet maintain it's own sense of identity. Most of the residential areas in the G block have been located near the Mithi river and the hillock in a linear manner. At the same time, to maintain life in the IFBC after office hours, some residential area has been located near the central green. Care has been

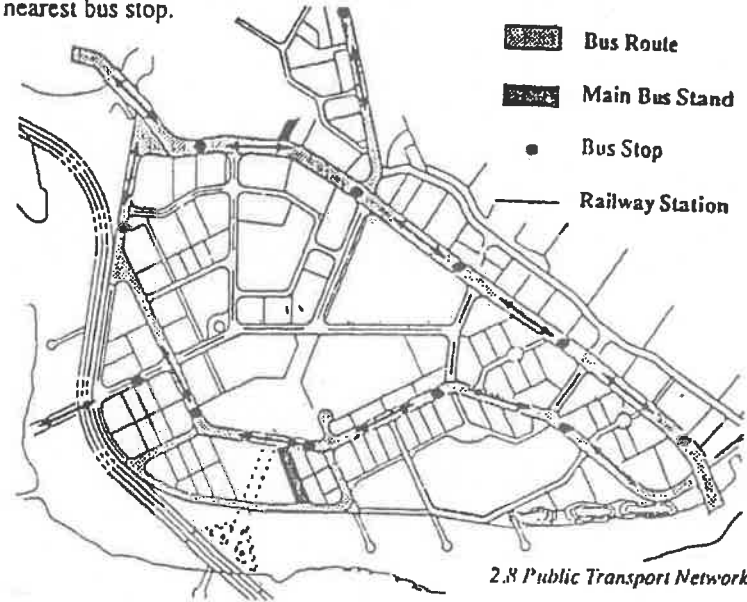
taken to allot atleast 300-400 families at one location to help create a sense of community. Residential zones have been located in the G-North block and the G-Textile block similarly by locating them adjacent to the commercial areas.



2.7 Location and Form of Residential Areas

Public Transport Network

The government run BEST buses would be plying buses on the Bandra-Kurla Road and also to-and-from IFBC and partly would terminate at the Utility Complex. It has been estimated that over 62985 work trips would be made through bus. This requires 1105 bus-runs to be made to IFBC and 461 of them in the A.M. peak hour. 60% of the buses would run on the main 45 m wide outer road and 40% would only be plying on the 30 m wide roads. Thus most of the high speed traffic as well as the heavy traffic would run only on the 45 m wide road, preventing through traffic and help provide better environment within the site. Buses would also be running from the bus station within the IFBC to cater to those rail commuters wishing to continue by secondary mode. The main bus station is thus located near the station. The bus route system is so planned that any place in the IFBC is within 3-5 minutes walking distance from the nearest bus stop.



2.8 Public Transport Network

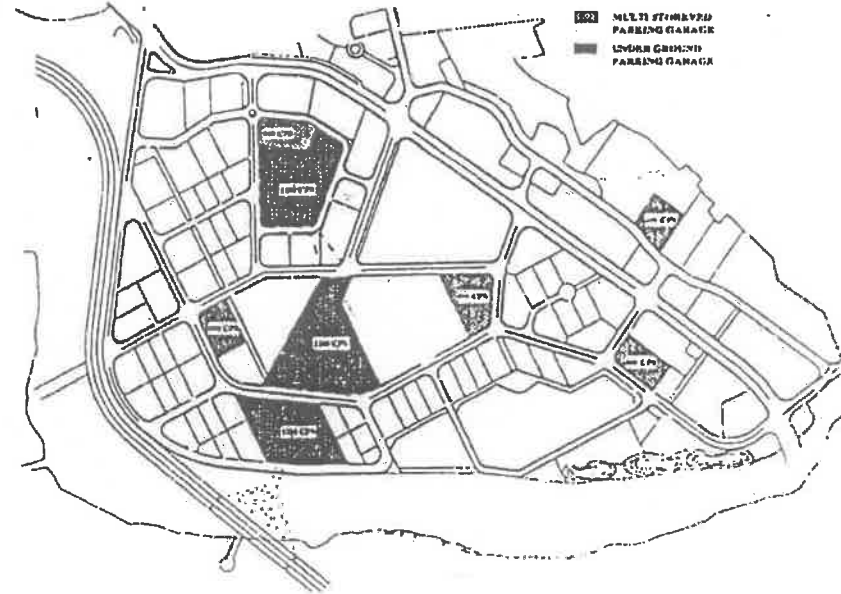
Five multi storey parking garages of 800 car capacity each have been provided along with an equal amount of area for commercial activities were distributed equitably in the plan. Of these, four parking garages are located within the G-Block (Finance) while one parking garage was located in the textile block. The major utility complex too would have car parking space of 1350 cars in it's basement in addition to car parking requirements for the activities within the utility complex itself. The location of the garages were made along the major roads thus making it highly accessible to the users. From any place in the IFBC, a parking garage is accessible within 3 to 5 minutes walking distance.

These parking garages form the retail commercial centres for the corporate development. Each of these garages would have a predominant mix of retail and cultural activities. The parking garage near the RG1 has been earmarked for development as a departmental store. Other parking garage adjoining the maidan is to be primarily developed as cultural centre along with retail commercial activities. The parking garage plot near the convention centre would be developed as health club, hotels and related facilities along with retail commercial activities. The one on the eastern corner in G Block has been again earmarked for mixed retail commercial activities. The parking garage in the textile block has been envisaged to be developed as a cultural centre along with retail activities.

Internal Road Structure

The internal roads have been designed in such a way to provide access and at the same time discourage through traffic to create larger environmental area. The internal roads were of 24 m or 18 m width and connect to higher hierarchy of 30 m roads. Internal roads were aligned in the east-west orientation and this would help flushing of street by wind. The 18m wide road around the RG1 have been extended to form a loop

around the maidan and connect to the 30 m wide road along the Diamond Bourse. This has been done to facilitate the smooth dispersal of vehicles from the underground RG of 1400 CPS capacity. Also the accesses to the plots fronting the 18 m wide road would be taken from the same in order to reduce congestion on the 30 m wide road and permit fast and easy flow of traffic on it.



2.9 Parking Facilities in the IFBC

Table 2.4

ESTIMATION OF TRAFFIC GENERATED BY INTERNATIONAL FINANCE AND BUSINESS CENTER

Assumed Modal Split of Work Trips

Mode	Percent of person trips	Occupancy (per. Veh)	PCU Value
Car	11.40%	2.03	1.0
Two Wheeler	3.60%	1.32	0.4
Taxi	1.30%	1.49	1.0
Auto Rickshaw	4.80%	1.19	0.8
Bus	34.00%	60	3.4
Rail	45.00%		

Source : 1994, W.S. Atkins International & Preliminary report on traffic Management for IFBC by Prof. Mitru

Assignment of traffic during peak hours in the various blocks

Peak Hour Assignment	Finance Block	Textile Block	"GN" Block
First Hr. Assigned traffic	55%	15%	55%
Second Hr Assigned traffic	45%	30%	45%
Third Hr Assigned traffic		55%	

Total Employment Figures arrived for IFBC

	G Block Finance	G Block Textile	"GN" Block	Total
Employment	135000	54000	6000	195000
Discounting for Absentism of 5%, Employment	128250	51300	5700	185250

Figures arrived on the basis of the floor area per employee for offices & shops

Preliminary Estimate of Vehicular Traffic by mode, during A.M. period.

Mode	G Block Finance			G Block Textile			Total	"GN" Block			Total	Total Block			Total
	AM Hour One	AM Hour Two	Total	AM Hour One	AM Hour Two	AM Hr Three		AM Hour One	AM Hour Two	Total		AM Hour One	AM Hour Two	AM Hr Three	
Car	3961	3741	7702	432	864	1584	2881	176	144	320	4569	4249	1584		10403
Two Wheeler	1924	1574	3498	210	420	770	1399	86	70	155	2219	2064	770		5052
Taxi	548	465	1033	62	124	227	413	25	21	46	655	609	227		1492
Auto Rickshaw	2845	2328	5173	310	621	1138	2069	126	103	230	3262	3052	1138		7472
Bus	400	327	727	44	87	160	291	13	15	27	461	429	160		1050
Total	9698	7935	17633	1058	2116	3879	7053	431	353	784	11187	10403	3879		25469

Estimate of Generated Work trips traffic (PCU) during A.M. Period

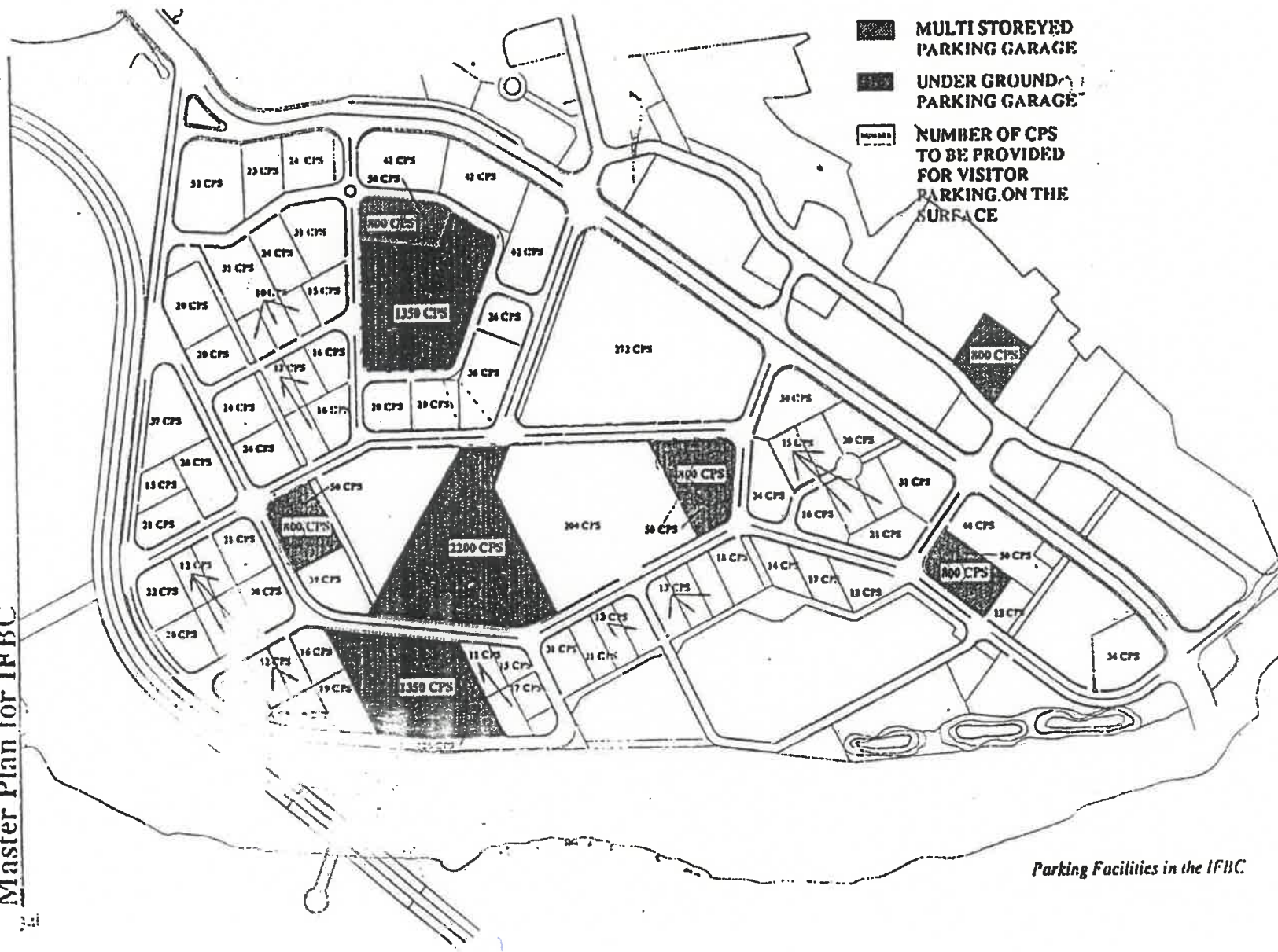
Mode	G Block - Finance			G Block-Textile			Total PCU	"GN" Block			Total PCU	Total Block			Total PCU
	AM Hour One	AM Hour Two	Total PCU	AM Hour One	AM Hour Two	AM Hr Three		AM Hour One	AM Hour Two	Total PCU		AM Hour One	AM Hour Two	AM Hr Three	
Car	3961	3741	7702	432	864	1584	2881	176	144	320	4569	4249	1584		10403
Two Wheeler	769	630	1399	84	168	308	560	34	28	62	868	825	308		2021
Taxi	548	465	1033	62	124	227	413	25	21	46	655	609	227		1492
Auto Rickshaw	2776	2328	5104	248	497	910	1655	101	83	184	2626	2442	910		5978
Bus	1359	1112	2471	148	297	544	998	40	49	110	1568	1458	544		3569
Total	9698	7935	17633	975	1949	3574	6497	397	325	722	10403	9584	3574		23463

Summary of the vehicular traffic & pedestrian traffic generation

Vehicular Volume:	Finance Block	Textile Block	"GN" Block	Total Block
Total Peak Hour traffic volume (PCU)	16244	6497	722	23463
First Hour A.M. traffic volume (PCU)	8934	975	397	10306
Second Hour A.M. traffic volume (PCU)	7310	1949	325	9584
Third Hour A.M. traffic volume (PCU)		3574		3574
Pedestrian Volume				
Total peak hour Pedestrian volume	5771.3	2108.5	2565	8336.3
First Hour A.M. Pedestrian volume	3174.2	346.3	1411	4661.5
Second Hour A.M. Pedestrian volume	2597.1	692.6	1154	3405.0
Third Hour A.M. Pedestrian volume		1269.7		1269.7

2

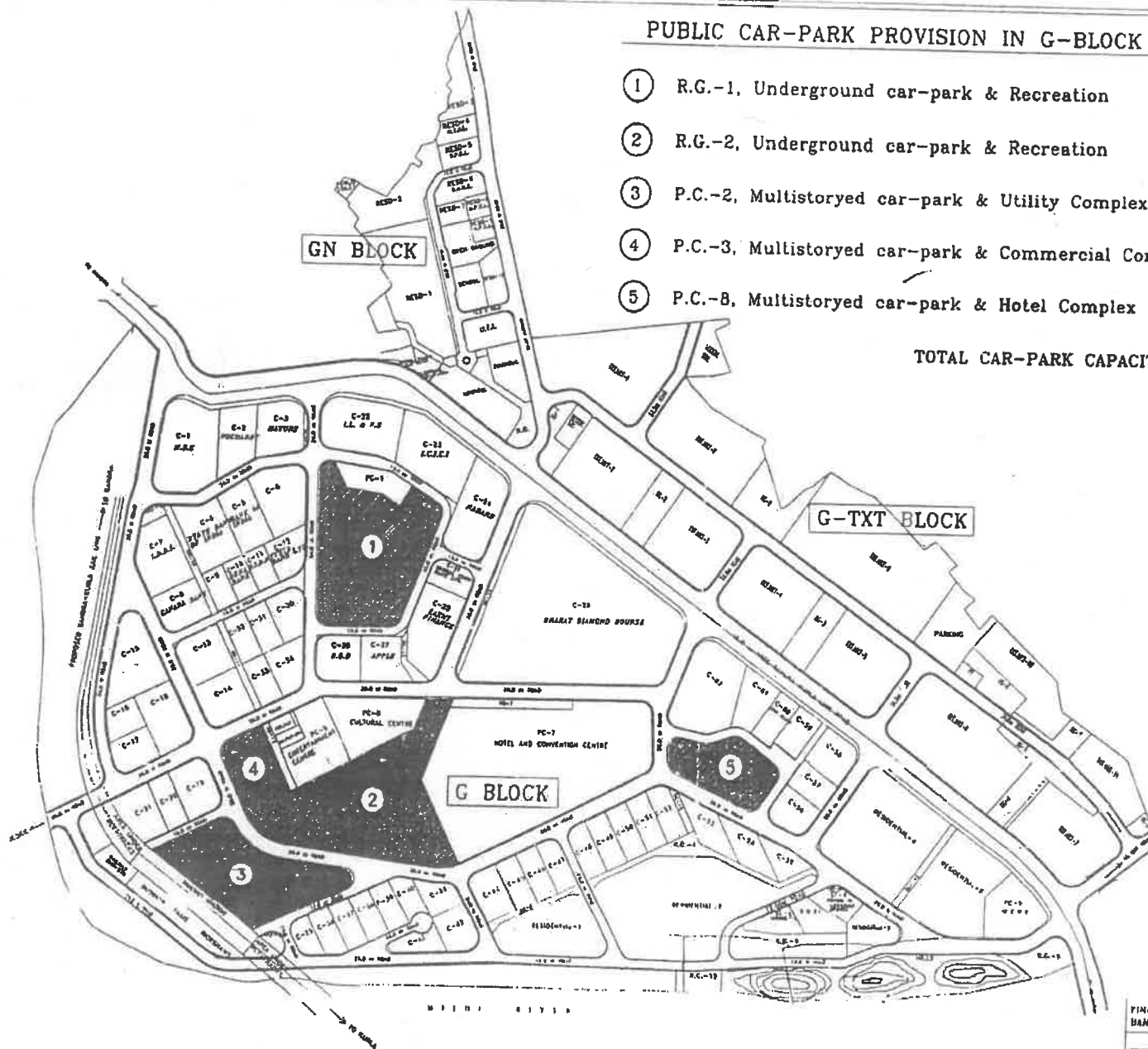
Master Plan for IFBC



GN BLOCK

- G-TXT BLOCK

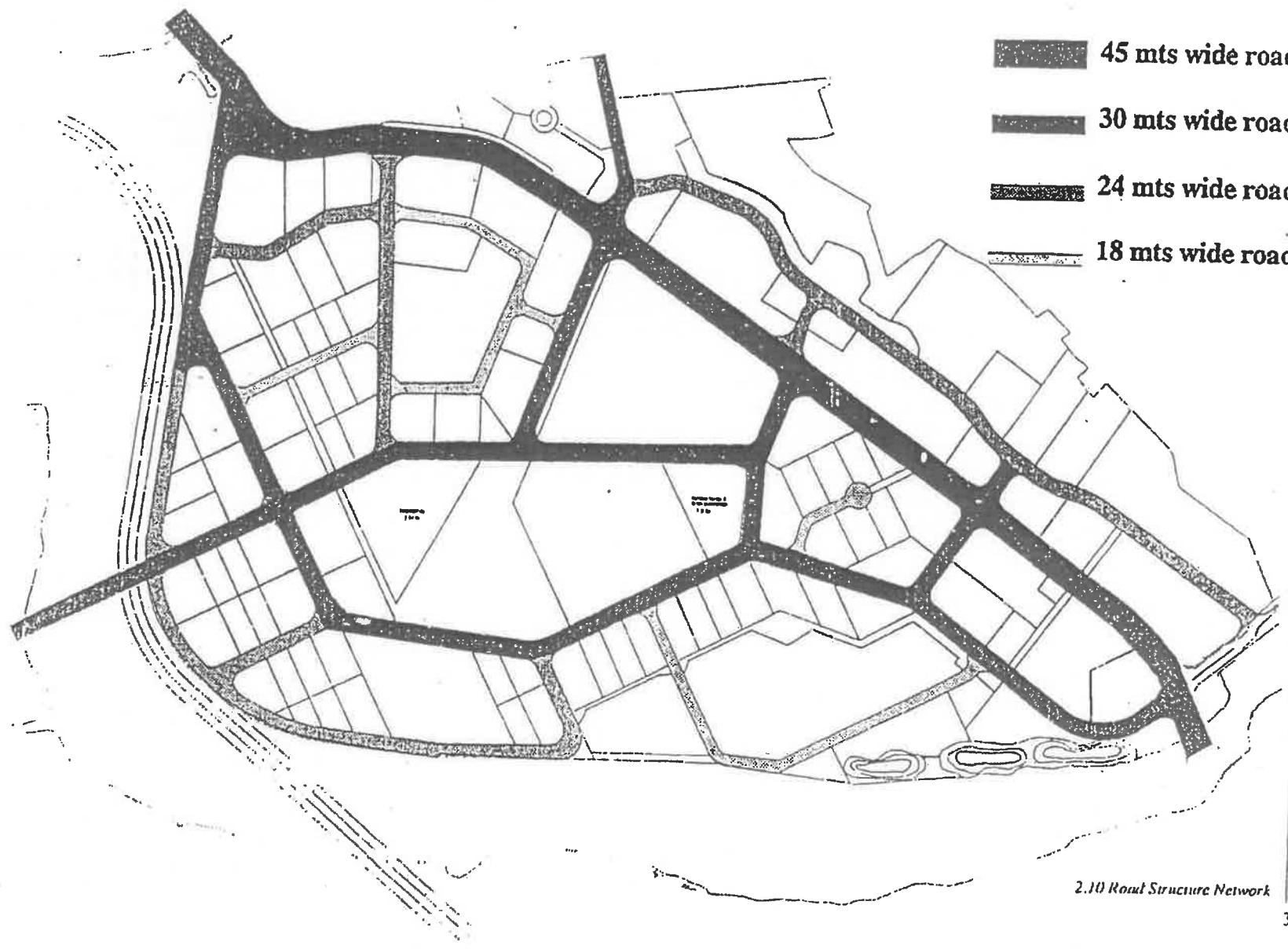
G BLOCK



FINAN. 1470107 OF 10,000,000 IN 1981
BANDURA-KRIVOLAZKOVA (1981)

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- 45 mts wide road
- 30 mts wide road
- 24 mts wide road
- 18 mts wide road

2

2.10 Road Structure Network

Master Plan for IFBC

2 Traffic Generation

The average floor space per capita was arrived at through a sample survey and a detailed survey of specific business offices and financial institutions in Bombay. A floor space rate of 9.4 sqm per employee was found out as against 7.8 sqm per employee reported on a ORG study report on office location policy in Bombay. With this average floor space requirement per employee for different types of commercial and office activities, the total employment of the IFBC has been estimated to about 1,55,000. Given the employment potential, it is estimated that the IFBC would generate around 83,363 work trips by railway, 62,985 work trips by bus, 11,100 work trips by hired modes and about 27,800 work trips by private vehicles. On an average, the IFBC would generate 10 work trips per 100 sqm of gross floor area during the peak period. Also with the given commercial component of gross floor area at 1,707,300 m²; a residential component at 5,23,200 m²; the estimate of generated traffic volume is 23,483 PCU for essential trips plus visitor traffic during peak hours for the entire IFBC including Finance, Textile and GN Block. (table 2.4 to 2.6). The model assumes a continuous flow of visitor traffic to the business and commercial activities and the flow is spread evenly during the business hours.

Table 2.5
Preliminary Estimate of Vehicular Traffic by Road during A.M. Period

Mode A.M. Peak Hour	Number of Vehicles					
	Cars	two wheelers	Taxi rickshaw	Auto-	Buses	Total
One	4569	2219	655	3282	461	11186
Two	4249	2064	609	3052	429	10403
Three	1584	770	227	1138	160	3879
Total	10403	5052	1492	7472	1050	25468

Visitor Traffic

On the basis of a recent studies conducted by BMRDA which revealed a rate of 9% of total traffic as visitor component, it was estimated that 19,700 visitors per hour are to be expected in the IFBC. These visitors would generate an estimated 2500 PCU of traffic volume at the rate of 0.125 PCU/visitor. It is of a considered view that visitor traffic to the IFBC is to be expected even during the A.M. peak period.

Keeping in view the international nature of trading activities envisaged in the G-Block, the modal split of person trips in road is assumed as derived through institutional surveys, which is different than that prevailing in Bombay (1993). The spatial and modal split distribution of person trips and PCU value of vehicles are as follows:

Table 2.6
Assumed Modal Split of Work Trips

Mode	Percent of Person Trips		Vehicle Occupancy	PCU Value
	Finance Block	Textile Block		
Car	11.4	11.4	2.03	1.0
Two Wheeler	3.6	3.6	1.32	0.4
Taxi	1.2	1.2	1.49	1.0
Auto Rickshaw	4.8	4.8	1.19	0.8
Bus	34.0	34.0	60.00	3.4
Other modes	45.0	45.0	-	-

Source: 1994, W.S. Atkins International and Preliminary report on traffic management plan for IFBC by Prof. J.K. Mittu

Table 2.7
Estimate of Work Trips Generated During A.M. Period

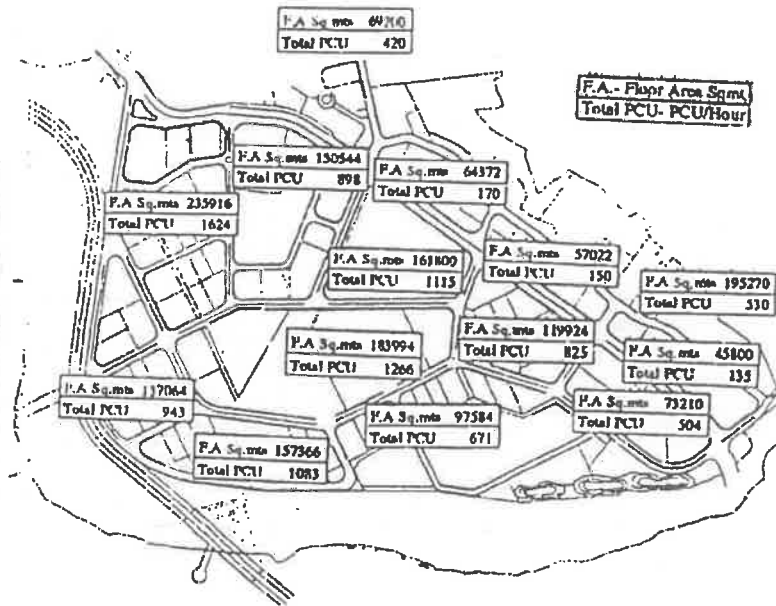
Activity	Traffic volume in P.C.U.			
	Personalized Modes	Hired Modes	Bus	Total
Finance Block	8601	5171	2471	16244
Textile Block	3441	2069	988	6497
GN Block	382	230	110	722
Total	12425	7470	3569	23463

Note: (1) Total IFBC employment is estimated at 1,95,000 including service personnel, vendors and resident workers.

(2) Discounting for absenteeism, the traffic oriented employment is estimated at 1,85,250

Traffic Assignment

According to W.S. Atkins trip attraction model for Bombay, 185,000 work trips are likely to be made to the complex during the A.M. peak period. After examining the magnitude of work trips traffic, different components of the IFBC have been disaggregated in zones to facilitate ingressing movement, so that congested conditions are not encountered on the feeder and collector road system. The zone wise A.M. peak hour ingressing traffic volumes (PCU per hour) are rationalised on the basis of distribution of floor area and is shown in the figure 2.10.



2.11 A.M. Peak Hour Ingressing Traffic (P.C.U./Hr.)

Table 2.8
A.M. Peak Period Traffic Attraction (Finance Block)

Mode	Traffic Volumes in PCU		
	First Hour A.M. Period	Second Hour A.M. Period	A.M. Period Total
Cars	3961	3241	7202
Two Wheelers	769	630	1399
Taxi	568	465	1033
Auto Rickshaw	2276	1862	4138
Bus	1359	1112	2471
Total	8935	7310	16245

Table 2.9
Traffic Assignment by direction during A.M. Peak Hour

Direction	Percent Traffic Assigned
South	25
West	36
North	36
East	3

Note: The above figures take into account the assignments made as part of the comprehensive study.

Table 2.10
Approximation of A.M. Period Assigned Traffic at Access Positions and on Internal Roads (Finance Block)

Access Position	Road	Percent Traffic Assigned Hour (one)	Assigned Traffic Volume (PCU)
1	R1	20	1800
2	R2	10	900
3	R3	18	1600
4	R4	10	900
5	R5	11	1000
6	R6	20	1800
7	R7	11	1000

As seen in table 2.7 to 2.9, a traffic volume of around 23,463 PCU will have to be accessed into the IFBC in no more than two hours during the A.M. period. 95% of the traffic volume is considered in peak two hour. 55% of the PCU is assigned in A.M. first hour and 45% is assigned in A.M. second hour for both the Finance and GN blocks. However, in the

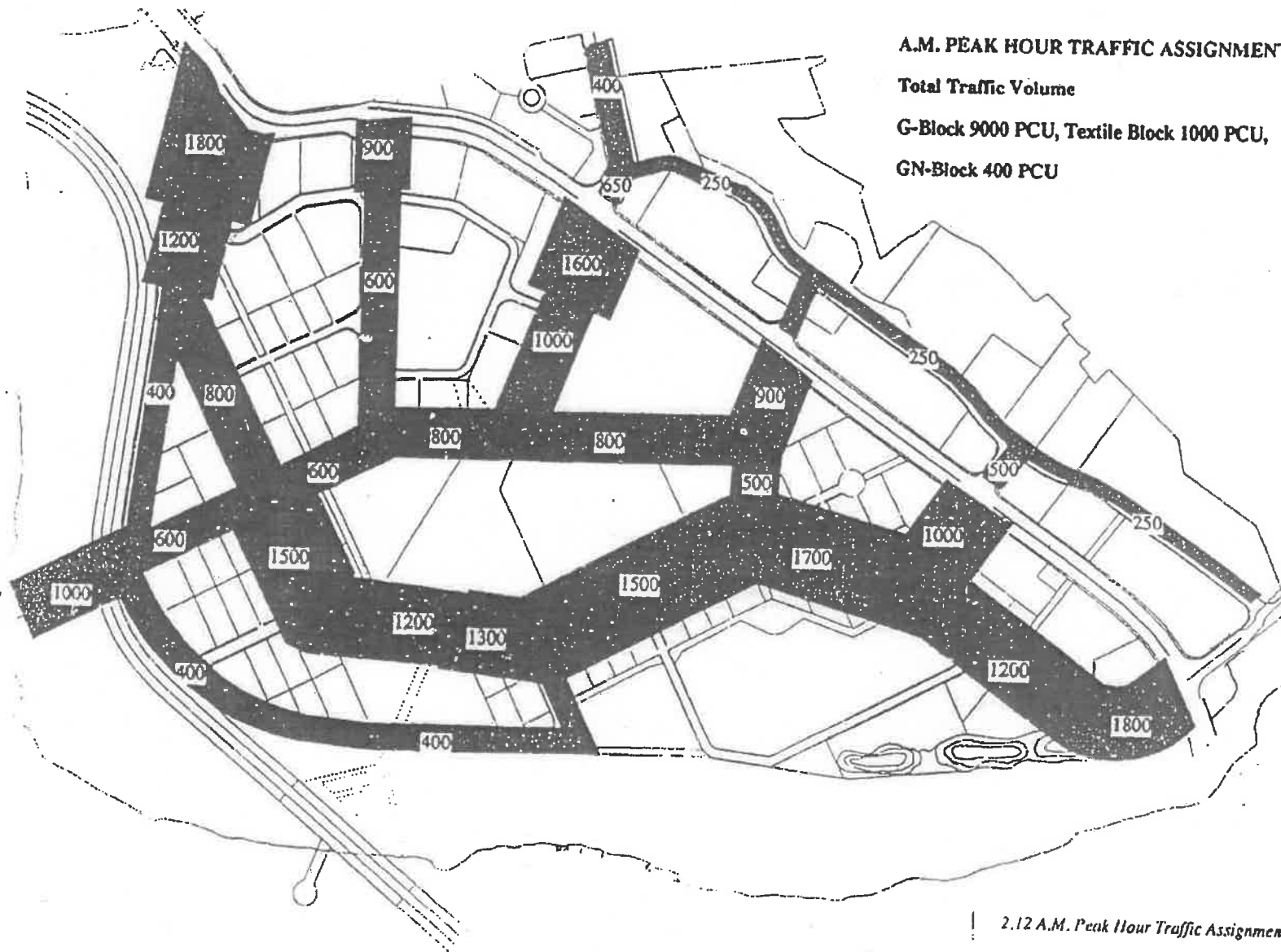
Textile block, work trips are reassigned over the peak critical period with an assumption that a three hour peak at the percentage of 15%, 30% and 55% of total trips corresponding to first, second and third hour assignment. This peak hour traffic assignment is done by approximating the PCU direction wise and has been entered from all the existing external linkages. The graphical representation of the assigned traffic volume (PCU per hour) on major routes are shown in the figure 2.11

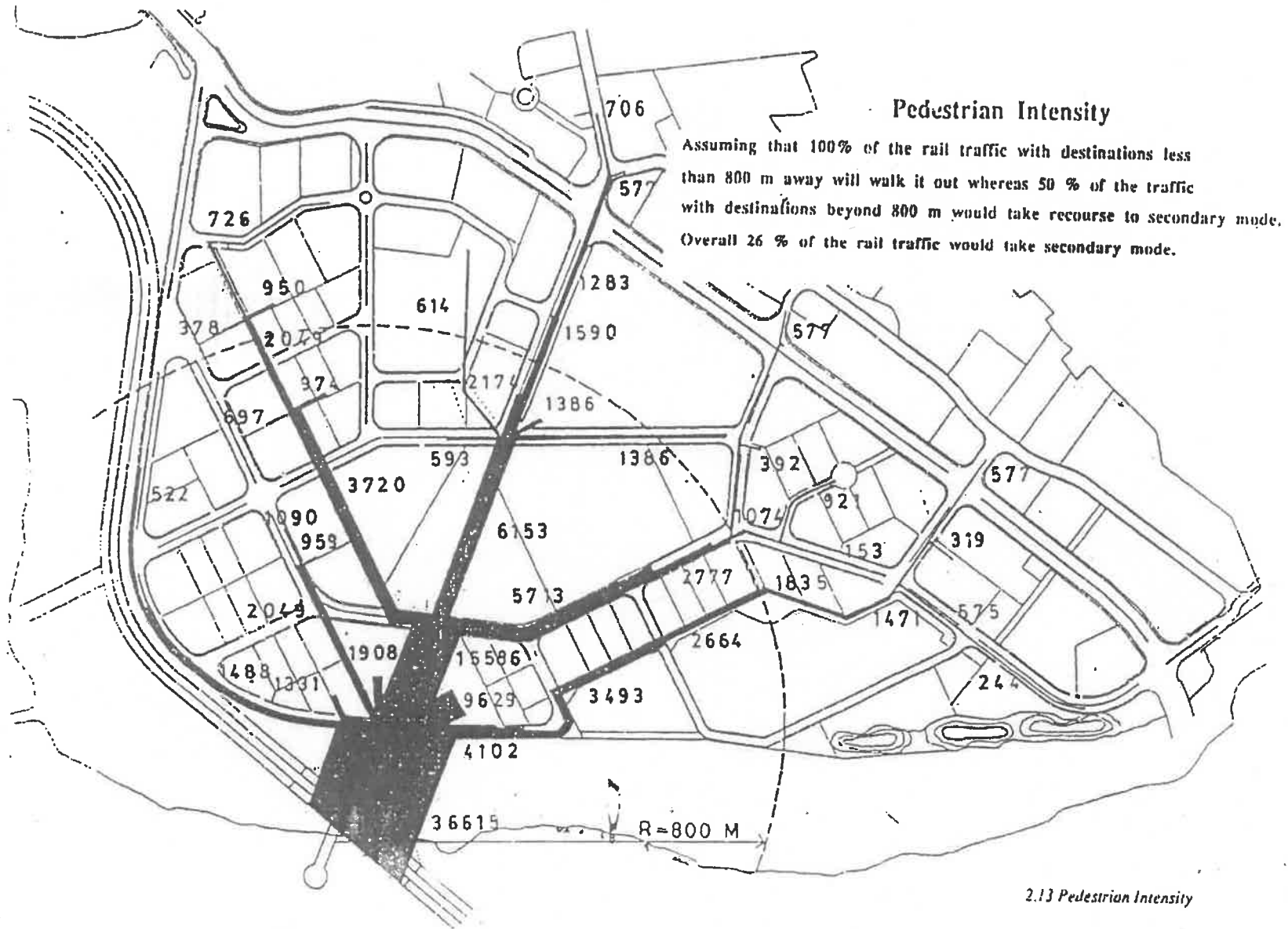
Pedestrian Movement

Walking is the most vital means of transportation, the one upon which all the activities of society ultimately depend. The primary characteristics are speed, walking distance and the carrying capacity of the pathways. An integrated development is attempted in the IFBC complex where by the open spaces and other facilities are pooled together for common use as far as possible and vehicular and pedestrian movements are segregated, to the extent possible. This is aimed at improving the quality of environment and the available facilities for common use.

These pedestrian pathways provide the most direct connections amongst residential areas, facilities and amenities and work places could form a focus of activity and outdoor social life. Parts of such pathways can also be conceived and detailed as play and recreational areas. It will also reduce air and noise pollution and make it more lively.

Also, the spatial separations of pedestrians and vehicles, either horizontally by pedestrian pathways or vertically through elevated and underground pedestrian network becomes necessary considering the volume of vehicular traffic on various segments of road network. At a local area level, pedestrian movement is most important and therefore the transportation system encourages pedestrian movements.





2.13 Pedestrian Intensity

Generally, once parking requirements have been met with, free flow conditions would be available for movement of pedestrians along roads. The number of pedestrians present in the streets were worked out during three distinct phases of the day viz normal office hours, lunch hours and in the evening hours. The flow was generated by dividing the complex into various zones and the number of employees. The following assumptions were made in working out the pedestrian volumes. Pedestrians generated during normal office hours are:

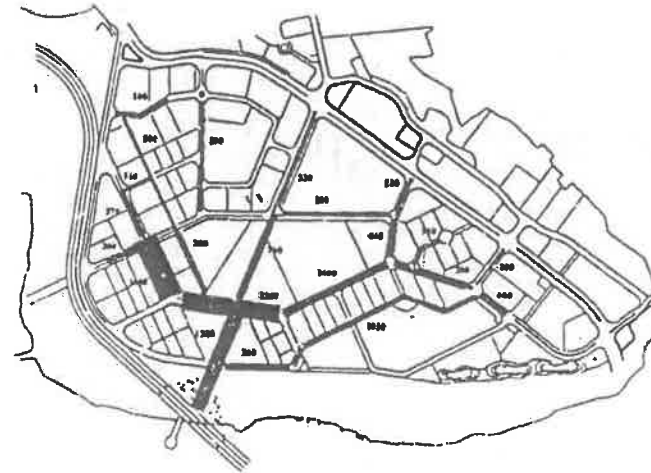
- 1 Visitors to the IFBC were having the same modal split as the employees.
- 2 At a point in time, visitors generated during half an hour period are in the streets.
- 3 Out of these, 5% of the visitors using other modes of transport at their destination.
- 4 75% of the visitors coming by rail would walk it out to their destination.

