

Urgent

योजना  
Planning

## दिल्ली विकास प्राधिकरण

अनुभाग Master Plan Section

मिसिल संख्या F, (40)/91-MP

दिक्पत्ती

पत्र-आवहार

विषय

Draft Minutes of the Technical Committee Meeting Held on 15.7.91.

आवरो सं०	तिथि	किस को भेजी	हस्ताक्षर	आवरो सं०	तिथि	किस को भेजी	हस्ताक्षर
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कार्यालय जाने की | आवे की

कार्यालय जाने की | आवे की

P/1222 VC  
30/7 31-7

मिसिल सं० FV-185  
14/8

Dir. DEEP  
16/8

हस्ताक्षर (विषय) के

आवरो सं० F-293

16-2-91

Comm. 10/8  
30/7

DD (ml)  
16/8

348 EP  
11/8/91



USES PROVIDED AT DIFFERENT LEVELS

Facilities for parking of cars, scooters and eating places for catering to the need of population working in surrounding High Rise Buildings, have been provided at different levels in the following manners :

Area of the plot - 1.62 acres

<u>Level</u>	<u>Floor</u>	<u>Uses</u>
-6 FT.	Basement	Parking 950 SCOOTERS
+4FT.	Podium/Stilt	Parking-110 - Dhaba Block CARS
+13 FT.	Mezz.	Fast Food restaurant with open terrace.
<u>TYPICAL FLOORS</u> +23, +32, +41		CAR PARKING 85 EACH FLOOR

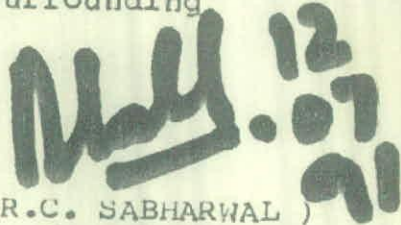
Total no. of scooters to be parked - 950

Total no. of cars to be parked - 365

TERRACE RESTAURANT

Besides parking, a restaurant has been provided on the terrace of the parking block so as to have a large open garden attached to it.

The terrace garden will also have an imposing effect for the on-lookers working in the surrounding High Rise Buildings.

  
( R.C. SABHARWAL )  
DY. CHIEF ARCHITECT

NEW DELHI MUNICIPAL COMMITTEE  
DEPARTMENT OF ARCHITECTURE & ENVIRONS  
PALIKA KENDRA : NEW DELHI.

MULTI TIER PARKING BEHIND HINDUSTAN TIMES  
BUILDING, K.G. MARG, NEW DELHI.

MASTER/ZONAL PLAN PROVISION

As per the NDRAC's recommendations and Development Control Drawings approved by the Government of this zone, D-I, Connaught Place and its extension, a triangular plot behind Hindustan Times Bldg. surrounded by existing multi-storeyed bldgs. has been earmarked for Multi-Storeyed parking.

Keeping in view the chaotic condition of parking in and around Connaught Place, it has been decided to develop this plot into a MULTI TIER parking.

CONCEPT :

The main factors governing the evolution of the form as presented in the model, are as under :

- (i) The trinaugular shape of the plot, One longitudinal side of the plot being parallel to the existing multi-storeyed plots/buildings on Kasturba Gandhi Marg.
- (ii) The existing height/form of the surrounding high rise buildings.
- (iii) Besides parking, the project is to incorporate the facilities like Eating Places/Dhabas and 10 to 15 small shops serving office people for their requirement of typing, stationery and zerox.
- (iv) The development control drawings of this area show a PEDESTRIAN CORRIDOR starting from Janpath and going straight ahead crossing Kasturba Gandhi Marg and Barakhamba Road. This corridor passes through the plot under reference.



Sl. No. 127/91.

NEW DELHI MUNICIPAL COMMITTEE

PRESENTATION  
OF  
SOME SCHEMES  
IN  
PERSUANCE OF MPD 2001.

FOR CONSIDERATION  
IN  
DDA TECHNICAL COMMITTEE

DATED : 15.7.91



I N D E X

	Pages
1. STUDY ON CHARAGTERISTICS OF USERS OF CONNAUGHT PLACE AREA	2 - 12
2. EXCLUSIVE PEDESTRIAN FACILITIES IN CONNAUGHT PLACE AREA	13 - 27
3. PEDESTRIAN CORRIDOR CONNECTING BARAKHAMBA ROAD WITH JANPATH	28 - 29
4. MULTI TIER PARKING BEHIND HINDUSTAN TIMES BUILDING, K.G. MARG, NEW DELHI	30



NEW DELHI MUNICIPAL COMMITTEE

STUDY ON  
CHARACTERISTICS OF USERS OF CONNAUGHT  
PLACE AREA

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CRAPHTS

252- A, SHAHPUR JAT  
(OPP PANCHSHEEL COMMUNITY CENTRE)  
NEW DELHI - 110016  
TEL. 6429266.



## 1. INTRODUCTION

City planning efforts are directed towards the aspect of population, activities and linkages. The physical urban space provides the canvas for the interplay of these factors. Subsequently there emerges a form of spatial organisation which has a purpose which is essentially human in nature. However, in most cases, the population though being the most important input of any such exercise, is usually assessed in a passive manner by way of estimates and projections of mere human numbers. The case at hand attempts to make up for this short coming.

The place under study is Connaught Place - the central area of Delhi. The linkages which creates this focal point in the metropolitan region, extends beyond any perceptible functional limit. In terms of human numbers the area is extensively used by about 15 lakhs of people every day, from diverse backgrounds and performing varied activities. The position of Connaught Place performing the role of a central area of a large and rapidly urbanising metropolis is today facing a great paradox. The concentration of people and activities in the area has been increasing by leaps and bounds. Thus the earlier purpose of attracting people has today reached chaotic proportions. The facilities provided to the people are under such stress that if adequate measures are not initiated, it is inevitable for decay to set in. In an effort to assess the characteristics of the users of the Connaught Place area, the NDMC entrusted the task of information generation in this subject with the CRAPHTS.

## 2. BROAD OBJECTIVES OF THE STUDY

The thrust of the study is on the users of Connaught Place. Their perceptions and aspirations are to be transformed from a general level of awareness to that of genuine concern. A correlated mass of opinion so that physical planning efforts at rejuvenation of the central area could be harmoniously attuned to the needs of the people who go on to lend



- Their socio-economic background; (Table 1)
- Origin-destination point of travel - its purpose, frequency and travel mode to Connaught Place; Figures (1 2 & 3)
- Duration of stay within Connaught Place and the other trips performed within the study area; (Figure 4 & Table 2 & 3)
- Parking and alighting details;
- Opinion on given facilities in Connaught Place, and (Table 4)
- Suggestions for improvement. (Table 5)

In designing the questionnaire (Annexure A) it was assumed that a person's visit to Connaught Place would involve all the above mentioned aspects.

Further, the sample size taken for the study was 3000 interviewees and approximately 1300 persons who happened to be accompanying this targeted sample

### 3. PROPOSED METHODOLOGY

The approach to this study, quite rightly, puts adequate emphasis on survey design as indeed, the basic task is to evolve a robust and reliable data base. Broadly the methodology for the present study includes the following steps:

- i) preparatory work and assessment of data gaps (considering available data, if any);
- ii) design of surveys so as to collect the required data and information in an optimal manner;
- iii) field studies and collection of data;
- iv) analysis of data and development of data base;
- v) consolidation of information in a relevant manner so that such information could be used in a purposive fashion for planning/augmenting user facilities in Connaught Place.

The salient information generated through extensive field surveys and interviews appear in the following tables.



Table 1

Socio economic strata of users of Connaught Place Area

Age		
0 - 5	:	0.00%
6 - 17	:	7.46%
18 - 24	:	31.97%
25 - 34	:	33.33%
35 - 49	:	17.21%
50 - 59	:	3.53%
60 Above	:	1.43%
TOTAL	:	100.00%
Inc		
Nil	:	33.67%
upto 10000	:	7.07%
10000 - 25000	:	24.96%
25000 - 40000	:	19.40%
40000 - 60000	:	9.30%
60000 - 100000	:	3.70%
Above 10,000	:	1.93%
TOTAL	:	100.00%
Sex		
Male	:	83.81%
Female	:	16.17%
TOTAL	:	100.00%
Education		
Non School going	:	4.10%
School going	:	7.00%
Matriculate	:	27.27%
Graduate	:	45.10%
Post-Graduate	:	9.93%
Professional	:	4.40%
TOTAL	:	100.00%
Occupation		
Trade/Commerce	:	9.83%
Professional/Business	:	8.37%
Government Service	:	24.10%
Private Service	:	21.13%
Transporter	:	2.57%
House Wives	:	10.40%
No Occupation	:	23.60%
TOTAL	:	100.00%