Pedestrians generated during lunch hours are:

- 1 The flow of visitors will reduce by 50%.
- 2 30% of the employees would move out of office during lunch break, out of which 20% would visit the formal eateries and restaurants and 10% at informal eateries, and at a point in time 25% of these people would be on the road.

Pedestrian movement after working hours

In order to avoid being rendered a 'dead space' after office hours, a mix of residential population was envisaged along with working population. Also various facilities like library, auditorium, exhibition halls, museum and commercial establishments as part of parking garages, convention centre etc. has been provided for. A scenario has been worked out to determine the 'liveliness' of IFBC after office hours. Apart from the

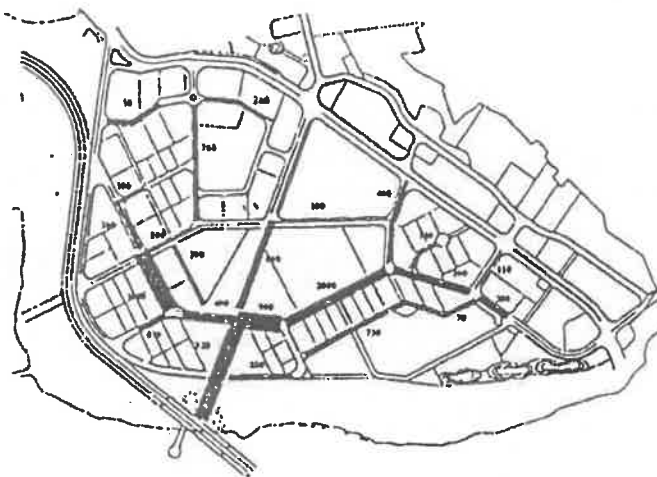


2.14 Pedestrian Generated During Normal Hours

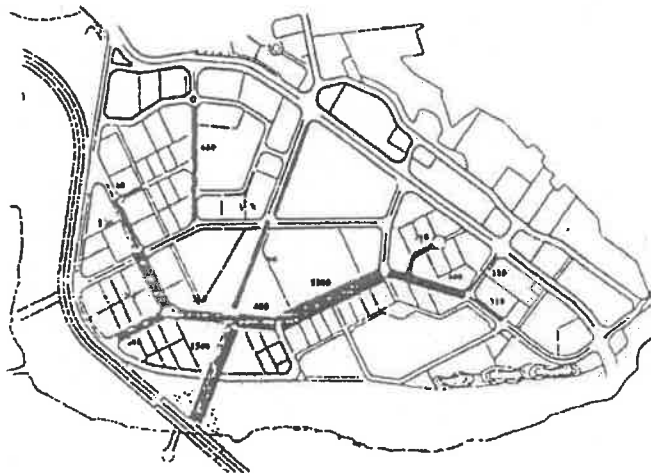
assumptions made for the normal office hour scenario, the other assumptions were:

- 1 5% of the offices utilized these facilities on any day.
- 2 Visitors from outside utilize this facility and the modal split remains the same.

Thus, along the shopping plaza around 6400 persons would be present during normal working hours, around 5700 persons during the noon hours and around 3700 pedestrians even after the office hours at a point in time.



2.15 Pedestrians Generated During Lunch Hours



2.16 Pedestrians' Movement After Working Hours

Parking Demand for IFBC (G Block)

Corresponding to the assumed modal split for both work trips and visitor trips to Bombay, parking requirement for private modes were worked out. Assuming an FSI of 2.0 for both offices, commercial establishments and the floor space per employee in various activities, the total number of workers were estimated.

Based on the findings from the (field studies in Bombay) studies, the number of visitors per employee on an average was 1 in offices, and 20 in shops were arrived to work out the total number of visitors. Even though the number of visitors per employee in shops are 20, 10 visitors were only considered to provide parking as the remaining 10 are assumed to come for other purposes as well and hence parking provision were already made. Also, the average time to be spent by visitor was assumed to be two hours which helped in working out the exact magnitude of parking spaces.

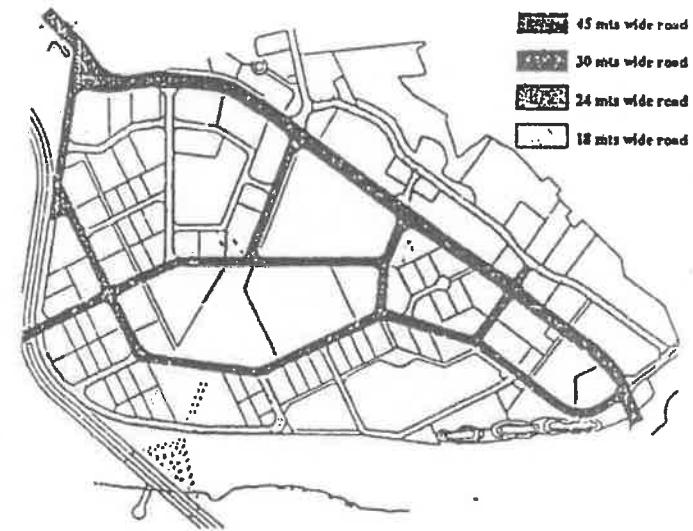
Assuming the new modal split (80% car, 15% Two wheelers and 5% cycles) for private vehicles, the total long term parking area requirement for employees in offices and commercial establishments and the total short term parking area requirement exclusively for visitors were worked out. With the permissible F.S.I. of 2.0 the parking area requirements for both long term and short term worked out to be 11.07% and 10.09% of the total built-up area respectively.

As the built-up area was derived with the net F.S.I. of 2.0, provision of parking area was about 22.4% of the net plot area considering all the private modes in terms of cars only, the parking area requirement for 100 sqm of BUA area was worked out to be 0.45 CPS in case of long term parking and 0.41 CPS in case of short term parking. Due to intensive utilization of floor areas, parking norm of 1.0 CPS (0.45 for employee, 0.41 for visitors and 0.14 for two wheelers, company car, service vehicle) per 100 sqm. of gross floor area were considered.

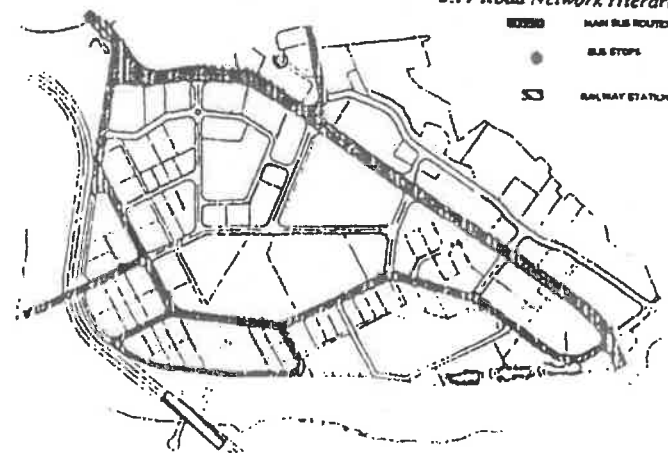
Bus Transport

The bus transport will have to cater to about 62,985 internal passenger trips during the peak hours, i.e. 1050 bus trips. In order to reduce the load on internal circulation system, 60% of these trips will be assigned on the fronting 45m wide road and 40% of the bus trips are only allowed on the internal loop road. Keeping in view the capacity of the internal road system, bus movement was envisaged on roads with right of way of 30m carrying light traffic. Thus an internal bus service which interlinks various activities, facilities and amenities of the IFBC was proposed. The bus stops and drop off zones were located along the 45m fronting road and on the internal loop in such a way that it was possible to walk to the bus stop from work place in 3-4 minutes time. Also, a bus terminal with the capacity to accommodate 60-80 buses at any time plus 10 stops on the fronting main road and 13 drop-off zones in this IFBC were to be developed. In addition to these bus trips, some other bus trips would be required for carrying the rail commuters from Bandra, Kurla and the proposed new railway stations to the work places and vice-versa. This was arrived by assuming that, 75% of the rail commuters would walk to their destination. As the on-site circulation would have continuous and heavy vehicular flow, grade separated facilities and signalised intersection were proposed at critical locations to ensure quick and safe transportation. A set of squares, elevated and underground pedestrian paths as shown in the figure 2.18 should be incorporated in the urban design proposal. Keeping in view the constraint on the road system, signalization of major intersections were proposed, while the other intersections would allow only left turning ingress and egress movements and reduce collision points.

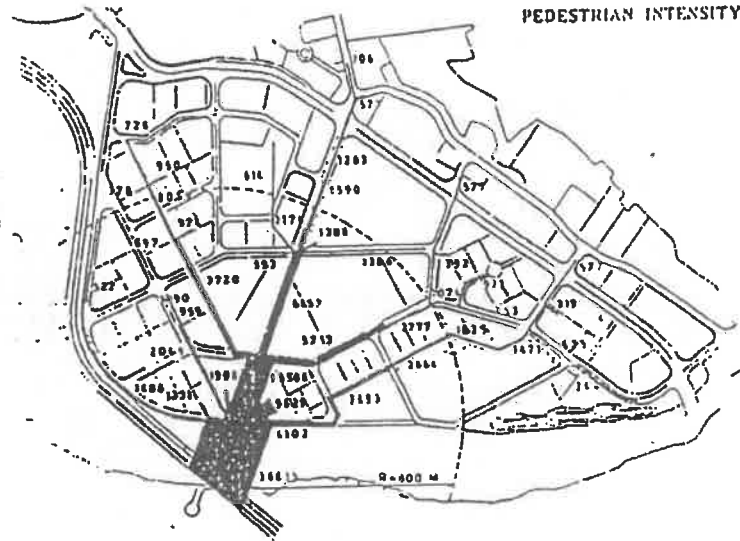
Private vehicles followed almost same path as that followed by buses and then following shortest path to go to their work places. In addition, within the commercial area taxi/auto rickshaw drop-off zones and stands were to be provided at different locations for accumulation of vehicles with a capacity of 20 to 25 CPS at each location.



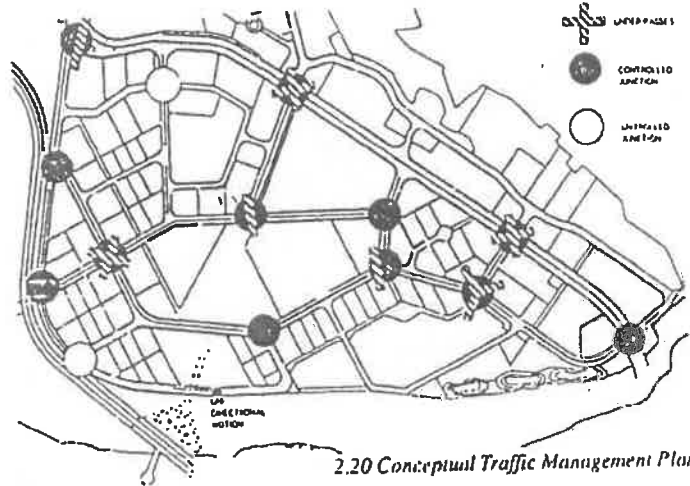
2.17 Road Network Hierarchy



2.18 Bus Routes and stops



2.19 Main Pedestrian Movement



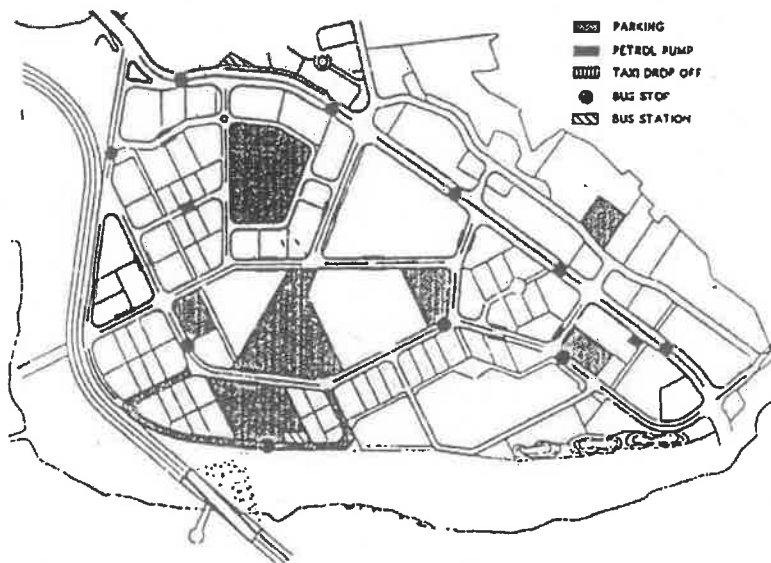
With the activities associated with the IFBC, there would be an increase in the incidence of air and noise pollution. To reduce these pollution level, attempts to reduce the usage of personalised modes by provision of excellent public transport; use of eco-friendly modes like electric buses or fuel like CNG should be emphasised, and highly polluting modes of transport like rickshaws should be prevented from operating in the IFBC.

Parking and Terminal Facilities

According to prevalent building regulations, parking facilities of 7000 CPS within the plots and 7500 CPS at off-site would be required. As seen in the table 2.10, parking requirement on modal split basis was over 15,000 CPS. Due to intensive utilization of floor spaces, the provision of proposed parking and adopted norms were resolved (table 2.11) in such a way that projected parking demand would be realised in a meaningful and realistic manner. Further, separate area would be required to provide for parking of hired vehicles and buses in addition to the bus terminal. The five parking garages along with the utility complex were best located, by keeping in view, the demand as well as capacity of the road system.

A set of specific proposals in the context were incorporated in the traffic management plan. These included development of four multi storeyed parking garages, one parking garages was located nearer the main access from 45m fronting road on the Kurla side, one parking garage is located in RG1, one parking garage each as a part of utility complex and convention centre and the other parking garage was almost ideally and centrally located in the textile block. These parking garages provided 800 CPS each at any given point of time. The proposed parking garages were provided in addition to the underground parking within the commercial premises and taxi parks within the utility complex and convention centre. The utility complex had been provided with a parking capacity of 2200 CPS, which included the 600 CPS required for the utilities itself. The remaining off-site parking demand was accommodated both in the recreational grounds R.G 1.

and R.G 2 as under ground parking garages, with a capacity of 1350 CPS each. Thus the total parking demand was met most adequately with the parking garages, utility complex and parking garages under the recreational spaces.



2.20 Road Side Transport Services

Table 2.11
Estimate of Parking Requirements on Modal Split Basis

Category	Diamond Bourse	Office and Commercial Establishments	Unit
Car Parking	3200	6250	CPS
Two-wheeler Parking	1697	3036	SPS
Company Car Parking	81	598	CPS
Hired Modes (taxi/auto)	14/87	225/1125	CPS/Auto
Visitor Parking			
(car/two-wheeler)	315/169	591/284	CPS/SPS
Specific Additional Demand	2300 (a)	550 (b)	CPS
Bus Terminal	* 63 BPS in bus stand * 147 BPS in bus terminals		

Note: (a) As per demand (b) For convention centre

- * For a turn around of three trips/hour, the buses required at a point in time.

Table 2.12
Proposed Norms and Parking Implications

Category/ Parking	Parking Provision per 100 m ² of GFA		
	Bharat Diamond Bourse	Financial and Commercial Establishments	Textile Block
CARS			
Long Term	3.08 CPS	0.58 CPS	0.50 CPS
Short Term	0.40 CPS	0.165 CPS	0.165 CPS
TWO-WHEELERS			
Long Term	1.40 SPS	0.30 SPS	1.150 SPS
Short Term	0.15 SPS	0.05 SPS	0.15 SPS
Total	3.79 ECS	0.927 ECS	0.735 ECS
Adopted	3.75 ECS	0.925 ECS	0.750 ECS

Note: -1 The above figures are rationalised on the basis of distribution of floor area
 2 Due to intensive utilization of floor area, parking norm of 1CPS/100 m² of gross floor area would be desirable.

Table 2.13
Diamond Bourse Parking Requirements

Category	Parking Demand	Parking Provided	Additional Demand
CARS			
Long Term	5000	1900	3100
Short Term	500	-	500
TWO-WHEELERS			
Long Term	1600	-	1600
Short Term	400	-	400

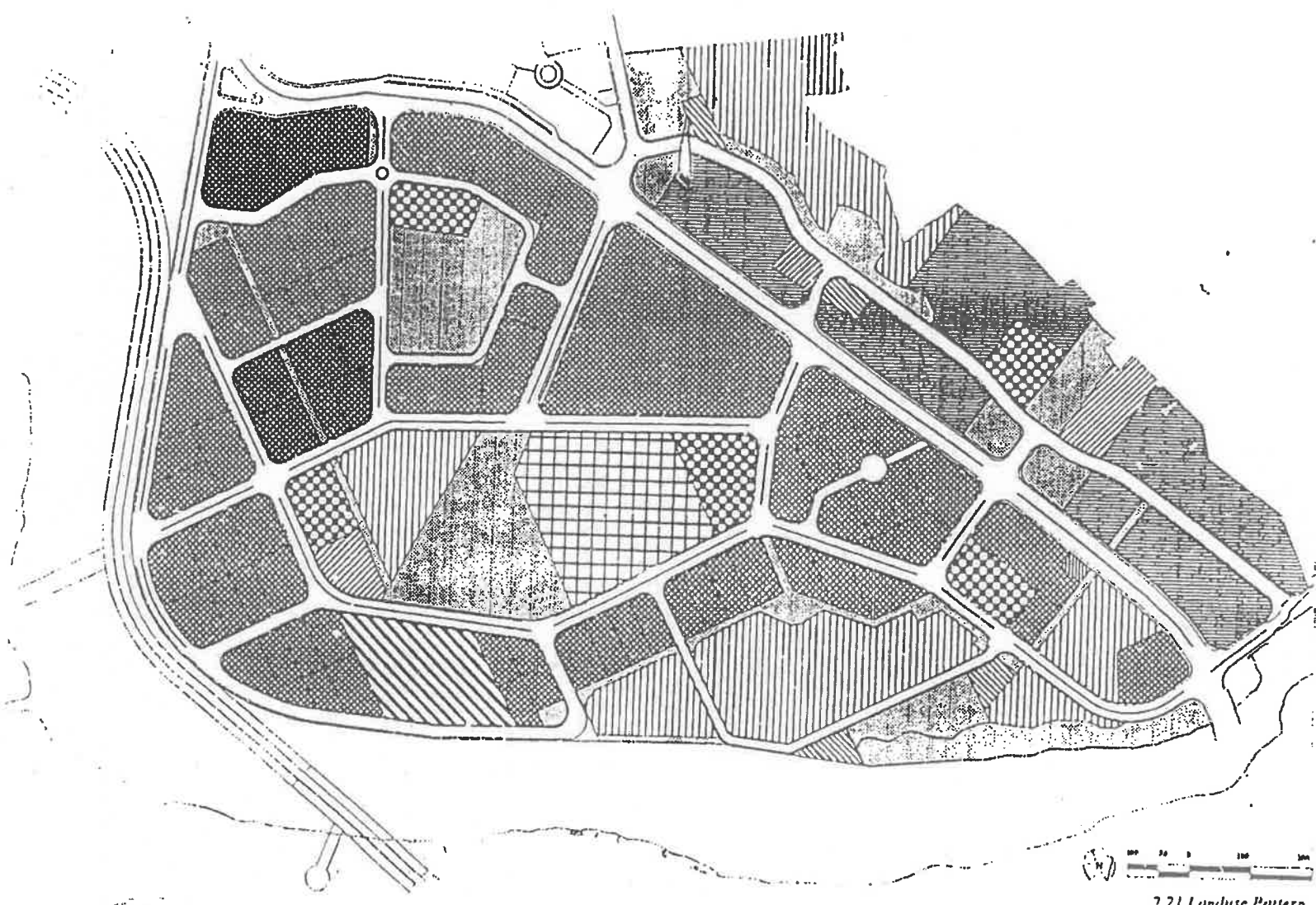
In addition, convention centre would require 550 CPS

As far as parking supply is concerned, it was analysed that in general one level basement parking provision may be adequate but for some activities two level parking may be required. Each of the plot owners should be encouraged to provide adequate parking space according to their need even in excess of the norms prescribed by building bylaws. The proposed parking garages would provide additional parking facility. Retail commercial and business service activities will be added on to this land to consume the permissible F.S.I. The car parking spaces would be developed as set out in table 2.13

Table 2.14
Summary of Parking Demand and Supply

Category	Low Estimate	High Estimate	On site Parking Provided
Office & Commercial Establishments	9270	10000	6660 CPS*
BDB Additional Demand	3600	3600	1900 CPS +250 SPS
Conventional Centre Additional Demand	550	550	1100 CPS
Total Parking Demand	13420	14150	
2/3 of Parking is accommodated within plots i.e. 1/3 of Parking is in Off-site Parking Garages			6660 CPS 3340 CPS
Convention Center			550 CPS
BDB			3600 CPS
Total Off-site Parking Demand			7500 CPS
Parking Supply			
4 Parking Garages at 800 CPS each			3200 CPS
R.G.1 at which can accomodate 1350 CPS			1350 CPS
R.G.2 at which can accomodate 1350 CPS			1350 CPS
Utility Complex (including 600 CPS in Utilities)			2200 CPS
Total Parking Supply			8100 CPS

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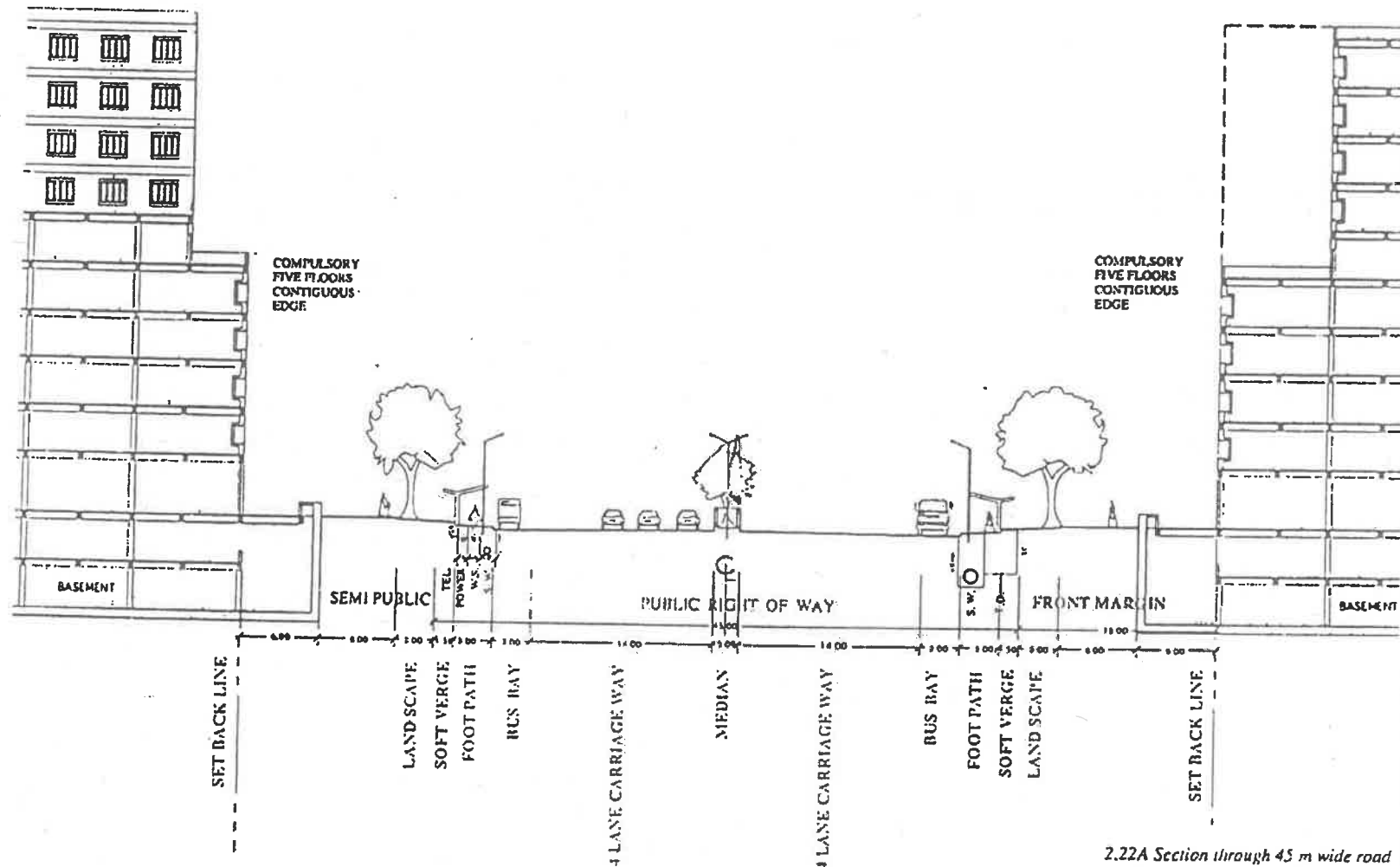
2.21 Landuse Pattern

2 Street Sections

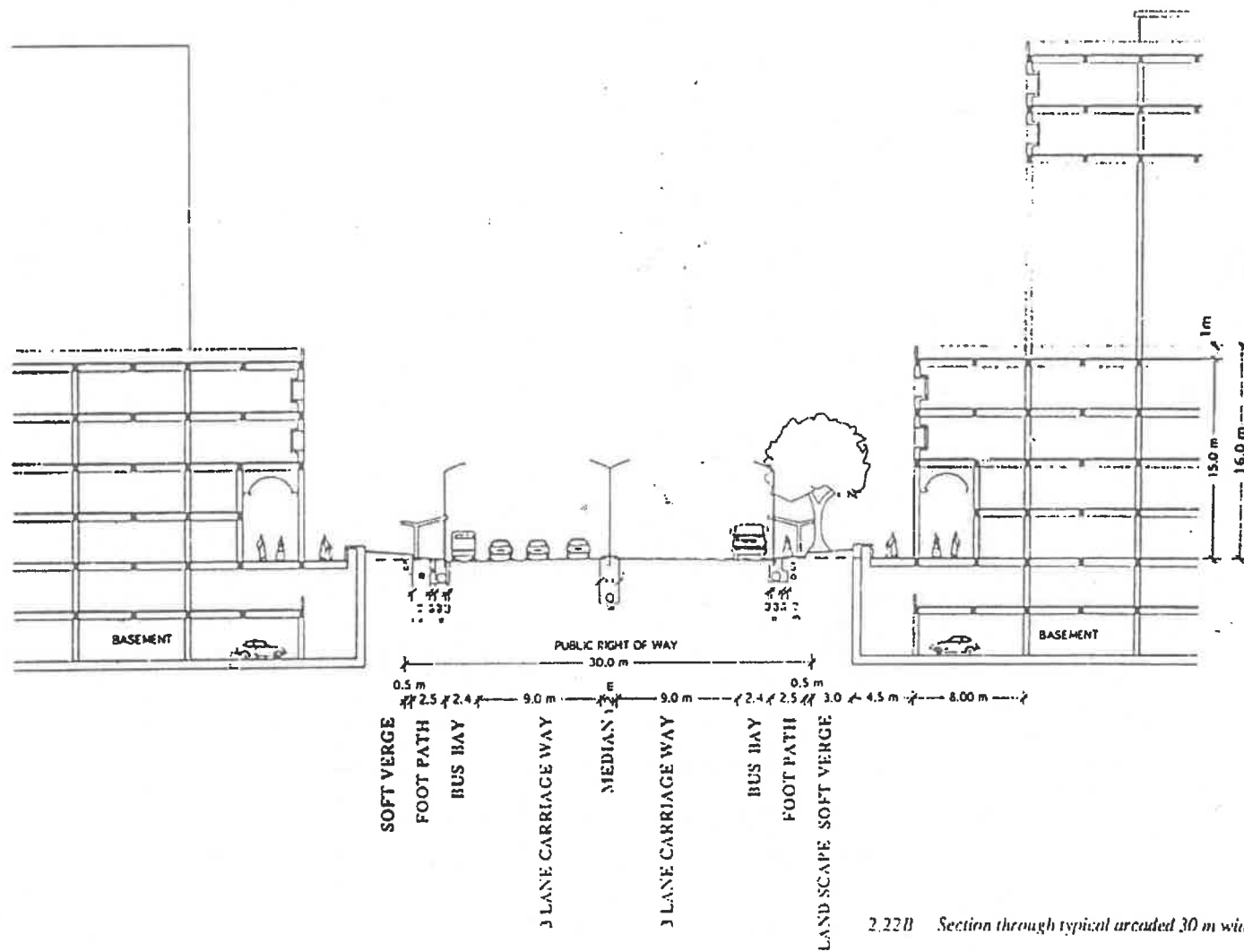
The main access to the proposed IFBC site by road is possible only from the fronting Bandra-Kurla road. This road would carry high volume of through traffic as well as destined traffic of IFBC. As the movement of traffic on this road would be high with buses and other commercial vehicles, the right of way for this road was fixed at 45 m with four lanes in each direction. This road has also been provided with separate bus only lanes, and wider foot paths.

The second level 30 m wide road, which passes through the centre of proposed IFBC complex forms as major loop would not carry any through traffic. It was however, likely to have a lot of local traffic as most of the financial institutions, city level facilities and amenities and various commercial activities have been located along these roads. Considering the nature of activities, this road was made wider with three lanes in each direction with provisions for parking, drop-off lanes and wide foot paths. Only 40% of the buses are considered for plying on this loop road, as the remaining 60% are assumed to be on the 45 m Bandra-Kurla linking road. As much as possible care has been taken to not to have direct vehicular access to the adjoining plots from this road to ensure smooth flow of traffic.

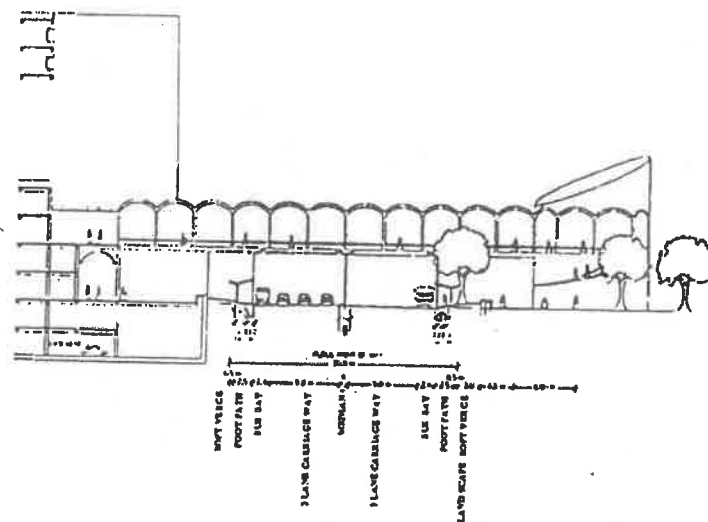
The next level and the sector roads are of 24 m and 18 m width respectively. These roads are likely to attract a lot of business and informal commercial activities and hence many private vehicles and pedestrians are expected on these roads. Although these roads were not expected to carry large volume of traffic, the minimum width provided is adopted as it is likely to be free from traffic of long work trips, there will be local traffic and other social and cultural activities on these roads.



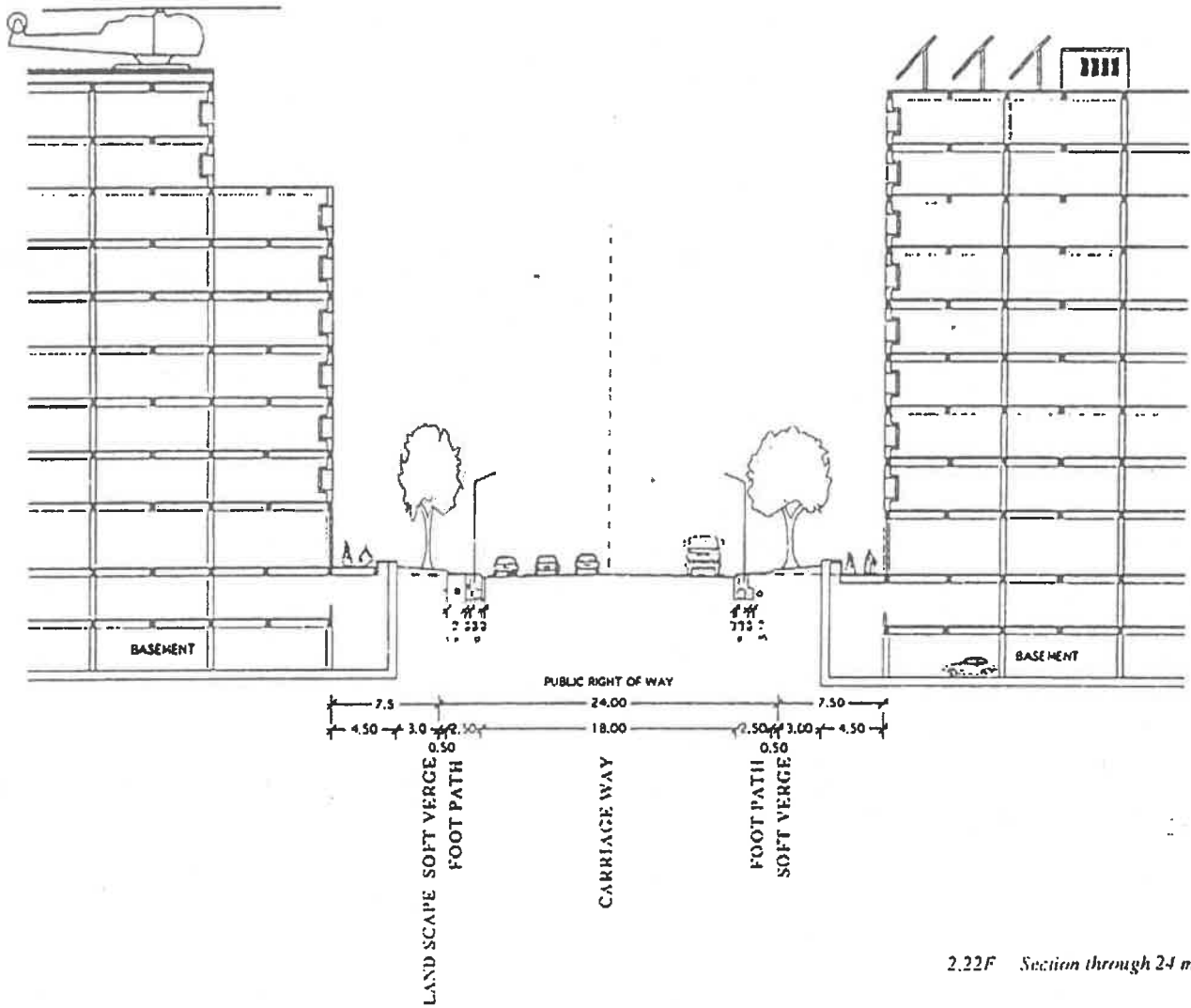
2.22A Section through 45 m wide road



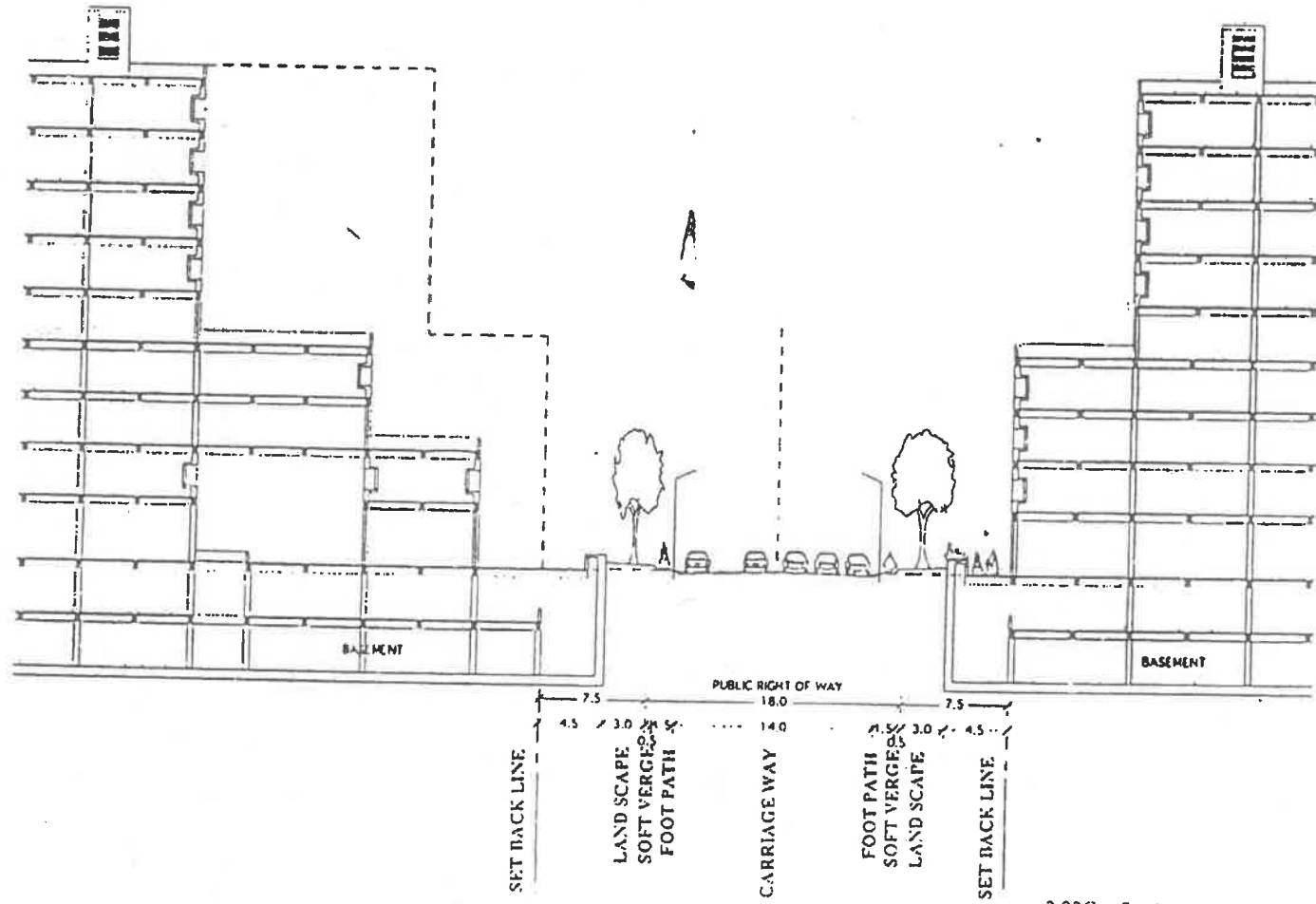
2.22B Section through typical arcaded 30 m wide road



2.22C Section through 30 m wide road at Hotel & Convention Centre
2.22D Section through 30 m wide road at sky walk
2.22E Section through non arcured 30 m wide road



2.22F Section through 24 m wide road



2.22G Section through 18 m wide road

2 Conclusions and Recommendations

Access to the IFBC is possible only from the 45 metre wide Bandra-Kurla Road as it is also expected to carry non-destined traffic. Thus this road has to provide facility for movement of the through traffic as well as traffic generated by IFBC. Based on available assignment figures substantial volumes of traffic are to be negotiated by this road. The analysis in the context suggests development of exclusive bus lanes on the fronting 45 metre wide road.