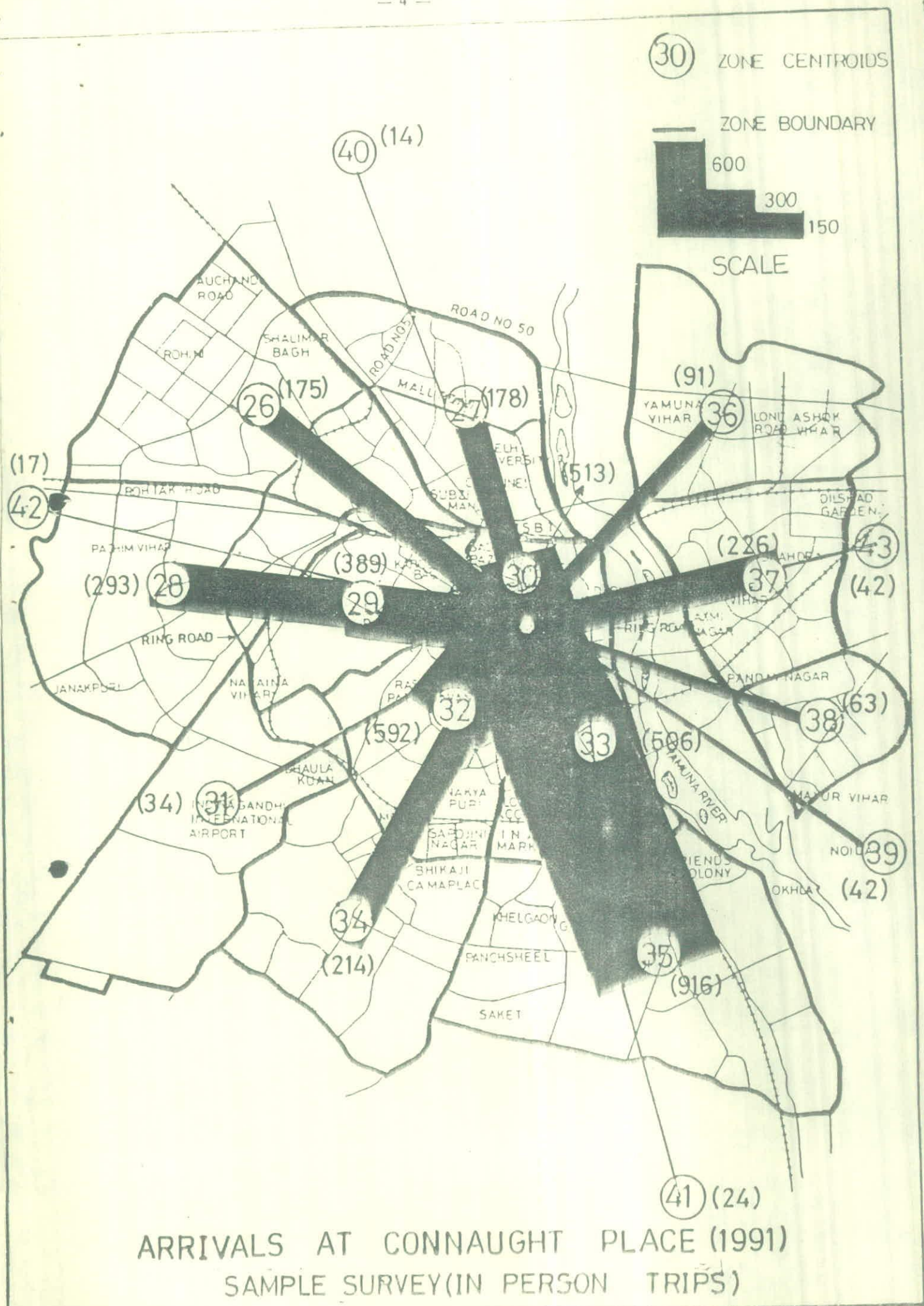


FIGURE 1

**USERS OF CONNAUGHT PLACE**  
**Arrival Pattern of Users (Purposewise)**  
(in %)

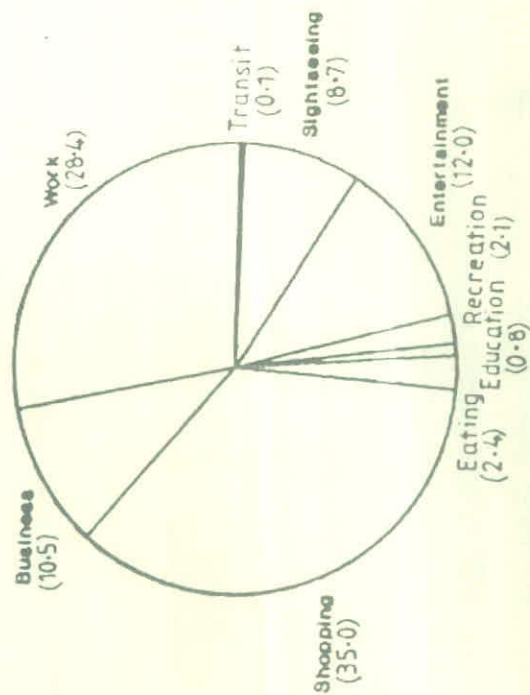
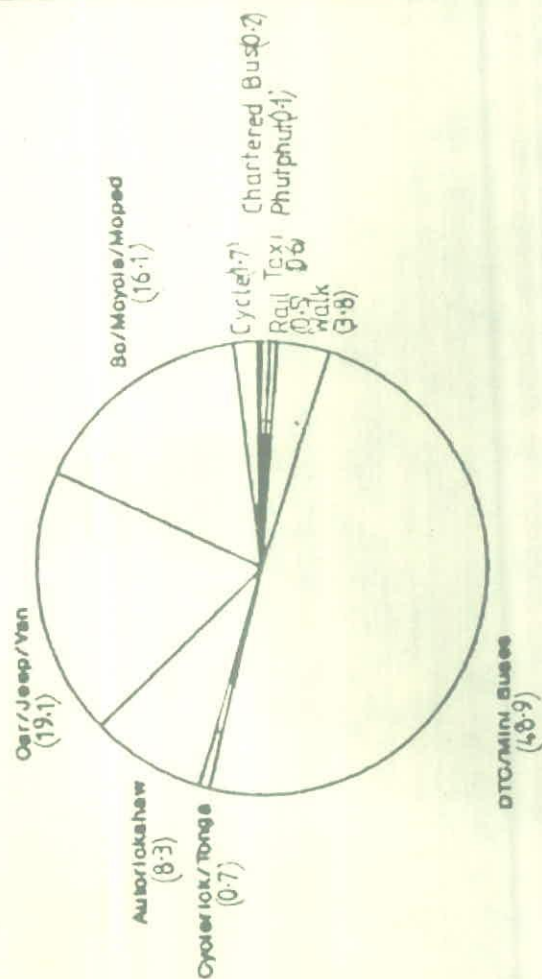


FIGURE 2



# USERS OF CONNAUGHT PLACE Arrival Pattern of Users (Modewise) (in %)



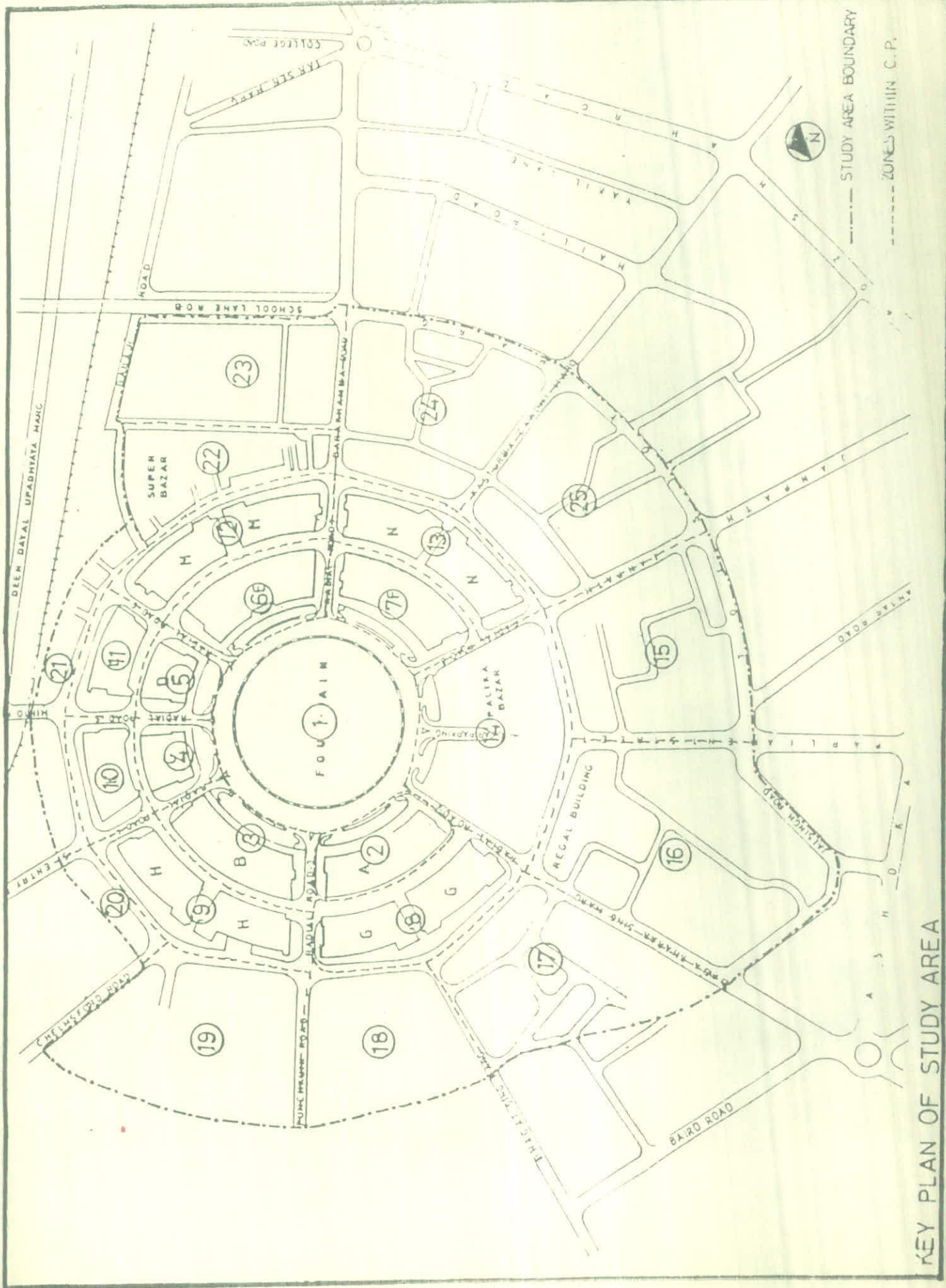




Table 2

USERS OF CONNAUGHT PLACE  
Trips Within Connaught Place ( Mode Wise)

Sl.No.	MODE	IN %
1.	CYCLE	0.17
2.	SC/MC/MOPED	3.55
3.	CAR/JEEP	2.17
4.	AUTO RICKSHAW	0.68
5.	CYCLE RICKSHAW/TONGA	0.11
6.	DTC/MINI BUS	4.22
7.	WALK	88.70
8.	TAXI	0.23
9.	PHUTPHUT	0.17
10.	RAIL	0.00
11.	CHARTERED BUS	0.00
		100.00

Table 3

USERS OF CONNAUGHT PLACE  
Trips Within Connaught Place (Purpose Wise)

Sl.No.	PURPOSE	IN %
1.	WORK	24.26
2.	BUSINESS	4.41
3.	SHOPPING	30.00
4.	EATING	9.32
5.	EDUCATION	0.78
6.	RECREATION	1.17
7.	ENTERTAINMENT	7.50
8.	SIGHT SEEING	7.53
9.	TRANSIT	15.03
		100.00

## Opinions on facilities and amenities of Connaught Place Area

## Variation of e\_1 Parking Space

e_1	No.	%age
1	1323	44.10
2	1308	43.60
Others	369	12.30
	3000	

## Variation of e\_2 Lighting at night

e_2	No.	%age
1	2330	77.67
2	450	15.00
Others	220	7.33
	3000	

Variation of e\_3 Signage & other  
informatory systems

e_3	No.	%age
1	1457	48.57
2	987	32.90
3	376	12.53
Others	180	6.00
	3000	

## Variation of e\_4 Cleanliness

e_4	No.	%age
1	897	29.90
2	1181	39.37
3	549	18.30
4	310	10.33
Others	63	2.10
	3000	

Variation of e\_5 Public telephones  
(local / STD)

e_5	No.	%age
1	1158	38.60
2	767	25.57
3	439	14.63
4	220	7.33
5	131	4.37
Others	285	9.50
	3000	

Variation of e\_6 Shelters & resting  
places

e_6	No.	%age
1	951	31.70
2	1245	41.50
3	626	20.87
Others	178	5.93
	3000	

## Variation of e\_7 Drinking water points

e_7	No.	%age
1	823	27.43
2	2055	68.50
Others	122	4.07
	3000	

## Variation of e\_8 Public conveniences

e_8	No.	%age
1	1011	33.70
2	1015	33.83
3	853	28.43
Others	121	4.03
	3000	

Variation of e\_9 Availability of  
Security services

e_9	No.	%age
1	1733	57.77
2	538	17.93
3	525	17.50
Others	204	6.80
	3000	

## Variation of e\_10 Informal shopping

e_10	No.	%age
1	1156	38.53
2	920	30.67
3	360	12.00
4	424	14.13
Others	140	4.67
	3000	

Variation of e\_11 First aid / para medical  
facilities

e_11	No.	%age
1	610	20.33
2	2142	71.40
Others	248	8.27
	3000	

## Variation of e\_12 Filling stations

e_12	No.	%age
1	1690	56.33
2	492	16.40
3	412	13.73
Others	406	13.53
	3000	



Variation of e\_13 Noise pollution

e_13	No.	%age
1	242	8.07
2	1569	52.30
3	1117	37.23
Others	72	2.40
	3000	

Variation of e\_14 Air pollution

e_14	No.	%age
1	230	7.67
2	1578	52.60
3	1114	37.13
Others	78	2.60
	3000	

Variation of e\_15 Eating places

e_15	No.	%age
1	958	31.93
2	1407	46.90
3	299	9.97
4	151	5.03
5	102	3.40
Others	83	2.77
	3000	

Table 5

# Suggestions on selected measures of improvement of Connaught Place Area

12

Variation of op_1 Improve Traffic system			Variation of op_7 Provide more entertainment and recreational facilities.		
op_1	No.	%age	op_7	No.	%age
1	2674	89.80	1	2196	73.20
2	211	7.03	2	641	21.37
3	39	1.30	3	99	3.30
Others	56	1.87	Others	64	2.13
	3000			3000	

Variation of op_2 Reduce traffic in Connaught Place			Variation of op_8 Provide more public facilities such as toilets, telephones, cheaper eating places etc.		
op_2	No.	%age	op_8	No.	%age
1	227	77.63	1	2614	87.13
2	537	17.90	2	291	9.70
3	73	2.50	3	39	1.30
Others	56	1.87	Others	56	1.87
	3000			3000	

Variation of op_3 Provide more parking.			Variation of op_9 Extend shopping / work and business hours.		
op_3	No.	%age	op_9	No.	%age
1	2274	75.80	1	1077	35.90
2	534	17.80	2	1681	56.03
3	135	4.50	3	192	6.07
Others	57	1.90	Others	60	2.00
	3000			3000	

Variation of op_4 Ban construction of high rise buildings.		
op_4	No.	%age
1	1229	40.97
2	1419	47.30
3	293	9.77
Others	59	1.97
	3000	

Variation of op_5 Pedestrianise the inner circle of Connaught Place.		
op_5	No.	%age
1	2131	71.03
2	601	20.03
3	207	6.90
Others	61	2.04
	3000	

Variation of op_6 Provision of park and ride facility in the form of battery buses.		
op_6	No.	%age
1	2168	72.27
2	584	19.47
3	193	6.40
Others	65	2.16
	3000	



EXCLUSIVE PEDESTRIAN FACILITIES  
IN CONNAUGHT PLACE AREA

MEETING WITH DDA

15 JULY, 1991

UTES

## Introduction

Connaught Place, the popular commercial hub of new Delhi, the capital of India consists of a central park surrounded by two circular roads and a middle non continuous circular road. Connaught Place was one of the earliest developments in New Delhi - a planned city and accomodates well designed grand shopping complexes with spacious verandahs lofty white arcades. Besides being a Central Business District the area was also a social and recreation centre where people could walk around in leisure and comfort. However, the unprecedented rate of urbanisation that Delhi is experiencing has adversely effected its attractiveness and it is no longer a pedestrians paradise.

Pedestrians in Connaught place are the most inconvenienced group of road users eventhough they constitute a significant proportion of road users. The problem of pedestrian - vehicle conflict has reached a vexing proportion and it is likely to become worse in future.

Considering the activities within Connaught place which are pedestrian oriented an urgent need has been felt to evolve a safe, efficient and convenient system of pedestrian facilities within Connaught place and develop in second phase the urban scape in such a manner that contemplated C.B.D environment is satisfactorily achieved. In view of this, a study is being carried out by RITES at the instances of NDMC



The study area has been delineated in three concentric circles called Outer Circle (OC), Middle Circle (MC) and Inner Circle (IC) of Connaught Place.

#### Delineation of Study Area

#### Traffic Surveys And Studies

The details of the various types of surveys and studies carried out are as under. The locations of various surveys and salient findings are given in figures and tables in the following pages.

As a part of the study, extensive field surveys were undertaken to assess the quantum of traffic on the roads, pedestrian flow across the roads and along sidewalks, parking accumulation and parking duration and speed and delay studies.

As a part of the study, extensive field surveys were undertaken to assess the quantum of traffic on the roads, pedestrian flow across the roads and along sidewalks, parking accumulation and parking duration and speed and delay studies.

- To review traffic portation problems including pedestrian problems in Connaught Place.
- To collect/update traffic flow and pedestrian data as well as parking data on sample basis, its analysis and interpretation.
- To develop plans for implementation on immediate basis and conceptual plans for the long term.
- To prepare designs of the selected proposals for immediate implementation to a scale 1:2000 and traffic engineering designs for selected intersections locations (upto 8 in number) to a scale of 1:1000.

### Planning of Field Studies

A number of traffic surveys and studies were planned in May-June 1991 to generate/update the traffic data. Various traffic surveys planned within and around study area are given below :

#### Vehicular Traffic Flow Survey

The average weekday classified flow for vehicular traffic including turning movement at all junctions of Outer, Middle and Inner Circles of Connaught Place area.

#### Pedestrian Traffic Flow Survey

The Pedestrian traffic flow surveys were undertaken across the roads and along the sidewalks at all important locations.

#### Parking Demand Survey

Three types of parking surveys i.e. Parking Accumulation, Parking Duration and Parking User Characteristics were carried out.

Parking Accumulation survey was to assess the parking accumulation of different types of vehicles for various hours of the day, whereas parking duration survey was to find out the parking duration of different vehicles. Besides these surveys, the parking user characteristics survey was done to elicit the travel characteristics of the parking users eg. purpose of the visit, duration of



the stay, immediate destination etc.

### **Journey Speed and Delay Survey**

Directionwise Test Car runs were undertaken during morning and evening peak periods covering the entire study area.

### **Inventory Survey**

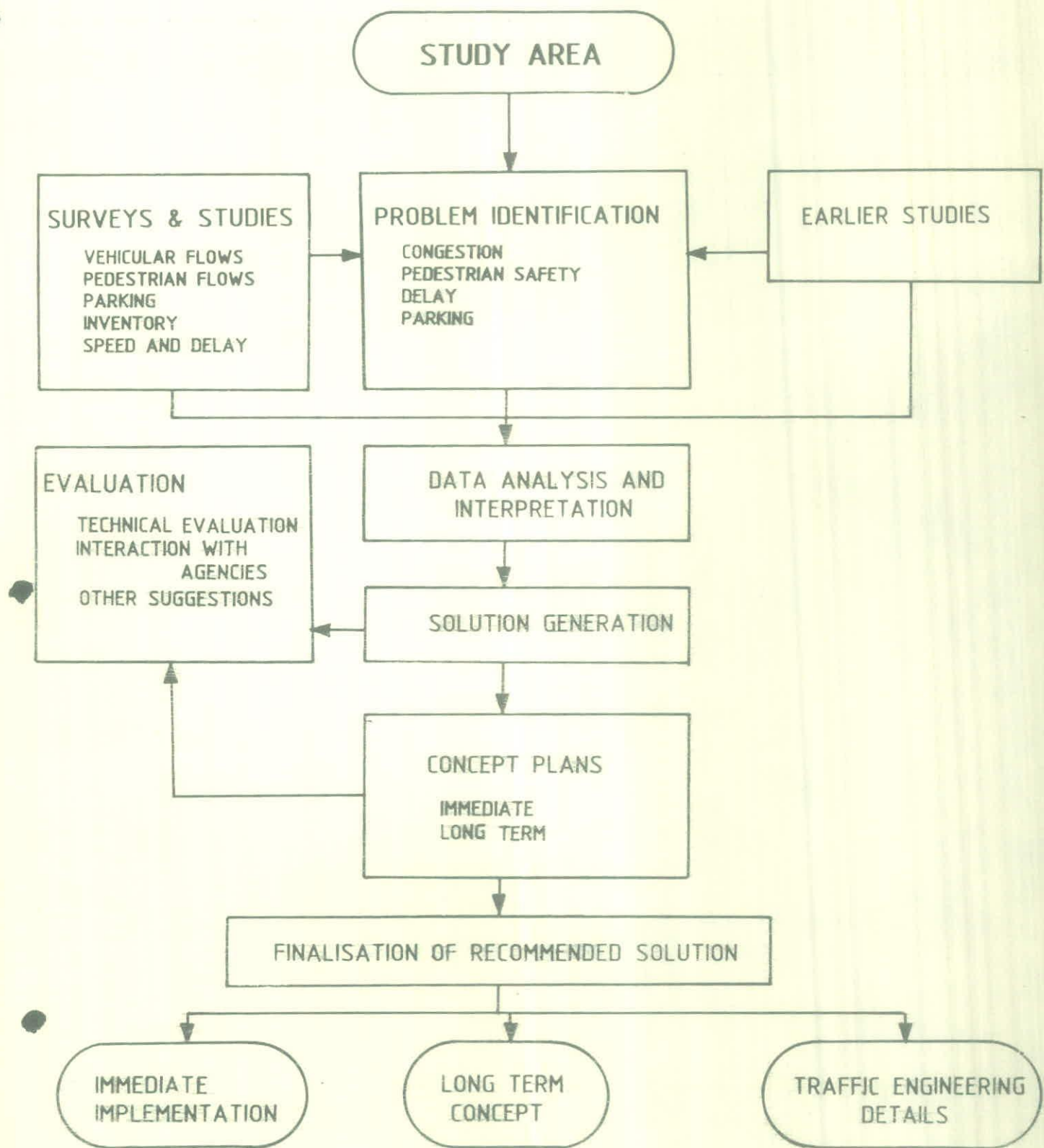
The road inventory details including the cross-sectional details of the carriageway, sidewalks and dimensions of the parking lots were collected.

The details of Traffic Flow, Pedestrian flow, Parking demand and Journey Speed and Delay Studies are presented in the subsequent chapters.

### **Further Work**

Having built up a detailed data base which establishes the traffic flow characteristics (both vehicular and pedestrians) in quantified terms, analysis and interpretation of the data in the context of the objectives to be achieved is under progress. Simultaneously, concept circulation plans are being developed. These concepts would be tested with reference to the traffic data following which, workable plans would emerge.

29  
18



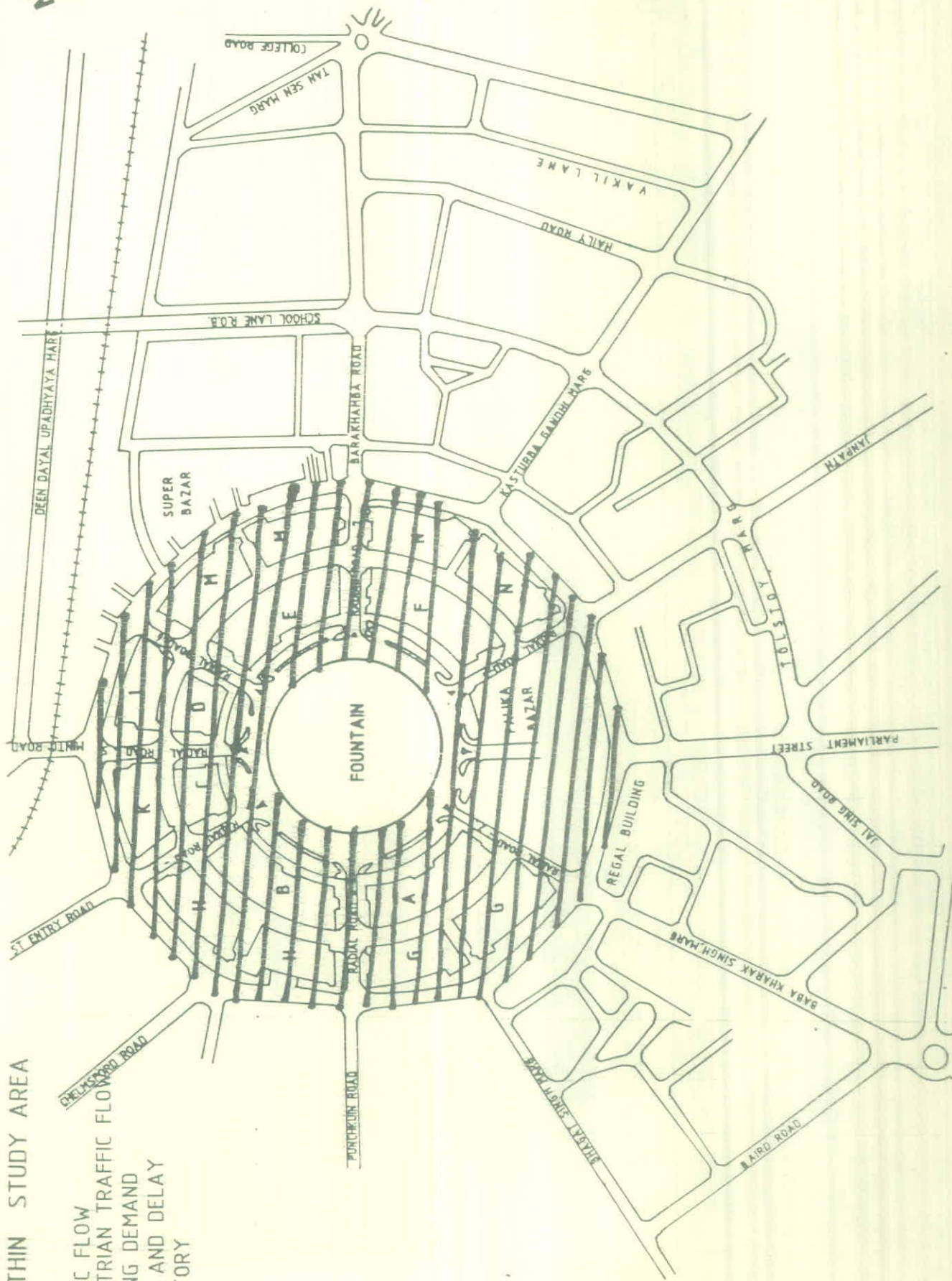
## STUDY METHODOLOGY



# TRAFFIC SURVEYS

## WITHIN STUDY AREA

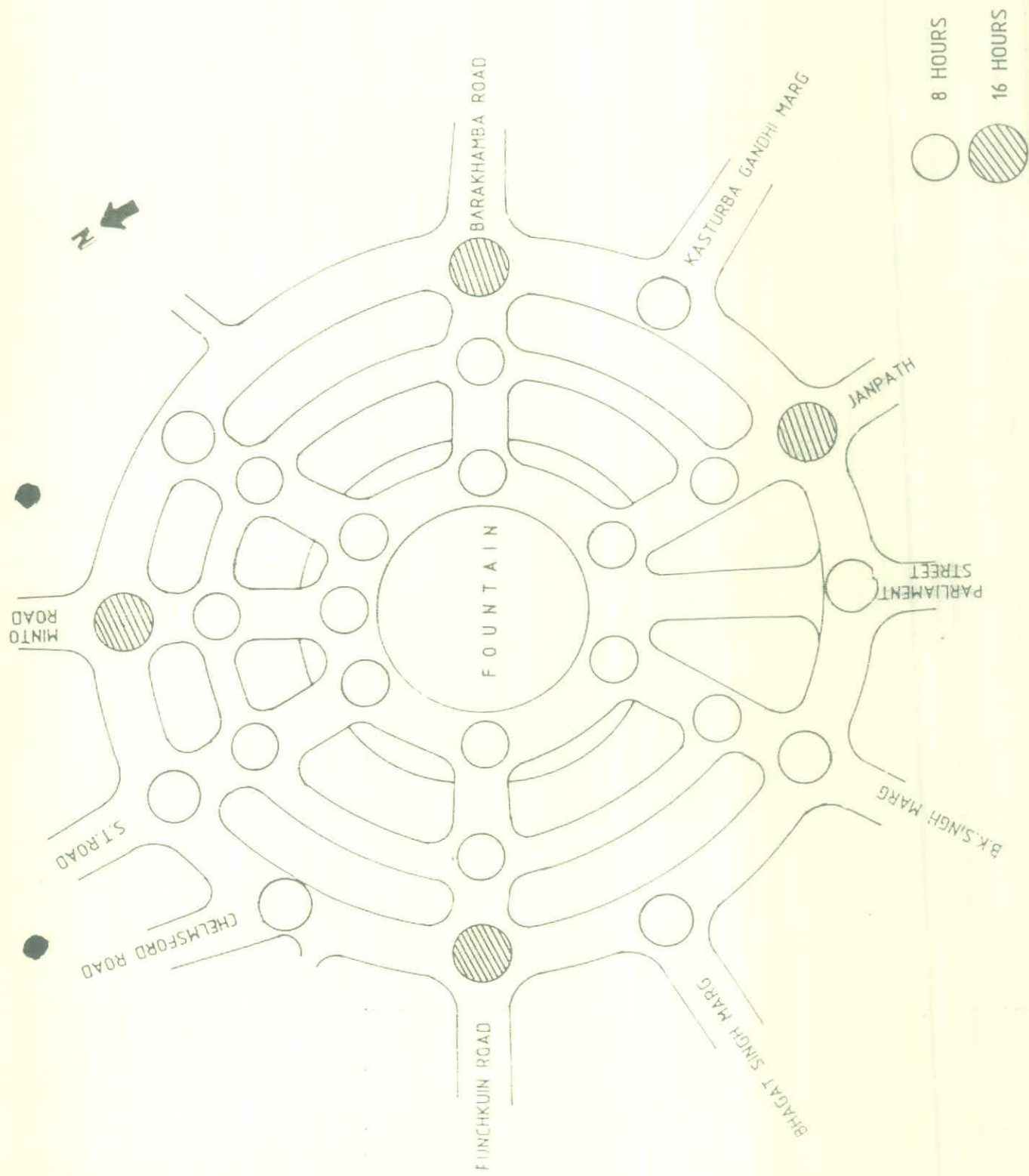
- TRAFFIC FLOW
- PEDESTRIAN TRAFFIC FLOW
- PARKING DEMAND
- SPEED AND DELAY
- INVENTORY