The capacity of the access positions as related to ingressing traffic is somewhat limited. A significant proposal in the context is to develop an additional access position, linking 'G' block with 'H' block. Also, it has to be appreciated that a substantial part of capacity of the fronting road would be utilised by the IFBC.

These modifications in the internal circulation system are proposed to ensure smooth distribution of traffic. By staggering of working time schedules, the duration of peak period is extended to about three hours and an optimum distribution of traffic over time and space has been ensured.

Bus movement is envisaged on roads with right-of-way of 30 m and carrying light traffic. A set of drop-off points, taxi parking and bus stands have been proposed. Development of these activities would ensure minimum walking distances involving not more than 3 to 4 minutes. As the on-site circulation would have continuous and heavy vehicular flow; grade separated facilities are proposed at critical locations to ensure quick and safe pedestrian movement.

Recognising the commitments of the BMRDA, high land value and general development pressures, some modifications have been suggested and incorporated in the layout plan. To provide for transport related

requirements, a set of recommendations have been suggested to BMRDA and they are as follows:

- 1 Access to the project site is envisaged from the fronting 45 m r/w road. As shown in figure 2.6, there is a need to provide access to the site from 'H' block by developing an additional link connecting the existing circular road with the existing 18 m r/w peripheral road in 'G' block.
- 2 The collector road 30 m r/w may be linked with CST road. Realignment of collector road would be required. Different sections are worked out with 45 m, 30 m, 24 m and 18 m r/w for the fronting and collector roads.
- 3 Taking into account the constrained on-site road system, signalization of nine intersections have been proposed, while the other intersections would allow only left turning ingressing and engressing movements. At a later date computerised traffic control for the B.K.C. has been recommended.
- 4 Exact alignment of the seventh MTRP railway corridor is yet to be finalised. A tentative proposal in this respect have been made involving land for tracks and platform plus a strip of land for road transport on one side.
- 5 Due to high profile and international nature of trading activities envisaged in the IFBC, larger magnitudes of traffic volume would be experienced all throughout the day. Accordingly, staggering of office hours by access position is desirable, if the project is to be developed at the envisaged intensity of development.
- 6 Corresponding to the assumed modal split of vehicular trips and the incremental component of visitor traffic, parking requirement have

been computed. Keeping the higher parking demand of BDB as well as capacity of the other road systems in view, four parking garages and two under ground garages are proposed. In addition taxi parks and petrol filling stations are proposed at selected locations.

- 7 Bus movement would generally be confined to collector roads. A set of drop-off zones are proposed at selected locations. In order to ensure smooth flow of traffic, it would be desirable to prohibit right-turn movement from access roads to road R1. By doing so traffic destined to merchant and commercial banks would be channelised from signalised intersections. Although congested conditions would be experienced at the intersections of collector and local roads, but better traffic distribution would be ensured.
- 8 Pedestrian crossings would be required near drop-off zones. It is assumed that skywalks would be developed from the railway station to link with 'G' block to ensure smooth and safe movement of pedestrians. Also, once parking requirements have been met with, generally free flow conditions would be available for movement of pedestrians along roads.
- 9 The foregoing analysis is based on secondary information and experience in similar projects. It is recommended that impact studies in the context may be undertaken, say, after five years to monitor traffic generation and device suitable modifications for improvements.



Introduction

The urban form prescribed in the IFBC has been based on various parameters like street building interface, vehicular and pedestrian access, boundary definition, building volume control, public spaces etc.

Builtform envisaged has been evolved through various volumetric studies with FSI and access variations. The underlying principle throughout has been the segregation of pedestrian access with vehicular access to the plot.

Internal Access Network to Individual Plots

In order to resolve the conflicts between pedestrian and vehicular traffic, the vehicular traffic needs to be segregated from the pedestrian flow. This would eliminate the breaks in the foot path and allow uninterrupted traffic flow. Apart from this, in order to facilitate easy and smooth vehicular movement on the major roads which have heavy volume of traffic, it would not be advisable to allow vehicles to enter into plots from such roads. Thus based on the various plots shapes and configurations, four different access systems would be in vogue in IFBC viz.

The four different types of access variations were considered.

i) Access from all the roads to each individual plot.
If the volume of vehicular traffic on the front would not be high, vehicular access to each plot can be from the road itself. However, in this case by giving access to each individual plot from the road itself would result in a large number of breaks in the footpaths. Hence, care must be taken to group accesses to two neighbouring plots at the same point which otherwise results in the loss of plot area to internal accesses. Again here the access road would terminate at the entry point of ramp to the basement and in the surface car-parking lot (fig 3.9A).

ii) Access from the rear to each individual plot

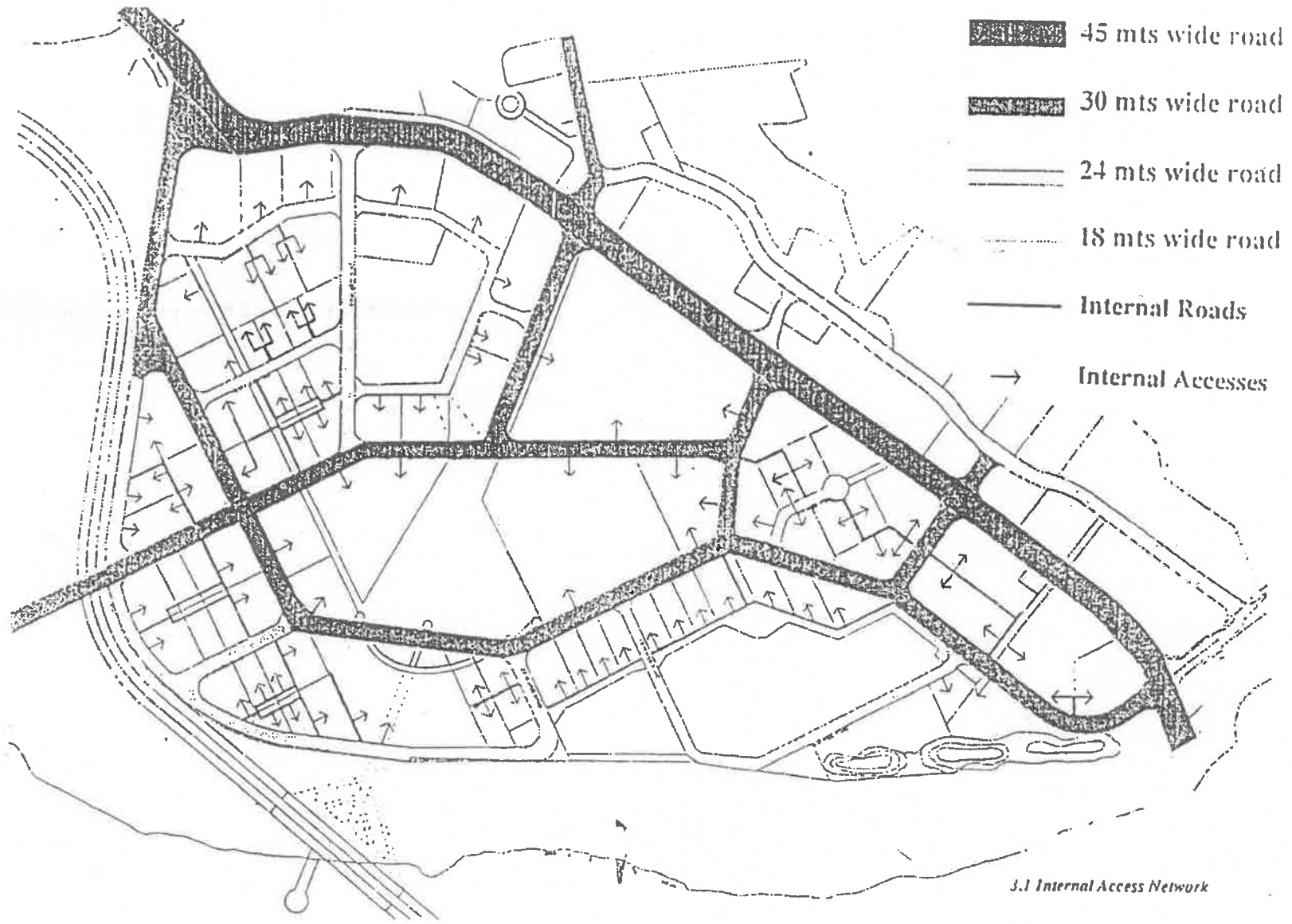
As traffic studies for the site show certain roads to have a heavy volume of traffic being the main linkages to the site or the main bus routes through the site, it would not be advisable to allow vehicles to enter into the individual plots from such roads. An internal road is carved out of the plot itself (the plot owner being compensated an equal amount of F.S.I.) in order to serve each plot. This internal road normally would terminate at the entry point to the basement and the surface parking area. In the front sides of the plots, there are no breaks in the foot-path and hence no problems for the pedestrians walking on the street or through movement of the vehicles (fig 3.9B).

iii) Access from rear to each individual plot but with arcade fronting the street.

The next category of vehicular entry is with vehicular access to each plot being from an internal road at the rear of the plot but with an arcade for pedestrian on the front facade of the building. The need for shelter from natural elements and a unifying element for the pedestrian in the street is manifest in the form of an arcade. This arcade portion becomes the main avenue for pedestrian movement. Vehicular access to the individual plots is thus from the rear. In the event of a fire vehicle entering the plot from the rear, it has sufficient turning radius, hence there is no need to give breaks in this arcade (fig 3.9C).

iv) Access to peripheral plots from surrounding roads but access to internal plots from internal cul-de-sac.

The fourth variation in access to individual plot is with vehicular entry to each plot on the periphery of the block from surrounding roads while the cul-de-sac serves the plots in the interior. The cul-de-sac is thus an effective feature in eliminating through traffic (fig 3.9D).



3 Study of Builtform and Plot Characteristics

The plot sizes for the International Finance & Business Center were determined on the basis of the volumetric studies. At the same time a survey of space requirements of Financial Institutions revealed that space requirements of Small Business houses would be 5000 m² as against 10000 m² for medium and 15000-20000 m² for large Financial and Business Institutions. This means that with an F.S.I. of 2.0 minimum plot of about 2500 m² would be an appropriate size. Plots can be amalgamated in order to create larger plots as and when required.

Hence, it becomes necessary to look into the volumetric studies carried out for the plots with buildings heights of six, ten and fifteen storey with an F.S.I. factor varying from 2.0 to 3.0.

While deciding the basic building blocks, following considerations were taken into account.

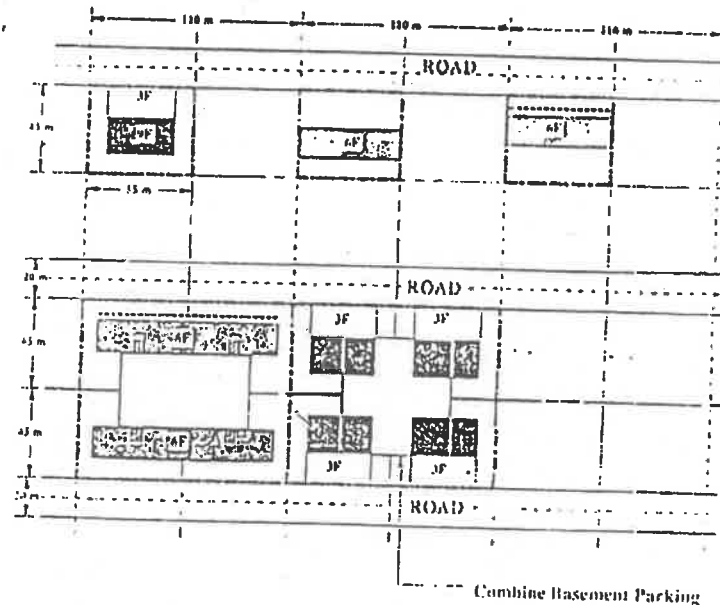
- 1 One of natural light within the office space. A block of 16.0 m width was considered suitable.
- 2 Maximum travel distances in a corridor in a commercial building from the service core as per building bye-laws is a maximum of 30 m. Hence, if there is one service core only, the length of the building would be 60 m.
- 3 A building block of size 16 x 120 (with two service cores) was also used in order to explore different plot sizes and shapes.

Plot Sizes

Plot sizes range : 2745, 4950, 5500, 9900 and 11000 m². A grid of 110 m x 110 m was followed throughout the site if a road of 20 m width is drawn at the centre line of the gridline then we get plot of 55 x 45 (2485). Various builtform alternatives are shown in the fig. 3.1

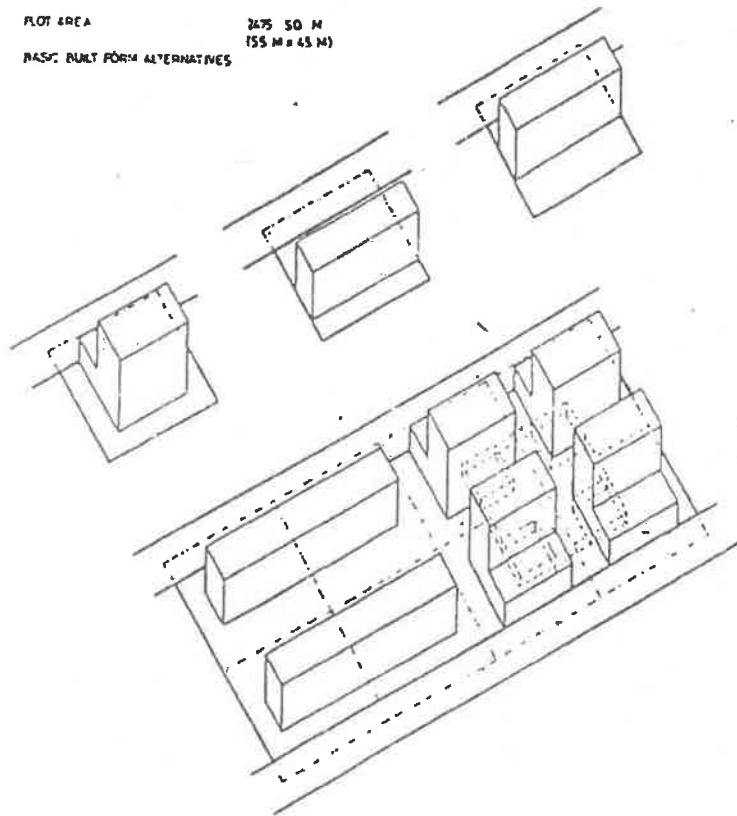
- i) With a three storey block fronting the street and nine storey office block behind with side and rear open spaces.
- ii) A single block of six storey without any side margins.
- iii) A single block of 6 storey without any side setback but with arcade at the front.

As the urban design for IFBC does away with compound wall, by bringing the basic blocks (i), (ii), (iii) together, an attempt has been made to create large and shared open spaces.



3.3A Plot size: 2475 m² - Basic builtform Alternative

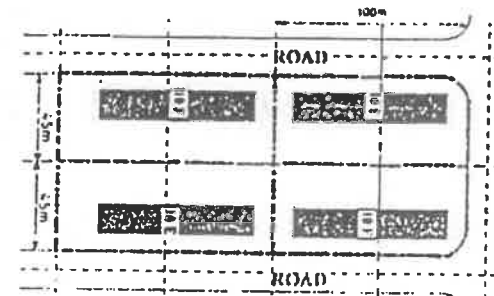
PLOT AREA 2475 50 M
(55 M x 45 M)
BASIC BUILT FORM ALTERNATIVES



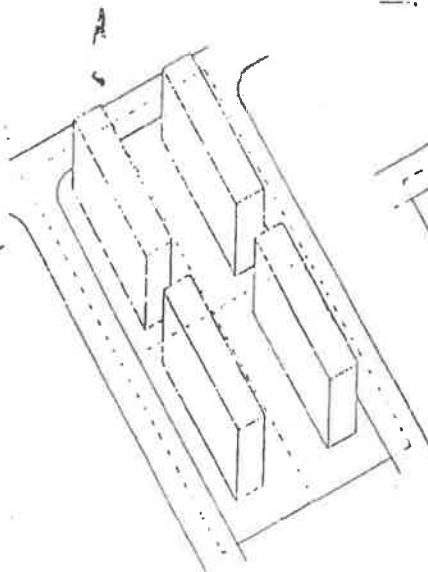
3.3B Plot Size: 2475 m² - Isometric View

Plot size of 4500 m²

Again in a grid of 110 m² by having a road on all sides, gives a module of 45 x 100 or 4500 m². The building blocks are shown arranged on four plots (fig.3.2A&B)



3.4A Plot Size: 4500 m² - Plan



3.4B Plot Size: 4500 m² - Isometric View

• PLOT AREA 4500 50 M
810 M x 45 M
• TOTAL BUILT UP AREA 810 50 M
PARKING REQUIREMENTS
(75% OF TOTAL BUILT UP AREA)
• PARKING PROVIDED FOR 36 CARS
• PARKING REQUIREMENTS 41%
• OPEN SPACE AREA 11%
71%

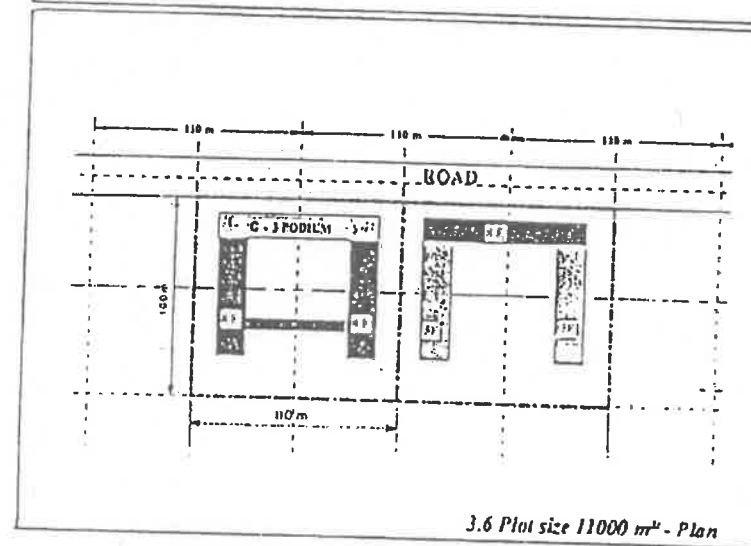
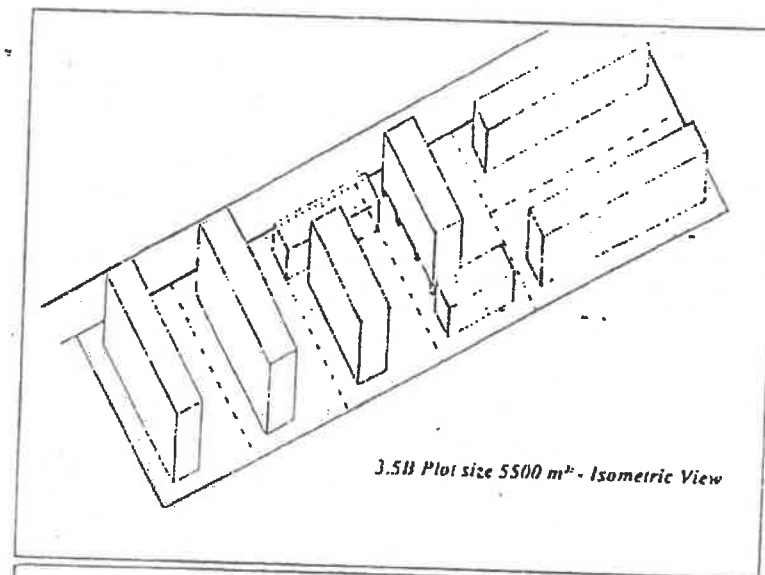
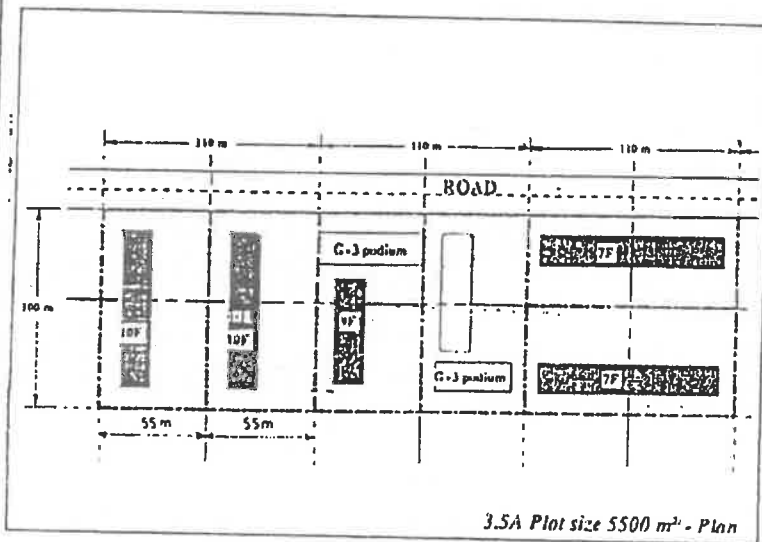
3 Plot size of 5500 m²

If there is a road only on one side making one side of 55 m and the other of 100 m making the plot size 5500 m². Basic builtform alternatives are shown in fig 3.3A&B.

In case there is a need for shopping street, a common podium portion can extend along the entire portion of the road, with the main structure behind, as is shown in the left of the figure. However, the shop-front may not be continuous and may extend to within the set-back lines of each plot.

Plot size of 11000 m²

Assuming that there exists a road on one side, we can get a plot of 110 x 100. this module is very similar to the plot of area 5500 m² (i.e. it is two plots of 5500 m² put together, fig. 3.4).



F.S.I. Variations

The most important consideration is the desired urban form in terms of modulating the building heights with different factors of F.S.I. ranging from 2.0 to 3.0.

The F.S.I. factor of 3.0 would result in the buildings needing smaller plot size in comparison to F.S.I. 2.0.

Another consideration was the set-backs within the plot. The front set-back is determined by the width of road abutting it. The side and rear open space depends on the height of the building. They are 5.6, 10.41, 16.30 m for buildings of 6, 10 and 15 storeys respectively.

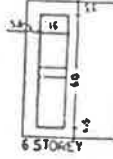
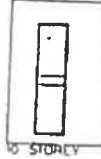
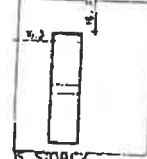
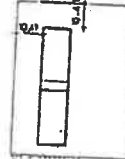
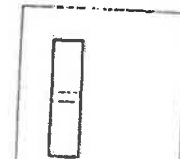
An F.S.I. factor of 2 (fig. 3.5)

Consider a building block of 16 x 60 m fronting a 20 m wide road. The front set-back would be 4.5 m.

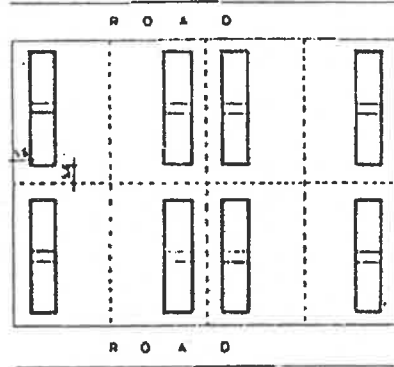
If the building height is 6 storeys then the minimum plot area would have be 3402 m² which gives a permissible built-up area of 5784 m² (a ground coverage of 28.21%). Similarly a plot of 5670 m² is desirable for a 10 storey building and a plot of 8598 m² for a 15 storey building.

As the F.S.I. factor increases the area of plot required to make a building of 10 storey or 15 storey becomes smaller.

3.7 FSF Variations 2.0, 2.5 and 3.0

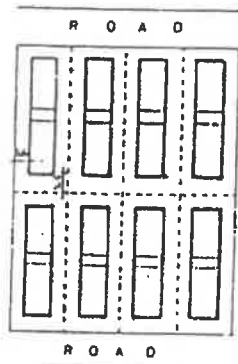
F.S.I. 2.0			
			
Plot Area	3401.88	5670.49	8597.73
Per. Bu.A	5783.25	9635.58	14463.20
Plot Coverage	28.21	16.92	11.28
F.S.I. 2.5			
			
Plot Area	2721.70	4336.40	6806.21
Per. Bu.A	5783.25	9639.85	14463.20
Plot Coverage	35.27	21.16	14.10
F.S.I. 3			
			
Plot Area	1927.28	3780.32	5621.70
Per. Bu.A	5783.25	9639.85	14463.20
Plot Coverage	49.79	25.39	16.92

F.S.I. 2.0



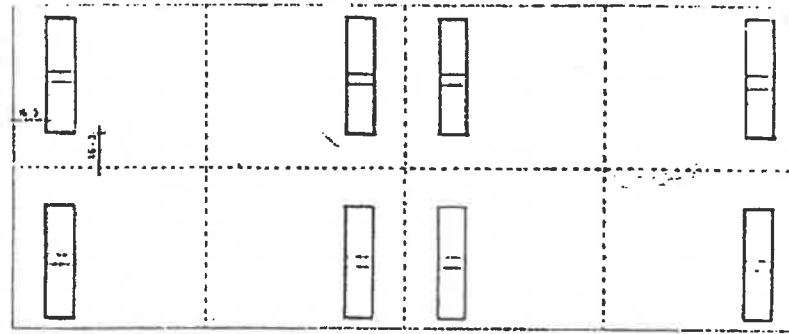
6 Storey

F.S.I. 3.0



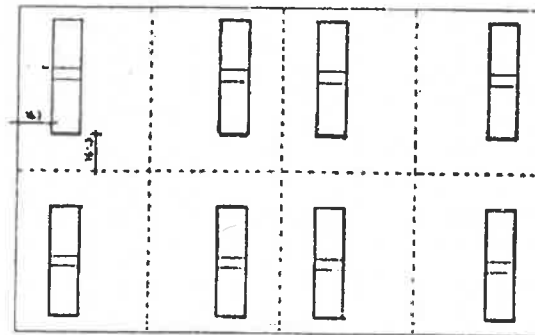
6 Storey

R O A D



15 Storey

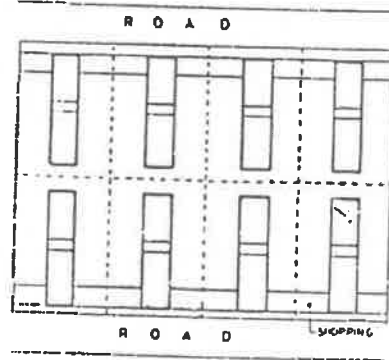
R O A D



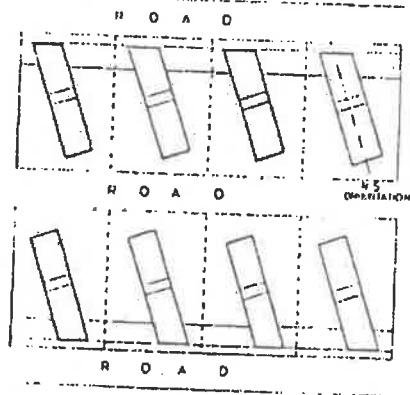
15 Storey

3.8 FSI Variation with 6 and 15 storey blocks

F.S.I. 2.0



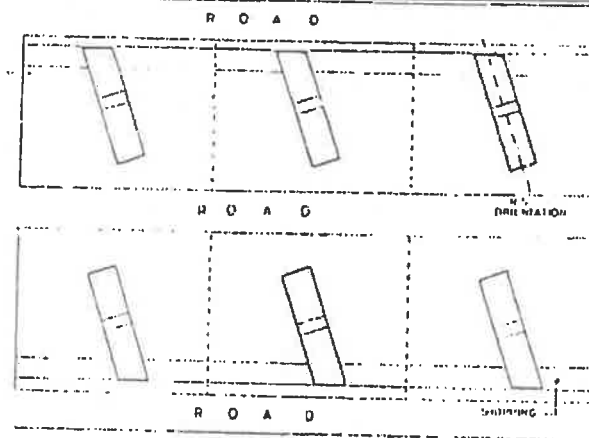
6 Storey



6 Storey

With shopping frontage and N-S orientation

The difference between the F.S.I. factor 2.0 and 3.0 is clearly evident when compared. the F.S.I. factor of 3.0 demands less plot area in comparison to F.S.I. factor of 2.0 (fig 3.7 and 3.8).



15 Storey

With shopping frontage and N-S orientation

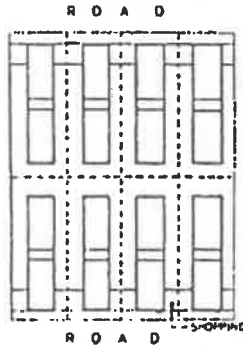
3

3.10 FSI 3.0

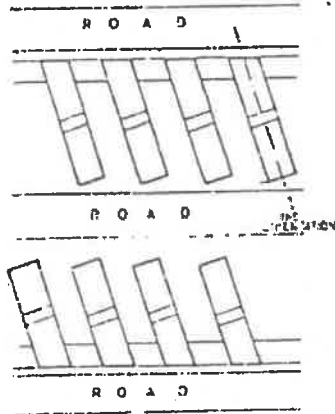
6 & 15 storey with shop front and orientation

F.S.I. 3.0

Determinants of Urban-Form

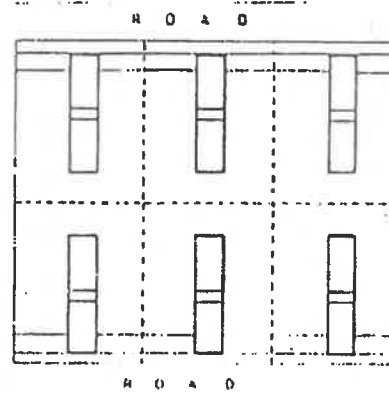


6 Storey

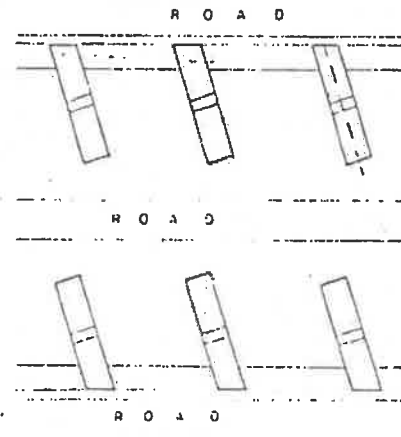


6 Storey

With shopping frontage and N-S orientation



15 Storey



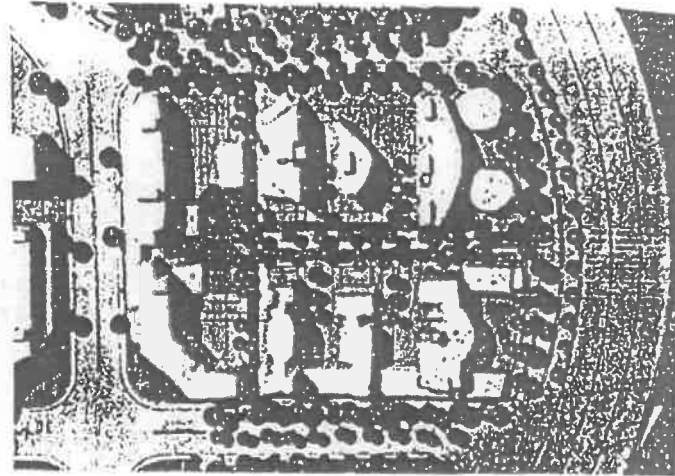
15 Storey

With shopping frontage and N-S orientation

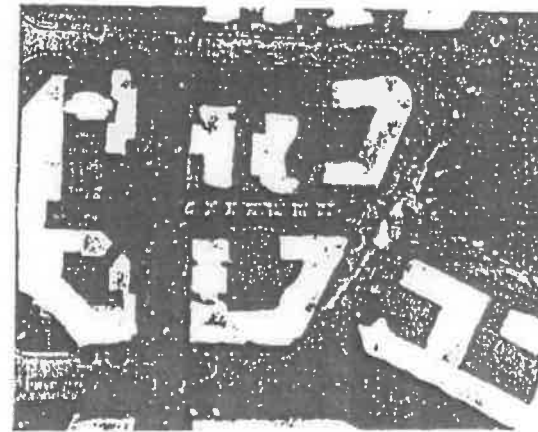
Cluster Organization

Once the decision regarding location of the blocks of financial institutions and business houses, were made the size of the plots were determined on the basis of the volumetric studies and on the survey of space required of the financial institutions. It was determined that small business houses would need 5000 sqm floor space as against 10000 sqm of floor space of large financial and business institutions. Volumetric studies were done for various alternative plot sizes based on existing BMC byelaws. The built form was assumed to be 16 m deep as determined by 6-7 m wide rooms on two sides of corridor of 2 m width. The BMC regulation of a maximum distance of 30 m from an exit and a minimum of 2 exits for a multi storeyed commercial building gave the minimum length of a commercial building as 60 m. The front setback of 8 m for a 10 storeyed structure and 12 m for the side and rear margins determined the optimal size of a plot as 40 x 80 m. Thus a fair mix of large and small plots of multiple of this has been provided. Based on surveys conducted in the Nariman Point area of Bombay, the desirable builtform characteristics were identified. Negative aspects at Nariman Point and the misuse of open spaces within the plots by unauthorized parking, presence of boundary walls which renders the open spaces unusable and lack of any coherent urban image were sought to be avoided. At the same time, positive features at Ballard Estate area like the absence of boundary walls, continuous blocks of building arcaded streets at Horniman Circle and D.N. Road, providing relief to the pedestrians from the climate and unifying the urban form by articulating the street edge were the design features accommodated in the cluster plan.

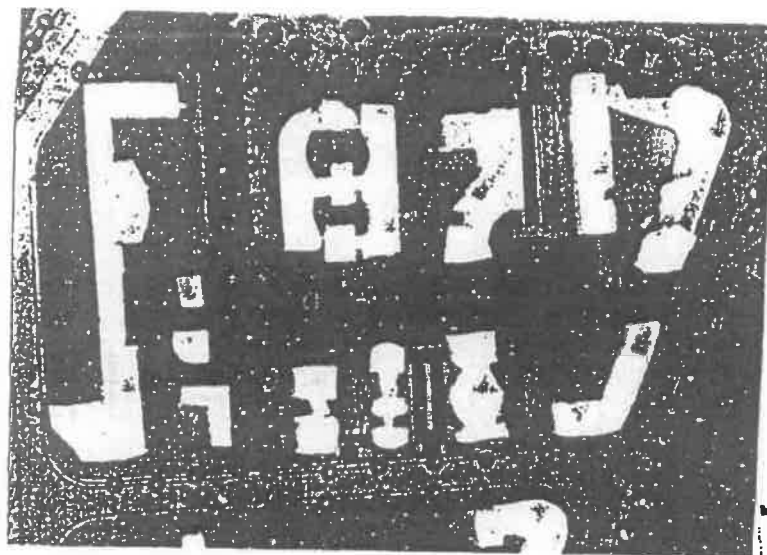
The mandatory provision of open spaces amounting to 10% of the plot area as per existing byelaws would be located at the junctions of four plots in the case of inner plots and at the edge in the case of corner plots. Thus the open space would create a larger space connected through the linear greens to other spaces. Similarly the open space provision of the



3.11A Clusters envisaged at IFBC



3.11B Clusters envisaged at IFBC



3.11D

Cluster Envisaged In IFBC

four corner plots would generate public square at road junctions and these places would be the centre of activity all through the day, informal commercial activities would be accommodated in these squares. Vehicular entry to the various building blocks in the clusters would be provided only through the back of the plots in order to segregate the fast moving traffic on the main roads from the vehicles entering the cluster. 15% of the total parking has been provided on the surface for each plot to cater to the visitors and 6 m hard paving would be provided all around the building block for fire tender movement. Apart from the open spaces provided, the massing of the building block would further provide positive open spaces in the cluster which would add to the quality of the environment.

Urban-Form Control

The urban-form controls can be achieved through three mechanisms mixed in various combinations. Most importantly, the layout along with plot

subdivisions which embodies certain principles can help achieve the desirable built-form to a considerable extent. Basic consideration like energy conservations, typology of spaces etc. can be achieved through layout design. The next level of controls are exercised through existing development control regulations which includes zoning and building byelaws. But certain aspects of urban design controls cannot be achieved by mere layout and development control regulations. In order to achieve the desired imageability for different areas specific urban design controls are required to be exercised. These specific controls then can be included in the development by converting them to dead restrictions while leasing or selling the plots.

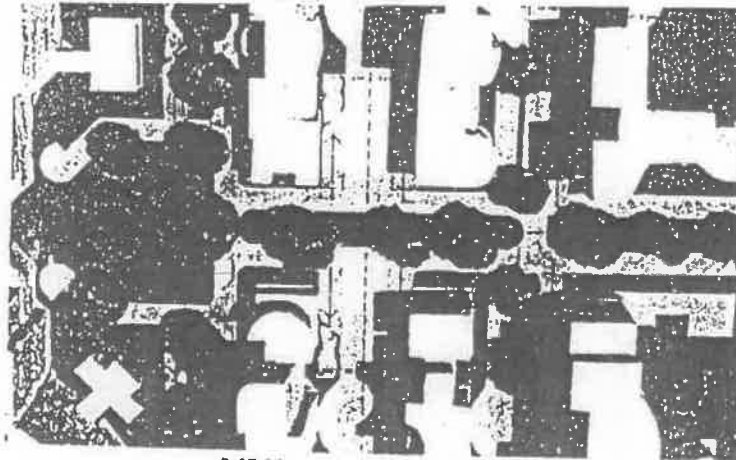
The basic purpose of specific urban design controls were to enhance the imageability of IFB Centre. Some of these controls exercised were to improve the functioning by creating appropriate typology of spaces, vehicular and pedestrian access, fire protection of building, definition territory and control etc. Other elements of the urban design controls were arcades and building lines, control of building volumes in certain areas, trees and landscape features in the public and private spaces etc. The basic idea behind the controls were to create a balance between controls and flexibility in the urban form. The principle was to exercise a higher degree of control over the most public spaces while the levels of controls decreased for spaces with comparatively lesser degree of publicness. This will allow enough flexibility to the designers to express themselves.