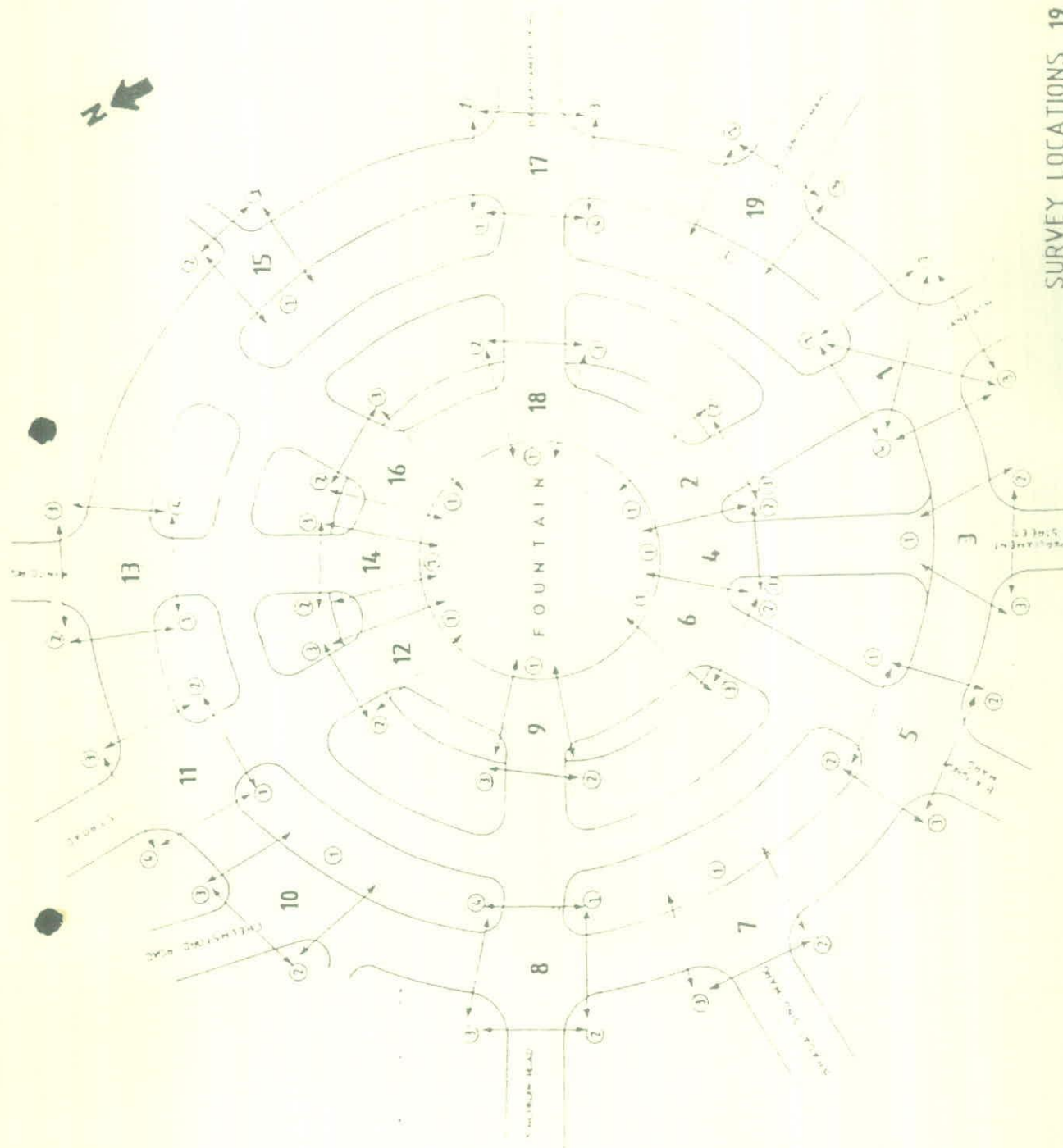








LOCATION OF TRAFFIC VOLUME SURVEY POINTS



LOCATION OF PEDESTRIAN FLOW SURVEY - ACROSS THE ROADS

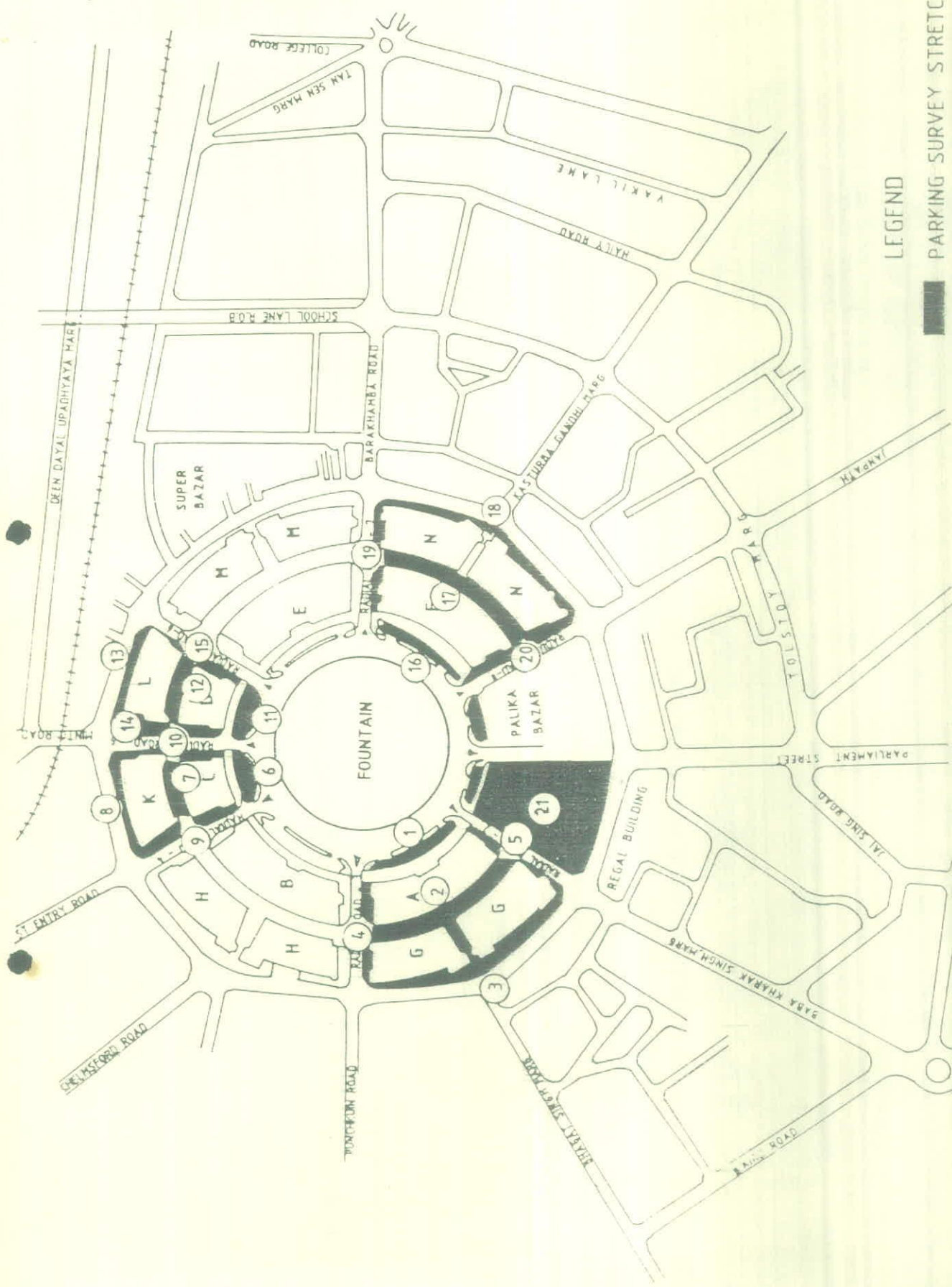
SURVEY LOCATIONS 19











LEGEND

■ PARKING SURVEY STRETCHES

LOCATION OF PARKING DURATION SURVEY STRETCHES



PARKING DURATION OF VEHICLES  
IN CONNAUGHT PLACE

DURATION	PERCENTAGE OF VEHICLES PARKED
LESS THAN 30 MIN.	48
30 TO 60 MIN.	21
1 TO 2 HOURS	13
2 TO 4 HOURS	9
4 TO 8 HOURS	5
ABOVE 8 HOURS	4

PEDESTRIAN CORRIDOR  
CONNECTING BARAKHAMBHA ROAD WITH JANPATH

According to the recommendations of NDRAC an elevated pedestrian walkway linking Barakhamba Road with Janpath was to be constructed as part of the pedestrian walkway system along Kasturba Gandhi Marg and Barakhamba Roads. This scheme is now proposed to be implemented by NDMC on the Ground level itself with the help of pedestrian subways, rerouting of entries to parking areas and minor changes to the grades of vehicular roads.

The scheme of pedestrian corridor is being tackled in a comprehensive manner by simultaneously improving the vehicular capacity of Janpath, Barakhamba Road and Kasturba Gandhi Marg. This is proposed to be achieved by removing linear parking facilities along these roads and replacing the parking with a multistoreyed car park at the rear.

The bottlenecks at the intersections of these radials at Tolstoy Marg is to be eased with the introduction of grade separators of 2.3 metre clearance for the uninterrupted movement of cars and other similar vehicles only, without in anyway affecting the M.O.T. clearances. Ease of movement of pedestrians at the grade separators is ensured by reserving the ground for their exclusive use. Extensive plantation of trees along the roads and introduction of public facilities near and within the subways is also envisaged as part of the overall environmental upgradation.

It is the policy of NDMC to eventually upgrade all the radial roads in the Connaught Place extension area in a phased manner. This has been highlighted in the detailed plan for Baba Kharak Singh Marg in which the continuity of pedestrian movement has been ensured by the introduction of several subways at either the ground level or only 5'-0" below it. Important activity areas like the Hanuman Temple, The State Emporia and the Bangla Sahib Gurudwara are provided with pedestrian crossings across the main road and grade separators of 8'-0" height at the important road crossings.



DELHI DEVELOPMENT AUTHORITY

Sub : Draft minutes of the Technical Committee meeting held on 16.7.91 at 9.30 A.M. in the Conference Room of Vikas Minar, New Delhi.

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The following were present.

DELHI DEVELOPMENT AUTHORITY:

1. Mr.C.Noronha, Vice Chairman (In the chair)
2. Mr. W.D.Dandage, E.M.
3. Mr. J.C.Gambhir, Commr.(Plg.)
4. Mr. Rakesh Behari, Commr.(Lands)
5. Mr. Santosh Auluck, C.A.
6. Mr. M.N.Khullar, Addl.C.A.
7. Mr.Ravi Malik, Commr.(S&JJ)-II
8. Mr.S.C.Gupta, Dir.(DC&P)
9. Mr. R.G.Gupta, Dir.(TYA)
10. Mr.P.C.Jain, Dir(AP&B)
11. Mr. U.S.Jolly, Dir.(LM)
12. Mr.K.K.Bandopadhyaya, P.P.(R)
13. Mr.P.N. Dongre, Jt.Dir.(TYA)
14. Mr. Prakash Narain, Jt.Dir.(T)
15. Mr.A.K.Jain, Jt.Dir.(ZP)
16. Mr.Chander Ballabh, Jt.Dir.(AP)
17. Mr. M.K. Aggarwal, Jt.Dir.(WC&SA)
18. Mr. C.P.Rastogi, Jt.Dir.(CCG)
19. Mr. Vijay Risbud, Jt.Dir.(Narela)
20. Mr. Ashok Kumar, Jt.Dir.(PPK)
21. Mr. V.N. Sharma, Jt.Dir.(Plg. &D)
22. Mr. S.P. Pathak, Dy.Dir.(MR)
23. Mr. P.M. Parate, Dy.Dir.(AP)I
24. Mr. Amit Das, Dy.Dir.(AP)II
25. Mr. Anil Barai, Dy.Dir.(MP)

NDMC

26. Mr. V.P.Chetal, C.E.(C)
27. Mr. Ramesh Chandra, Administrator
28. Mr. Kuldip Singh, Consultant
29. Mr. D. Sanyal, Consultant.
30. Mr. R.C. Sabharwal, D.C.A.
31. Mr. N.K. Aggarwal
32. Mr. N.K. Sharma
33. Mr. R.M. Khanna
34. Mr. A.K. Pathak, C.A.
35. Mr. C.M. Paruthi, SE(Heads)
36. Mr. V.K. Monga, SE(M)-II
37. [REDACTED]

POLICE DEPARTMENT:

37. Mr. Ashok Sikka, ACP(T)

M.C.D.

38. Mr.A.P. Sethi, A.T.P.

WS&SDU

39. Mr. O.K. Gupta, E.O.

SPECIAL INVITEES:

- 40 Mr. B.I. Singal
41. Mr. K. Srinath



Item No. 121/91

Sub: Regularisation of 5 plots falling between Shanker Garden Colony (free-hold) and Bodella Residential Scheme(Vikas Puri).

F.50(8)/69-Bldg.Pt.

After discussion Technical Committee desired that a small group consisting of Dir.(DC&P), Dir.(AP&B) and DLM may go into the details of the case and place their recommendations before the Technical Committee within a month.

Item No.122/91

Sub: Change of land use of remaining 27.25 hect. out of total 60 hect. (actual 60.67 hect) land acquired by International Airport Authority of India in South of Mehrauli Mahipalpur Road, Rangpuri.

F3(16)/90-MP.

Deferred.

Item No. 123/91

Sub: Guidelines for sanction of building plans in the Mehrauli Heritage Zone.

F.PA/DD(Plg) Mont.G-17/96.

Deferred.

Item No.124/91

Sub: Construction of basement, 1st floor in the shopping centre, New Lajpat Rai Market (P.G.Mkt., Delhi)

F3(2)/91-MP

Deferred.

Item No.125/91

Sub: Request for grant of permission for additional trade of ready made garments in Lawrence Road Industrial Area.

F6A(77)/65-LSB(I)

Deferred.

Item No.126/91

Sub: Development control rules for Greater-Bombay-March, 1991.

F.Slum1(6)/91/Adv.(P&T)

Deferred.

Item No.127/91 & Vig/91

Sub: i) Seminar on Rejuvenation of Connaught Place held on 6.5.91.

F.3(37)/91-MP  
(Laid on table)

ii) Pedestrainisation of Connaught Place and other related cir-



ulation schemes for Central City Area.

F5(18)/91-MP.

Shri Ramesh Chandra, Administrator, NDMC along with other officers from NDMC and their consultants made a detailed presentation of these schemes which were still at the planning stage. At the outset, Shri Ramesh Chandra stressed the need to rejuvenate the Connaught Place area within the frame work of MPD-2001. He also mentioned the various studies which had been initiated by NDMC to workout the basic facilities required for this area. These studies had been assigned to S/Sh. B.I. Singal, D.Sanyal and Kuldip Singh, Architects.

Sh. Singal explained the highlights of the studies and the proposed MRTS Scheme as worked out by RITES. He also indicated the linkages with other transport modes and the MRTS scheme envisaged. The proposal for the pedestrianisation of the City Centre Area was also explained in the context of the traffic volume survey at all the inter-sections of the three circles, pedestrian volume survey along and across all roads, the parking survey and speed and delay survey which had been conducted. He also described various alternative traffic circulation schemes which were under examination.

Sh. Sanyal described the various surveys conducted by him through direct interviews with the users and the information so gathered. He explained that from these surveys, it was found that about 49% of the arrivals in Connaught Place area were by bus/mini bus, 1.7% by cycle and only 0.5% by rail. He also pointed out that about 38% of the trips were work/business trips while 60% are for shopping, and 35% recreational and entertainment. A majority of these interviewed were in favour of the park and ride system while the shopkeepers generally favoured creation of more parking facilities at their place of activity.

Sh. Kuldip Singh, Architect, explained the plan for a <sup>pedestrian</sup> corridor connecting Bara Khamba Road and Janpath as envisaged by NDMC. He explained that the corridor was to be on ground level with inter-connecting pedestrian subways. At the same time, it was proposed to increase the vehicular capacity of Janpath, Kasturba Gandhi Road, Bara Khamba Road by removing linear parking along the roads and replacing the same with multi-tier car parking. Further, the bottlenecks at the inter-sections of these radials at Tolstoy Marg would be eased with the introduction of grade separators of 2.3 mt. clearance for the exclusive movement of cars and other similar vehicles. Extensive plantation of trees along the road and introduction of public amenities near and within the subways were a part of the plan for overall environmental upgradation. It was suggested that eventually all the radial roads in the Connaught Place extension area would be upgraded in a phased manner on the pattern as detailed out in respect of Baba Kharak Singh Marg. In this scheme, pedestrian crossings had been provided near Hanuman Temple, the State Emporia and the Bangla Sahib Gurudwara and grade separators of 2.4 mt. height at the important road crossings. This was based on the concept and guidelines given by the Delhi Urban Arts Commission (by way of <sup>an</sup> alternative to provision of fly-overs).

After a detailed discussion Technical Committee approved the broad line of approach. It was desired that NDMC may workout further details accordingly, which could be discussed in a small joint group of experts before their final proposals are brought before the Technical Committee for clearance.



It was observed that in the NDRAC redevelopment, a piece of land at the rear of Hindustan Times Building was marked for general parking. Shri R.C. Sabharwal explained the proposal of a multi storeyed building for parking and facilities like eating places/dhaba and 10 to 15 small built up spaces for offices. The proposed pedestrian corridor mentioned above also passed through this plot. The area of the plot was 1.62 acres and the proposal was to have basement at -6 ft. level for providing parking of 950 scooters. The podium/stilt level 4 ft. would provide for parking 110 cars and a dhaba block. The mezzanine floor at +13 ft. was meant for fast food restaurant with open terrace. Typical floors on +23' +32' were proposed for car parking, containing 85 car spaces on each floor.

While discussing this proposal, Technical Committee observed that according to the proposal submitted by RITES, this plot was also identified for providing transit facilities. As such, this scheme should be further examined and developed in that context and put up to the Technical Committee along with the other proposals of NDMC vide above, after detailed discussion by a select joint group of experts.

Item No.128/91.

Sub: Construction of Night Shelters in Delhi.

TP.3370(21)/Night Shelter-Delhi.

*Project* The Technical Committee desired that all the four projects *be discussed with the* Planners of the respective zones *and* examined with specific reference to the approved layout plans of the concerned areas before being brought before the Technical Committee for final decision.



Item No. 121/91

Sub : Regularisation of 5 plots falling between Shankar Garden Colony (free hold) and Bodella Residential Scheme (Vikas Puri)

F.50(8)69-Bldg.Pt.

After discussion Technical Committee desired that a small group consisting of Dir.(DC&P), Dir.(AP&B) and DLM may submit their report to the Technical Committee covering all aspects. *within a month*

Item No. 122/91

Sub : Change of land use of remaining 27.25 hect. out of total 60 hect. (actual 60.67 hect.) land acquired by International Airport Authority of India in South of Mehrauli Mahipal pur road, Rangpuri.

F3(16)90-MP

Deferred.

Item No. 123/91

Sub : Guidelines for sanction of building plans in the Mehrauli Heritage Zone.

F.PA/DD(Plg.)Mont.G-17/96

Deferred.

Item No. 124/91

Sub : Construction of basement, 1st floor in the shopping centre, New Lajpat Rai Market (P.G.Mkt., Delhi)

F3(2)91-MP

Deferred.

Item No. 125/91

Sub : Request for grant of permission for additional trade of ready made garments in Lawrence Road Industrial area.

F6A(77)65-LSB(1)

Deferred.

Item No. 126/91

Sub : Development control rules for Greater-Bombay-March, 1991.

F.Slum1(6)91/Adv.(P&T)

Deferred.

Item No. 127/91

Sub : Seminar on Rjuvenation of Connaught Place held on 6.5.91; F3(37)91-MP

(Laid on table item.)

⊕  
go into the  
details of  
the case  
+ place  
their  
recommendations  
before the



Item No. 129/91  
Subj: Presentation of RITES on report of Mass Transport  
in Delhi.  
F5(18)91-MP

Sh. Ramesh Chandra, Administrator, NDMC along with other officers from NDMC and consultants were present in the meeting. He highlighted the need to rejuvenate the Connaught Place area within the frame work of MPD-2001. He also mentioned various studies which are initiated by the NDMC to work out the basic facilities required in this area. These studies are assigned to S/Sh. B.I. Singal, D. Sanyal and Kuldeep Singh, Architect.

Sh. Singal explained the studies and the proposed MRTS scheme as worked out by RITES. He also indicated

the linkage with other transport modes and the MRTS scheme envisaged. The proposal, in the context of City Centre Area was also explained in the context of

Sh. Singhal also made the presentation of the study assigned to him by NDMC within the study area upto the outer circle of Connaught Place. He explained the traffic volume survey at all the inter sections of the three circles, pedestrian volume survey along and across all roads, parking survey, speed and delay survey as have been conducted. Various alternative traffic circulation schemes are being worked out.

Technical Committee desired that the final outcome of these studies be presented before the technical committee and while finalising the proposal various observations made by the members of the committee may also be taken into consideration.

Sh. Sanyal explained various surveys conducted by direct interviews with the users and the information so gathered. He explained that about 3000 persons of different age group were interviewed and as a result it is observed that about 49% arrival in Connaught Place area are by buses/minibuses, 1.7% used cycles and only 0.5% used rickshaws. He also pointed out that about 38% of the trips are work/business trips while 60% are for shopping (35%), recreational, entertainment. A majority of them expressed their opinion in favour of park and ride system and many favoured the creation of more parking facilities at their place of activities.

Technical Committee after detailed discussion opined, that the actual parking space occupied by shop keepers, be also assessed.



iii/ Sh. Kuldip Singh, Architect on behalf of NDMC explained the ~~scheme of pedestrian corridor~~ <sup>plan for a vehicular and pedestrian corridor</sup> connecting Bara Khamba Road and Janpath as envisaged by NDMC. He explained that the ~~scheme is~~ <sup>corridor was</sup> proposed to be on ground level with inter-connecting pedestrian subways, ~~derouting the entries to parking areas and minor changes to the grades of vehicular roads.~~ <sup>At the same time</sup> This will improve the vehicular capacity of Janpath, Kasturba Gandhi Marg and Bara Khamba Road. This is proposed to be done by removing linear parking along the roads and replacing the same with multi-tier car parking.)

He also explained that ~~bottlenecks at the inter-sections of these radials at Tolstoy Marg is proposed to~~ <sup>Further the</sup> be eased with the introduction of grade separators of 2.3 mt. clearance for the exclusive movement of cars and other similar vehicles. Extensive plantation of trees along the road and introduction of public amenities near and within the subways ~~was~~ <sup>were</sup> a part of the ~~overall environmental upgradation.~~ <sup>plan for</sup> It was suggested that eventually all the radial roads in the Connaught Place extension area ~~will~~ <sup>would</sup> be upgraded in a phased manner on the pattern ~~(and)~~ as detailed out in respect of Baba Kharak Singh Marg. In this scheme, ~~activities like the Hanuman Temple, the State Emporia and the Bangla Sahib Gurudwara, have been provided with pedestrian crossing across the main road and grade separators of 2.4 meter height at the important road crossings.~~ <sup>pedestrian crossings had been provided near</sup> This was based on the concept and guidelines given by the Delhi Urban Arts Commission, ~~(in lieu of the approach to provide flyovers).~~ <sup>by way of an alternative to provision of fly-overs</sup>

After detailed discussion Technical Committee ~~desired~~ <sup>accordingly</sup> that NDMC may workout further details which could be discussed in a small group and their recommendations brought before the Technical Committee <sup>for approval</sup> ~~for clearance~~

iv/ ~~In the proposal of NDRAC a piece of land in the rear of Hindustan Times Building is earmarked for general parking~~ <sup>It was observed that in the NDRAC redevelopment plan,</sup> Sh. R.C. Sabharwal explained the proposal of a multi storeyed building for parking and facilities like eating places/dhaba and 10 to 15 small ~~shops serving office people.~~ <sup>built up spaces for</sup> Pedestrian ~~crossing mentioned above also passed through this plot.~~ <sup>The proposed corridor</sup> The area of the plot is 1.62 acres and the proposal ~~is~~ <sup>was</sup> to have basement at -6 ft. level for providing parking of 950 scooters.



Sh. Kulbir Singh, Architect on behalf of WMC explained the scheme of pedestrian corridor, connecting Bars Khandra Road and Jambhath as envisaged by WMC. He explained that the scheme is proposed to be on ground level with inter-connecting pedestrian subways, detouring the entries to parking areas and minor changes to the grades of vehicular roads. This will improve the overall capacity of Jambhath, Kasturba Gandhi Marg and Bars Khandra Road. This is proposed to be done by removing linear parking along the roads and replacing the same with multi-tier car parking.

He also explained that bottlenecks at the intersection of these radials at Tolstoy Marg is proposed to be eased with the introduction of grade separators of 2.3 mt. clearance for the exclusive movement of cars and other similar vehicles. Extensive plantation of trees along the road and introduction of public amenities near and within the subways was a part of the overall environmental upgradation. It was suggested that eventually all the radial roads in the Connaught Place extension area will be upgraded in a phased manner on the pattern and as detailed out in respect of Bada Khark Singh Marg. In this scheme activities like the Hanuman Temple, the State Emblem and the Bangla Sahib Gurudwara, have been provided with pedestrian crossing across the main road and grade separator of 2.4 meter height at the important road crossings. This was based on the concept and guidelines given by the Delhi Urban Arts Commission, in lieu of the approach to provide flyovers.

After detailed discussion Technical Committee decided that WMC may work out further details which could be discussed in a small group and their recommendations brought before the technical committee.

In the proposal of WMC a piece of land in the rear of Hindustan Times Building is earmarked for general parking. Sh. R.C. Sahasrwal explained the proposal of a multi-storied building for parking and facilities like eating places, shops and 10 to 15 small shops serving office people. Pedestrian crossing mentioned above also passes through this plot. The area of the plot is 1.62 acres and the proposal is to have basement at -6 ft. level for providing parking of 950 scooters.