The most important urban design control was the vehicular and pedestrian access to the plots. A network of access road were created and direct vehicular entry to plots from the major roads was discouraged.

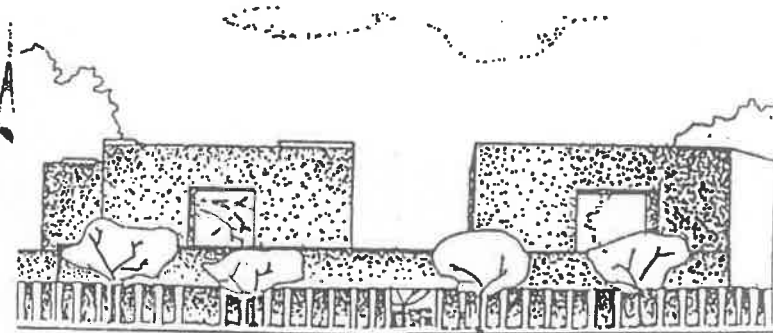
This was followed by formation of a pedestrian network within each clusters of plots. Adequate parking provision for visitors within the plots was ensured by making it mandatory to provide 15% of the total parking requirements to be allocated to visitors on the ground itself.

The degree of controls reduced with respect to the hierarchy of road network. While for the 45m wide major road was in the form of a five storied continuous building blocks on both sides of the road, for the major 30 m wide activity spine of IFBC it was an arcade which allowed for continuous and uninterrupted movement for pedestrians. At the major intersections and entry point to the site public squares with appropriate controls on the edges were worked out. This control resulted in the formation of plazas and public squares at suitable locations fulfilling the need for such spaces. Semi-private spaces within the clusters were formed to enhance the quality of environment. Builtform along the maidans were controlled through building line to enhance the image of such spaces.

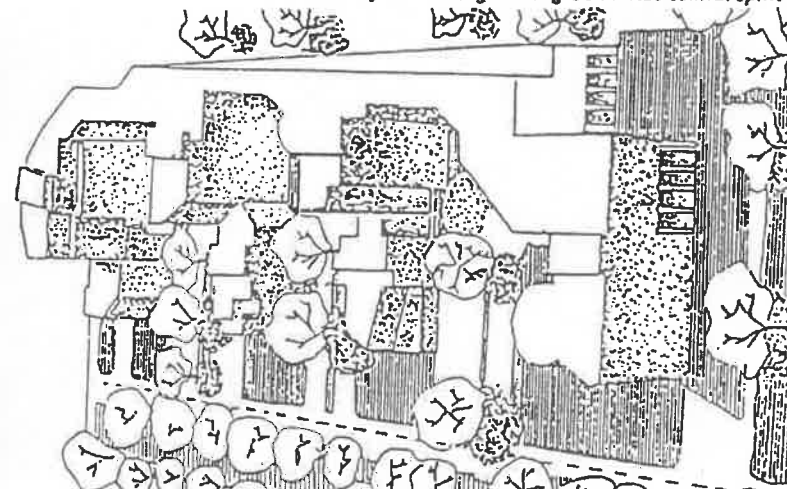
Appropriate spaces for tree plantations and landscaping were carried out through urban design controls, particularly along the street network. At times these small controls regarding these landscaped spaces determine the imageability of the place where most of the people would move. Heights of arcades and builtforms and other details are enumerated specifically through a detailed urban design controls.



3.12 Linear pedestrian green linking up at semipublic space



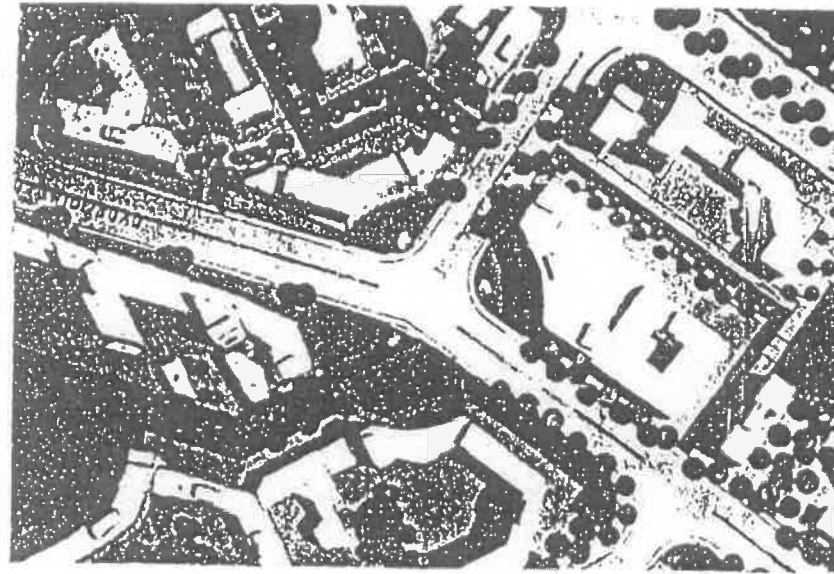
3.13 Builtform envisaged along 30 m wide central spine



3.14 Builtform defining the public square and rear internal access system



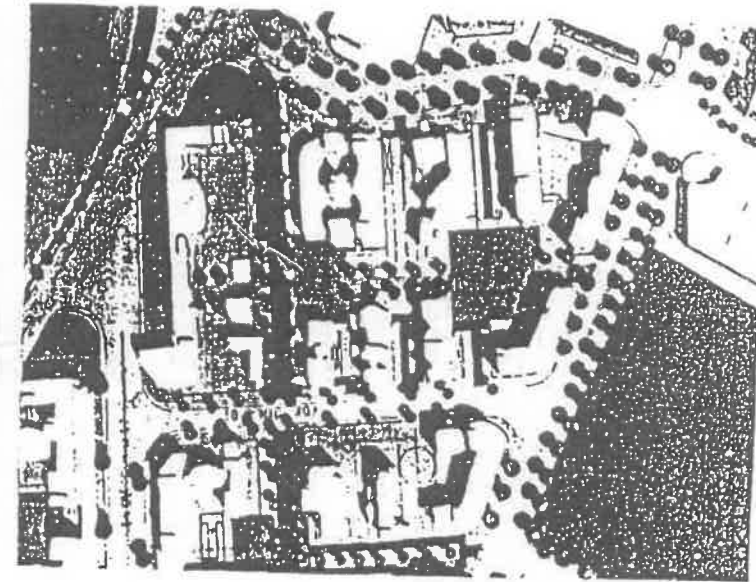
3.16 Builtform envisaged along 30 m arcaded road



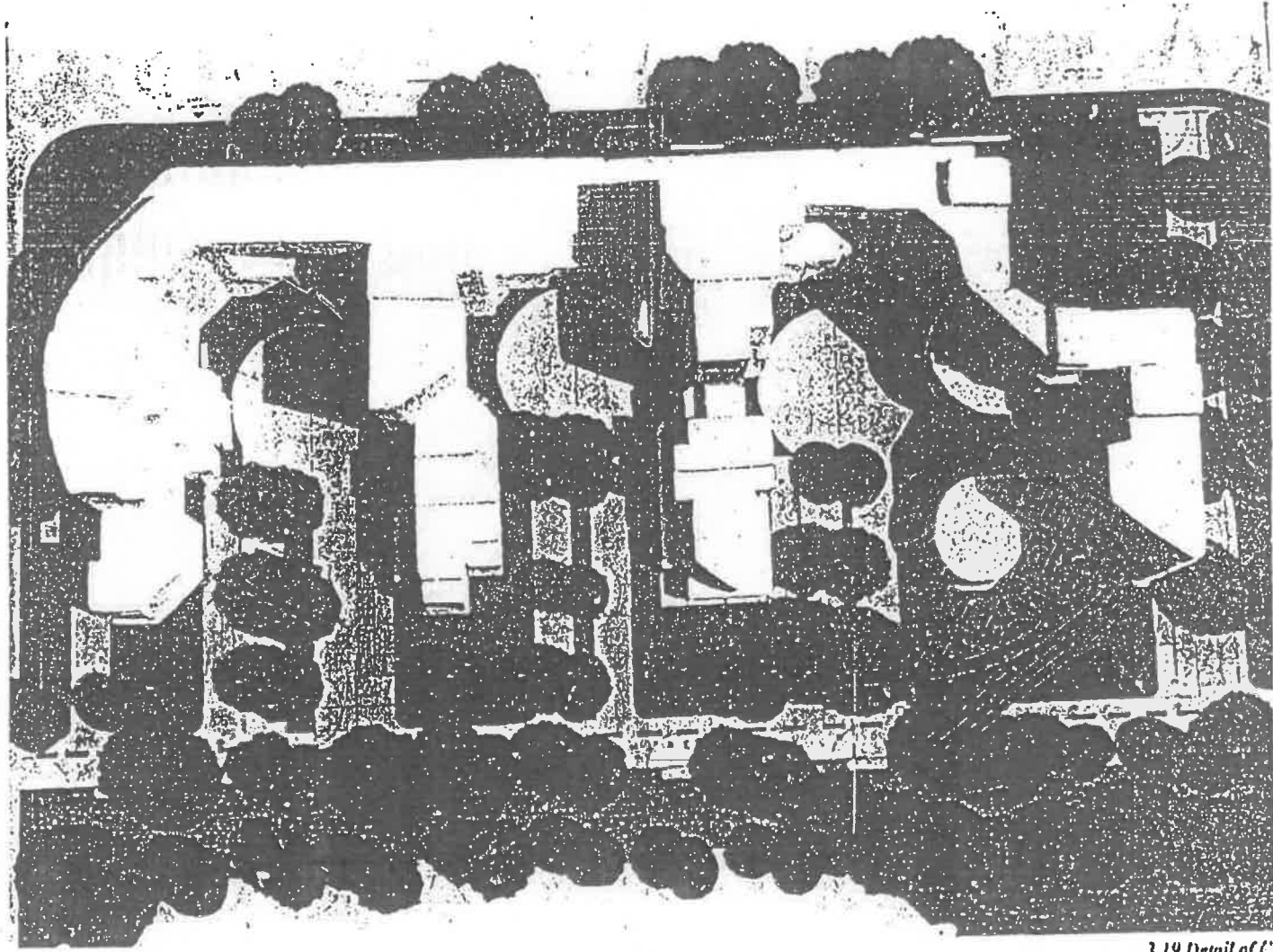
3.15 Builtform envisaged at the public square



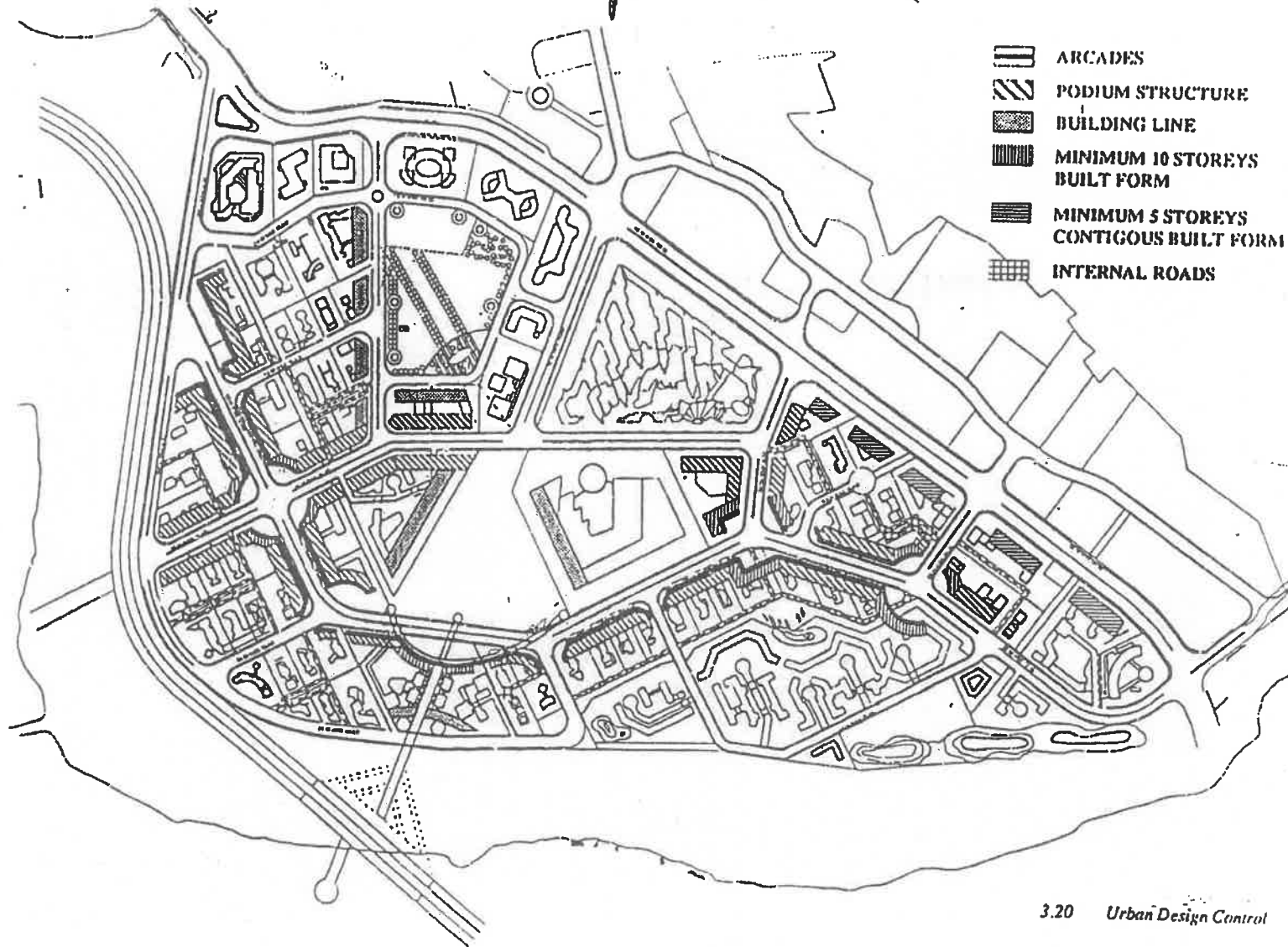
3.18 Public squares along 45 m wide road

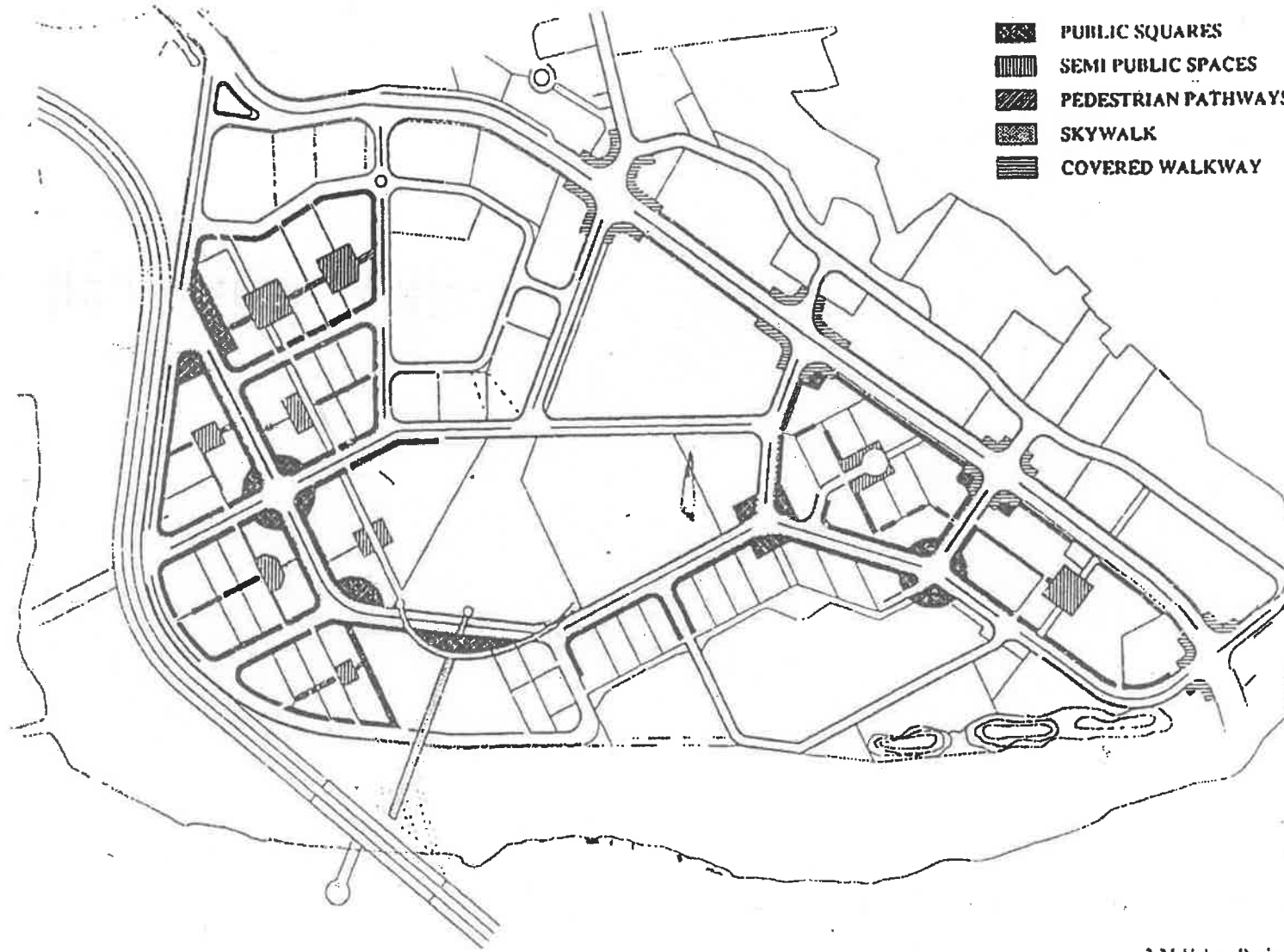


3.17 Linear pedestrian green



3.19 Detail of Cluster 1





-  PUBLIC SQUARES
-  SEMI PUBLIC SPACES
-  PEDESTRIAN PATHWAYS
-  SKYWALK
-  COVERED WALKWAY

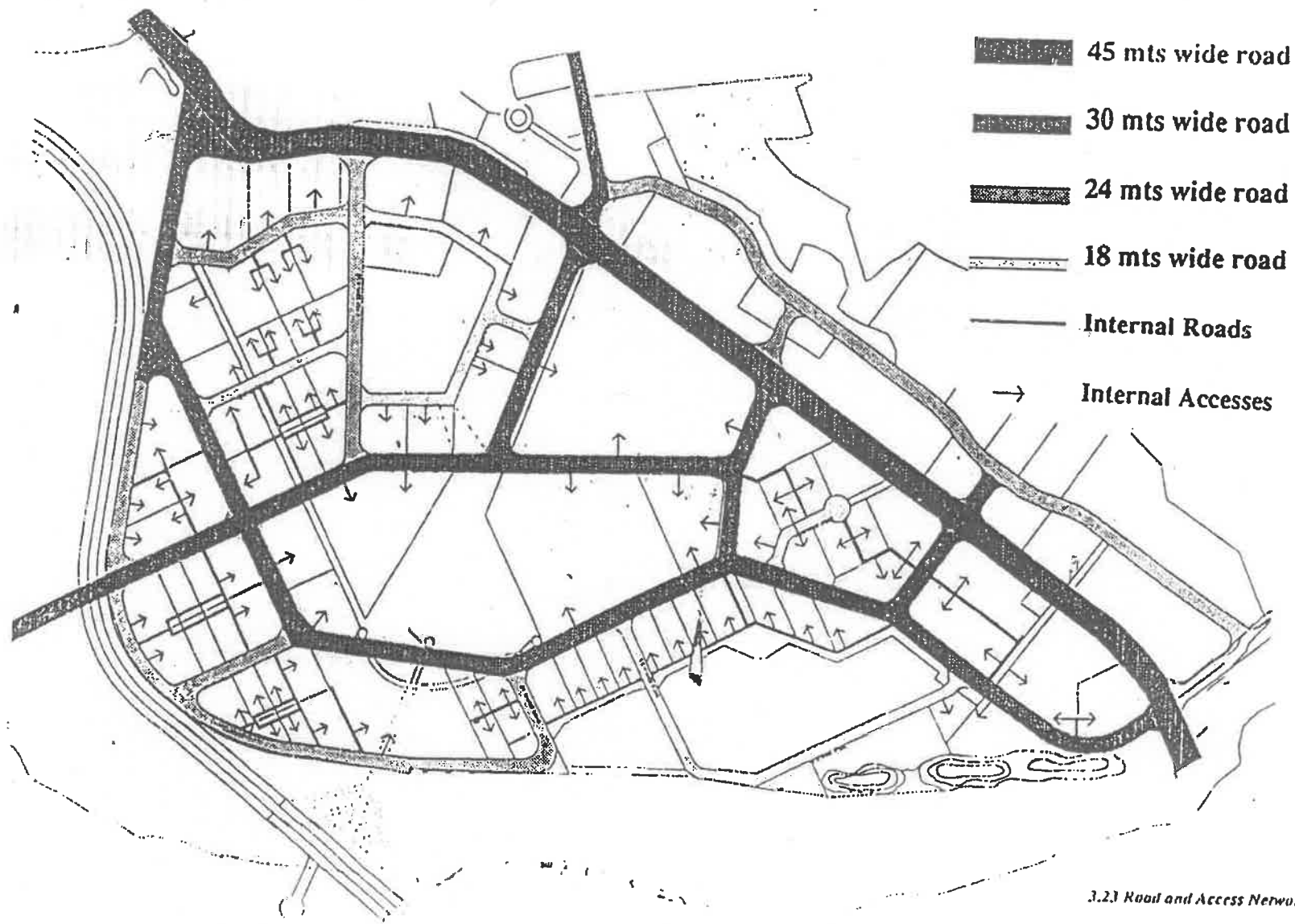
3.21 Urban Design Control

3

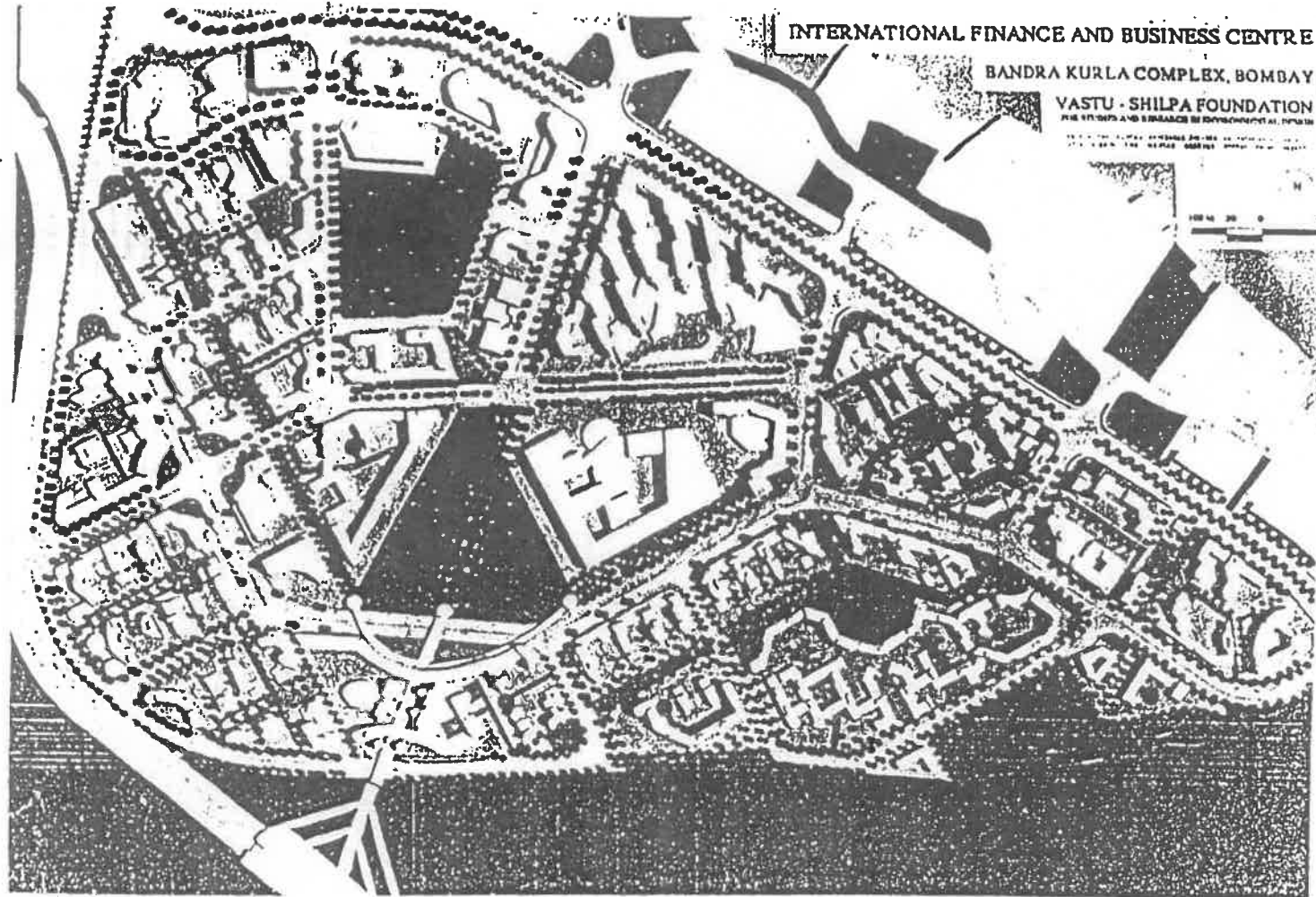
Determinants of Urban-Form



3.22 Builtform



3.2.1 Road and Access Network



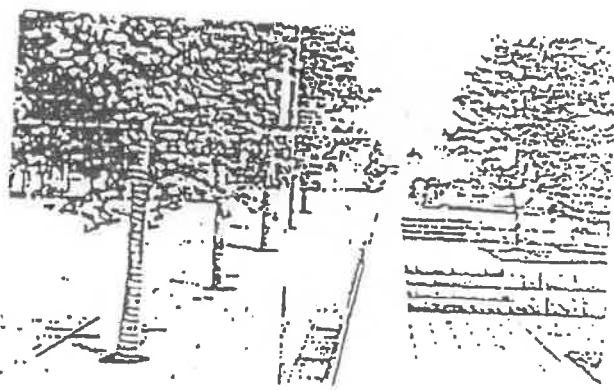
3.24 Image of IFBC

The Landscape Development

Determining a landscape development strategy is an important factor in the urban design. This will enable a planner to evolve particular open space character of the area. A well thought of landscape development will result in efficiency of outdoor spaces and enhance their use by the people.

For Bandra-Kurla Complex following guiding principles for the landscape development were proposed:

- a) To provide a network of pedestrian paths, independent of the vehicular network, with direct and shorter distances between points.
- b) To use one kind of tree species for each road.



3.25 Pedestrian Pathways

- c) To pave all footpaths with interlocking concrete blocks to enable easy reparability and replacement in case of road digging.
- d) Development of street corner public spaces to provide resting place for pedestrians.
- e) To evolve properly designed street furniture elements and signage.
- f) Use of sculptures at strategic points as a cultural expression of the city.
- g) Introduction of water in the inner open spaces to remind the nearness of this zone to the waterfront.
- h) Development of mangroves on river banks.

The above aspects have been further elaborated in the following texts and illustrations:



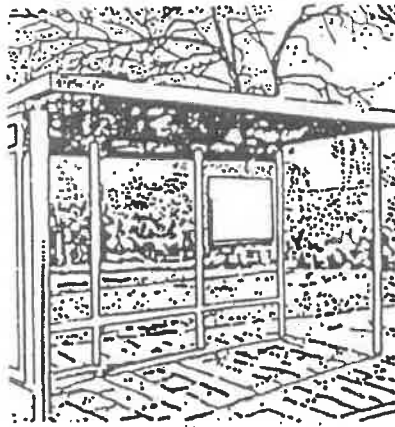
3.26 Street Corner Gardens

3

- a) The pedestrian network when provided independent of the main roads can offer pleasant shortcuts safely away from vehicular traffic.

This can also have its own scale having direct relationship with the human being. These paths, lined with trees and shrubs can be dotted with occasional benches for the tired individuals as well as such vending kiosks as florist, tobacconists, news papers and periodicals etc.

- b) All contemporary buildings tend to look alike to a common person due to the available technology and common stylistic preferences of that era. In order to establish the identity of each road, therefore, the avenue of trees can help a great deal. Selection of one kind of trees for one road length can thus establish a visual identity of each street, thus improving the "readability". The roads thus will have a unified vista creating a lasting impact on the motorist, pedestrian as well as the occupants of the buildings.

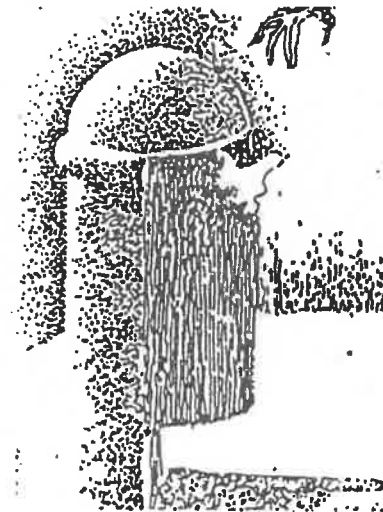


3.27 Street Furniture and Signage

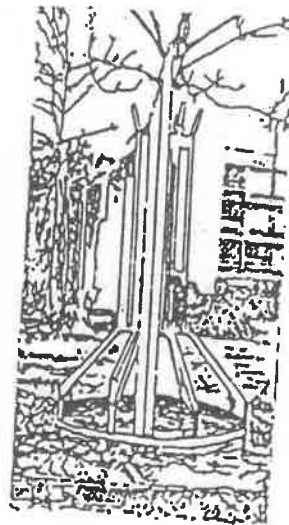
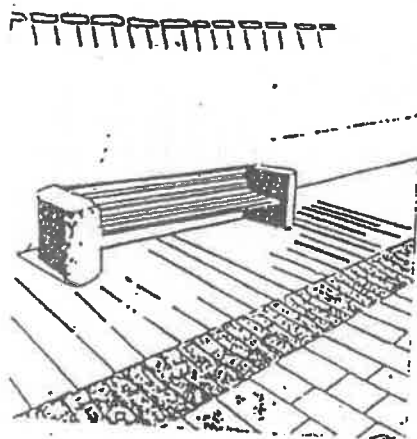
- c) Frequent and uncoordinated maintenance operation of various underground service lines results in frequent digging of footpaths and roads. Even after the trenches are refilled the operation leaves ugly scars on surface due to careless back-filling and usually resurfacing of it with alien material.

The use of interlocking block will enable the removal and refilling of pavement surface material easy. As the earth compacting operation is integral part of block setting, the danger of uneven settlement in the filled up trench will be reduced considerably.

- d) Street corner gardens are of vital importance to the urban area. Their easy accessibility helps visitors to the commercial zone to spend a few quiet moments between two appointments and for the residents, especially in very junior and senior age group, they provide appropriate



3.28 Dustbins

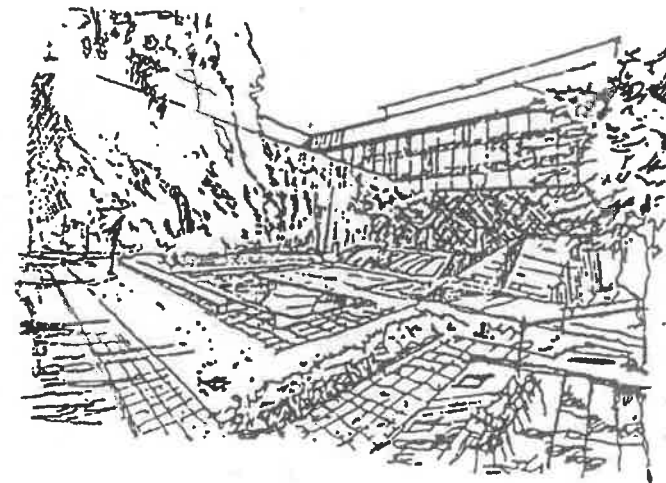


3.29 Street Furniture

active and passive recreational facilities without having to walk long distances.

e) Street furniture and signage are two extremely important factors in urban design. They ought to fulfil both of the functional as well as aesthetic roles. It is advisable that the design aspect is controlled by the authorities even if the execution is done with the help of sponsors. If the design aspect is left to the sponsors, there is a possibility of mediocrity either due to monetary considerations or lack of professional input.

f) The cultural richness of a city is usually projected through various aspects such as the presence of libraries, music halls, art galleries etc.

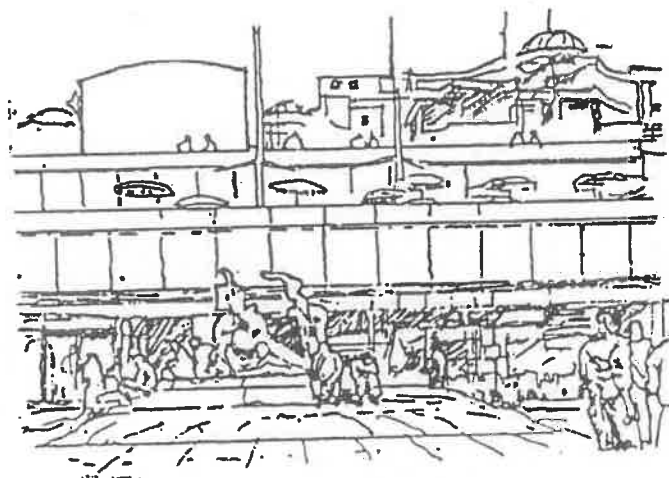


3.30 Semiprivate Open spaces

Use of outdoor sculpture contributes to project this cultural image. Various accomplished artists in the world have enriched the urban streetscape by their contribution to their city.

Local artists can be invited to participate in this process for Bandra-Kurla complex. Their artistic expressions, when displayed in the outdoors, will add a new dimension to the streetscape.

g) The use of water has always been done in tropical climate to achieve a cooling effect on the atmosphere. Presence of recycled water features such as pools, fountains etc. will help establish a visual and psychological relationship with the waterfront of Mithi river.



3.31 Public Plaza in front of the Convention Centre

h) The regeneration of mangroves along the water front will be an appropriate and inexpensive attempt to treat the river. The existing mangroves community is all the time being menaced by unmindful dumping of debris and garbage in this area. Elevated walkways through this vegetation will enable the general population to know more about this precious vegetation and also allow the quiet observation of migratory birds in the seasons.

A comprehensive landscape policy thus evolved will act as a guideline to various developers resulting in harmonious exterior spaces and will enhance visual and environmental quality of Bandra-Kurla Complex.



3.32 Waterfront Development



3.33 Public Art Wall Mural

Schedule of Avenue Trees and Principal Criteria of Selection and Recommended Spacing

Name of Tree	Recommended Spacing c/c (in meters)	Criteria of Selection
1 ✓ <i>Alstonia scholaris</i>	15 to 18	Evergreen, interesting foliage, fast growing
2 ✓ <i>Anthecephalous cadamba</i>	12 to 18	Evergreen, shady tree, interesting foliage
3 <i>Bahunia variegata</i>	12 to 15	Large bi-fold leaves, profusely flowering, medium size tree
4 ✓ <i>Cassia siamia</i>	12 to 14	Evergreen, very fast growing tree profusely flowering
5 <i>Callophyllum inophyllum</i>	12 to 15	Evergreen, interesting foliage, highly suitable near to creeks and coastal climate.
6 ✓ <i>Chrysophallum canito</i>	15 to 17	Colourful foliage, variety of foliage colour
7 ✓ <i>Cocos nucifera</i>	10 to 12	Very adaptable to sandy, coastal climate, vertical expression, moderately fast growing, small foliage circle
8 ✓ <i>Erythrina indica</i>	15 to 17	Evergreen, very hardy, surviving in very adverse climate, summer flowering
9 ✓ <i>Filicium decipiens</i>	12 to 15	Evergreen, ornamental foliage, medium size tree
10 ✓ <i>Kleinhovea hospita</i>	14 to 18	Very inviting, evergreen and variety of flower shape
11 ✓ <i>Lagerstroemia speciosa</i>	12 to 15	Colourful flowers, moderate shade medium size tree
12 ✓ <i>Lagerstroemia flos-reginae</i>	15 to 17	Shady tree with profuse flowering in summer, late winter
13 <i>Melia azadarac</i>	14 to 16	Deciduous, shady tree, good foliage
14 <i>Peltophorum inerme</i>	15 to 17	Shady, evergreen tree, profusely flowering usually twice a year, yellow colour throws a carpet of flower on ground
15 <i>Pithecolobium saman</i> (syn. <i>Samanea saman</i>)	25 to 30	Large shady tree, coverage of large area, fast growing, evergreen
16 <i>Spathodia campanulata</i>	15 to 20	Moderate shade, decorative foliage, colourful flowers, evergreen
17 <i>Swietenia macrophylla</i>	15 to 18	Shady tree, large size leaves, easy to maintain
18 <i>Swietenia mahogany</i>	15 to 17	Shady tree, evergreen, easy to maintain
19 <i>Tabebuia rosea</i>	10 to 14	Conspicuous foliage, soft colour flower profusely flowering
20 <i>Terminalia catappa</i>	14 to 16	Deciduous, shady tree, interesting colour foliage before dropping of leaves, attracts bird life.

3

Determinants of Urban-Form

3 Species of trees for plantation in I. F. B. C. layout plan



Characteristics
 Height 50-70 ft
 Spread 25-40 ft
 Type Evergreen
 Leaves Simple in a pair of 4-7 leaves
 Flowers Small, greenish white.
 . Appear from Oct.-Dec.