The podium/stilt level +4 ft. <sup>would</sup> ~~be~~ provide <sup>for</sup> parking 110 cars and dhaba block. The mezzanine floor at +13 ft. <sup>was meant</sup> ~~is~~ for fast food restaurant with open terrace. Typical floors on +23; +32; +41' <sup>were</sup> ~~are~~ proposed for car parking, containing 85 car spaces <sup>on</sup> each floor.

While discussing this proposal, Technical Committee observed that according to the proposal submitted by RITES, this plot <sup>was</sup> ~~is~~ also identified for providing transit facilities. Therefore, <sup>it was felt</sup> ~~it was felt~~ that this scheme <sup>should be further</sup> ~~may be exam-~~ ined with the future planning proposals as envisaged by RITES and should be suitably <sup>developed</sup> ~~devetailed~~. It was further desired that this scheme may also be gone through by the group suggested above and their recommendations is put up to the technical committee. <sup>and put up to the Technical Committee along with the other proposals of</sup> ~~and put up to the Technical Committee.~~

Item No.128/91 NDHC vide above after detailed discussion by a small, select group of experts,

Sub : Construction of Night Shelters in Delhi.

TP.3370(21)Night Shelter-Delhi.

The Technical Committee desired that all the four projects in the first instance be discussed with the Project Planners of <sup>the respective zone</sup> ~~this area~~ and be examined with <sup>specific</sup> ~~reference~~ to the approved layout plans of the area and then brought <sup>before</sup> ~~before~~ the Technical Committee. <sup>for a final decision</sup> ~~for a final decision~~

*Signature*



DELHI DEVELOPMENT AUTHORITY  
(MASTER PLAN SECTION)

Agenda for the meeting of Technical Committee to be held on 15.7.91 at 9.30 A.M. in the Conference Room of Vikas Minat at 5th Floor, Delhi Development Authority, I.P. Estate, New Delhi.

<u>Sl.No.</u>	<u>Item No.</u>	<u>Subject</u>	<u>Page No.</u>
1.	121/91	Regularisation of 5 plots falling between Shanker Garden colony (free hold) and Bodella Residential Scheme (Vikas Puri). F.50(8) 69-Bldg.Pt.	1-4
		To be presented by JD(AP)-I.	
2.	122/91	Change of land use of the remaining 27.25 hect. Out of total 60 hect. (actual 60.67 hect) land acquired by International Airport Authority of India in South of Mehrauli Mahipal Pur Road, Rangpuri. F.3(61)/90-MP	5-6
		To be presented by JD(AP)+I	
3.	123/91	Guidelines for sanction of building plans in the Mehrauli Heritage Zone F.PA/DD(plg.)Mont./G-17/96.	7-9
		To be presented by JD(WC&SA)	
4.	124/91	Construction of basement, 1st floor in the shopping centre, New Lajpat Rai Market (P.G.Mkt.), Delhi. F.3(2)/91-MP.	10-11
		To be presented by JD(WC&SA)	
5.	125/91	Request for grant of permission for additional trade of ready made garments in Lawrence Road Industrial area. F.6A(77)/65-LSB(I).	12-13
		To be presented by JD(AP)	
6.	126/91	Development Control Rules for Greater-Bombay-March, 1991. F.Slum 1(6)91/Adv.(P&t)	14-18
		To be presented by Dir.(TYA)	



ITEM NO. 121/91:

SUB: Regularisation of 5 plots falling between Shankar Garden Colony (Free hold) and Bodella Residential Scheme (Vikas Puri).

File No. F.50(8)/69-Bldg.Pt.

The above subject matter was considered under Technical Committee meeting held on 16.7.90 wherein following decision was taken:

"The Technical Committee noted that these 5 plots were not the part of the original approved layout plan of Shankar Garden, nor these were forming part of the plan approved by the Municipal Corporation of Delhi. It was further noted that while formulating the Vikas Puri residential scheme only these lands were taken into consideration which did not form part of the approved scheme of Shankar Garden. In Vikas Puri Residential Scheme the land use was shown for a park and therefore the same should be followed. Technical Committee, further desired that in case there is some land which still remains unacquired and is to be developed as a park, necessary action should be taken by the Lands Section for their acquisition".

2. Sh. C.B.Mehta, one of the plot owners vide his letter dated 23.8.90 addressed to V.C., DDA has stated:-

- (i) That in the services design chart of Shankar Garden colony as approved by MCD these plots were included.

Contd../-



- (ii) The services as approved by MCD in the year 1959 vide its resolution No. 9 dt. 23.6.59 were laid down by the coloniser while in the set-back-cum-demarcation plan released by DDA in the year 1971. These plots were shown as park.
- (iii) As per the decision of the Technical Committee that the land use in Vikas Puri Residential Scheme was shown as park which has already been developed and their plots were shown park in the approved by DDA while releasing the building activity in the year 1971 and has further stated that the acquisition of these fully developed plots in terms of services as approved by MCD at this stage can not be adjusted in the Vikas Puri Residential Scheme.

3. The case was discussed in the Technical Committee meeting held on 15.10.90 for reconsideration and it was opined that this item be again put in the Technical Committee after Commr.(Lands) regularised by the DDA in 1971 as well as 5 plots under consideration. It was further decided that meanwhile MCD may also conform whether these plots form part of the approved layout plan and whether the services have been made available for all these plots on the basis of the approved service plan.

4. Accordingly the report from MCD and Commr.(Lands) have been received which is as follows:

- (a) Views of MCD: This case was discussed in the layout Scrutiny Committee of MCD item No. 359/90 Dt. 2.12.90 and it was decided that DDA be asked to transfer all the record files and layout plan to MCD for which a reference was made by Ex. Engg.(Bldg.). The applicant has also directed to submit all necessary documents to MCD (Town Planning Department).

Contd....3/-



- (b) Views of Lands Section, DDA:- As per record of Village Bodella the status of 5 plots as well as 15 plots remains the same, the detailed report of Lands Section is as annexure I.

5. The owner of the plot have submitted the representation to Director (DC & P) with reference to the reply received by them from the Town Planner MCD, requesting that the revised layout plans and buildings plans were submitted to DDA before this colony was transfer to MCD and as per the policy of DDA any plans received before the denotification of the area which are to be dealt by the DDA and therefore they have requested that this case for regularisation may be dealt by DDA and final advice/decision to be sent to MCD. A copy of plan prepared by Land Section indicating acquired land of DDA acquired land but possession not taken over is at annexure - II.

6. The matter was considered in the Technical Committee in its meeting held under Item No. 10 on 18.3.91, the Technical Committee desired that the matter be again brought before the Technical Committee along with the following information:-

- (i) Plan approved by DDPA and MCD in the year 1959 details of the 5 plots under reference as also the 15 plots which were regularised in 1971.
- (ii) DDA's plan of 1971 indicating to what extent it tallies with the MCD approved plan.
- (iii) Service plans of 1959 approved by MCD with the comments whether that plan tallies with approved plan of MCD and the DDA plan of 1971.
- (iv) Land use of these plots as per MCD-2001; and
- (v) Details ownership of these 5 plots as well as 15 other plots cited as (i) above.

Contd...4/-



- (vi) The present status of the acquisition proceedings in respect of these plots (if any).

7. The matter has been examined with the relevant plans/documents and point wise comments are given below:

- (i) In the 1957 (not 1959 as indicated in the Technical Committee proceedings) plan approved by DDPA. These 5 plots have been shown part of the falls outside the scheme only one plot has been numbered as 155 in the remaining 4 plots have not been given any number. As regards 15 plots regularised by DDA in the year 1971, though part of these plots were also falling outside the scheme but they were given regular numbers in the 1959 approved layout plan.
- (ii) There are two major deviations in the DDA plan of 1971 which are given below:-
- (a) The plots under reference were included and shown as part of park. There are three more plots are form the part of 1959 MCD plan have not been indicated in the year 1971 plan. These are B-64 to 66. The 15 plots regularised in the year 1971 plan are Block 'A' 122, 123, 136, 137, 146 to 154.
- (iii) The services plan as far as the available report of concerned which are verified from the record of MCD. All the 23 plots refer (ii) above were included in the service plan.
- (iv) The land use as per the MPD-2001 is residential.
- (v & VI) Concerned Lands Section.

Therefore the case has to be examined not only with respect of 20 plots to 23 plots including B-64 to 66 which id not acquired may given up at later stage.

8. The matter is placed before the Technical Committee for its consideration.



Item No. 122/91:

Sub:- Change of land use of the remaining 27.25 hect. out of total 60 hect. (actual 60.67 Hect.) land acquired by International Airport Authority of India in South of Mehrauli Mahipalpur Road, Rangpuri.

F. 3(5)/90-MP

Indira Gandhi International Airport Authority has approached DDA to develop a scheme for resettlement of village Nangal Dewat as a deposit work on the land measuring about 25.48 hect. out of which a total land of about 60 hect. acquired by them in the area South of Mehrauli Mahipalpur Road near Sultan Garhi monuments.

2. The issue has been under active consideration with the DDA and the various meetings have taken place with L.G. Secretary L&B, the then V.C. DDA and finally it has been decided to formulate a scheme carving out a total number of 963 plots or various sizes in order to implement the same.

3. Accordingly a scheme has been formulated for phase-I on the site handed over by International Airport Authority of DDA for which the salient features are given as below:-

- i) The total area of the scheme work out 25.48 hect.
- ii) The land use of the site handed over as per MPD-62 and PDP-2001 is agricultural green belt/rural use zone and is recommended to be changed to residential by the Technical Committee in its meeting held on 13.1.89.
- iii) The entire scheme is conceived on the basis of plotted development and the plots of 26.32 and 60 sq.mtrs. are clustered in such a manner that even the smallest size of plot is able to get 2 sides open for proper light and ventilation.
- iv) A total number of 974 plots against the total requirements of 963 plots of various sizes have been provided in the scheme with supporting sites of community facilities required for the population in the area.

4. The layout plan alongwith detailed report and standard designs to be followed for plots of 26.32 and 60 sq.mtrs. were placed before the Technical Committee for its consideration/approval.

5. DDA in consultation with IAAI prepared a scheme for 25.48 hect. area carving out 974 plots in the size of 26, 32 & 60 sq. mtrs. and the same was considered by the Technical Committee in its meeting held on 27.3.89 under Item No. 87 and was approved. The matter was placed in the meeting of Authority and the scheme was approved vide



Resolution No. 66 dated 23.10.90 and is being further processed under Section 11 A of Delhi Development Act., 1987

6. The IAAI has now requested DDA to process the change of land use for the remaining area covered in Phase-II and a scheme has been submitted for 23.07 hect. and the remaining 12.12 hect. out of the total 25.19 hect. has been shown as land owned by Ministry of Defence. No detailed scheme for Defence land has been submitted. The details for 23.07 hecets. are given below :

i) Residential plots	- 7.68 Hect.
ii) Public and Semi-Public facilities	- 3.44 Hect.
iii) Area under infrastructure	- 2.99 Hect.
iv) Commercial	- 0.65 Hect.
v) Park & open space	- 3.61 Hect.
vi) Circulation	- 4.70 Hect.

7. The scheme submitted by IAAI has been examined in consultation with conservation scheme being formulated for Sultangarhi Monument Area. According to this about 1.00 hect. land would be required in the conservation scheme and thereby leaving 22.07 hect. area left in the phase-II. It is further pointed out that about 2.64 hect. would also be required out of the 12.12 hect. defence land located in the North West corner of Phase-II scheme and for which the details are yet to be submitted by Ministry of Defence.

8. The matter is submitted for the consideration of the Technical Committee for change of land use of 22.07 hect. land in IAAI Phase-II scheme. The remaining 1.00 hect. will be required for Sultanpurgarhi Conservation Scheme.

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Item No.123/91: -----

SUBJECT:- Guidelines for sanction of building plans in the Mehrauli Heritage Zone.

BACKGROUND: PA/DD(plg.)Monts/G-17/96

As a policy to transfer all the Urban Villages to the MCD consequent to DDA Resolution No32 of 1987, Mehrauli was de-notified from the development area of DDA. Considering the significance of urban heritage and to initiate the action in this direction, perspective planning Wing, DDA initiated a study on conservation of Mehrauli and its adjoining area in collaboration with Indian National Trust for Cultural Heritage (INTACH). In view of this, declaring Mehrauli Settlement as development area of DDA was approved by DDA on 13.2.1989. This Development Area has been notified by the Land & Building Department, Delhi Administration on 26.7.1989.

Based on the guidelines given by INTACH and City Planning Area Policy of Municipal Corporation of Delhi (Annexure-1), following guidelines for approval of building plans have been prepared:-

1. The building activity is permitted only in Mehrauli Settlement (Lal Dora) as shown in the draft development plan(laid on the Table). The pre-dominant land use of Mehrauli Settlement is residential.
2. Control of buildings within the use premises:
  - i) Maximum Ground Coverage and FAR shall be same as for residential plots in the plotted development (Annexure 1). However, in case of plots facing road 4.5 meter and upto 6 mt. roads, only two storey building shall be permitted.
  - ii) Plots facing 4.5 metre or less wide path way, the front setback to be left so as to make the path way 4.5 metre wide.
  - iii) In case of streets identified on the draft development plan road right of way shall be 6.0mts. Wherever higher right of way is already available, the same would be kept.
  - iv) For main street of Mehrauli Town including commercial spine the road R.O.W. shall be minimum 9 metres. Where higher R.O.W. is already available, the same would be kept.
  - v) Rear setback shall be minimum 1.5 metre and 3 metre average provided the rear air plan is maintained by the owner in his own plot.

Contd..2/-



- vi) While designing care should be taken to retain traditional essential planning elements such as courtyard, balconies, chhajjas, entrance gates, plinths etc. New building shall be minimum 2.4 metre from historic structures.
- vii) Additional building control regulations for commercial spine (as identified in the draft development plan) shall be as under:-
  - a) New buildings to have a minimum 1.5 metre setback on the street in the form of raised plinth.
  - b) The canopy must be sloped and supported on wood or metal vertical members not exceeding 12cm. dia.
  - c) Balcony not to project more than 1.2 mt. from the building line and to be supported on bracket. The roof of the balcony to be supported on wood or metal columns not exceeding 12cms. and to be aligned with the bay spacing.
  - d) The balustrade not to exceed 75cm. height.
  - e) The parapet line to be in line with the building line and not to exceed 75 cms. height.
  - f) The original system of bays, 2.4 to 4mt. wide to be maintained.

### 3. Sanction of Building Plans:

A special Group is proposed to be constituted under Section 5-A of Delhi Development Act by the competent Authority for screening the sanctions in identified conservation areas.

The following members of the Group are suggested:-

Director (Building)DDA	-	Chairman
One representative from Commr. (Heritage)	-	Member
One representative in the field of conservation from School of Planning & Arch. New Delhi.		Member
One representative from Archaeology Survey of India		Member
One representative from Archaeology Deptt. Delhi Admn.		Member
Director (Lands Management)DDA		Member
Joint Director (Building)DDA		Member

Contd...3/-



ii) The cases mentioned below shall be referred to the

Group:-

- a) INTACH Delhi Chapter has identified monuments as A, B and C Grade monuments in its report. All the proposals pertaining to development, restoration, beautification, re-construction etc. shall be referred to the Special Group.
- b) The building plans of all the properties located along 9 mt. R.O.W. main road including commercial street shall be forwarded to Special Group.
- c) All the plots around A, B and C Grade monuments are to be referred to Special Group.
- d) All non-residential uses shall be seen by the Group.
- e) All the plots abutting the Archaeological park shall be referred to the Special Group.

The matter is placed for consideration of the Technical Committee.



ANNEXURE-I

DELHI ADMINISTRATION  
(URBAN IMPROVEMENT DEPARTMENT)

5-Sham Nath Marg,  
Delhi-110054  
No.F.4/9/90-UI/

Dated:-

To

1. The Commissioner,  
M.C.D., Town Hall,  
Delhi.
2. Vice-Chairman,  
DDA, Vikas Sadan, INA,  
New Delhi.
3. Commissioner (Slum)  
DDA, Vikas Bhawan Annexe,  
New Delhi.

Subject: Issue of NOCs for reconstruction in Slum areas.

Sir,

The question of grant of NOC's for reconstruction in Slum areas was considered at a meeting held by the Chief Secretary on 17.5.90 at length. With the approval of L.G. the following decisions have now been taken to simplify the procedure for reconstruction in slum areas:-

1. Proposals for reconstruction in those slum areas which have been denotified as clearance areas should be received directly by the MCD which may sanction the building plans in accordance with the guidelines approved by the LG on 2nd May, 1989 and based vide letter No. P-A1/6960(57)/NOC/88/Part-II dated 10th August, 1989 (copy enclosed) and the structure plan for the walled city and (draft) zonal plans of the DDA.
2. MCD should send a formal request to the DDA for denotifying the development areas in Paharganj except the small parts of Sarai Khallil and Motia Khan where the DDA's schemes are in existence.

These decisions may be brought to the notice of all concerned.

Yours faithfully,

NO:F.4/9/90-U.I/617

dt. 28.5.90 ( Smt. Suman Swarup )  
Secretary (U.I)



ANNEXURE-2

Residential Plot-plotted Housing.

Maximum ground coverage, F.A.R., number of dwelling and maximum height for different size of residential plot shall be as per the following table.

S.No.	Area of the plot(sqm.)	Max. ground co-verage (percentage)	FAR	No. of dwell units	Max. height in metre
1	2	3	4	5	6
1. Below 50		75	150	1	8
2. 50 to 100		66	180	2	11
3. Above 100 to 250		60	160	3	11
4. Above 250 to 500		50	140	3(4)	11
5. Above 500 to 1000		40	100	5(7)	11
6. Above 1000 to 1500		33.33	83	5(7)	11
7. Above 1500 to 2250		33.33	83	7(10)	11
8. Above 2250 to 3000		33.33	83	9(13)	11
9. Above 3000 to 3750		33.33	83	11(16)	11
10. Above 3750		33.33	83	13(19)	11

- i) Minimum size of the residential plot shall be 32 sq.m. however, in case of Government sponsored economically weaker section schemes, size could be reduced further. The permissible maximum covered area on ground floor and FAR shall in no case be less than the permissible covered area and FAR for the largest size plot in the lower category.
- ii) In case of residential plots above 250 sqm facing 24m and above road, and where already 3 storeys and a barsati was permitted (as per density calculated in the sanctioned layout); (a) the F.A.R. shall be increased by the maximum ground floor coverage (b) maximum height shall be 14m and (c) the number of dwelling shall be as given in the brackets.
- iii) The mazzanine if constructed shall be counted in the F.A.R.
- iv) The basement in case of plotted development shall be under the ground floor and maximum to the extent of ground floor coverage subject to the condition that minimum of 1m distance shall be kept from the adjoining plot.
- v) For plots above 250 sqm and upto 500 sqm maximum of 3 servant quarters and for plots above 500 sqm. maximum of 6 servant quarters shall be permitted.



-: 2 :-

vi) Each servant quarter shall comprise of one habitable room of area not less than 11 sqm floor area exclusive of cooking verandah, bathroom and lavatory. The maximum size of servant quarters shall be 20sqm.

vii) For plots above 250 sqm parking provision shall be provided @ 1.33 car space per 100 sqms of permissible built floor area. The covered parking area shall be included in FAR except when it is provided in the basement.

EXTRACTS TAKEN FROM MPD-2001, GAZETTE OF INDIA PAGE 159.



MUNICIPAL CORPORATION OF DELHI.  
(BUILDING DEPARTMENT)

NO: F-A1(5960)/57/NOC/86/Part-II

Dt: 10th August, 1989.

Subject:- City Area Policy.

The City Area Policy is as follows:-

- 1) Upto 50 sq. yds plots no building activity is allowed.
- 2) Beyond 50 sq.yds.
  - i) for road width below 15' front set-back to be left so as make the street 15' wide.
  - ii) for trafficable road i.e. road width between 15' and 30' the front set-back shall be such so as to make the road width as 30'.
  - iii) rear set-back shall be 5' minimum and 10' average provided the rear air plane is maintained by builder in his own plot.
3. Where the building on ground floor is existing with certain set-back under proper sanction no set-back will be required on the floors above the ground floor provided the front and rear air planes are maintained and coverages are according to the building bye-laws.
4. In back to back plots where the building is existing on four sides with open area in the centre, rear air plane is not insisted upon for construction of first floor provided the area of plot is not more than 200 square yards.

Jhuggi policy for permitting temporary construction of one year.

In such areas which compromise of hutmens and jhuggies the existing policy is that we may permit reconstruction to start with for a period of only one year. Following are the points dealing with this policy.

1. In such area which constitute tupe basties or areas comprising of jhuggies e.g. Than Singh Nagar, Old Tizabmil, Bapa Nagar, etc. we may accept requests for reconstruction which may be permitted to start with for a period of only one year. Such permission may be renewed after the expiry of the year on request. The builder however, will have to given an undertaking that such structures will be removed by him in a notice within a period of three months at his cost and without any compensation.

Contd...2/-



- 2) Such requests of reconstruction can be entertained only for very small plots where normally jhuggies or huts are constructed by poor people. The area of such small plots should be upto and less than 50 sq.yds.
- 3) Such requests shall be accompanied with a token fee of Rs.10/- alongwith dimensioned sketches in triplicate which need not be prepared by a licenced architect but must be signed by the owner. Proof of ownership should also be submitted. The sketches should show normally the structure as it exists today or had originally existed and should also show the proposal of reconstruction in red colour which should not exceed or be different from the accommodation previously existing.
- 4) Permission for reconstruction will be on the same foundation and where no foundation exists the allignment of existing jhuggies etc. will be followed. The sizes of room etc. shall not be widened. We may, however, permit raising of roof subject to maximum height prescribed in paragraph below.

The reconstruction shall not have better specification than the following:-

- a) Mud mortar brick masonry in walls with only cement pointing on both sides.
- ab) Temporary rood or stones slabs or giles over wooden battens.
- ac) Height of the structure should not be more than 12' including plinth of 1 1/2 feet.
- ad) Only reconstruction of single storey will be permitted.

Such permissions shall be given only to structures which are in a ruinous condition and have already wholly or partially collapsed.

The above concession will apply when prior permission is taken.

Commissioner has extended the application of the jhuggi policy for permitting temporary construction for one year which is in vogue in certain limited localities at present, extended to all urban villages subject to the condition that the areas of the existing building does not exceed 50 sq.yds. and that all other conditions enumerated in the jhuggi policy approved by the Commissioner are strictly observed.



Repairs Policy

- a) Plastering and patch repairs.
- b) re-roofing or renewal of roof including roof of intermediate floor at the same height or by raising the **height** of walls of room provided final height is not less than that provided under the building bye-laws.
- c) flooring and reflooring.
- d) opening and renewing windows, ventilators and doors not opening towards others' property and without door leaves opening on public land on the ground floor;
- e) making alteration to a building with re-erection to the extent of 50 per cent of any external wall abutting on a road or a street and subject to the maximum of two internal walls of a room being reerected, or making alteration to a framed building without involving the removal of re-erection of more than one-half of the parts in any such walls thereof as aforesaid;
- f) replacing fallen bricks, stones, pillars, beams etc.
- g) construction or reconstruction of sunshades not more than 2 ft. inches in width within one's own land and not overhanging public street.
- h) construction or reconstruction of parapet walls not exceeding 3ft. in height and urban walls upto a maximum height of 5ft. 6 inches on any floor or floors.
- i) construction or reconstruction of lefts in shops in built-up commercial areas upto coverage of 50 per cent. provided its height from floor level is not less than 7 ft. and height between the ceiling and the left is not more than 5ft. 6 inches and that the left is used for storage purpose only.
- j) construction or reconstruction of \_\_\_\_\_ in front of a shop provided it does not project beyond the boundary line of the plot on which the shop stands.
- k) reconstruction of portions of buildings damages by storm, rains fire or any other natural calamity to the same extent and specification as existed prior to the damages provided the use conforms to the provisions of the Master plan.
- l) reconstruction of stairs of the same size and in the same portion as previously and
- m) construction of uncovered staircase (with open risers) of not more than 2'6" in width in plots upto 100 sq. in area, where no staircase already exists.



Item No.124/91:

AGENDA ITEM FOR TECHNICAL COMMITTEE

SUBJECT:- Construction of basement, 1st floor, in the shopping centre, New Lajpat Rai Market (P.G.Mkt.), Delhi.  
F.3(2)/91-MP

1. Dy.Land & Development Officer, Ministry of Urban Development, Government of India vide letter No. L&DO/PS.IV/Mkt./Policy-2 dt.7.5.91 while forwarding the minutes of the meeting taken placed under the Chairmanship of Director (Land) cum L&DO held on 14.11.90 has requested to examine the issue from Master Plan point of view as to whether some additional space by way of construction of basement or first floor by slightly increasing the height of the shops say by 3ft could be allowed in an uniform manner without disturbing the existing Architectural surroundings and character of the area.
2. It has further been stated in the letter under reference that after survey of P.G. Market, the position at site was assessed as under:-  
"Out of 414 shops about 90% cases shopkeepers have covered the platforms and thus have extended their shops and this covered area is being used for commercial purposes. In about 52 cases the basement have been constructed and in 45 cases first floor constructed and is being used for storage purposes while in 15 cases mazanine floor have been constructed."
3. During the meeting held on 14.11.90 Association is reported to have furnished certificate from the concerned authorities that the existing structures is capable of taking the additional load and have requested for allowing them addition construction in accordance with the standard plan.
  - ii) Members present specially from L&DO & M.C.D. stressed the need not to allow these facilities and adhere to the terms and conditions of the lease deeds which do not permit any additional construction even for storage facilities.
  - iii) MPD-2001 notified on 1.8.90 states that "Lajpat Rai Market single storeyed market on either side of chandni chowk shall be retained which interm implied that even the construction of basement or the first floor for storage purpose or for that matter mazanine floor is not possible."

Contd...2/-



iv) Director (L), L&DO was of the opinion that with the passage of time things have taken such a shape from which it is not possible to restore the premises to the original position as this would require stringent measures for demolition of coverage done by about 90% shopkeepers by covering the platforms and using them for commercial purposes.

v) He also suggested that keeping in view the increased activity of commercial and storage etc. some relief could be considered to be extended to the existing shopkeepers.

5. Further on the request from DDA Dy. Land & Development Officer vide his letter No. L&DO/PS.IV/Mkt./Policy-2/for P.G. Mkt./498 dt. 7.5.91 has forwarded a copy of the Layout plan and proposed standard design to be followed consisting of basement, ground floor and first floor. It has been further stated in the letter under reference that "there is no provision of parking facilities and even if it was provided at the initial stage of planning that has been taken away with the expanding commercial activity in round about during the last over 3 decades.