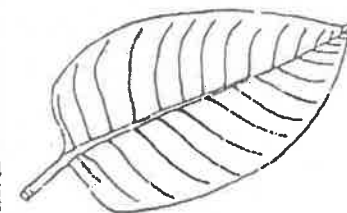


Botanical Name
Alstonia Scholaris

Common Name
Devil's Tree - Satni



Characteristics
 Height 50-70 ft.
 Spread 40-50 ft
 Type Evergreen
 Leaves Large, Simple 3-7' long
 Flowers Fragrant, appear in Aug.-Sept.
 Borne on a Compact Head

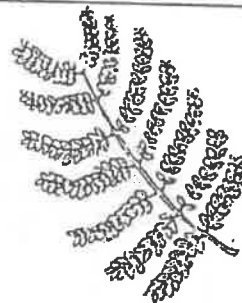


Botanical Name
Anthocephalus Cadamba

Common Name
Kadamb



Characteristics
 Height 30-35 ft
 Spread 30-35 ft
 Type Deciduous
 Leaves Compound, Fall in Nov-Jan
 Flowers Numerous, Bright Yellow, Scented
 Appear from April-May, Sept-Nov



Botanical Name
Peltophorum Inerme

Common Name
 Rusty Shield Bearer

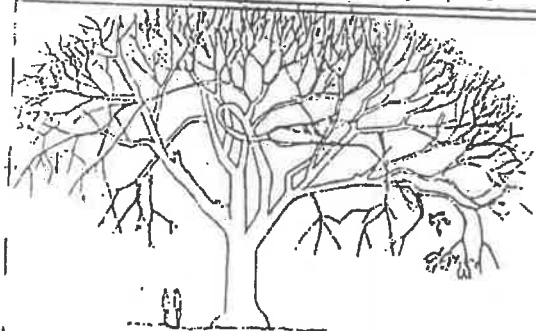


Characteristics
 Height 30-40 ft
 Spread 20-30 ft
 Type Evergreen
 Leaves Compound, Long, Dark Green
 Flowers Large Clusters, Orange - Crimson
 in colour



Botanical Name
Spathodia Campanulata

Common Name
 African Tulip Tree
 Pichkari

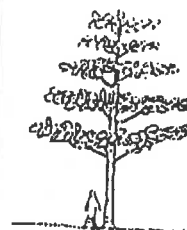


Characteristics
 Height 60 ft
 Spread 60 ft
 Type Deciduous
 Leaves Pinnate
 Flowers Pale Pink
 Appear from Mar-Oct.

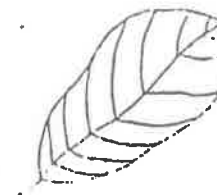


Botanical Name
Pithecolobium Saman

Common Name
 Rani Tree



Characteristics
 Height 30-40 ft
 Spread 30 ft
 Type Deciduous
 Leaves Large, Bright, Polished
 and Deep Green



Botanical Name
Terminalia Catappa

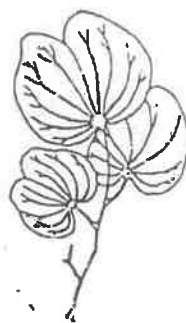
Common Name
 Indian Almond Tree

**Characteristics**

Height 30-45 ft

Spread 30-40 ft

Type Deciduous

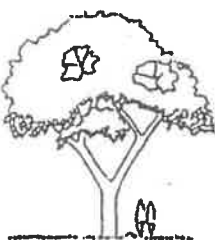
Leaves Simple, Notched at Tips,
Fall from Nov-MarchFlowers Various Colours, Pink, Mauve
Flowers from Feb-March**Botanical Name****Bauhinia Variegata****Common Name****Kachnar****Characteristics**

Height 20-35 ft

Spread 18-30 ft

Type Deciduous

Leaves Simple fall from Dec-Jan

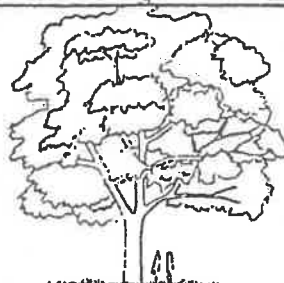
Flowers Mauve or Pink, in Panicles
Appear from May-July**Botanical Name****Lagerstroemia
Flos-Reginae/Speciosa****Common Name****Pride of India****Characteristics**

Height 30-40 ft

Spread 30-45 ft

Type Deciduous

Leaves Compound, 6-12' Long

Flowers Large, Scarlet
Appears in Dense Conical Racemes**Botanical Name****Erythrina Indica****Common Name****Pangara****Characteristics**

Height 30-40 ft

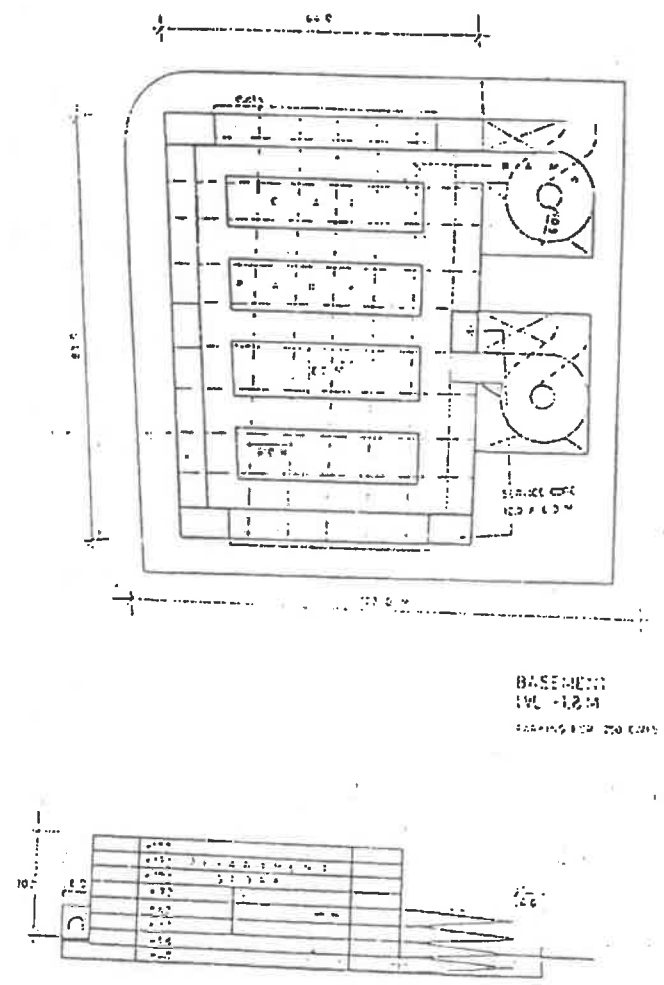
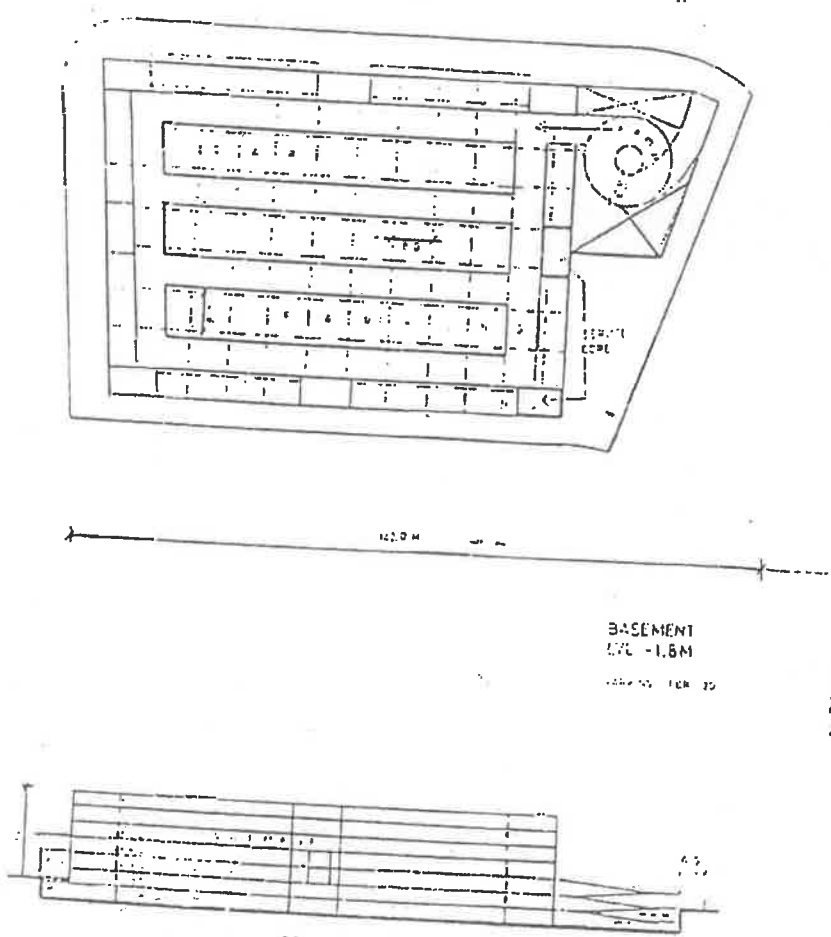
Spread 35-45 ft

Type Deciduous

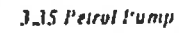
Leaves Compound, 10 - 20' long

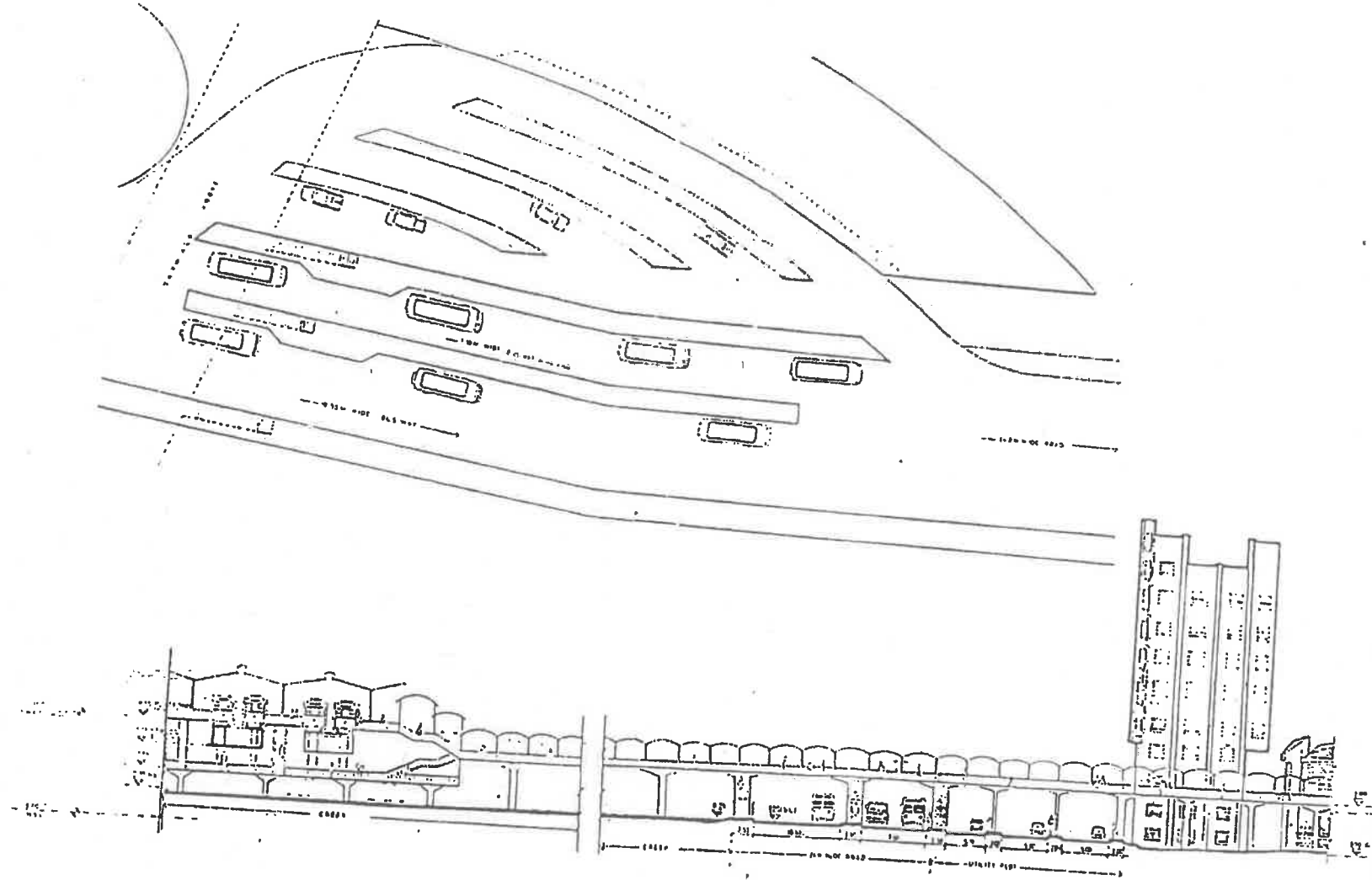
Flowers Small, Lilac or Purple
Appear from March-May**Botanical Name****Melia Azedarach****Common Name****Bakain, Persian Lilac**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100



3.34 Conceptual Sketch of Multistoried Parking Garages

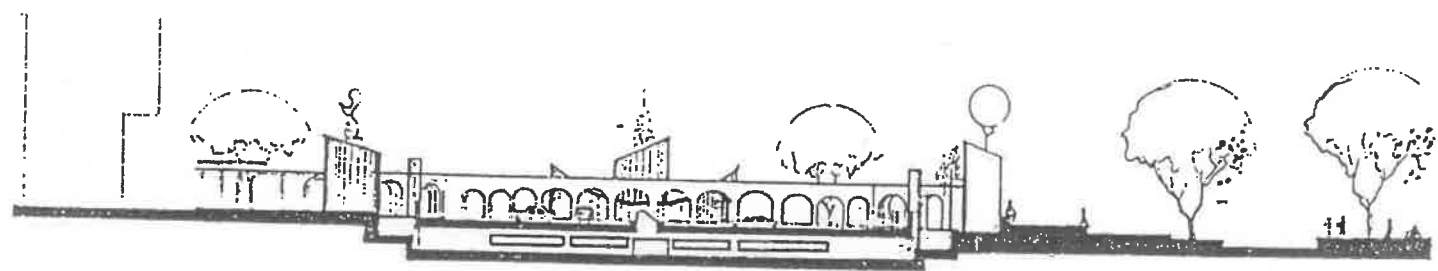




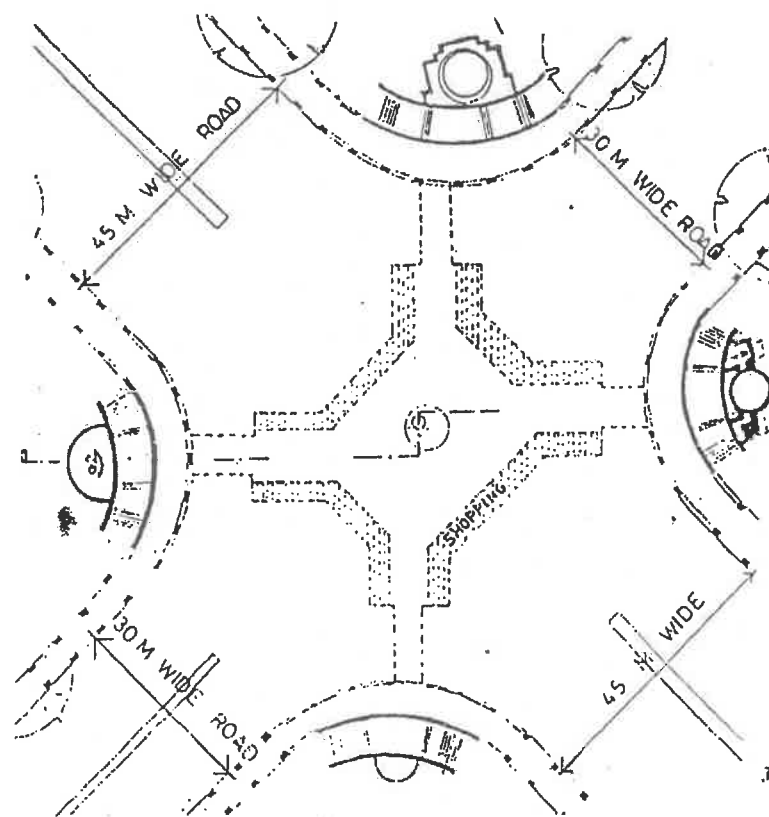
3.36 Schematic Section Through Railway Station and Skywalk



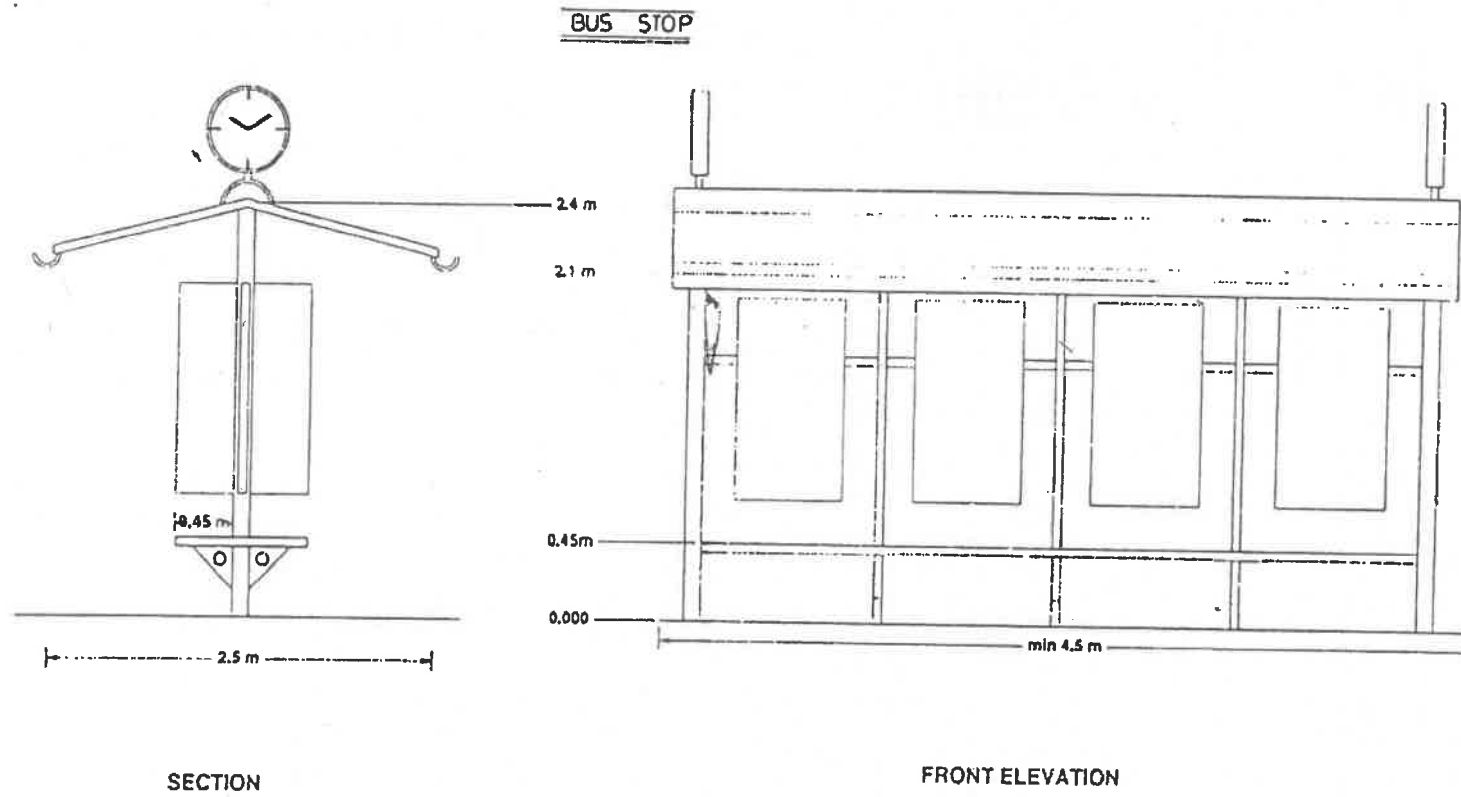
Handwritten notes in the left margin, likely bleed-through from the reverse side of the page.



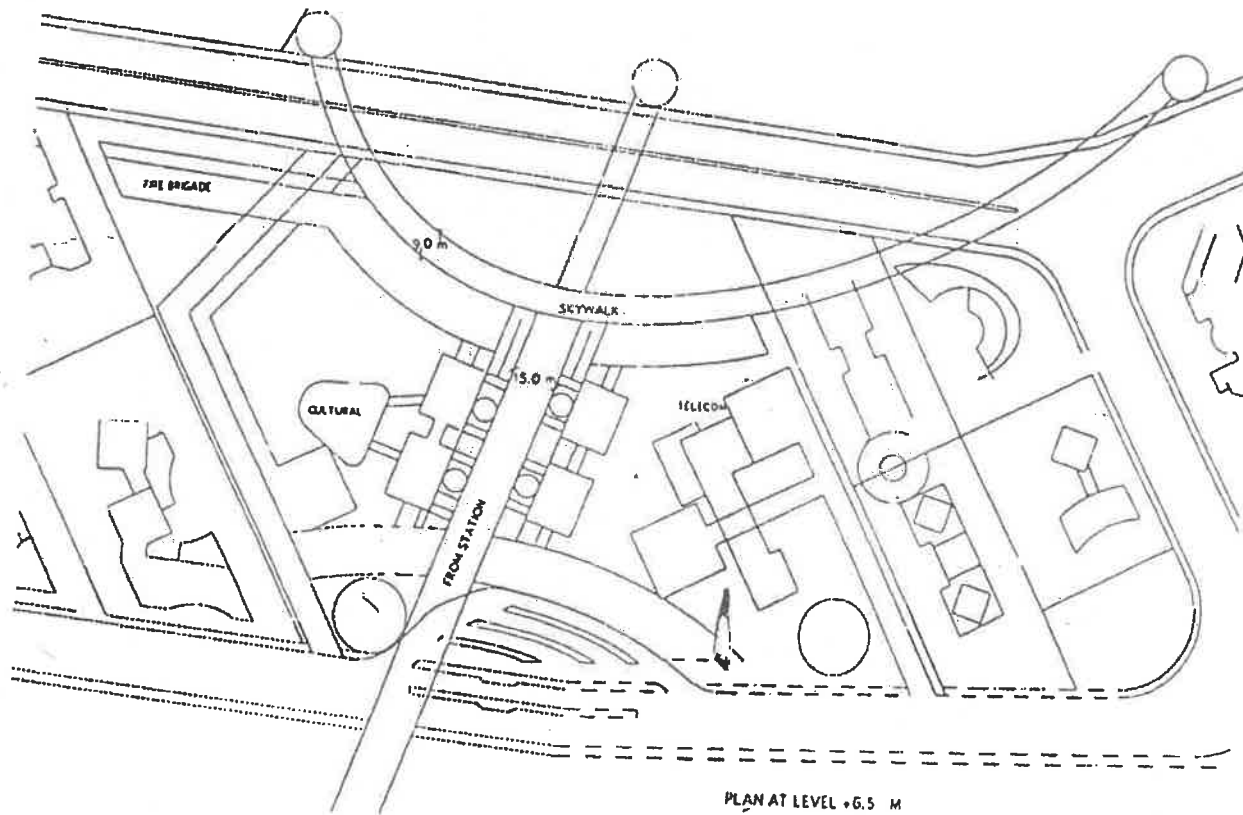
SECTION AA



3.38 Public Square and covered Walkway along the 45 m road



3.39 Bus Stop



3.29A Plan of utility complex

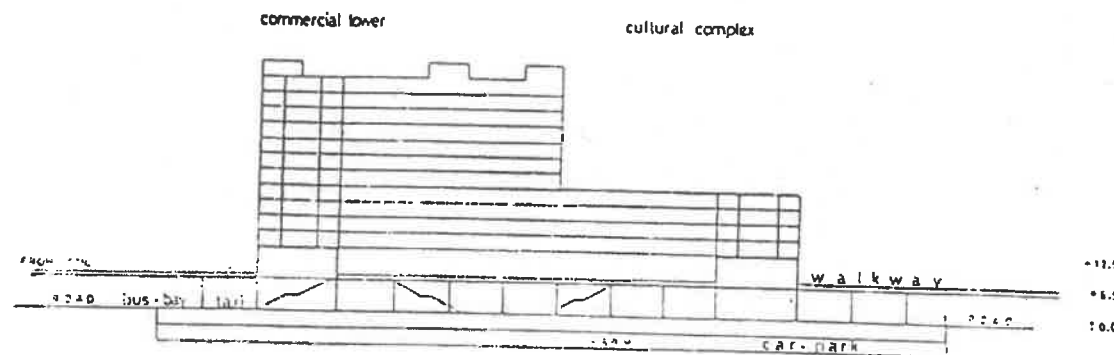
Activity breakup of Utility Complex

Utility Complex Area Allocation	V.S.F.		I.L.S.F.S.
	Buildup Area (sqm)	Land Area (sqm)	Buildup Area (sqm)
UTILITY			
Fire Station	5000	4000	1157
Ambulance Bay	110	110	110
Bus Bay	5300	5300	5244
Taxi Stand	1600	1600	1500
Car Parking	51780		80084
Central A.C. Plant	600		600
Electric Substation	8600		8558
Telecom	12400		12400
Police Station	800		825
Post Office	800		880
SubTotal	86990		111358

Note

1. Bus Bay to Cater to 35 buses
2. Total Car Parking Space for 1360 cars out of which 1000 CPS for public and 360 CPS for commercial use

Utility Complex Area Allocation	V.S.F.		I.L.S.F.S.
	Buildup Area (sqm)	Land Area (sqm)	Buildup Area (sqm)
COMMERCIAL			
Fast Food	2000		2000
Common Service	2500		2500
Restaurant Star	1700		1700
Restaurant Medium	2000		2000
Convenient Shopping	5118		5118
Exclusive Shopping	11480		11480
Sports/Gymnasium	2000		500
Health Clinic	1000		500
Gallery/Auditorium/Library	10000		1000
Utility Hall	1500		1500
Business Centre	500		500
Office Accomodation	11612		26020
SubTotal	51410		54818
TOTAL BUILTUP AREA	138400		166176
PLot Size in Ha.	3.46		3.80
F.S.I.	4.00		4.37



SECTION - A A

SCALE 1:500

3.29B Section & Programme breakup of Utility complex

Introduction

Based on the demands of land use and envisaged urban form, urban design proposals at various scales were formulated to arrive at a harmonious and coherent built form for the IFBC. The urban design controls could be broadly classified into six major groups

- 1 Arcade, skywalk and covered walkway
- 2 Public Squares
- 3 Response of built forms to the major roads in terms of facades, entry points, boundary definition etc.
- 4 Internal network of vehicular and pedestrian access within clusters of plots
- 5 Formation of semipublic spaces within groups of plots.
- 6 Fire tender access and movement

1 Arcades

Principles

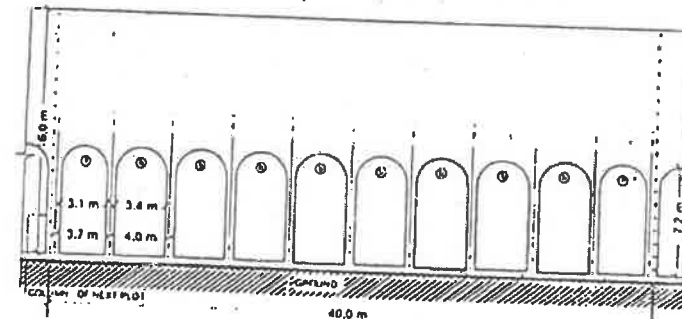
Arcades are the most powerful unifying element tying up the plan by giving it a coherent form and distinct imageability to the place. The arcades are envisaged to be provided along the 30 m wide central spine where most of the pedestrianized traffic would be secure. The arcade would serve as connecting link between buildings and provide unhindered movement passage for pedestrians. It may also serve as a transition zone between the private and public realm.

The arcade would provide variety and rhythm and respond to different settings like entrances to building. Material of the arcade should be easy to maintain. It would also respond to bus stops, zebra crossings, vehicular drop off zones and integrate various elements like planters, street furniture, advertisement panels and notice boards, street lighting, dust bins, public water taps, telephone kiosks etc.

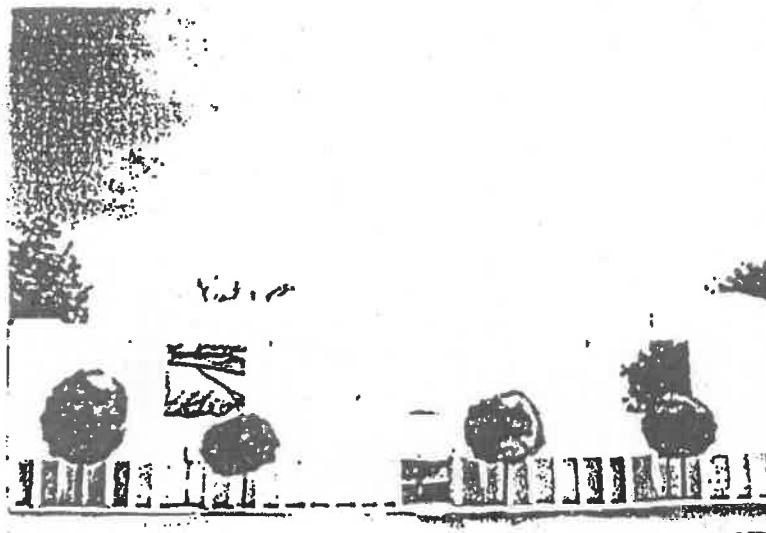
Controls for Arcade

Though there scope for flexibility in the design of the arcade for the architect to the extent it falls on the plots as mentioned and with in the principles above, certain basic controls are required to ensure the form and function of the arcade.

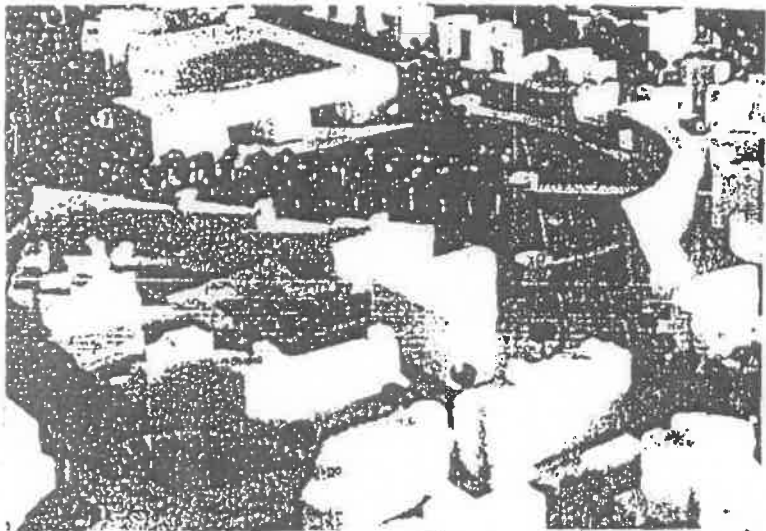
- a) The arcade would have a mandatory height of 7.2 m and a clear height of 7.2 m as shown in the fig. 4.1
- b) The arcade should be a continuous element along the street edge.
- c) It would specifically serve as a continuous passage for uninterrupted movement of pedestrians.
- d) The public at large would have easement rights for walking along the arcade although ownership would rest with the plot owner.
- e) The minimum clear width of the right of way from the building edge is 4.5 m
- f) The arcade should have a column spacing of 4 m c/c. For the arcade segment at the plot boundary the column spacing may be duly adjusted.
- g) The arcade edge would be at a distance of 7.5 m from the plot boundary.
- h) The arcade shall be of a material easy to maintain
- i) The arcades would terminate at the junction plots as per the layout
- j) The arcades would be maintained and managed by the plot owner upto the extent it is on his plot.



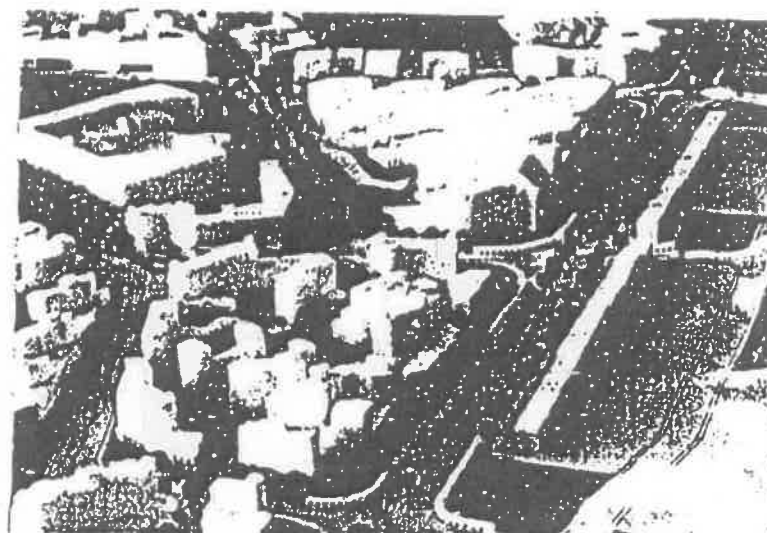
4.1 Arcade Detail



4.2A Arcade along 30 m wide road



4.2C Builtform along 30 m wide road



4.2B Builtform along 45 m wide road



4.2D Builtform Around the Square

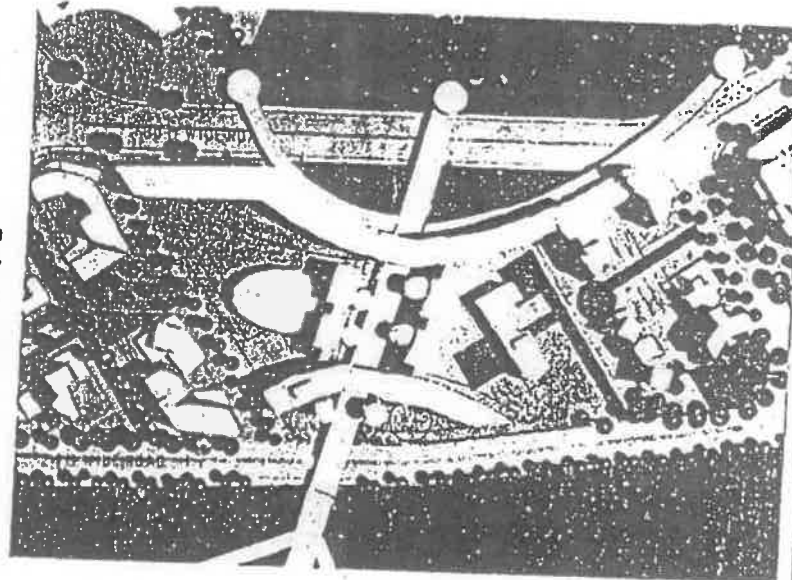
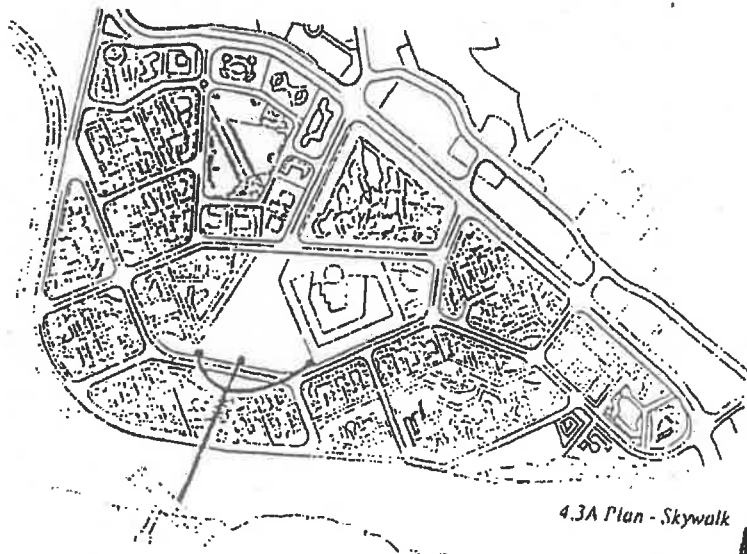
Skywalk

Principles

To facilitate easy movement and dispersal of pedestrians emerging from the railway station, a skywalk has been envisaged connecting the railway station to the maidan through the utility complex. Apart from serving as a channel for movement it would act as a public space and accommodate informal commercial activities. It would be closely linked with formal commercial areas and other utilities in the utility complex.

Controls

- a) The skywalk from the station to the point where it diverges shall have a minimum width of 15 m. From this point onwards, the skywalk shall have a minimum width of 9 m for its three arms.
- b) The building edge of the utility complex will hug the skywalk where it faces the maidan.



4.3B Skywalk

Covered Walkway Along the 45 m wide Road

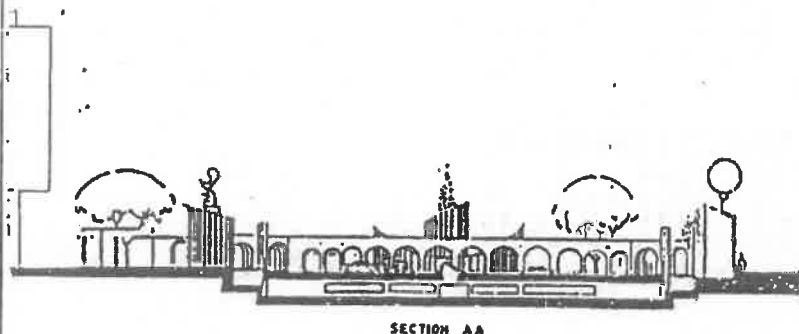
Principles

A series of covered walkways have been proposed along the footpath at the major junctions of the 45 m wide road. Functionally it would provide relief to the pedestrian emerging from the bus stops. It would also help in defining the edges of the public squares. The walkway would be take into account the pedestrian subways present at those junctions.

Controls

- a) The minimum width of the walkway would be 4.5 m
- b) The height of the walkway is 4.5 m

2 Public Squares



SECTION AA

4.4 Covered walkway along 45m wide road

Public spaces at junctions of 30 m wide road

Principles

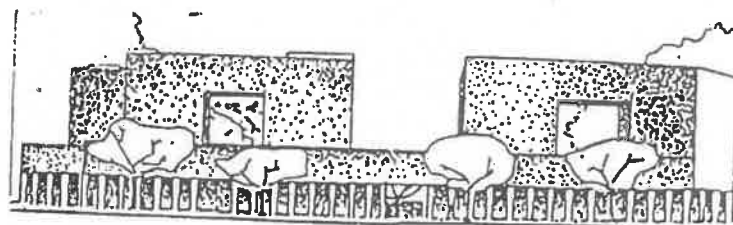
The 30 m wide central spine would have significant pedestrian movement as it will be carrying and dispersing the pedestrians emanating from the station. The visual axis of the street is enhanced by the presence of arcades. Thus the junctions of the 30 m wide road with other major roads have a potential to develop into public squares.

The builtform edge of the four corner plots fronting the junction are prescribed as per the building line for each junctions. The building edge is further enhanced by the arcades which is line with the builtform edge.

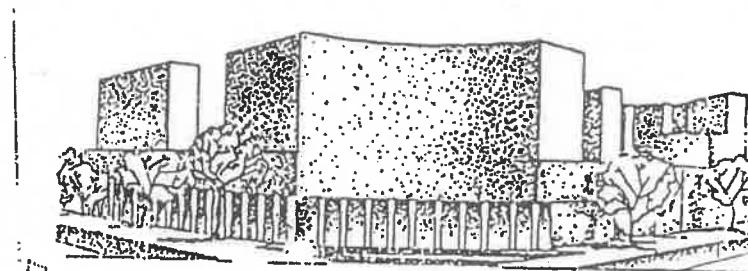
The square would also act as a focal point of various activities. Retail shops which would be present behind the arcades would make the squares lively. The informal shopping would also be accommodated in the square with proper consideration.

Controls

- Building edge definition at each junction prescribed as per the layout.
- The building height of the builtform edge at the junctions are mandatory and is ten storey high (36 m).
- The ground floors of the corner plots facing the square would necessarily have to accommodate retail commercial activities.



4.5 Built-form envisaged along 30 m wide central spine



4.6 Built-form along the public square

- d) The area of the square of each corner plot would be adjusted with the 10% of plot area required to be provided as open space for each plot as per building byelaws.
- e) The plot would have the F.S.I. of the area relinquished for the square, available for consumption.

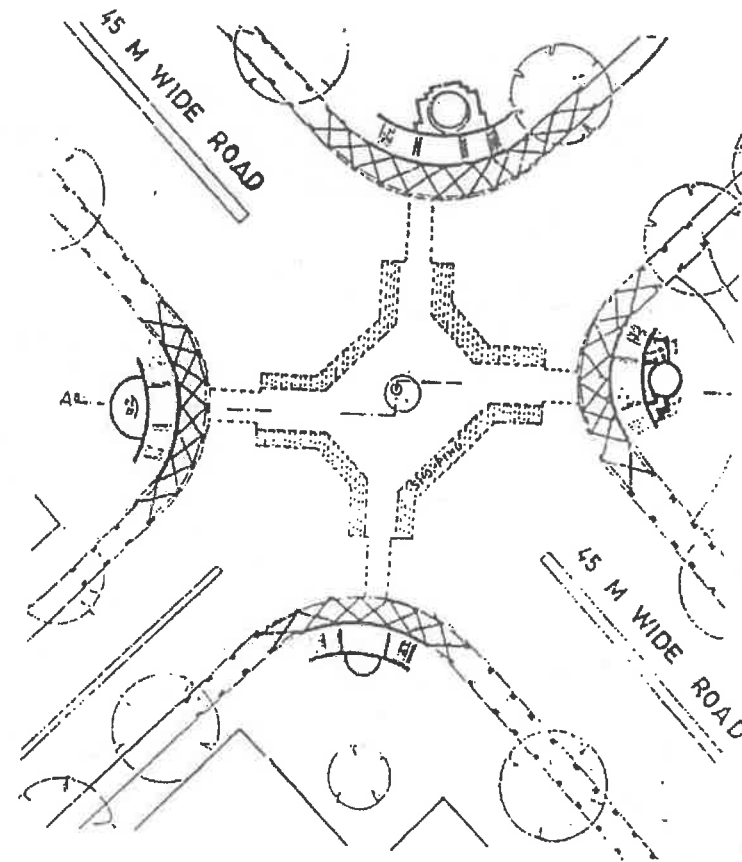
Public Spaces Along the 45 m wide Road

Principles

The 45 m wide road would mostly carry through vehicular traffic. Vehicles would speed along the highway along and there is no direct vehicular entry to any plot from this road. Thus the junctions would provide contrast and rhythm from the contiguous builtform edge along the 45 m road. The corner plots have their builtform defined such in a way that public square are created at the junctions. The junctions edges are defined by the mouths of the under passes which extends as the covered walkway. Sculptures and lighting fixtures, waterbodies ect. would be present at the quadrants to register the image of the square. The square would humanize the 45 m wide road by creating spaces for informal shops which would serve the pedestrians thereby activating the square.

Controls

- a) Building line definition at each junction would be prescribed as per the layout
- b) mandatory requirement of the specific height of the builtforms at the junctions
- c) The area of the squares of each corner plot would be adjusted with the 10% plot area for open spaces required.
- d) The plot owner would have the FSI of the space relinquished for the square, available for consumption



4.7 Plan of 45m wide road square

4 Builtform Responses to Major Roads

1 Along the 45 m wide road

Principles

The 45 m wide road would function as a high speed through traffic road. No direct vehicular entry to any plot has been envisaged from this road. Therefore the image of the IFBC from this road will be from speeding vehicles with little time to register the details. The proposal envisages to have a contiguous builtform edge along the 45 m wide road on both the sides.

The building edge responds to the hierarchy of the street by being 15 m away from the plot boundary as a setback; 9 m wide space along the street edge would be semi-public in nature allowing pedestrians to walk through and 3 m wide landscaped area with trees lined adjacent to the street edge. The extent of the basement should be upto 9 m from the plot boundary.

Controls

a) Facade controls

The builtform should be minimum five storey (18m) high along the street edge.

- * The builtform should have a contiguous edge throughout the plot with adequate side margins.

b) Building lines

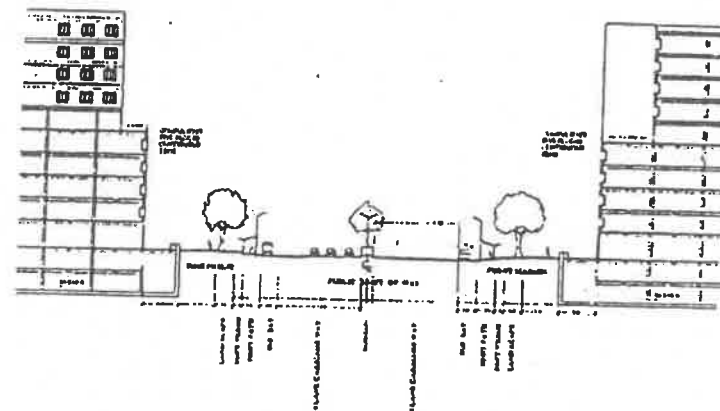
The builtform edge is defined at a distance of 15 m from the plot boundary

c) Vehicular access

Vehicular access to individual plots are not permitted from the 45 m wide road. However, pedestrian access positions are allowed from the 45 m wide road into the plots.

d) Landscape feature

3m wide landscaped areas lined with trees required along the street edge.



4.8 Section along 45 m wide road

2 Along the 30 m wide road

Principles

The 30 m wide roads would be the most significant in terms of activities along the edge and pedestrian movement on the footpath. The builtform characteristics would therefore need to respond to the pedestrians. The image of the streets needed to be scaled down to human scale. This has been achieved by restricting the height of the building fronting the street edge. A strong sense of enclosure has been created by a continuous edge of the builtform throughout the plots fronting the 30 m wide road.

Arcades have been proposed on the central 30 m wide road. The presence of arcades would unify the facade of the builtforms and further articulate the front edge by the pleasing rhythm of the arches and piers. Landscaping has been provided in a 3 m wide soft verge adjacent to the foot path. Trees, at a c/c distance of 25 m, have been provided along the band. The extent of basement for each plot will be 3 m inside the plot boundary.

Controls

1 Along the 30 m wide arcaded street

a) Facade control

- * Provision of continuous arcade with specific control with respect to heights and spacing of columns at a setback of 7.5 m from the right of way of the adjoining street.
- * Builtform should have a mandatory podium structure of four storey (15 m) high for all plots fronting the road.

- * The tower structure, i.e. fourth storey onwards to the tenth storey shall be setback by 8.0 m from the front edge of the arcade or 15.5 m from the plot boundary.

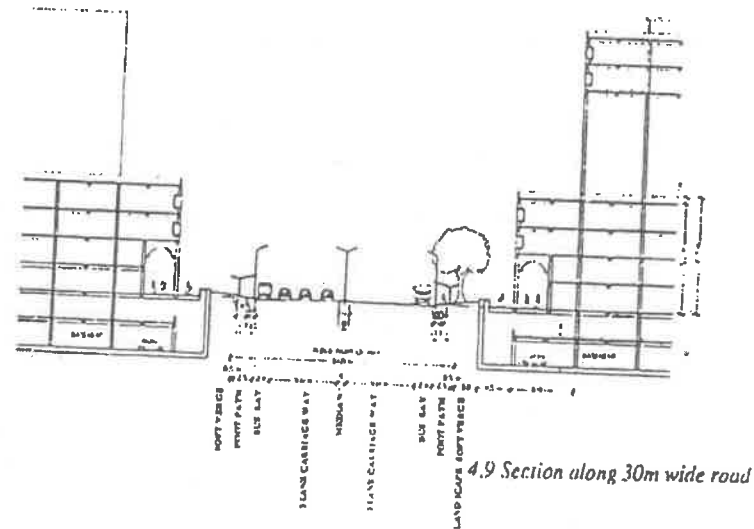
- * The upper most two floors (9th and 10th) of the towers of adjacent plot shall be connected to each other alternatively over the side margin space. Supporting columns will be permitted below.

b) Building Line

Building line is defined at a distance of 7.5 m from the plot boundary along the street edge.

- c) Direct vehicular entry in to the plots is prohibited from the 30 m wide road unless otherwise specified.

- d) A landscaped band of 3 m width with a row of trees at 25 m c/c is required adjacent to the street edge.

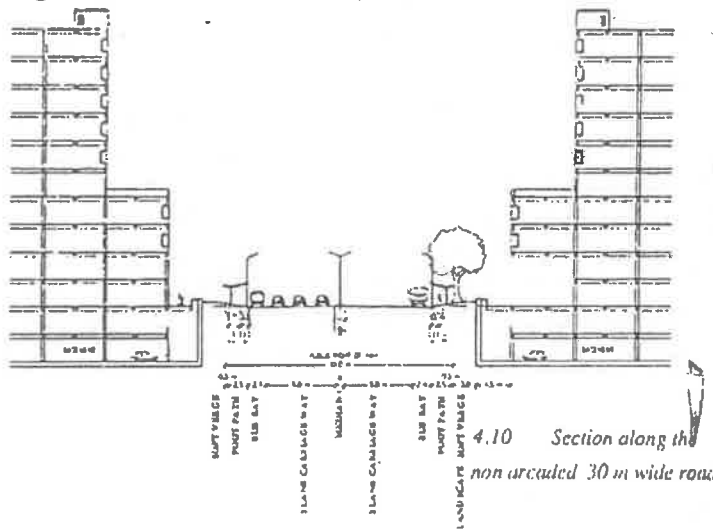


4

2

Along the non arcaded 30 m wide road

- a) Facade control
 - * Mandatory requirement of four storeyed podium structure (15 m high) with a contiguous edge at the front margin for all plots facing the 30 m wide road.
 - * The upper structure of the builtform from fourth storey should be setback at a distance of minimum 8 m from the podium edge.
- b) Building line defined for the front edge of podium is at a distance of 7.5 m from the plot boundary.
- c) Vehicular entry would not be permitted from the 30 m wide road to each plot unless specifically permitted at a determined location as per the layout.
- d) Mandatory requirement of 3 m wide landscape strip at the street edge with a row of trees at 25 m c/c.



3

Along the 24 m wide road

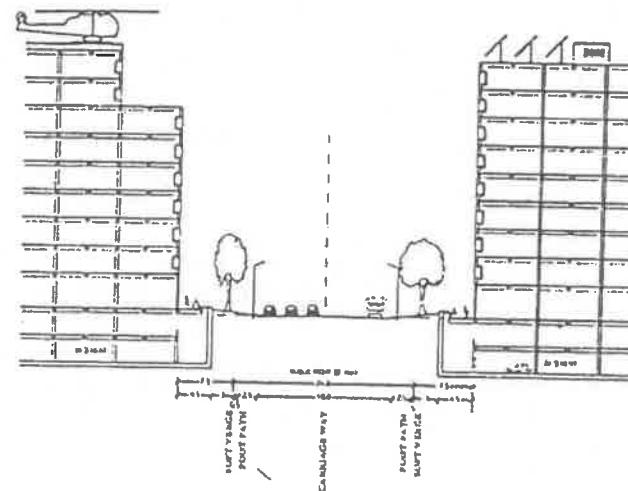
Principles

As the hierarchy of the road is low and most of the plots along this road are small, imposing strict controls would stifle the design and result in monotonous building blocks. Therefore, less controls have been imposed on the builtform. Direct vehicular entry individual plots incertain cases may be permitted as per the layout from the 24 m wide road.

Controls

1 For any building fronting the 24 m wide road

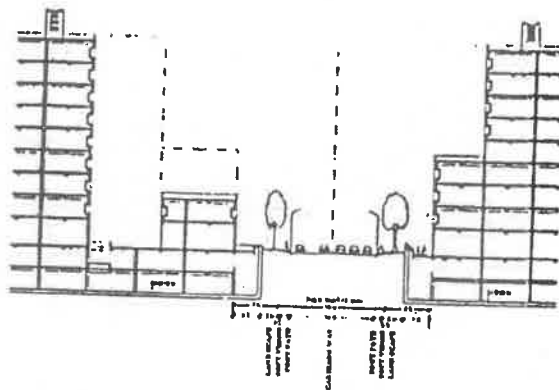
- a) The building front setback of the plots along the road is 7.5 m from the street edge.



- b) **Landscape control**
 - * Landscaped verge, 1.5 m wide band with a row of trees should be present adjacent to the footpath.
 - * For plots fronting the 24 m wide road along the waterfront, a minimum of 9 m wide landscaped area with two rows of trees should be provided.
 - c) The extent of the basement floors along the major road is allowed upto 3 m away from the street edge.
- 4 **Builtform response to the 18 m wide road**

Principles

Controls are the minimal for the builtform along the 18 m wide road in order to give enough flexibility in designing the building in these plots. Direct vehicular entry to plots are permitted as per layout. Otherwise direct vehicular entry to plots from 18 m wide road is prohibited.



4.12 Section along 18m wide road

Controls

- a) The control is a mandatory requirement of a 1.5 m wide landscaped area with a row of trees along the street edge.
- b) **Basement Extent**
The extent of the basement floors along the 18 m wide road is permitted up to 3.0 m away from the street edge.

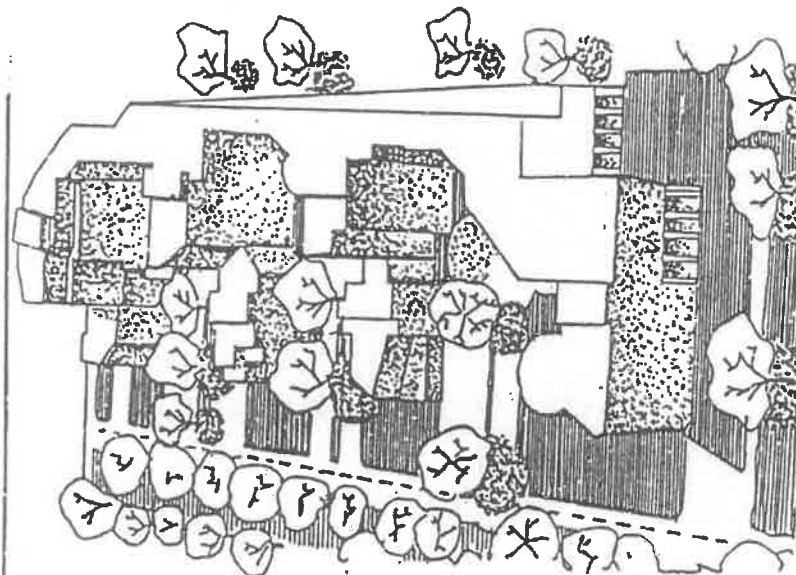
Internal Road and Pedestrian Network

1. Internal networking of access within the clusters

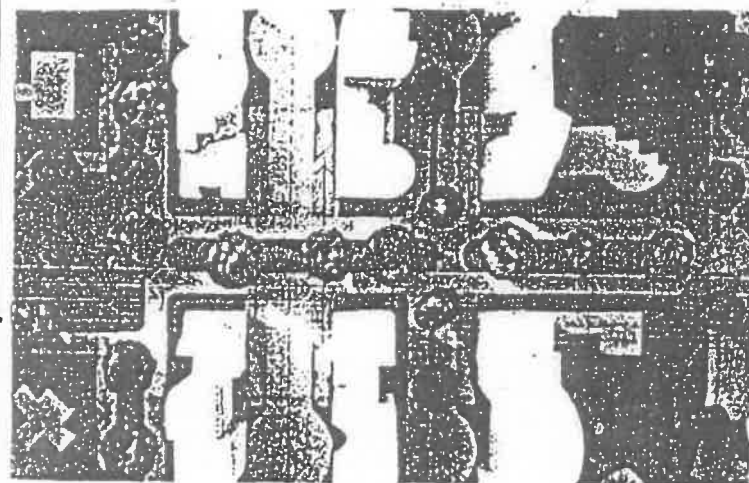
A secondary system of internal roads have been carved out of the plot. This would enable an effective transfer of vehicular traffic from the major roads to the cluster thereby reducing the punctures from major roads to the plots. This would make the main streets more pedestrian friendly with uninterrupted paths for walking. Apart from this, the transfer of vehicular traffic would reduce the traffic load on main roads and facilitate smooth vehicular movement. The internal road network would also enable vehicular access from one plot to other plots within the same cluster without having to use the main road.

Controls

- a) The vehicular accesses network in a cluster has been designed for public thoroughfare and should be followed as per the layout.
- b) For a cluster, accesses have been taken from the sides fronting minor roads at locations as per the layout.
- c) Access roads are 7.5 m wide or 6.0 m wide as prescribed in the layout.
- d) The F.S.I. of the extent of the access roads in each plot would be available for consumption by the respective plot owners.
- e) The maintenance of the internal roads would be taken up by the association of the plot owners of each cluster or alternatively by plot owner in who's domain the access network exists.



4.13A Internal Access



4.13B Internal networking of Access within the cluster

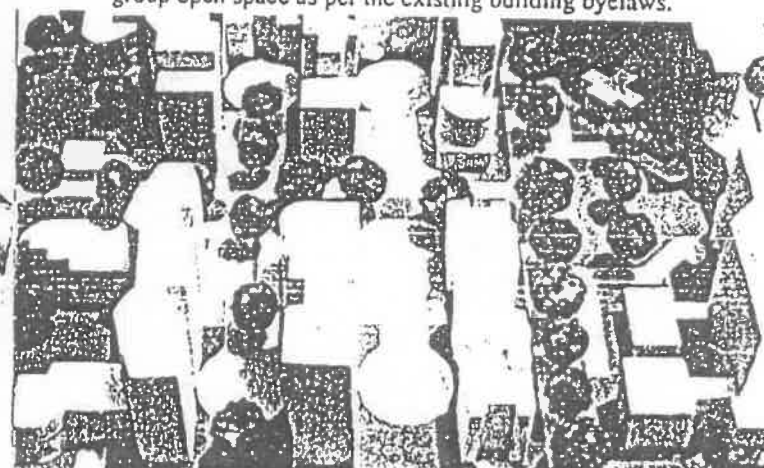
2 Pedestrian Network

Principles

A system of pedestrian pathways have been envisaged in the form of linear greens with a row of trees within the clusters. This would also link up with the city level greens and other major public spaces to form an efficient pedestrian network.

Controls

- * The pedestrian network has been designed for public thoroughfare and the public would have easement rights though the ownership would rest with respective plot owners.
- * Depending upon the circumstances, width of the linear green have been prescribed as per the layout and varies from 1.5 m, 3 m, 4.5 m, 9 m or 16.5 m.
- * The area allocated to the pedestrian network within plots will be adjusted against the 10% of plot area required to be developed as group open space as per the existing building byelaws.



4.14 Pedestrian Network

Semi Public Spaces

Principles

The pedestrian network in each cluster are envisaged to terminate in squares. These squares are formed from a pooling of land from the 10% provision of open space of all those plots which are prescribed as per the layout. These spaces would act as a square where people would congregate especially during lunch hours where informal activities would be allowed. Adequate landscaping and provision of street furniture would ensure the usability of the space. Respective plot owners can use the FSI of such space into their buildings.

Controls

- a) The plots would be contributing from the 10% of plot area for provision of open space which would be as per the requirement of area, minimum dimensions specified and its broad location as given in the layout.

Fire Tender Access

Principles

The important criteria while evolving the urban design guidelines was the provision of fire access and circulation. The amount of landscaping within each cluster possible would be subject to fire circulation requirement as access for the fire tender movement would be required for all faces of the building except for the face fronting the major road. Thus a 6.0 m wide passage needs to be provided parallel to the edge of the builtform at a distance of 4.5 m from the edge of the builtform and the passage should be kept free of any obstructions or plantations. If the building block is not wider than 16.0 m, no fire passages are required along the shorter edges. The residual spaces (if any) between fire tender passages may be used for landscaping, access ramps etc. Similarly, the margin of 4.5 m immediately adjoining the builtform can be used for purposes like parking, ramps,

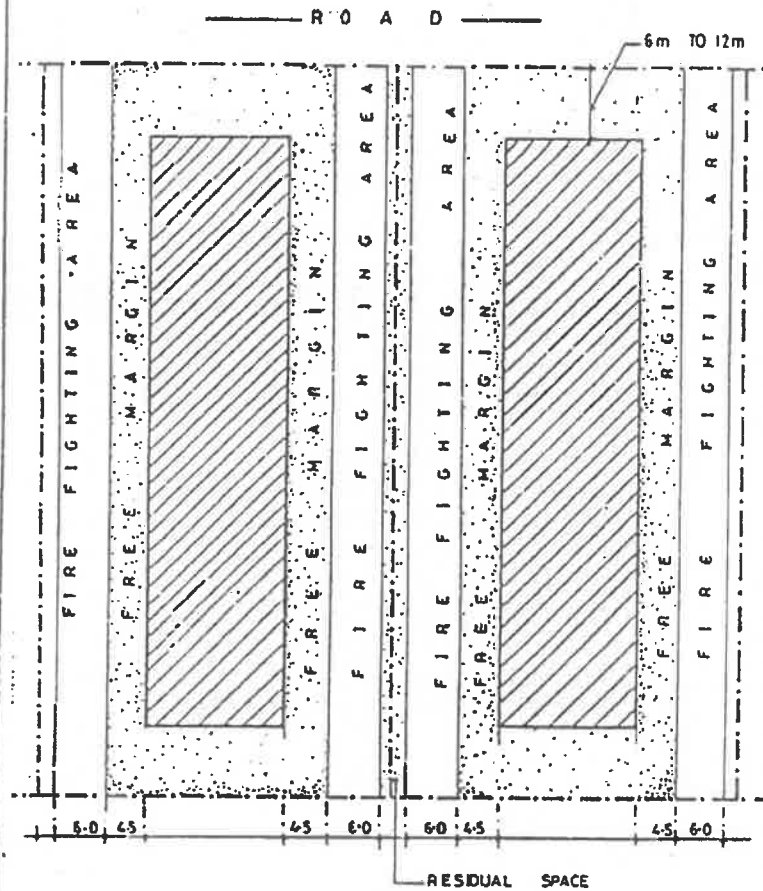
steps and projections, landscaping or for construction of one storeyed building.

Fire tender passage should have through access on to the roads. Alternatively a roundabout of 24 m diameter should be provided.

Controls

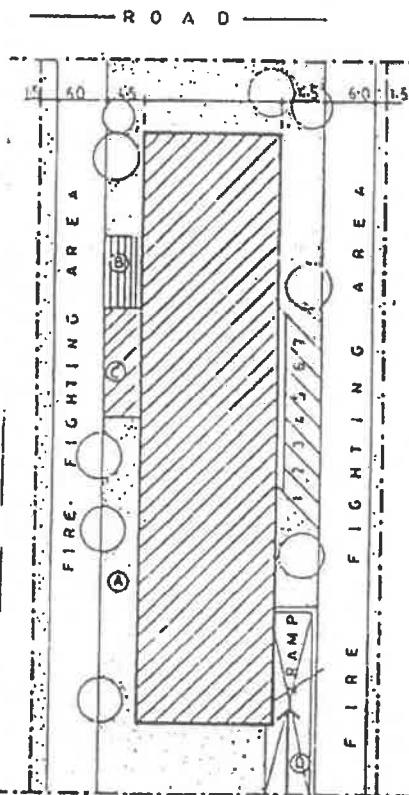
Any face of the building which does not abut on a road of 18 m wide or more, would need to follow the controls enumerated below:

- a) An access road or hard paved surface of minimum 6 m width of uninterrupted passage would be required for fire tender movement at a distance of 4.5 m from the edge of the building block.
- b) Building projection more than 7 m high will not be allowed at the space between the fire access and the tower block.
- c) Minimum turning radius of 12 m should be provided for the fire access, if through access is not provided. If a set of turnabouts at both ends are provided, the turnabout edges should not be more than 9 m apart and should be linked by a 4.5 m passage.
- d) In case of narrow plots, where the width of the tower block is not more than 16 m, fire access along the edge is not required to be provided if fire access at both sides of the edge is available.
- e) Fire access width of 6 m can be relaxed to 4.5 m at 30 m c/c where trees with seating structure around it, not more than 1.5 m wide and 1.5 m long could be placed.
- f) In the event of a podium and tower structure, podium of upto four storeys is required and high rise tower should be setback by 8 m from the podium building edge. The tower must provide external fire escape staircases upto the podium for quick evacuation in case of fire.
- g) In the case of a continuous podium structure as i.e. along the 30 m wide road, frequent access at an interval of minimum 30 m to fire tender should be provided at a distance of 4.5 m from the edge of the building/arcade.



6.0 m wide passage for the fire tender is required to be provided along the perimeter of the plot. The fire tender passage should be at 4.5 m distance from the edge of lower block and should be kept free of any obstructions or plantation. If the lower block is not wider than 16.0 m no fire passages are required along shorter edges. The residual spaces (if any) between fire tender passages may also be used for landscaping access ramps etc.

Plate 1



The margin band of 4.5 m immediately adjoining lower block can be used for any purposes including parking, ramps, steps and projections, landscaping or one storeyed building etc.

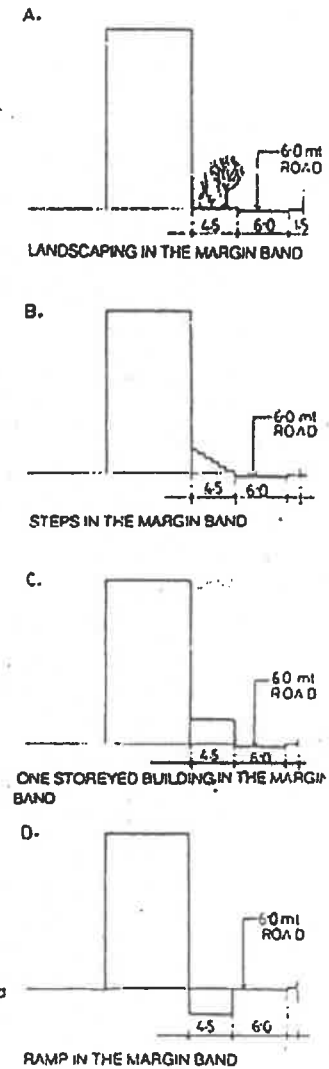
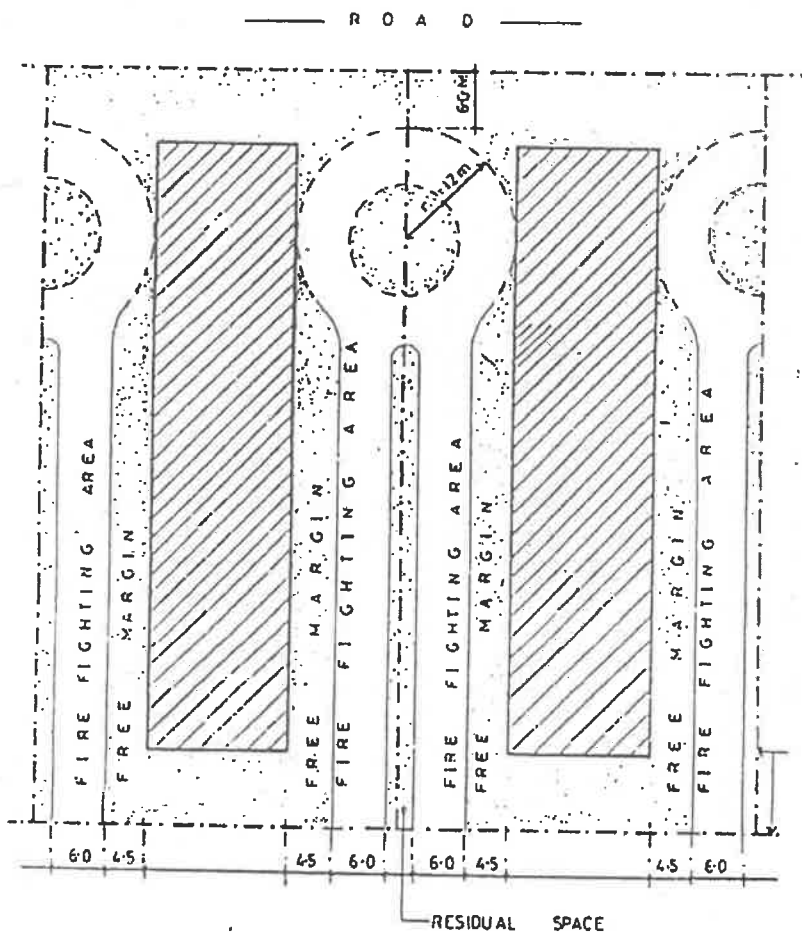
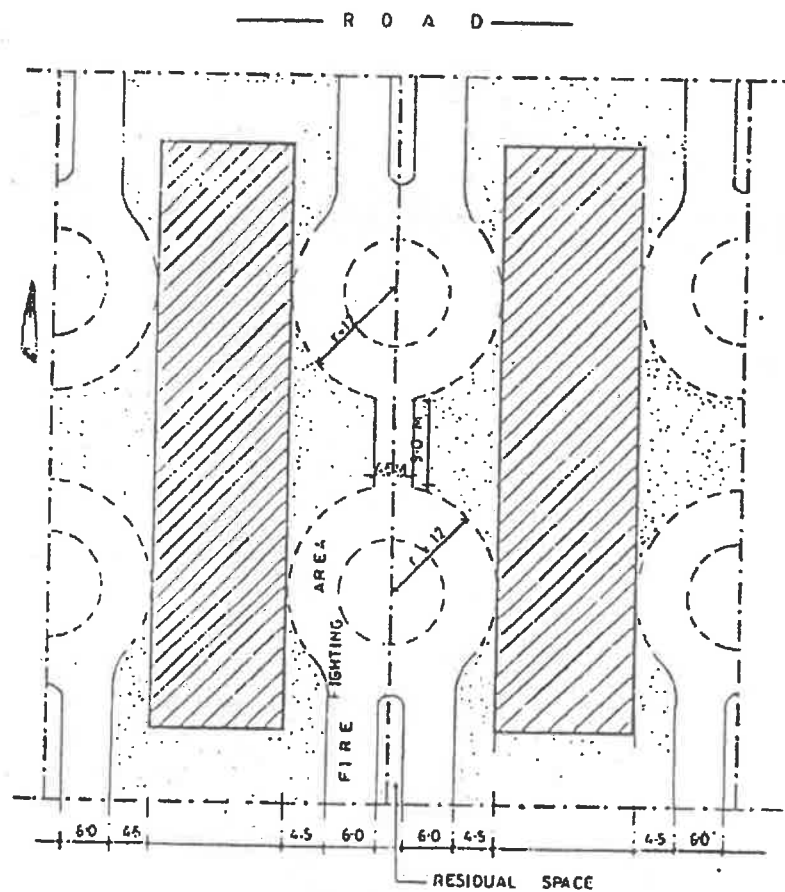


Plate 2



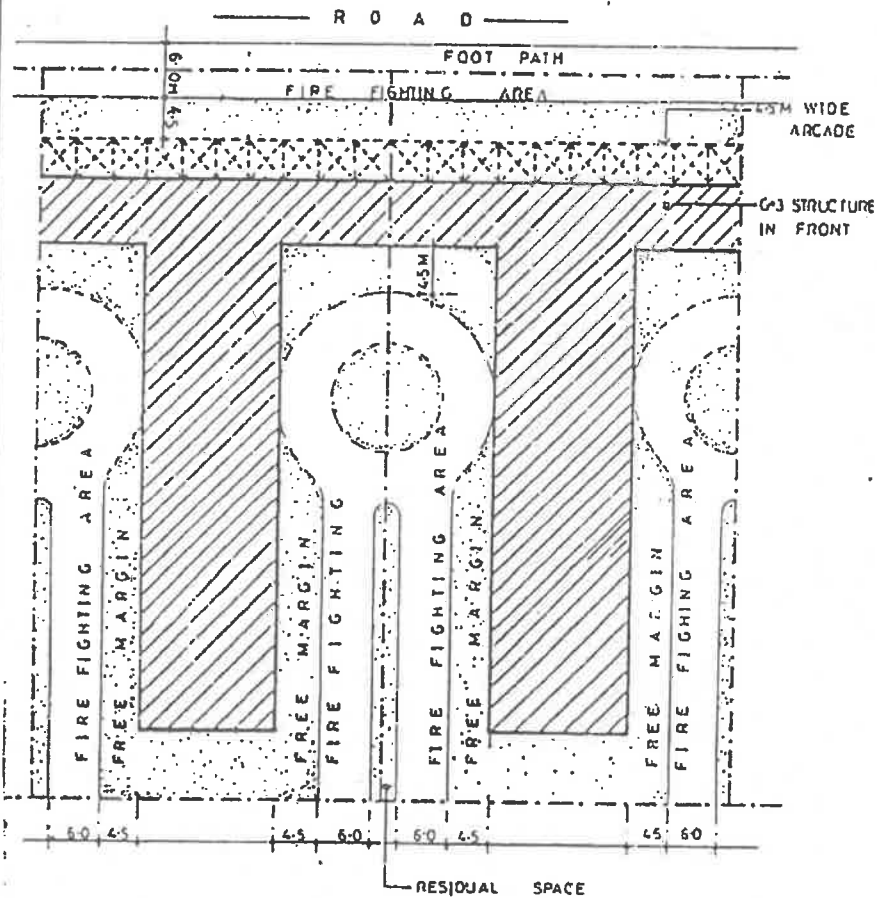
Fire tender passage should have through access on roads. Alternatively a turnout of 24 m dia should be provided. The edge of fire road should not be away from the lower edge by more than 4.5 m.

Plate 3



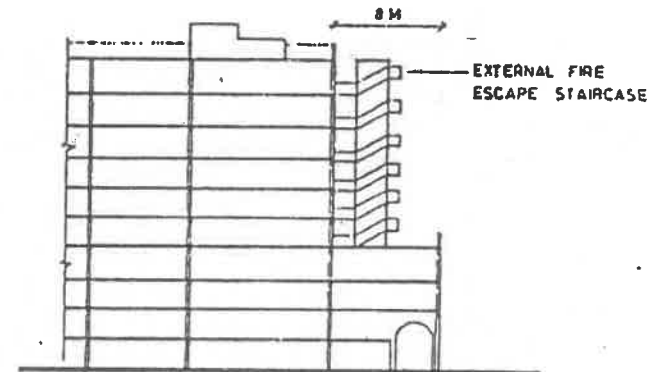
As an alternative to through movement for fire tender a set of turnabouts (24 m dia) from roads at both ends may be provided. The both turnout edges should not be more than 9 m apart and they should be linked by 4.5 m passage for fire tender.

Plate 4



In the event of a continuous building upto 4 storeys or arcade in front of a building along the roads, a passage for fire tender should be retained at a distance of 3 m from the edge of building/arcade.

Plate 5



In the event of a podium and tower structure with podium up to four storeys and highrise tower set back up to 12 m from the podium building edge, the tower must provide external approachable fire escape staircase up to podium for quicker evacuation.

Plate 6

Urban Design Controls in Each Cluster

Based on the general principles and controls with respect to hierarchy of roads specific urban design controls and guidelines to each cluster have been described hencewith.

Controls in Cluster A

The cluster A would be the gateway to IFBC from the 30 m wide main access road. The plot C-7 and C-8 would have the building edge defined at a distance of 16.5 m from the street edge to form a square as per the layout. The arcades originate from C-7 and extends up to the plot C-8 and terminates at the corner as per the layout. The square is further articulated by the defining the building height in the form of the 15 m high contiguous podium structure along with the arcade. The vehicular access for the plots in this cluster is allowed from all the other major roads except from the 30 m wide road.

Two semipublic spaces at the corner where a group of four plots meet ((plot C-7, C-8, C-9, C-6) and (plot C-4, C-5, C-12 and C-11)) have been created by pooling of land as prescribed in the layout. A system of pedestrian pathway connects the semipublic spaces, the public square and the linear city open space. In addition, pedestrian pathways are formed along the perimeter of the cluster along the major roads.