**6. PROPOSAL:**

a) Keeping in view the recommendation of MPD-2001 and ground realities we may consider to allow construction of basement only for storage purposes, without increasing of height subject to the condition that the shop owners would vacate platform encroached in front of their shops.

b) In case (a) above is approved, lease conditions, standard design to be followed, shall be worked out by L&DO, who will also ensure that encroachments from platforms are removed.

7. The matter is placed before the Technical Committee for its consideration.



Item No. 125/91:

SUB : Request for grant of permission for additional trade of readymade garments in Lawrence Road Industrial Area.  
File No. F.6A(77)/65-LSB(I)

1. A request has been received from M/s J.P. Manufacturing Company vide their letter dt. 17.9.90 for granting permission for additional manufacturing of readymade garments at plot no. B-49 Lawrence Road Indl. Area on the grant that similar units are doing towards other than food products in this area.

2. The plot under reference measuring 2600 sq.yds. was allotted to the firm in lieu of old permises no. 2790, Raj Guru Road Pahar Ganj New Delhi under the shifting of non-confirming uses to confirming areas. The case has earlier been examined and the Indl. Allotment Committee has rejected his request. Considering the misuse of its old premises as well as involving the change in the policy since Lawrence Road Indl. Area has been identified for food and allied products only.

3. On a similar representation submitted by some of the plot holders in this area. VC, DDA desired to examine their request for change of trade, considering that these units are reportedly running at loss. Such representation are the mostly from Lawrence Road Indl. Area, Okhala Indl. Area and Kirti Nagar Warehousing Area. This case was again discussed in the IPC meeting held on 18.1.91 and decided that the case be examined in the light of the recommendation of MPD-2001 to be considered for the Technical Committee and the case be brought to the Technical Committee.

4. FUNCTIONAL ANALYSIS OF THE INDUSTRY : To check the haphazard and unplanned growth of industries in the industrial developed by DDA it was felt in 1967 that it would be desirable to create functional estate and block of a industries and similar industry so that one type of industry does not disturb to other. The following are example of industries/functional estate block.

- (i) Industries manufacturing food and allied products are accommodated in one such estate/block.
- (ii) Industries doing the trade of radio/transister and other electronic wing and their ancillary industries are accommodated in one such each block and industries doing the trade of automobile part and assurance are grouped in other such estate block.

Contd..2/-



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- (iii) Master Plan has provided 110 type of light and service industries to be located in the flatted factories/work cum industries, light and extensive industries to be located in extensive industrial area.
- (iv) On the above basis, functional analysis of industries were prepared and approved by LAAC on 29.6.67 vide Item no. 24. So on the basis of functional analysis the trade of food products was permitted to J.P. Manufacturing and it is also clarified in clause-13 of lease deed at page 133-34/C.

5. As per MPD-2001, in Lawrence Road Industrial area the type of industries permitted are food and allied product and compatible industrial units wherein other trades including readymade garments is permissible. photo copy of the annexure of the same is placed opposite.

6. Similar requests earlier considered and some of allotments made in this area were subsequently changed to other industrial areas with a view to maintain the function of Lawrence Road Industrial Area particularly for food and allied industries.

7. The case is put up for the consideration of the Technical Committee to continue Lawrence Road Indl. Area for food and allied product.

# Development Control Rules for Greater Bombay

## - March 1991

Item No. 126/91

14

### 1.1. Provisions given in Development Control Regulations for Greater Bombay - 25 March 1991.

1.1.1 Additional floor space index which may be allowed in certain categories:

- i) Road Widening and construction of new road - additional FAR on 100% of the area required for the purpose without claiming any compensation will be used on the remainder of the plot.
- (ii) Low cost Housing Scheme of MHADA.  
If component of EWS and LIG is at least 60% then additional FAR by 20% over and above the normal FAR is permitted on the entire plot.
- (iii) Rehabilitation of Slum Dwellers through Owners / Developers / Cooperative Housing Societies.



A total of FAR upto 2.5 may be granted with the condition that i) Squatters are eligible and ii) Landuse would be as per approved development plan/ Zonal plan.

1.1.2 - Rehabilitation of Slum dwellers through Owners/ Developers / Cooperative House Societies of Slum Dwellers.

- i) FAR shall be restricted to a maximum of 2.5.
- ii) Names of eligible slum dwellers on private and Govt. land shall be duly certified by the concerned officer.
- iii) All eligible slum dwellers residing on the plot to be developed shall have to be accommodated on the same plot as far as possible.
- iv) Area required for social infrastructure shall be cleared and made available to the designated authority for this purpose.
- v) Each slum dwellers/ project affected person shall be given a Tenement of carpet area of 16.75 sqm (incl. toilet but excluding common areas).

- vi) The maximum density should not exceed 500 tenements per net hect. on the basis of FAR of one.
- vii) In any scheme of re-development, commercial / office area, shop area for the project affected / slum dwellers shall not exceed the areas which existed prior to the development of the property.
- viii) The scheme would provide that 5% of the net plot area (excluding the area for civic amenities from gross plot) may be used for commercial purposes.
- ix) Design of building for rehabilitation of slum dwellers would be got approved by the competent authority.
- x) A combined toilet room shall be allowed for more than one tenement with a minimum area of 1.85 sq. m, with minimum width of 1 meter.
- xi) Plinth - 30 cm.
- xii) A multi-purpose room shall be allowed with size upto 12.5 sq.m. with a minimum width of 2.4 m. Cooking space shall be allowed with a minimum area of 1.85 sqm. with min. width of 1 meter.



xiii) External Walls - 115 mm.

xiv) Pathways - 1.5 m. upto 20 m. in length.  
2.0 m. upto 30 m. in length.  
2.5 m. upto 40 m. in length.  
3.0 m. upto 50 m. in length.

xv) In case of notified Slums on private lands, the commissioner with the consent of the owner, may invite quotations for redevelopment in terms of surplus tenements as provided in these regulations from developers/owners.

In such cases, the owner would expect a return based on the existing balance land potential. This potential would be permitted FSI in that scheme minus the actual FSI consumed in the slum. In the quotations given by the owner, developer, it would be presumed that he would have taken into account this aspect. Therefore, while evaluating and comparing the quotations from the owner and other developers, necessary loading should be done for proper evaluation of bids. In case, however, the consent of the owner is not forthcoming within the stipulated time in accordance with the above conditions, such land can be developed according to the scheme after following acquisition proceeding under the act.

## 1.2 - Transfer of Development Rights

5.

- Regulations for the grant of Transferable development rights (TDR's) to Owners/ Developers and conditions for grant of such rights :

i) If a plot of land is reserved for a public purpose, the owner will be eligible for development rights to the extent given under, after the said plot is surrendered free of cost.

- The built up space for the purpose of FSI credit shall be equal to the gross area of the reserved plot to be surrendered and will proportionately increase or decrease according to the permissible FAR of the zone.

- The permissible FAR shall not increase more than 2.5.



265/M-128/91.

Sub : Construction of Night Shelters in Delhi.

In the meeting held at Raj Niwas on 6th June 1991, LG-Delhi desired that the Night Shelter buildings are to be constructed through-out Delhi where the pavement dwellers have been found sleeping. Accordingly, a survey was conducted during the night in Delhi and at seven places, except Walled City and Extension, pavement dwellers were found to be sleeping on roads. With a view to accommodate these pavement dwellers in a proper building to be constructed for Night Shelters, the lands were searched out and for the present four sites have been identified, they are as follows :

1. In Guru Angad Nagar adjacent to Laxmi Nagar District Centre in East Delhi.
2. Near Zakhira Fly-over in North Delhi.
3. On Najafgarh Road near Tilak Nagar in West Delhi.
4. Near Raja Garden Chowk in West Delhi.

The ownership of lands at serial nos. 1, 2 and 4 vests with DDA, whereas the land at serial no.3, i.e. at Tilak Nagar, vests with the Municipal Corporation of Delhi. The land-use, as per the Zonal plan for all the four sites is zonal green.

Since the land-use is not confirming, the case is put up before the Technical Committee for change of land-use for the above four sites from Zonal green to night Shelter and the construction of Night Shelter buildings may be permitted in the above selected sites.

The case is put up before the Technical Committee for consideration.

**PRESENTATION ON**

**DELHI IMMRTS**

**(INTEGRATED MULTIMODAL MASS  
RAPID TRANSPORT SYSTEM)**

**ON**

**15. 7. 1991**

**RITES**



## MASS RAPID TRANSPORT SYSTEM FOR DELHI

### BRIEF NOTE

I. A mass rapid transport system for Delhi has been under consideration for more than two decades. The first detailed study for such a system was made in 1969 by CRRI - This was the only study which started from the basics, namely, land use plan, distribution of population, location of industries, schools, shopping complexes, residential areas, etc. and a household survey of the pattern of trips. Thereafter a number of other studies, mostly of an ad-hoc nature, were carried out, the more important among them being the study by Indian Railway team in 1974, by DDA in 1984, by a study group in 1986 to suggest a specific East West alignment, and lastly by a task force in 1987 for a system selection. None of these studies could make any headway because of three main reasons:

- a) The Railways' reluctance to make any investment on urban transport because of its unprofitability and inadequacy of resources at their command.
- b) The lack of any other nodal agency to undertake the work, and
- c) The massive investments required.

II. The present RITES study which was commissioned by Delhi

Admn. in 1989, undertook for the first time after 1969 a detailed study from the basics involving the land use plan and population densities for the year 2001 as prepared by the DDA and developed a computer model with the household travel data collected by the DDA in 1981. The model was used for projections for the year 2001.

III. In the formulation of their proposals, RITES worked with three main plan objectives in view:

- a) To meet the anticipated demand of Delhi commuters in the year 2001 and beyond.
- b) To reduce the travel time, and
- c) To provide relief to the buses and roads in Delhi.

IV. The flow of traffic depends upon the available facilities. RITES tested several scenarios of facilities for movement of the anticipated traffic and worked out the densities of traffic along the various corridors of movement. This was done with a view to ascertaining whether the facilities available could cope with the anticipated densities of traffic. The capacities of the various modes of transportation are:

Buses upto 10,000 peak hour peak direction trips (phpdt)

LRT (Light Rail Transit) upto 20,000 phpdt.



High capacity metro upto 75,000 phpdt.

RITES tested five different scenarios on the computer model. These scenarios are:

1. "Do nothing" scenario i.e. the traffic will flow on the available network of roads : This is a doomsday scenario because the transport demand on a very large section of roads will be way beyond what buses could cope with, which cannot exceed even under crush conditions more than 10,000 peak hour peak direction trips (phpdt). The result will be horrendous traffic jams, unacceptable travel time, fuel loss and pollution.
2. The existing road network with the existing rail corridors : Neither the existing rail corridors nor the existing network of roads would be able to carry the traffic that is expected to be generated. The existing rail corridors would not be able to cope with both the long distance passenger and goods traffic as well as the commuter traffic and the capacity of roads would also be inadequate. More importantly, this system will not serve the city-core adequately.
3. Existing road network together with a metro system, comprising an East West corridor, North South corridor, a corridor serving Rohini and a corridor serving Shahdara, all independent of the existing railway network. This scenario will not meet the planning objectives either as it neither reduces the

travel time substantially nor gives much relief to buses.

4. The fourth scenario tested was that of an existing road network along with a light rail transit (LRT) system, proposed by DDA. The transport demand on several sections of this network will be well-beyond the proven capacity of LRT systems.

5. We finally tested an integrated multimodal mass rapid transport (IMMRTS) network, comprising a high capacity metro system which would be partly underground, partly elevated and partly on surface and a dedicated busway on the Najafgarh Road which could later be converted to a rail system, all integrated with feeder buses. This network fulfilled the various planning objectives and was, therefore, adopted after optimisation which reduced the length of the network from 242.5 kms. to 184.5 kms.

As most of the schemes that were formulated earlier had foundered because of non-availability of adequate resources, RITES were keen to find a solution which would not only meet the requirement of commuters but which could also be set up with the least capital cost and operated without, or with the least, recurring subsidy.

- Firstly, we were successful in keeping most of the system on the surface which costs less than half of an underground system.

- Secondly, we developed an IMMRTS (Integrated-Multimodal



Mass Rapid Transit System) with facilities for interchange with other modes of transport at various stations. Integration and convenient interchange without unacceptable time penalty alone can ensure the anticipated ridership and hence adequate fare-box revenues to cover the on-going operation costs. Shortfall in revenues, if any, can be covered by taxation of other beneficiaries such as the property owners, the motorists, the employers and the real estate developers.

Thirdly, we investigated the possibility of generating resources for the implementation of this scheme. Various means have been successfully used towards this end, such as, property betterment levy, fuel surcharge, employers tax and above all utilisation of the air space above the MRT facilities, which are located in prime locations in the city, for commercial development. We have done only a preliminary and a rough exercise but even this has brought out that a substantial portion of the required capital could be generated through property development. For instance, of the Rs.2,600 crores required for the first phase of the implementation of the scheme envisaged by RITES, Rs.1,600 crores could be generated through property development leaving about Rs.1,000 crores i.e. Rs.100 crores per annum only for the next decade during which the first phase is to be implemented. This is a very

manageable amount and the least that could be done for the rapidly deteriorating urban transportation scene in the capital city of India. We cannot afford to do less or to have any further delays. The time for taking action was yesterday : Let us, at least, begin today.