Controls in Cluster B

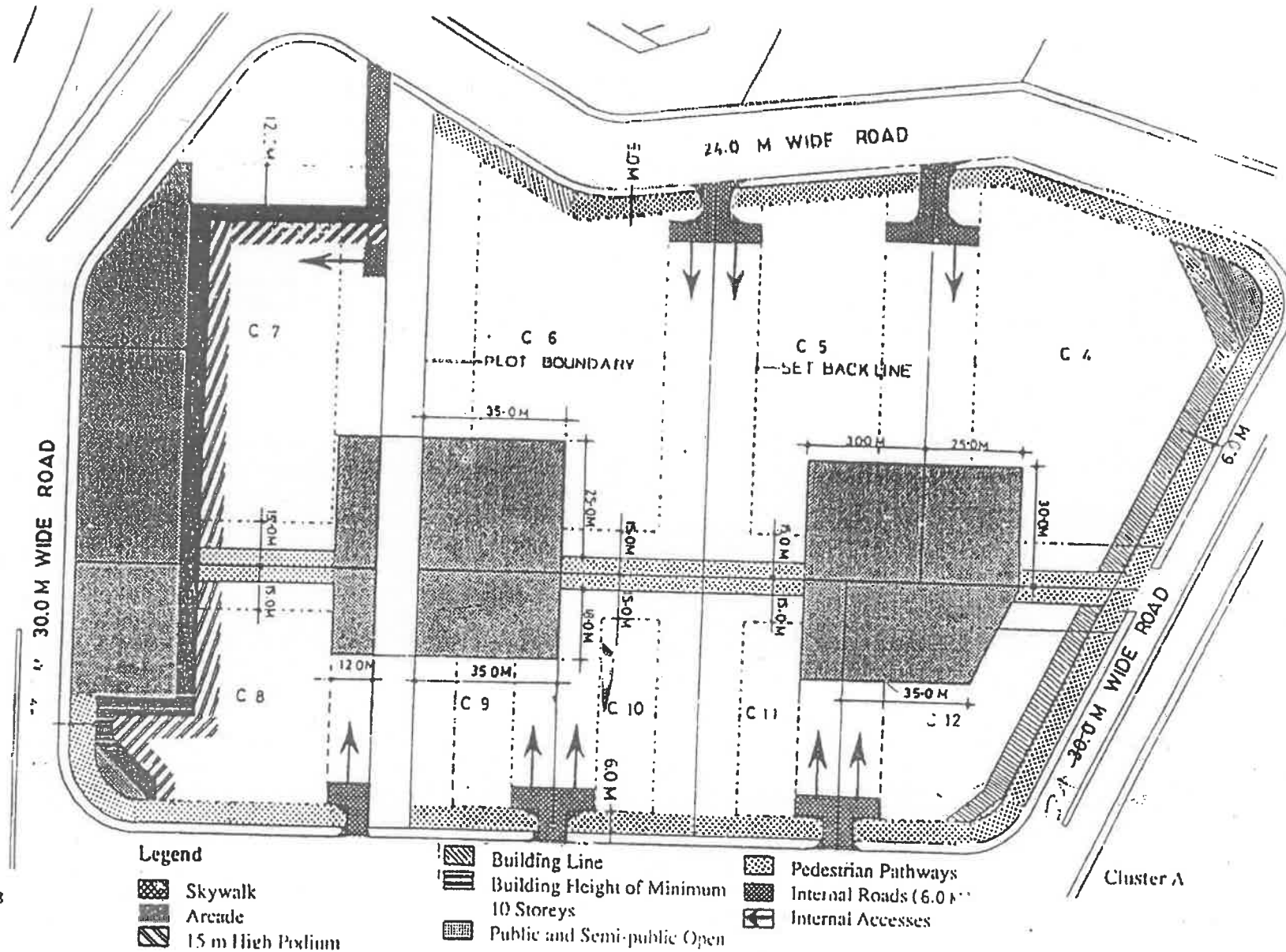
Plots fronting the 30 m wide central spine have arcades defined along the front building edge as per the layout. The corner plot (C-14) has the builtform edge facing the junction forming a quadrant as per the layout to form a public square. The height of the builtform fronting the square is required to be ten stories. Plots facing the 30 m wide roads would have a mandatory podium structure of 15 m height.

Vehicular access is taken from the non arcaded 30 m wide road, 24 m wide road and 18 m wide road at predetermined locations to form a T shaped internal access network within the cluster. Accesses to the plots C-13 and C-14 taken from the internal road and would cut across the city linear green as per the layout. Apart from the public square created from plot C-14, semi public spaces in the form of cluster open space has been created by pooling area from the corners of two plots C-13 and C-14. A 9m wide pedestrian pathway perpendicular to the linear city level open space has been carved out from the rear edge of the plots as per layout. Pedestrian pathways are also present along the perimeter of the cluster.

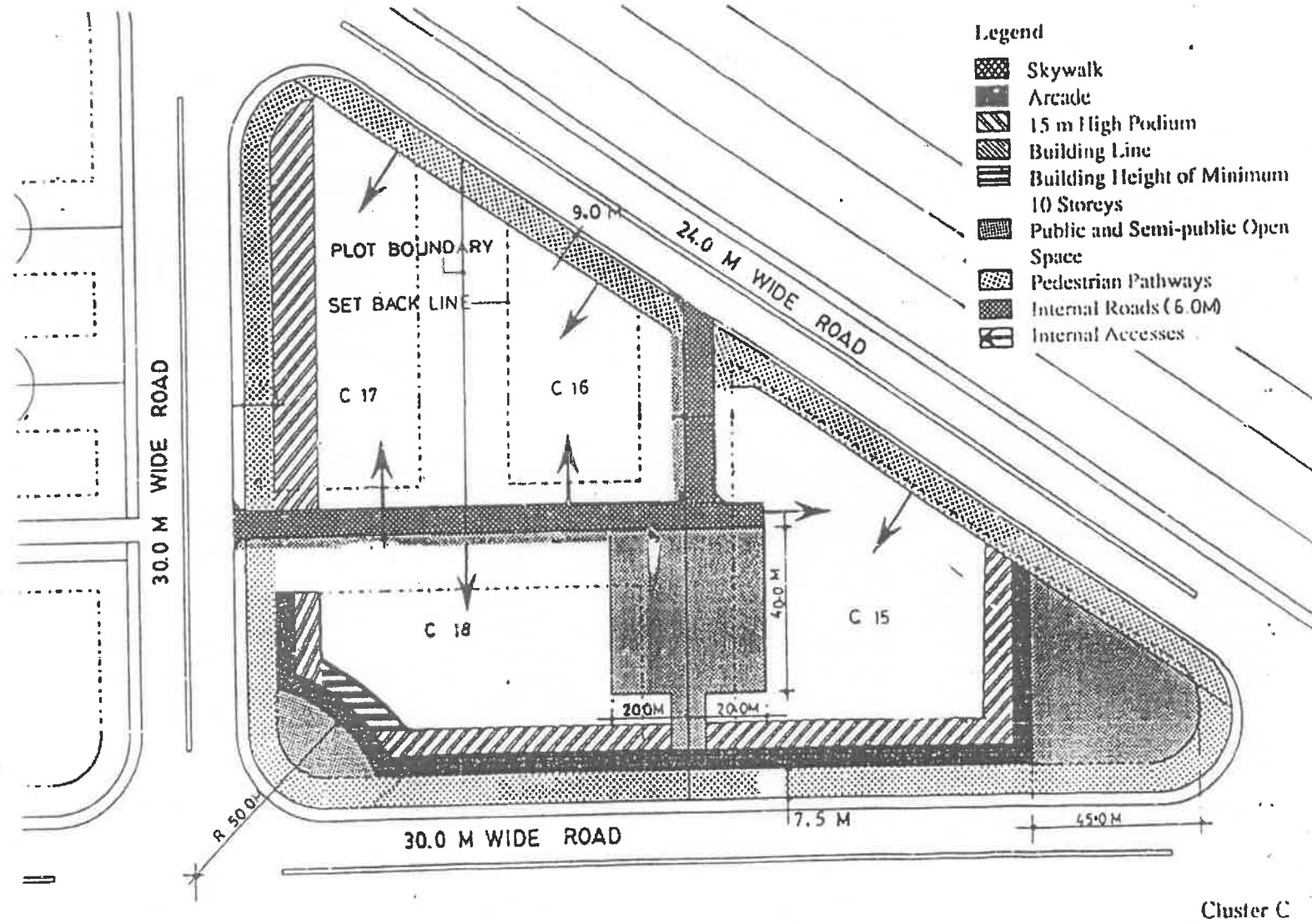
Controls in Cluster C

The plot C-15 form gateway to the IFBC. The building of the plot has been setback to create a public square as per the layout. The arcades define the edge of the square and continues along the edge facing the 30 m road. It terminates at the corner of the plot C-18 as per the layout. Plot C-18 which is located at the junction is subject to building line control as well as building height control. The building edge facing the junction forms a quadrant of a circle of radius 650 m from the centre of the road. The building height along the quadrant would have a mandatory height of ten storeys. The building height along the 30 m wide road would have a continuous podium structure of 15 m height. The tower block above the podium will be setback at distance of 8m from outer edge of the podium.

Accesses for vehicles are taken from the 24 m wide road and 30 m non arcaded street and layout form an L-shaped internal road network. A pedestrian path of 4.5 m width runs along the internal access and culminates at the semi-public cluster open space created by pooling of land from plots C-15 and C-18 as prescribed in the layout. A 9m wide open space having two rows of trees within the plots have been prescribed along the 24 m wide road fronting the water. In addition, pedestrian pathways are formed along the perimeter of the cluster.







Controls in Cluster D

Builtform of the plots C-19 and C-34 which fronts the 30 m wide central road would have front building line specified at 7.5 m from the street edge. The edge is further articulated by continuous arcades along with two floors of podium above. The tower structure and linkages on 9th and 10th floors between the two structures will be as per control drawing.

Plot C-19 is located at the important junction of 30 m wide roads where a public square has been envisaged. Building edge at the junction forms a quadrant of a circle with a radius of 60 m from the centre of the road. The building height at the quadrant would be a ten storeyed. The building height along the both of the 30 m wide roads would have a continuous podium structure 15 m high and a setback of 8 m for the tower block.

Accesses for vehicles into the cluster are taken from all roads except the 30 m wide arcaded street and prescribed in the layout to form an internal access network. Semipublic space in the form of cluster space has been formed by pooling of land from the plots C-19 and C-34 as per the layout. A network of linear pedestrian pathways adjacent to the road network culminate in the cluster open space. Within the plots a 9 m wide linear open space with two rows of trees fronts the 24 m wide road along the river front. Pedestrian pathways are also formed along the perimeter of the entire cluster.

Controls in Cluster E

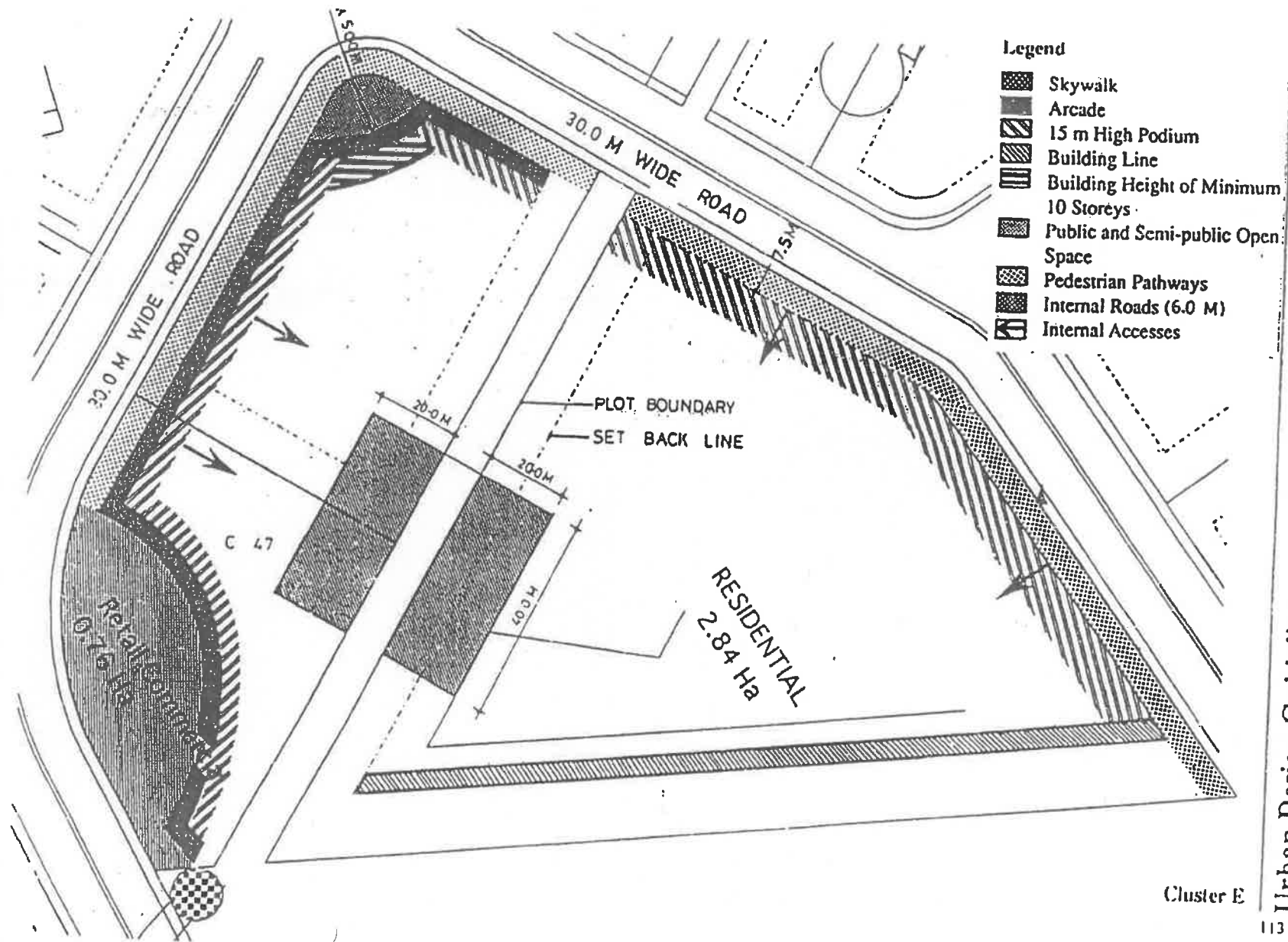
The builtform of the parking garage plot and residential block facing the 30 m wide road would require its building line specified at 7.5 m from the street edge. The builtform of the parking garage plot facing the junction would require its building line to form a quadrant of a 50 m radius circle as per the layout. Plot C-47 would also have its building line specified as per layout to form a square. The residential plot would have its building

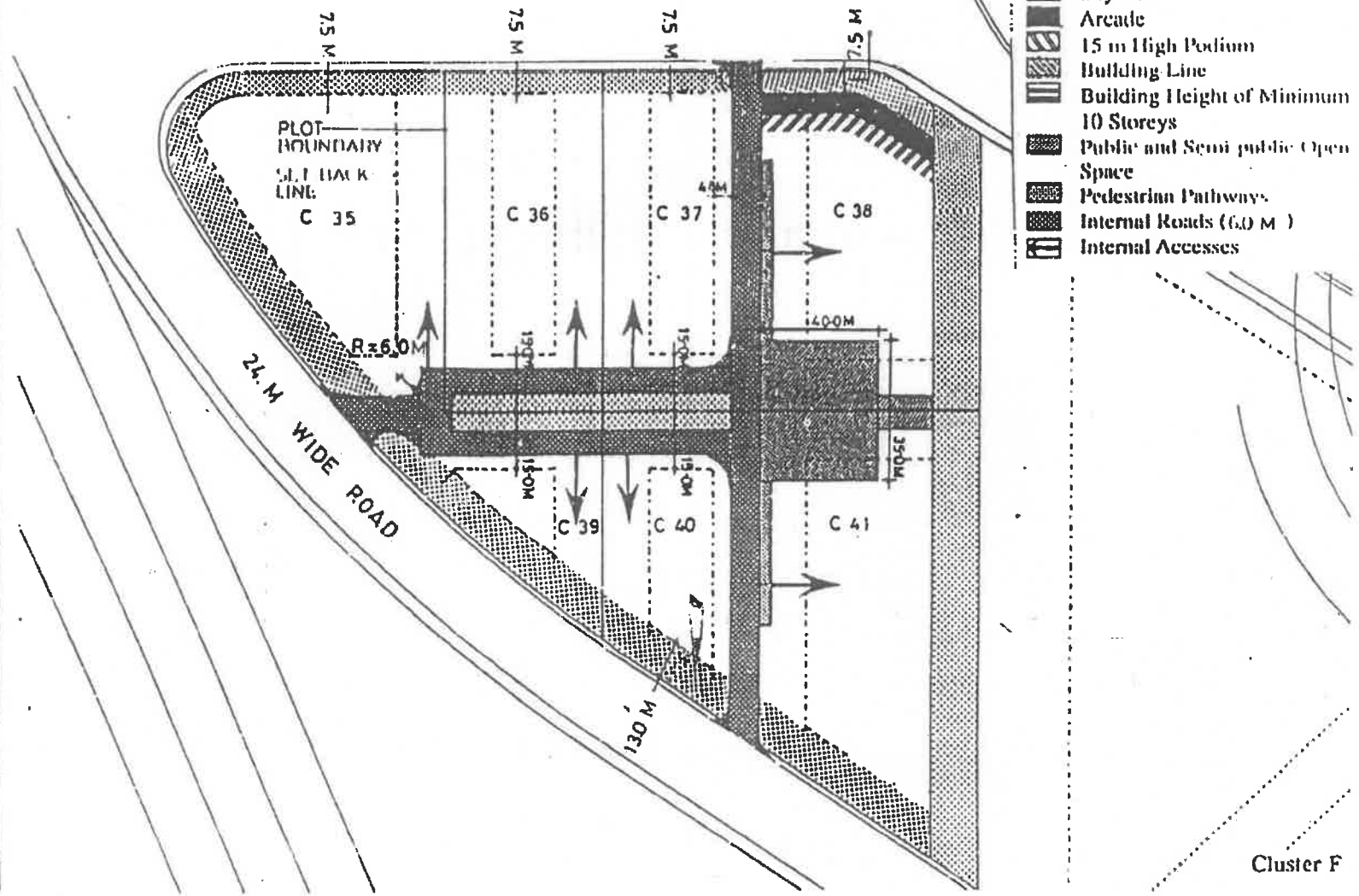
line defined along the edge facing the maidan. The builtform of the plot C-47 and parking garage facing the 30 m wide central spine would be lined by arcades. The builtform facing the 30 m wide road have a mandatory podium structure specified along the building edge. The builtform of the parking garage facing the quadrant would have a minimum height of ten storeys. Similarly, the height of the residential builtform facing the maidan is required to be ten storeys high. Vehicular access is to each plot directly from the street is permitted.

Controls in Cluster F

Builtform control exists in this cluster only on the part of the plot C-38 where it fronts the 30m wide street. Vehicular access to the cluster has been taken from the 30 m road and 24 m road, as per the layout which joins up to form an internal access network.

Open spaces in the form of a cluster space has been created by pooling area from the plot C-38 and C-41. A system of linear spaces adjoining the access network connect the cluster open space. A 15 m wide linear open space along the edge of plot C-38 and C-41 links the 24 m road to the 30 m wide road. A 9 m wide linear open with two rows of trees is formed along the edge of those plots which fronts the 24 m street along the water bodies. Pedestrian pathways are also formed along the perimeter of the cluster.





Controls in Cluster G

The cluster comprises of the utility complex. The skywalk of 15 m width emerges from the railway station and cuts across the utility complex as per the layout at the height of 6.5 m from the road level. It diverges at prescribed location into three arms as per the layout. The builtform of utility complex facing the maidan and the railway station have prescribed to form plazas along the edge facing the maidan and bus station on the other side. The skywalk would hug the builtform at the facing the maidan and cross over to the maidan as per the layout. The builtform below the skywalk is further defined by the arcade whose inner edge coincides with the inner edge of the skywalk. Builtform edges facing the skywalk would be continuous. The edges of the block fronting the roads have pedestrian pathways specified as per control drawings.

Controls in Cluster H

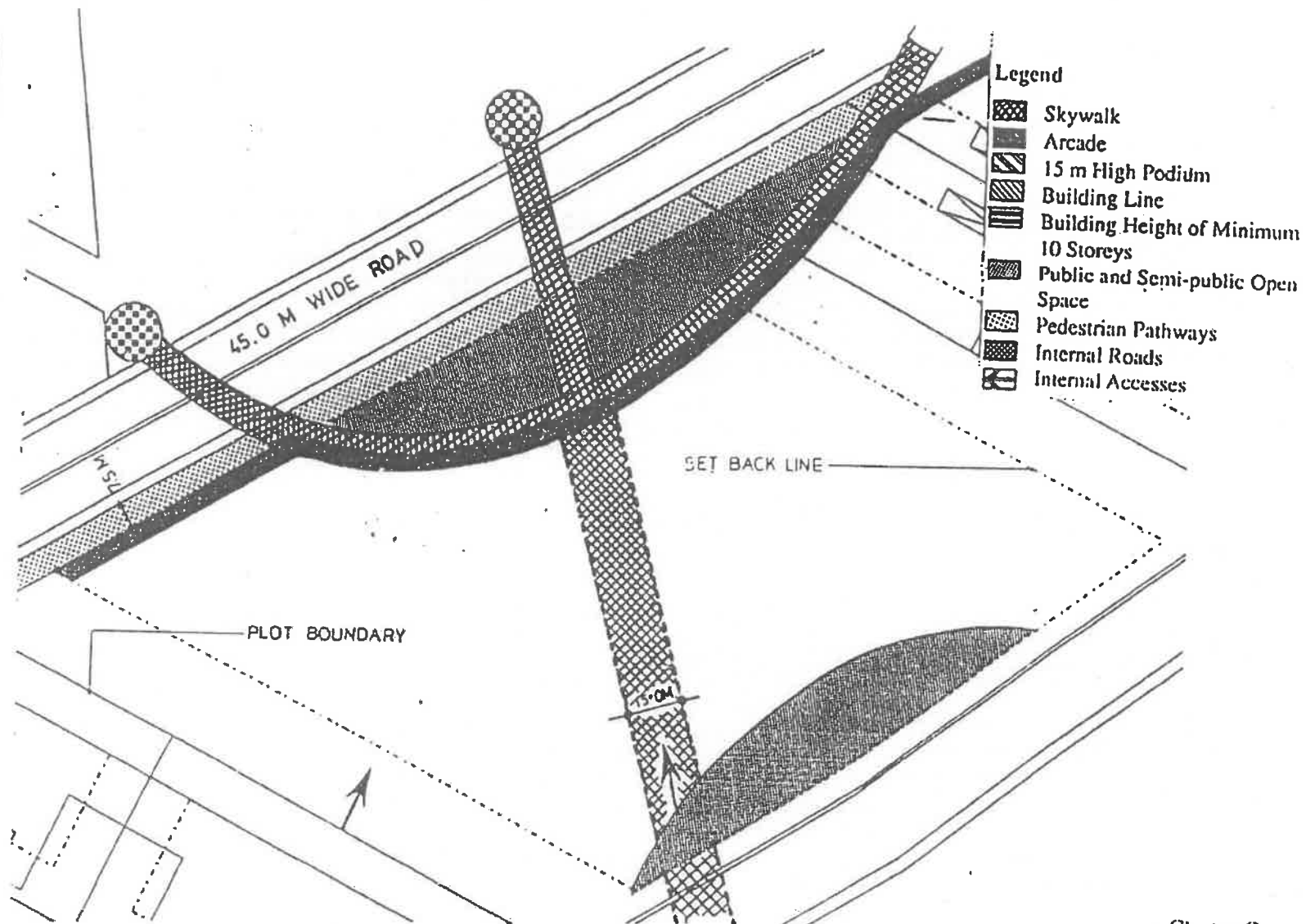
All the plots in this cluster fronting the 30 m wide road would have arcades present at a distance of 7.5 m from the street edge. A continuous podium structure of 15 m high along with the arcade forms the building line. Tower structures of ten storeys are allowed only with a setback of 8 m from the podium edge. Towers of plot C-52 and C-53 as well as the plots C-54 and C-55 are connected at 9th and 10th storey. Vehicular access to the cluster is through a 7.5 m wide access from the back of the plots as per the layout. Pedestrian pathways are also formed at the perimeter of the cluster.

All the plots fronting the 30 m wide central spine would have continuous arcades defined at a distance of 7.5 m from its edge. Plot C-49 would contribute open space in the front edge, adjoining the city level open space. Vehicular access is taken from the 24 m wide road and forms a cul-de-sac. Pedestrian pathways are formed at the edges of the cluster facing the major roads.

Controls in Cluster I

At the plots in this cluster front the 30 m wide road. Arcades are present at a distance of 7.5 m from the 30 m street edge. The continuous arcade and podium structure of 15 m height defines the builtform along the street edge. Tower structure of a ten storey height at a setback of 8 m from podium edge is mandatory. Towers of plots C-56 and C-57 as well as of plot C-58 and C-59 are connected at the 9th and 10th storeys.

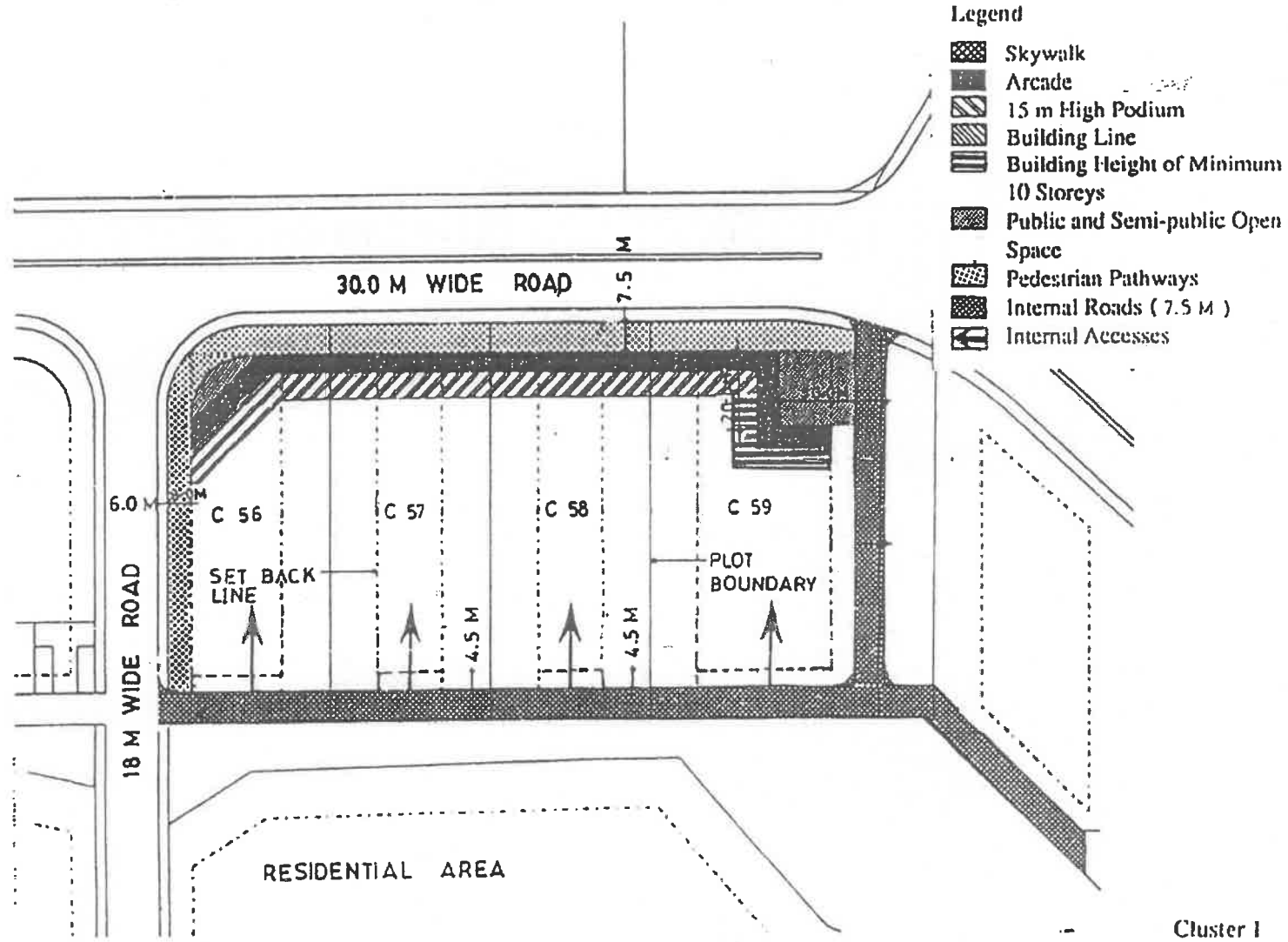
Plots at the junction of the 30 m wide road has its builtform edge facing the junction prescribed as per layout to form a square. The builtform facing the junction would have a mandatory ten storeyed tower structure. Vehicular access to the cluster is taken along its rear from the 18 m wide road and the 30 m wide road. Pedestrian pathways are also formed and widened as per the controls drawing.



- Legend**
- Skywalk
 - Arcade
 - 15 m High Podium
 - Building Line
 - Building Height of Minimum 10 Storeys
 - Public and Semi-public Open Space
 - Pedestrian Pathways
 - Internal Roads
 - Internal Accesses

Cluster G





Controls in Cluster J

The plots fronting the 30 m wide road have an arcade and podium structure. All plots including portions of plots C-60 and C-62 have their front edge of the builtform at a distance of 7.5 m from the street edge. The plots C-60 and C-62 which are located at the junction have their building edge prescribed as per the layout.

The height of builtform edges facing the squares are prescribed as mandatory ten storeys. The arcade podium structure has a mandatory four storeyed height of 15 m edge, towers are setback to 8 m distance from podium towers of plots C-60 and C-61 are connected at the 9th and 10th storeys. Vehicular access to the cluster is taken from the rear of the cluster and joins up with the internal network of cluster I. Open space in the form of public squares has been prescribed as per the layout. Pedestrian pathways are specified along the perimeter of the cluster.

Controls in Cluster K

Plots along the 45 m road would have their building edge defined at a distance of 15 m from the street edge or as specified for the corner plots. Plots facing the 30 m wide streets have their building edge defined at a distance of 7.5 m from the street edge.

The plots facing the central spine have a continuous arcade and podium structure of 15 m height along the 30 m road at a distance of 7.5 m. The plots facing the other 30 m wide street would have a podium structure of 15 m height.

The plots facing the 45 m wide road require to have the building heights of a minimum five storeys tall.

Vehicular access is taken from both the 30 m non arcaded roads and the 18 m wide cul-de-sac road to form an internal network as per the layout. Open space in the form of public square has been formed at the corner plot C-75 and C-74 as prescribed in the control drawing. Semipublic space has been formed at the plots which meet at the cul-de-sac of the 18 m wide road as per controls. A system of pedestrian pathways of widths as specified in the control drawing forms a network connecting semipublic space and the linear city level open spaces. Pedestrian pathways are formed as per controls at the parameters of the cluster.

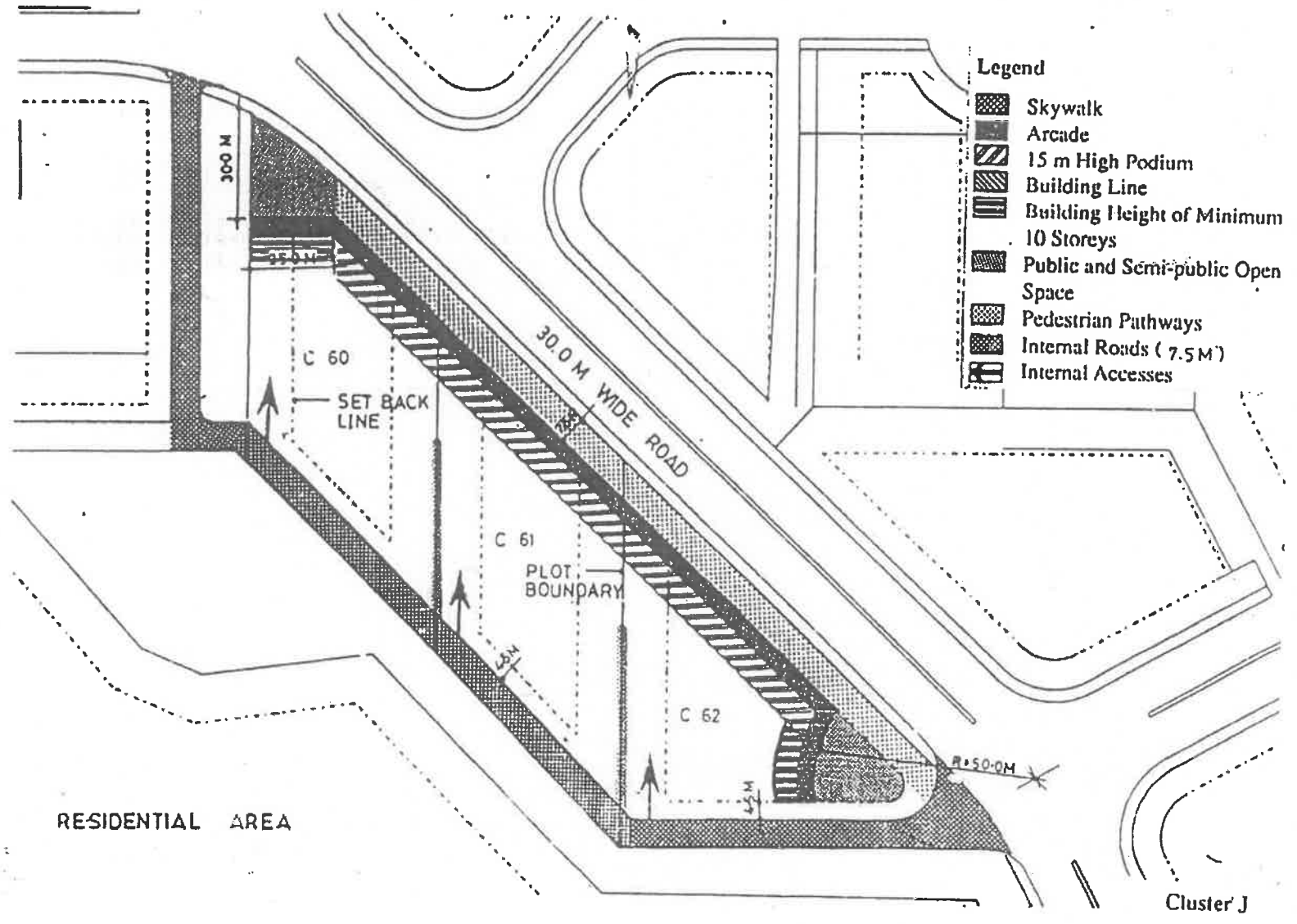
Controls in Cluster L

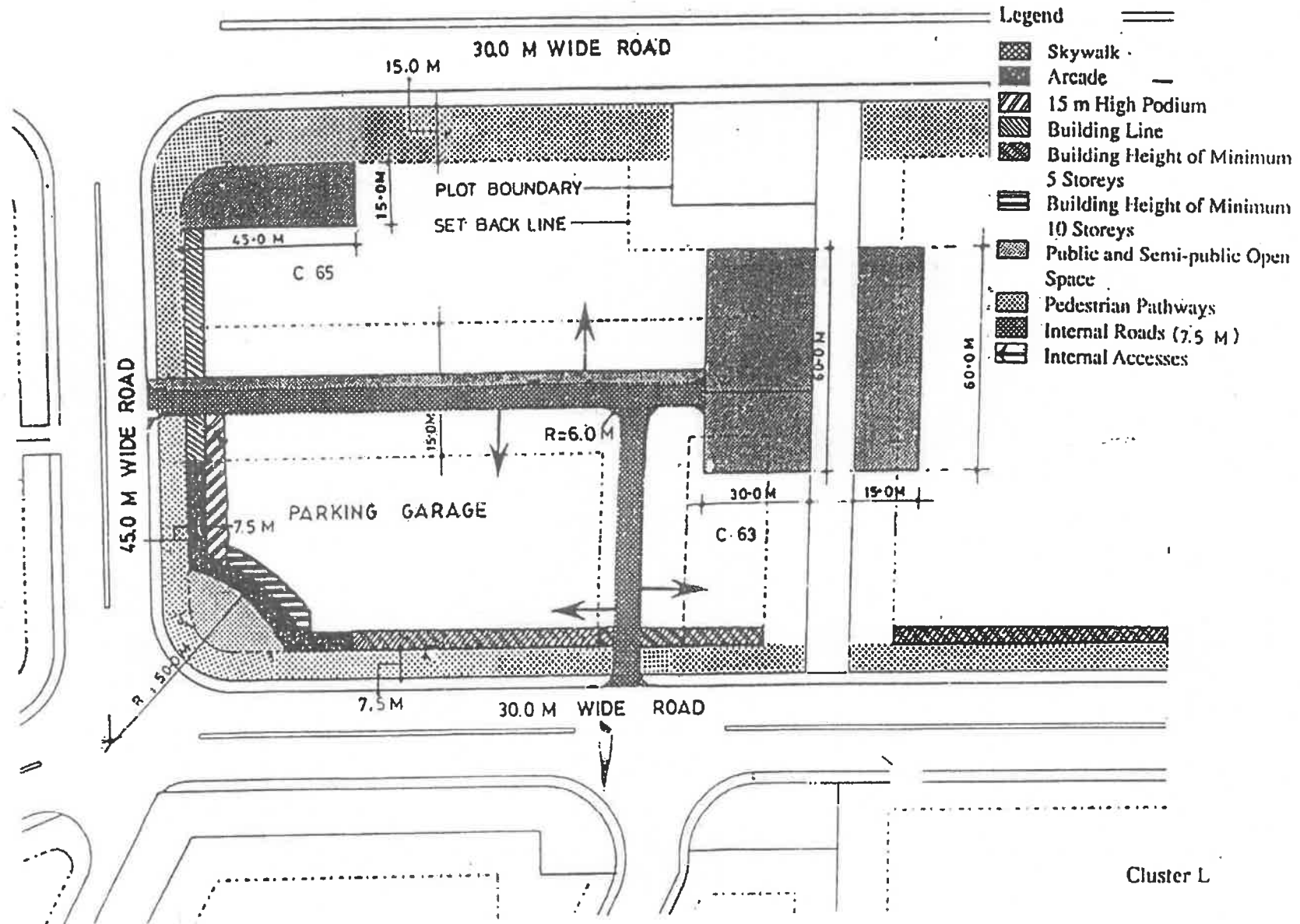
Plots facing the 45 m wide road have their front edge defined at a distance of 15 m from the street edge or as specified for the corner plots. Plots facing the 30 m wide roads have their front edge defined at a distance of 7.5 m from the street edge. The corner plot, i.e. the parking garage plot, facing the 30 m wide central spine has its building edge form a quadrant of a circle of 50 m radius from the centre of the road to form a public square. The edge of the square is defined by arcades on the 30 m wide central spine which terminates at this plot as per the layout.

The builtform height at the square is specified as a minimum ten storeys height. Plots facing the 45 m wide road requires the building height at front edge to be minimum five storeys high.

Vehicular access to the cluster is taken from both the 30 m wide roads to form an L-shaped internal access network as per the layout.

Open space in the form of a public square has been prescribed at the junction plots as per the layout. Semipublic space has been formed from the plots C-65 and C-63 as per the layout. A pedestrian pathway adjacent to the internal access connects to the semipublic square and the forms a network along with the linear city level open space in the cluster. Pathways are also present at the edges of the cluster facing the major roads.





Built-form Controls for each plot

Having enumerated the urban design principles and the architectural controls and having specified the controls for each cluster, the controls for each plot have been tabulated in the form of a control chart. Though the chart attempts to encompass all the controls specified for the IFBC, full appreciation of the controls would only be possible by referring to the cluster control drawings in tandem with the street section details.

Plot Controls for committed plots

Plots	Land use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building Ht.	Maximum Building Ht.
				Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-1	Institutional	1.9	45 m wide road	Accesses from the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-2	Institutional	2.0	45 m wide road	Accesses from the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-3	Institutional	1.9	45 m wide road	Accesses from the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-22	Institutional	2.4	45 m wide road	Accesses from the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-23	Institutional	2.4	45 m wide road	Accesses from the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-24	Institutional	2.4	45 m wide road	Accesses from the 30 m wide road at the side margin & the 24 m wide road at the rear	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls

Plots	Fire Tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Compound Wall	Parking	
	Movement of Fire tender					Employee Parking	Visitor Park. At surface
C-1	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	52 CPS viz. 15 % of parking provided for visitors parking
C-2	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge	18% of builtup area required as per existing byelaws	23 CPS viz. 15 % of parking provided for visitors parking
C-3	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	24 CPS viz. 15 % of parking provided for visitors parking
C-22	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	42 CPS viz. 15 % of parking provided for visitors parking
C-23	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	42 CPS viz. 15 % of parking provided for visitors parking
C-24	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	42 CPS viz. 15 % of parking provided for visitors parking

Plot Controls for committed plots

Plots	Land use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building Ht.	Maximum Building Ht.
				Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-25	Institutional	2.0	30 m wide road	Accesses from 18 m wide road	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	No	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls
C-26	Institutional	2.0	30 m wide road	Access from 18 m wide road	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	Mandatory front 7.5 m from the 30 m, 24 m & 18 m wide street edge	7.5 m	7.5 m	As per D.C. rules for side facing C27 & 7.5 m for the side facing 24 m road	Continuous podium structure of 15 m height with setback of 8 m from the edge of the podium for the tower structure	As per civil aviation controls
C-27	Institutional	2.0	30 m wide road	Access from 18 m wide road	Not specified	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	Mandatory front 7.5 m from the 30 m wide street edge	7.5 m	7.5 m	As per D.C. rules for side facing C27 & as per layout for the other side	Continuous podium structure of 15 m height with setback of 8 m from the edge of the podium for the tower structure	As per civil aviation controls
C-28	Institutional	2.0	30 m wide road	Access from 24 m wide road and 30 m wide road	Not specified rear	None	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per D.C. rules	None	15 m if possible; or as per existing byelaws	As per D.C. rules	As per D.C. rules	No	As per civil aviation controls

Plots	Fire Tender	Arcade Control	Free Public Movement within Street front margin	Mandatory Open Space	Compound Wall	Parking	
	Movement of Fire tender					Employee Parking	Visitor Park. At surface
C-25	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	36 CPS viz. 15 % of parking provided for visitors parking
C-26	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	No	7.6 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking
C-27	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking
C-28	As per existing byelaws	No	Minimum of 3 m soft verge for public right of way	As per existing byelaws	Bollards or wall less than 60 cm high required along the front road at the margins edge.	18% of builtup area required as per existing byelaws	272 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster A

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-4	Institutional	None	2.0	24 m wide road	Access from the 24 m wide road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Building edge at a distance of 7.5 m from the street edge along 24 m wide road facing the maidan	As per building line	As per the layout	7.5 m on side facing the 24 m wide road and as per the layout on the other side
C-5	Institutional	None	2.0	24 m wide road	Access from the 24 m wide road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	As per the layout	As per D.C. rules for the side facing C6 & as per layout for the other side
C-6	Institutional	None	2.0	24 m wide road	Access from the 24 m wide road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	As per the layout	As per D.C. rules
C-7	Institutional	None	2.0	30 m wide road	Access from the 24 m wide road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Bldg line at a distance of 30 m from the street edge	Refer building line	As per D.C. rules	As per D.C. rules for the side facing city linear green & as per layout for the other side

Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of the Fire tender	Arcade Control	Free public space in the street front	Mandatory open space	Compound Wall	Parking	
								Employee Parking	Visitor Park. At surface
C-4	No	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	4.5 m wide green strip at the side margin and provision for semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement.	Bollards or walls less than 60cm high along front road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	31 CPS viz. 15 % of parking provided for visitors
C-5	No	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision for semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement.	Bollards or walls less than 60cm high along front road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	24 CPS viz. 15 % of parking provided for visitors parking
C-6	No	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	4.5 m wide green strip at the rear margin and provision for semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement.	Bollards or walls less than 60cm high along front road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	31 CPS viz. 15 % of parking provided for visitors parking
C-7	Minimum height of 10 storeys at the square & continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storeyed high arcade at the front building edge	30 m	Provision of public square & the semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60cm high along 24 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster A

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-8	Institutional	None	2.0	30 m wide road	Access from the 18 m wide lateral road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Bldg line at a distance of 30 m from the street edge	Refer building line	As per D.C. rules & as per layout	7.5 m along the side facing the 18 m road & as per layout for the other side.
C-9	Institutional	None	2.0	18 m wide road	Access from the 18 m wide road	None	From the accesses as specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	As per the layout	As per D.C. rules for side facing C10 & as per layout for the other side
C-10	Institutional	None	2.0	18 m wide road	Access from the 18 m wide road	None	From the accesses as specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	15 m	As per D.C. rules
C-11	Institutional	None	2.0	18 m wide road	Access from the 18 m wide road	None	From the accesses as specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	As per the layout	As per D.C. rules
C-12	Institutional	None	2.0	24 m wide road	Accesses from the 18 m wide road	None	From the accesses as specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Building edge at a distance of 7.5 m from the street edge along 24 m wide road facing the maidan	As per building line	As per the layout	15 m or as per layout on the side facing C4 and 7.5 m on the side facing the 18m wide road

Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of the Fire tender	Arcade control	Free public space in the street front	Mandatory open space	Compound Wall	Parking	
								Employee Parking	Visitor Park.
C-8	Minimum height of 10 storeys at the square & continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storeyed high arcade at the front building edge	7 m as per the layout	Provision of public square & the semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking
C-9	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pathways & semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60 m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	10 CPS viz. 15 % of parking provided for visitors parking
C-10	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pathways & semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60 m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	10 CPS viz. 15 % of parking provided for visitors parking
C-11	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pathways & semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60 m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	10 CPS viz. 15 % of parking provided for visitors parking
C-12	No	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pathways & semi public spaces as per the layout; provision of the rest of the space as per the bye laws requirement	Bollards or walls less than 60 m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	15 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster B

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-13	Institutional	Retail comm. on the ground floor along the front edge	2.0	30 m wide road	From the internal road at the rear; as per the layout	6 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge	As per building line	As per D.C. rules & as per layout	7.5 m on side facing the 18 m wide road and 15 m on the other side, or as per the layout
C-14	Institutional	Retail comm. on the ground floor along the front edge	2.0	30 m wide road	From the rear as per layout	6 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge and junction corner setback at a radius of 50 m from street intersection as per layout.	Rear bldg. line	As per D.C. rules & as per layout	7.5 m on side facing the 30 m wide road and 15 m on the other side or as per the layout
C-42	Institutional	None	2.0	18 m wide road	From the internal road as prescribed in the controls	6 m wide road & 7.5 m wide road as per the layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	15 m or as per layout	As per D.C. rules
C-43	Institutional	None	2.0	18 m wide road	From the internal road as prescribed in the controls	6 m wide road as per the layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	15 m	As per D.C. rules
C-44	Institutional	None	2.0	24 m wide road	From the internal road as prescribed in the controls	6 m wide road as per the layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Building edge at a distance of 7.5 m from the street edge along 24 m wide road facing the maidan	As per the building line	As per D.C. rules	15 m along the side facing C-45 & 7.5 m for the other side

Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of the Fire tender	Arcade control	Free public space in the street front	Mandatory open space	Compound Wall	Parking	
								Employee Parking	Visitor Park. At surface
C-13	Mandatory 15 m high continuous podium structure at the front edge with setback of 8 m from the podium edge for the tower overriding existing D.C. rules; refer layout	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storeyed high arcade at the front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of semipublic spaces & pedestrian spaces as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	24 CPS viz. 15 % of parking provided for visitors parking
C-14	Mandatory height of 10 storeys at the building edge forming the quadrant & mandatory 15 m high podium at the edges along 30 m roads, overriding the existing D.C. rules; refer the layout	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storeyed high arcade at the front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares, pedestrian pathway and semi public spaces as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	24 CPS viz. 15 % of parking provided for visitors parking
C-42	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pedestrian greens as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-43	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pedestrian greens as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60m high along 18 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-44	None	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60m high along 24 m road along the margin edges	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	16 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster D

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-45	Institutional	None	2.0	30 m wide road	From the internal road as prescribed in the controls	6 m wide road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Building line at a distance of 7.5 m from the 30 m adjoining street	As per the building line	15 m	As per D.C. rules for the side facing C46 & 7.5 m for the other side
C - 46	Institutional	None	2.0	30 m wide road	From the internal road as prescribed in the controls	6 m wide road & 7.5 m wide road as per the layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the 30 m wide street edge	7.5 m	15 m & as per layout	As per D.C. rules

Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of the Fire tender	Arcade control	Free public space in the street front	Mandatory open space	Compound Wall	Parking	
								Employee Parking	Visitor Park. At surface
C-45	Mandatory 15 m high continuous podium structure at the front edge with setback of 8 m from the podium edge for the tower overriding existing D.C. rules: refer layout	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pedestrian greens as per the layout; provision of the rest of the space as per the bye-laws requirement	Bollards or walls less than 60cm high along 24 m road along the margin edge.	Permissible parking for 2 storeys in the basement & other floors 14% of builtup area required as per existing byelaws	16 CPS viz. 15 % of parking provided for visitors parking
C-46	Mandatory 15 m high continuous podium structure at the front edge with setback of 8 m from the podium edge for the tower overriding existing D.C. rules: refer layout	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear. Trees planted along the front edge of the built form as per layout the front of the built form at 30 m c/c distance	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear pedestrian greens as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	16 CPS viz. 15 % of parking provided for visitors parking

Plot Controls at Cluster C

Plot	Land Use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-15	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory edge of 7.5 m from the 30 m road and flushed at the junction to form a gateway as per the layout	As per bldg. line control	-	As per D.C. rules & as prescribed in the layout along the side facing C16 & 9 m on the side facing 24 m road
C-16	Institutional	None	2.0	24 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	9 m	As per D.C. rules	As per D.C. rules
C-17	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory edge of 7.5 m from the 30 m road	As per bldg. line	As per D.C. rules	9 m along 24 m road & as per D.C. rules on the other side
C-18	Institutional	Retail commercial in the ground floor along the edge facing the square	2.0	30 m wide road	From the internal access road as prescribed in the layout	7.5 m wide road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from both the 30 m side street edges and junction corner setback at a radius of 60 m from street intersection as per layout.	As per bldg. line	15 m	7.5 m on side facing the 30 m wide lateral road and as per layout on the other side

Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking Employee Parking	Visitor Park At surface
C-15	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge & connections at the 8th & 9th floor with C18. Minimum height of 10 storeys at the square.	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of public square at the junction and semi public spaces as prescribed; 9 m wide green strip along the 24 m wide road; provision of the rest of the space as per the bye laws requirement.	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	37 CPS viz. 15 % of parking provided for visitors parking
C-16	None	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear.	None	9 m with 2 rows of trees. Extent of the basement upto 9m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of 9 m strip along the 24 m wide road; 4.5 m wide green strip at the side; provision of the rest of the space as per the bye laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws.	15 CPS viz. 15 % of parking provided for visitors parking
C-17	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	None	7.5 m with 3m wide soft verge at the 30 m street edge & 9 m at the 24 m street edge. Extent of the basement upto 3m & 9 m from the street edges respectively. Basement projection not more than 1 m above the ground level.	Provision of 9 m strip along the 24 m wide road	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws.	26 CPS viz. 15 % of parking provided for visitors parking.
C-18	Minimum height of 10 storeys at the quadrant of the square & continuous podium structure of 4 storeys, 15 m height along building line and 10 storeys lower block at a setback of 15.5 m from street edges with connections at 8th & 9th floor with C-15	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares, linear green and semi public spaces as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	26 CPS viz. 15 % of parking provided for visitors parking

Plot Controls at cluster D

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building Ht.
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin	
C-34	Institutional	None	2.0	30 m wide road	From the internal access at the sides	6 m wide road in the side	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge And junction corner chamfered as per layout	As per bldg. line	15 m as per layout	7.5 m on side facing the 30 m wide road and 12 m on the other side or as per layout	Continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge with connections at 8th & 9th floor with C-19
C-33	Institutional	None	2.0	24 m wide road	From the rear; refer to the layout	6 m wide road in the rear & 7.5 m road as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	6.0 m	15 m as per layout	As per D.C. rules	None
C-32	Institutional		2.0	24 m wide road	From the rear; refer to the layout	6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	6.0 m	15 m as per layout	As per D.C. rules	None
C-31	Institutional		2.0	24 m wide water front road	From the side; refer to the layout	6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	No	9 m along 24 m road fronting the river	As per D.C. rules	15 m for the side fronting C-30 & 7.5 m for the side fronting 24 m road.	None

Plots	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Compound Wall	Parking	
							Employee Parking	Visitor Park. At surface
C-34	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building only	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares, linear green and public green as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking
C-33	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	None	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-32	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	None	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-31	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	No	9 m with 2 rows of trees. Extent of the basement upto 9m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	20 CPS viz. 15 % of parking provided for visitors parking

Plot Controls at cluster D

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building Ht.
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin	
C-30	Institutional	None	2.0	30 m wide road	From the internal access at the rear	6 m wide road in the rear or 4.5 m as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the 30 m street edge	As per bldg. line	15 m	As per D.C. rules for side facing C-21 plot 4.9 m on side facing the 24 m road	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge
C-21	Institutional	None	2.0	30 m wide road	From the internal access at the rear	6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the 30 m street edge	As per bldg. line	15 m	As per D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge
C-20	Institutional	None	2.0	30 m wide road	From the internal access at the rear	6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge	As per bldg. line	15 m	As per D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge
C-19	Institutional	Retail commercial in the ground floor along the edge facing the square	2.0	30 m wide road	From the internal access at the sides	6 m wide road in the side	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge and junction corner setback at a radius of 50 m from street intersection as per layout.	As per bldg. line	15 m as per layout	7.5 m on side facing the 30 m wide road and as per layout or as per D.C. rules on the other side	Minimum height of 10 storeys at the quadrant of the square & continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys lower block at a setback of 15.5 m from street edge with connections at 8th & 9th floor with C-34

Plots	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Compound Wall	Parking	
							Employee Parking	Visitor Park. At surface
C-30	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	None	7.5 m with 3m wide soft verge at the 30 m street edge & 9 m at the 24 m street edge. Extent of the basement upto 3m & 9 m from the street edges respectively. Basement projection not more than 1 m above the ground level.	Provision of 9 m strip along the 24 m wide road & 4.5 m wide linear green at rear as per layout	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	22 CPS viz. 15 % of parking provided for visitors parking
C-21	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-20	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15 % of parking provided for visitors parking
C-19	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building only	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares, linear green and public green as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	21 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster E

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-47	Retail Commercial	Offices	2.0	30 m wide road	From 30 m road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	As per the layout	As per the building line		As per D.C. rules or as per layout for both the sides
Parking garage	Utility cum retail comm.	Retail commercial in the ground floor along the edge facing the square	4.0	30 m wide arcaded road	From 30 m non arcaded road	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge and junction corner setback at a radius of 50 m from street intersection as per layout.	As per the building line	As per the layout	As per the building line along the 30 m road & as per D.C. rules for the other side.
Residential Cluster	Residential	Retail commercial	1.5	30 m wide road	From 30 m road	As per the design	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m from the 30 m wide street edge & also defined along the maidan at a distance of 15 m from the boundary	As per the building line		As per building line facing the maidan & as per D.C. rules for the other side

Plot Controls

Plots	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public space within Streetfront	Mandatory Open Space	Compound Wall	Parking	
								Employee Parking	Visitor Park At surface
C-47	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge	As per civil aviation controls	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares and public green as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	39 CPS viz. 25 % of parking provided for visitors parking
Parking garage	Minimum heights of 10 storeys at the quadrant of the square & continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear. Trees planted along the soft verge in front edge as per layout at 30 m c/c distance. External stairs provided on the tower along the 30 m road which opens onto the podium	Double storey high continuous arcade at front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares and public green as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	50 CPS viz. 25 % of parking provided for visitors parking
Residential Cluster	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along the 30 m road & 10 storeys along the buildings facing the midblock	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear. Trees planted along the soft verge in front edge as per layout at 30 m c/c distance. External stairs provided on the tower along the 30 m road which opens onto the podium	Double storey high continuous arcade at front building edge	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of the public squares and public green as per the layout; provision of the rest of the space as per the bye-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	As per D.C. rules

Plot Controls of cluster F

Plots	Land use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building H.	Maximum Building H.
				Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-35	Institutional	2.0	24 m wide water front road	From the side; refer to the layout	6 m wide road or as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	9 m along 24 m road fronting the river	-	As per D.C. rules & as per layout along the side facing C36 & 7.5 m for the sidelacing the 24 m wide road.	None	As per civil aviation controls
C-36	Institutional	2.0	24 m wide road	From the rear; refer to the layout	6 m wide road or as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As per D.C. rules	15 m or as per layout	As per D.C. rules	No	As per civil aviation controls
C-37	Institutional	2.0	24 m wide road	From the rear & side; refer to the layout	7.5 m or 6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As per D.C. rules	15 m or as per layout	As per layout & as per D.C. rules	No	As per civil aviation controls
C-38	Institutional	2.0	30 m wide road	From the rear as per layout	6 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the 30 m street edge	Refer bldg. line	15 m or as per layout	As per D.C. rules for side along C37 & 22.5 m along side facing Utility complex	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along building line and 10 storeys tower block at a setback of 15.5 m from street edge	As per civil aviation controls

Plots	Movement of Fire tender	Arcade Control	Free Public Movement within Street front margin	Mandatory Open Space	Compound Wall	Parking Minimum	
						Employee Parking	Visitor Park. At surface
C-35	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	None	9 m with 2 rows of trees. Extent of the basement upto 9m from the 24 m water front street edge & 3 m from the other street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	17 CPS viz. 15 % of parking provided for visitors parking
C-36	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear & public green as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	12 CPS viz. 15 % of parking provided for visitors parking
C-37	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	No	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear green as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	12 CPS viz. 15 % of parking provided for visitors parking
C-38	6 m wide paved area at a distance of 4.5 m from the built form all around except the sides fronting the road. Access for the tenders from the front. Trees planted at 30 m c/c along the 30 m road & external stairs provided on the tower along the 30 m road which opens onto the podium.	Double storey high continuous arcade at front building	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens & semi public spaces as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	16 CPS viz. 15 % of parking provided for visitors parking

Plot Controls of cluster F

Plots	Land use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls			Mandatory Building Ht.	Maximum Building Ht.
				Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-39	Institutional	2.0	24 m wide road	From the rear, refer to the layout	6 m or 4.5 wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	9.0 m	15 m or as per layout	As per D.C. rules	None	As per civil aviation controls
C-40	Institutional	2.0	24 m wide road	From the rear, refer to the layout	6 m or 7.5 m wide road in the rear as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	No	9.0 m	-	As per D.C. rules for side facing C40 & 15 m for the other side.	None	As per civil aviation controls
C-41	Institutional	2.0	24 m wide road	From the rear, refer to the layout	6 m or 7 m wide road in the rear as per layout		Front/Rear Side	As per the existing bye laws	Mandatory front 7.5 m away from the street edge	9.0 m	15 m or as per layout	As per D.C. rules for side along C40 & 22.5 m along side facing Utility complex	No	As per civil aviation controls

Plot Controls of cluster G

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
Utility Complex	Utility cum retail comm.	Retail Commercial	4.0	30 m wide	From 30 m road	None	As specified in the layout	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front as defined in the layout along 30 m wide & 24 m wide road	As per the building line	As per the building line	As per the D.C. rules

Plots	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Compound Wall	Parking Minimum	
						Employee Parking	Visitor Park. At surface
C-30	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	Nb	9 m with 2 rows of trees. Extent of the basement upto 9m from the 24 m water front street edge & 3 m from the other street edge. Basement projection not more than 1 m above the ground level.	Provision of linear green as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	6 CPS viz. 15 % of parking provided for visitors parking
C-40	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	Nb	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear green as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	9CPS viz. 15 % of parking provided for visitors parking
C-41	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	Nb	7.5 m with 3m wide soft verge at the street edge. Extent of the basement upto 3m from the street edge. Basement projection not more than 1 m above the ground level.	Provision of linear greens & semi public spaces as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per D.C.rules	19 CPS viz. 15 % of parking provided for visitors parking

Plot Controls									
Plots	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public space within Streetfront	Mandatory Open Space	Compound Wall	Parking	
								Employee Parking	Visitor Park. At surface
Utility Complex	Mandatory requirement of minimum 10 storeyed tower blocks at 4.5 m recessed from the arcade line by 8 m; roller section at skywalk	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear. Trees planted along the soft verge in front edge as per layout at 30 m c/c distance	Double storey high continuous arcade as per section at skywalk	7.5 m or as per layout	Provision of the public squares as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	126 CPS 25 % of parking provided for visitors parking

Controls for Chapter "9"

Plot	Land Use	Secondary Use	F/F	Adjoining Street	Vehicular Access	Access Internal Road	Public Access	Pedestrian Access	Existing Coverage	Building Line	Front Margin	Side Margin	Back Margin	Mandatory Building In
C-48	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front defined from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of minimum 4th storey from the street edge
C-49	Institutional	None	2.0	24 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	Margin as specified in the controls	As per the D.C. rules	As per the D.C. rules	None
C-50	Institutional	None	2.0	24 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	7.5 m	As per the D.C. rules	As per the D.C. rules	None
C-51	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front defined from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height along the building edge and 10 storeys lower block at a setback of 15.5 m from street edge.

Plot	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking		Sky walk Control
							Employee Parking	Visitor Park At surface	
C-48	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade; refer street section at the skywalk	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of the public square as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	11 CPS viz. 15 % of parking provided for visitors	Skywalk of 9 m width, hugs the builtform as specified in the layout
C-49	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	None	As per layout with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of the semi public square as per the layout	Bollards or wall less than 60 cm high required along the margin edge.	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	11 CPS viz. 15 % of parking provided for visitors	None
C-50	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the rear.	None	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of space as per the byelaw requirement	Bollards or wall less than 60 cm high required along the front bldg edge.	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	117 CPS viz. 15 % of parking provided for visitors	None
C-51	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade with it's inner edge coinciding with that of the skywalk	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of the public square as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	15 CPS viz. 15 % of parking provided for visitors	Skywalk of 9 m width, hugs the builtform as specified in the layout

Controls for Cluster "B"

Photo	Land Use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line Control	Margin Controls			Mandatory Building Ht.	Maximum Building Ht.
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-52	Institutional	None	2.0	30 m wide road	From the internal access road at the rear, as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-53 at the 8th and 9th floor at the front edge of the tower, overriding existing byelaws for the side Margin	As per civil aviation controls
C-53	Institutional	None	2.0	30 m wide road	From the internal access road at the rear, as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-52 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per civil aviation controls
C-54	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-55 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per civil aviation controls
C-55	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-54 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per civil aviation controls

Controls

Plots	Movement of Fire tender	Arcade Control	Extent of Public Movement within front margin	Public Open Space	Compound Wall	Parking Employee Parking	Visitor Park. At surface
C-52	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	31CPS viz. 15 % of parking provided for visitors
C-53	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	22 CPS viz. 15 % of parking provided for visitors parking
C-54	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13 CPS viz. 15 % of parking provided for visitors parking
C-55	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13CPS viz. 15 % of parking provided for visitors parking

Controls for Cluster "1"

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line Control	Margin Controls			Mandatory Building Ht.	Maximum Decking
					Vehicular Access	Internal Path	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-56	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-57 at the 8th and 9th floor at the front edge of the tower, overriding existing byelaws for the side Margin	As per city aviation controls
C-57	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-56 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per city aviation controls
C-58	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge as per the layout	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. Connections with C-59 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per city aviation controls
C-59	Institutional	Retail commercial along the edge in ground floor facing the square	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear & the side	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge and defined as per the layout at the junction	As per bldg. line control	As per the D.C. rules	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys lower block at a setback of 15.5 m from street edge. At the junction, building has a minimum 10 storeys height at the building edge. Connections with C-59 at the 8th and 9th floor at the front edge of the tower; overriding existing byelaws for the side Margin	As per city aviation controls

Controls

Plots	Movement of Fire tender	Arcade Control	Extent of Public Movement within front margin	Public Open Space	Compound Wall	Parking	
						Employee Parking	Visitor Park. At surface
C-56	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge.	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13CPS viz. 15 % of parking provided for visitors parking
C-57	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge.	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13 CPS viz. 15 % of parking provided for visitors parking
C-58	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge.	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the 15 m wide open space as per layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13 CPS viz. 15 % of parking provided for visitors parking
C-59	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge.	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the square & 15 m wide as per the layout; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	13 CPS viz. 15 % of parking provided for visitors parking

Controls for Cluster "J"

Plots	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line Control	Margin Controls			Mandatory Building Ht.	Maximum Building Ht.
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin		
C-60	Institutional	Retail commercial in the ground floor facing the square	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge and defined as per the layout at the junction	As per bldg. line control	12 m	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys tower block at a setback of 15.5 m from street edge. At the junction, builtform has a minimum 10 storeys height at the building edge. Connections with C-61 at the 5th and 6th floor at the head edge of the tower, overriding existing byelaws for the side Margin	As per civil aviation controls
C-61	Institutional	None	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces	As per the existing bye laws	Mandatory front 7.5 m away from the street edge and defined as per the layout at the junction	As per bldg. line control	12 m	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys tower block at a setback of 15.5 m from street edge. Connections with C-60 at the 5th and 6th floor at the front edge of the tower, overriding existing byelaws for the side Margin for the side Margin	As per civil aviation controls
C-62	Institutional	Retail commercial in the ground floor facing the square	2.0	30 m wide road	From the internal access road at the rear; as prescribed in the layout	7.5 m wide road in the rear	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge and defined as per the layout at the junction	As per bldg. line control	12 m	As per the D.C. rules	Mandatory requirement of continuous podium structure of 4 storeys (15 m) height and 10 storeys tower block at a setback of 15.5 m from street edge. At the junction, builtform has a minimum 10 storeys height at the building; overriding existing byelaws for the side Margin	As per civil aviation controls

Controls

Plots	Movement of Fire tender	Arcade Control	Extent of Public Movement within front margin	Public Open Space	Compound Wall	Parking	
						Employee Parking	Visitor Park. At surface
C-60	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the square as per the layout ; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	14 CPS viz. 15 % of parking provided for visitors parking
C-61	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of open space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	17 CPS viz. 15 % of parking provided for visitors parking
C-62	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m soft verge at street edge. Extent of basement upto 3m from street edge. Basement projection not more than 1m from the ground level.	Provision of the square as per the layout ; provision of the rest of the space as per bye law requirement	None	Permissible parking for 2 storeys in the basement & other floors. Minimum Parking provided for 18% of builtup area	18CPS viz. 15 % of parking provided for visitors parking

Controls at cluster K

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Privt	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-66	Institutional	None	2.0	45 m wide road	From the internal road of the cluster as per layout	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 15 m away from the 45 m street edge & 7.5 m away from the 30 m road and recessed at the junction as per layout	As specified in the layout	As specified in the layout & as per D.C. rules	As per layout for the side facing city inner green & as per bldg. line for the other side.
C-67	Institutional	Retail, commercial at the ground floor facing the square	2.0	30 m wide road	From the internal road as per the layout	6 m wide road as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge along both the 30 m wide roads & forms a quadrat at the street junction as per the controls	Fuller building line	As per D.C. rules & as per layout	As per the building line for the side along the 30 m wide road & 15 m for the other side
C-68	Institutional	None	2.0	30 m wide road	From the 18 m cul de sac road as per the layout	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge along the 30 m wide road	Fuller building line	As per D.C. rules	As per D.C. rules
C-69	Institutional	None	2.0	18 m wide road	From the 18 m cul de sac road as per the layout	None	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As per the layout	As specified in the layout	As per layout for the side facing C-70 & As per D.C. rules for the other side
C-70	Institutional	None	2.0	18 m wide road	From the 18 m cul de sac road as per the layout	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As specified in the layout	As per D.C. rules	As per layout for the side facing C-69 & As per D.C. rules for the other side

Controls									
Item	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking Employee Parking	Visitor Park At surface
C-66	Minimum contiguous 5 storeyed built form along the 45 m road & 4 storey (15 m) podium with a setback of 15.5 m for the tower structure.	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees planted at 30 m c/c along the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	None	15 m with 3 m landscaped area at the 45 m street edge. Extent of basement upto 9 m from the 45m street edge & 3 m from the 30 m street edge. Basement projection not more than 1 m from the ground level.	Provision of public square as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 45 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	31 CPS viz. 15% of parking provided for visitors parking
C-67	Minimum 10 storeys height at the junction as per layout. Continuous 4 storeyed podium, 15 m high along the 30 m central spine Over riding existing byelaws for the side Margin	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear. Trees planted at 30 m c/c along the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5 m with 3 m soft verge at the street edge. Extent of basement upto 3 m from the street edge. Basement projection not more than 1 m from the ground level.	Provision of public square as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	21 CPS viz. 15% of parking provided for visitors parking
C-68	Continuous 4 storeyed podium, 15 m high along the 30 m central spine Over riding existing byelaws for the side Margin	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear. Trees planted at 30 m c/c along the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5 m with 3 m soft verge at the street edge. Extent of basement upto 3 m from the street edge. Basement projection not more than 1 m from the ground level.	Provision of linear greens as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	16 CPS viz. 15% of parking provided for visitors parking
C-69	None	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear.	None	7.5 m with 3 m soft verge at the street edge. Extent of basement upto 3 m from the street edge. Basement projection not more than 1 m from the ground level.	Provision of linear greens & semi public space as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	15 CPS viz. 15% of parking provided for visitors parking
C-70	None	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear.	None	7.5 m with 3 m soft verge at the street edge. Extent of basement upto 3 m from the street edge. Basement projection not more than 1 m from the ground level.	Provision of semipublic space as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	15 CPS viz. 15% of parking provided for visitors parking

Controls at cluster K

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-71	Institutional	None	2.0	45 m wide road	From the 18 m wide cul de sac; refer to the layout	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 15 m away from the 45 m street edge	Refer building line	As per layout for provision of semi public squares or as per D.C. rules	As per D.C. rules
C-72	Institutional	None	2.0	18 m wide road	From the internal road as per the layout	None	Not specified	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As specified in the layout	As per D.C. rules	As per layout for the side facing C-73 & as per D.C. rules for the other side
C-73	Institutional	None	2.0	18 m wide road	From the 18 m cul de sac road & the internal road as per the layout	6 m	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	None	As specified in the layout	As per D.C. rules	As per layout for the side facing C-72 & as per D.C. rules for the other side
C-74	Institutional	Retail commercial at the ground floor facing the square	2.0	30 m wide road	From the internal road as per the layout & 18 m wide road; refer to the layout	4m wide road as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge along both the 30 m wide roads & splayed at the street junction, as per the controls	Refer building line	As per D.C. rules	As per the building line for the side along the 30 m wide road & as per D.C. rule for the other side
C-75	Institutional	None	2.0	45 m wide road	From the 30 m road as per layout	6 m internal road & 4 m internal road as per layout	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 15 m away from the 45 m street edge & 7.5 m away from the 30 m road and recessed at the junction as per layout	As per Bldg. line	As specified in the layout	As per layout for the side facing C-73 & as per bldg. line for the other side.

Controls									
P/Id	Mandatory Building Ht	Maximum Building Ht	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking Employee Parking	Visitor Park At surface
C-71	Minimum contiguous 5 storeyed built form along the building line	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear.	None	15 m with 3m landscaped area at the street edge. Extent of basement upto 9m from the street edge. Basement projection not more than 1m from the ground level.	Provision of linear & semi public space as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 45 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	20 CPS viz. 15% of parking provided for visitors parking
C-72	None	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear.	None	As per layout or 7.5m wide with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of semipublic space as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	15 CPS viz. 15% of parking provided for visitors parking
C-73	None	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the sides and rear	None	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of linear green as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	15 CPS viz. 15% of parking provided for visitors parking
C-74	Minimum 10 storeys height at the junction as per layout. Continuous 4 storeyed podium, 15 m high along the 30 m central spine. Over riding existing byelaws for the side Margins	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of public square as per the layout; provision of the rest of the space as per the bye- laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	24 CPS viz. 15% of parking provided for visitors parking
C-75	Minimum contiguous 5 storeyed built form along the building line	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	None	15 m with 3 m landscaped area at the 45 m street edge. Extent of basement upto 9 m from the 45m street edge & 3 m from the 30 m street edge. Basement projection not more than 1 m from the ground level.	Provision of public space as per the layout; provision of the rest of the space as per the bye- laws requirement	Bollards or wall less than 60 cm high required along the 24 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	30 CPS viz 15% of parking provided for visitors parking

Controls at cluster L

Pkt	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
C-65	Institutional	None	2.0	45 m wide road	From the internal road as per layout	6 m internal road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 15 m away from the 45 m street edge & 7.5 m away from the 30 m road and recessed at the junction as per layout	As per Bldg. line	As specified in the layout	As per Layout for the side facing petrol pump & as per bldg. line for the other side.
C-63	Institutional	None	2.0	30 m wide road	From the internal road as per layout	6 m internal road	Easement rights to the public for the internal road falling on it's plot	Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	Mandatory front 7.5 m away from the street edge along the 30 m wide road	As per Bldg. line	As specified in the layout	As per D.C. rules
Parking garage	Utility	Retail commercial at the ground floor facing the square	2.0	30 m wide road	From the internal road as per the layout	6 m wide road as per layout	Easement rights to the public for the internal road	Easement rights to the public for the pedestrian pathways &	As per the existing bye laws	Mandatory front 7.5 m away from the street edge along both the 30 m wide	Ruler building line	As specified in the layout	As per the building line for the side along the 30 m.

Controls for parking garage plot near the Hotel & Convention Centre

Plot	Land use	Secondary Use	FSI	Adjoining Street	Access		Public Access		Ground Coverage	Building Line	Margin Controls		
					Vehicular Access	Internal Road	Vehicular Access	Pedestrian Access			Front Margin	Rear Margin	Side Margin
Parking Garage	Utility plot	Retail Commercial for 60000 sqm	4.0	30 m wide road	From the 30m vertical road	None		Easement rights to the public for the pedestrian pathways & other specified open spaces falling on it's plot	As per the existing bye laws	7.5 m away from 30 m wide roads & as per the layout at the junction	As per Bldg. line	As per Bldg. line	As per the D.C. rules for side facing hotel plot & as per bldg. line for side facing the 30 m wide lateral road

Controls									
Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking	
								Employee Parking	Visitor Park At surface
C-65	Minimum contiguous 3 storeyed built form along the 45 m road & Continuous 4 storey podium, 15 m high along with tower structure set back by 8 m from the podium edge along 30 m road	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	None	15 m with 3 m landscaped area at the 45 m street edge. Extent of basement upto 9 m from the 45m street edge & 3 m from the 30 m street edge. Basement projection not more than 1 m from the ground level.	Provision of public space and semi public space as per the layout; provision of the rest of the space as per the by-laws requirement	Ballards or wall less than 60 cm high required along the 45 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	44 CPS viz. 15% of parking provided for visitors parking
C-63	Continuous 4 storey podium, 15 m high along with tower structure set back by 8 m from the podium edge along 30 m road	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	None	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of semi public spaces as per the layout; provision of the rest of the space as per the by-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	12 CPS viz. 15% of parking provided for visitors parking
Parking garage	Minimum 10 storeys height at the quadrant as per layout. Continuous 4 storey podium, 15 m high along with tower structure set back by 8 m from the podium edge along 30 m roads	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge	7.5m with 3m landscaped area at the street edge. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of public square as per the layout; provision of the rest of the space as per the by-laws requirement	None	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	50 CPS viz. 25% of parking provided for

Controls									
Plot	Mandatory Building Ht.	Maximum Building Ht.	Movement of Fire tender	Arcade Control	Free Public Movement within Streetfront margin	Mandatory Open Space	Boundary Wall	Parking	
								Employee Parking	Visitor Park At surface
Parking Garage	Mandatory podium structure of 4 storeys (15 m) high with tower structure set back by 8 m from the podium edge. Minimum 10 storeys at the square	As per civil aviation controls	6 m wide unobstructed paved area at a distance of 4.5 m from the built form all around. Access for the tenders from the front and rear. Trees at a distance of 30m c/c along the soft verge at the 30 m road. Along 30 road, stairs provided on towers which opens out into the podium.	Double storey high continuous arcade at front building edge along the 30 m central road & along the square	7.5m with 3m landscaped area at the street edges. Extent of basement upto 3m from the street edge. Basement projection not more than 1m from the ground level.	Provision of public space and semi public space as per the layout; provision of the rest of the space as per the by-laws requirement	Ballards or wall less than 60 cm high required along the 45 m wide road at the margins edge.	Permissible parking for 2 storeys in the basement & other floors 18% of builtup area required as per existing byelaws	50 CPS viz. 15% of parking provided for visitors parking

